Chapter 10 Discussion of Environmental and Social Considerations

10.1 Review of Approved Environmental Impact Assessment Report

The project area for rental factories for Japanese small and medium-sized enterprises (hereinafter "Project Site") is located completely within Ba Thien 2 Industrial Park (see 7.1.1 Figure 7-3). The environmental impact assessment report of Ba Thien 2 IP ("EIA Report") has already been approved by MONRE as of December 2011.

Discussion regarding the environmental and social considerations of this study, which follows a review of the approved EIA Report's conformance with "JICA Guidelines for Environmental and Social Considerations" (April 2010) (hereinafter "JICA Environmental Guidelines"), has been conducted with a particular focus on environmental and social considerations of the Project Site. However, given the many management complications in retrieving information specifically on the Project Site, review of the Project Site in some parts are carried out through reviewing the information on Ba Thien 2 as a whole. The structure of the EIA Report (December 2011) is as follows, as stipulated by Appendix 2.5 of MONRE circular 26/2011/TT-BTNMT.

Ba Thien 2 IP Project Site (hereinafter "IP Project Site") is comprised of the administrative districts of Ba Hien Commune, Thien Ke Commune, Trung My Commune of Binh Xuyen District. Of these, the Project Site is mainly in the Thien Ke Commune.

Table 10-1: EIA Report Structure

Foreword	
Ch. 1	Basic Information of Project
Ch. 2	Natural, Environmental, and Socio-Economic Conditions of IP Project Site
Ch. 3	Assessment of Environmental Impact
Ch. 4	Prevention, Mitigation and Relief of Impacts
Ch. 5	Environmental Management and Monitoring Plan
Ch. 6	Consultation with Local Community
Conclusion	Conclusion, Recommendations, and Commitment to Environmental Protection

10.1.1 Result of Review of Approved Environmental Impact Assessment Report

JICA has evaluated the Project to be Category B, therefore the study was conducted according to the "Outline of Reports for Environmental and Social Considerations for Category B Projects" (June 2011). Though it was not required to conform to "Annex B of World Bank's Safeguard Policy OP 4.01," it was referenced as necessary. Details of the results for each item are listed in 10.1.2.

In addition, a study was conducted to determine any potential adverse impacts from implementing the project and the necessary policies to evade, minimize, and mitigate these impacts.

10.1.2 Detailed Results of Environmental Impact Study of the Project

The Project Site being considered, as stated in 7.1.1, is 27.83ha in the far west side of Ba Thien 2. The corresponding area is mainly in Thien Ke Commune, and the development plan has arrangements for Thien Ke Commune to be developed into an industrialized area/city. The Project Site is located within the

industrial area of Binh Xuyen District, including Nam Binh Xuyen, Binh Xuyen, Thuong Lo, Binh Xuyen 2, Ba Thien, and Ba Thien 2 IPs.

Vinh Phuc Province is currently drafting the Vinh Phuc urban construction plan, in which the Ba Thien 2 is included. According to this plan, the areas southeast and east to Ba Thien 2 are planned to be developed as urban facilities and a service providing area (such as housing complexes, worker dormitories, residential relocation site, commercial service centers and other services) for an industrial area of Binh Xuyen District, and environmental impacts in these areas are to be assessed in the future.

(1) Basic Environmental and Social Circumstances

Tables 10-2 and 10-3 show the overall basic environmental and social circumstances of Ba Thien 2 and the Project Site.

Table 10-2: Basic Environmental and Social Circumstances

Item	Environmental and Social Overview
Land Use	The overall land use of the site for the industrial park includes residential districts, arable land, roads, rivers, graveyards, and military use. Arable lands for paddy fields and eucalyptus forests make up 75% (308.83 ha) of the land use, while 9% is for military use, 6.25% is vacant land, and 3% is residential areas.
Natural Environment	75% of the entire IP area is artificially maintained arable lands such as rice fields and eucalyptus forests. Another 9% is made up of green land, the May River, riverbanks, vacant land, ponds, lakes and marshes. There is no natural forest as the majority of the industrial park area is made of agricultural land, perennial fruit producing hillocks and forested area (vacant land), and its principle plant is the eucalyptus tree. As there is no natural forest in the industrial park area, Ba Hien Commune, or Thien Ke Commune, there is no precious or priority wildlife to protect. There are no rare species on ICUN's or Vietnam's Red List. There is a bear designated as an endangered species at the wildlife zoo in Thien Ke Commune, however the breeding credential has been issued by the Vietnamese law (No.118/2009/GCN-G issued September 29, 2009).
Inhabited Territory of Indigenous Peoples	The ethnic minority of San Diu live in Trung My Commune. The ethnic minority receives preferential treatments from Vinh Phuc Province, including water supply, power supply, and formal education for children.
Socio-Economic Circumstances	The Project Site in Binh Xuyen District, Vinh Phuc Province has seen rapid growth in production value in recent years. Production totals increased from 225 billion VND in 1998 to 4.232 trillion VND in 2010. In economic structure, industries increased from 18% to 84%, while agriculture declined to 9%. The poor decreased to 9%, and starving households have disappeared.
Involuntary Resettlement	As residents to be relocated will be sufficiently compensated, there has been no discontent from those affected. The residents have stated they wish to be relocated soon.

Item	Environmental and Social Overview
Land Acquisition	As of February 2014, 120ha of Ba Thien 2 had been acquired by the Binh Xuyen District PC, and has obtained consensus for the acquisition of the remaining land.
Local Economy	The economies of Ba Hien, Thien Ke, and Trung My communes are made up of 80-90% agriculture, and the remaining in forestry. A very small amount of households run businesses such as street vendors.

Information specific to the Project Site is given below.

Table 10-3: Information Specific to the Project Site

Item	Information specific to the Project Site
Land Use	The Project Site has no residential areas, rivers, and is not used for military use, but contains arable lands, roads, and graveyards. The paddies are mainly used to farm corn, and eucalyptus forests make up most of the area.
Natural Environment	There is no natural forest in the Project Site. It was developed with artificially arable land with paddies producing corn and eucalyptus forests.
Inhabited Territory of Indigenous Peoples	The EIA Report mentions the “ethnic minority San Diu living in the Ba Thien 2 IP Project Site”; however, the occupying area was limited to the land intended as land acquisition for the phase 4. The local government confirmed in hearings that no San Diu reside in land subject to acquisition in Phase 2 which includes the Project Site for rental factories.
Socio-Economic Circumstances	IP Project Site continues to develop economically and is shifting from agriculture to manufacturing industry. Due to the vast amount of employment opportunities, poverty and other social problems are gradually declining.

While the there are no particular areas within the Project Site designated by Vietnamese law as a nature reserve (national park, protected areas, Ramsar Wetlands, etc.) or cultural heritage sites, Tam Dao National Park (*Vườn quốc gia Tam Đảo*) is 10 km away from the Project Site. Tam Dao National Park is designated as a nature reserve.

(Source: Made by Study Team based on Google Maps)

Figure 10-1: Location of Tam Dao National Park

The features of Tam Dao National Park are as follows. The nature reserve is separated from the Project Site, and project implementation is not expected to impact the natural environment. The EIA report also show no habitats of ecological importance or areas of historical or cultural value.

Table 10-4: Features of Natural Protected Area Zone

Item	Features
Reason for legal designation	The mountain, whose peak is the highest in the area at 1,450 above sea level, has alpine vegetation and virgin forest. Temperatures are 8-10°C colder than the flatlands.
Designating body	Vietnamese Prime Minister
Underlying laws and designation timeline	19,000ha of Tam Dao Forest was designated a nature reserve with Decision No. 41/TTg of the Prime Minister, dated January 24, 1977. Tam Dao Forest was officially designated a national nature reserve in 1986 with Decision No. 194/CT of the Chairman of the Council of Ministers (current Prime Minister). Establishment of Tam Dao National Park approved by Prime Ministerial Decision No. 136/TTg, dated March 6, 1996. Tam Dao National Park established by Ministry of Agriculture and Rural Development (MARD) Decision No. 601/NN-DOP, dated May 15, 1996.

	Designated area was revised from 36,883ha to 34,995ha by Prime Ministerial Decision No. 155/2002/QD-TTg, dated November 12, 2002.
Flora and fauna	There are 490 plant species and 281 animal species living in Tam Dao National Park. Endangered species include the fokienia hodgins, pilocarpus fleuryi, chukrasia tabularis, erythrophlocum fordii, rhoclodentron simmi, madhuca pasquieri, podocarpus neriifolius and white cheeked black monkey.

(2) Confirming Vietnamese Policy on Social and Environmental Consideration and Agencies

・Overview of Policy on Social and Environmental Considerations

Policy on social and environmental considerations in Vietnam are as follows.

Table 10-5: Overview of Policy on Social and Environmental Considerations of Vietnam

Item	Overview
National policy and plans in the environmental sector	・”National Strategy on Environmental Protection (PM Decision No. 256/2003/QD-TTg)” ・”National Biodiversity Strategy to 2020, Vision to 2030 (PM Decision No. 1216/2012/QD-TTg)”
Relevant laws and standards for social and environmental considerations	・ 2005 Law on Environmental Protection (52/2005/QH11) ・ Implementation and Guidelines for Law on Environmental Protection (Decree 80/2006/ND-CP) ・ Revision of Implementing regulations (Decree 21/2008/ND-CP) Also, a Revised Law on Environmental Protection (55/2014/QH13) will come into effect on January 1, 2015.
Environmental Impact Assessment (EIA)	・ 2005 Law on Environmental Protection ・ Decree 29/2011/ND-CP ・ Ministry of Natural Resources and Environment (MNRE) Circular No. 26/2011/TT-BTNMT
Disclosure of information	While the MNRE circular requires EIAs to be made public, details on methods for public disclosure are not clearly specified.
Land recovery	Land recovery is defined in writing as follows: ・ Land Law 2003 (13/2003/QH11) ・ Decree 2003 on the Implementation of the Land Law (181/2004/ND-CP) ・ Decree 197/2004/ND-CP on compensation, support and resettlement when land is recovered by the State ・ Decree 84/2007/ND-CP: Additional stipulations on the grant of land use right certificates, recovery of land, exercise of land use rights, order and procedures for compensation, support and resettlement when land is recovered by the state ・ Decree 69/2009/ND-CP additionally providing for land use planning, land prices, land recovery, compensation, support and resettlement ・ Circular 14/2009/TT-BTNMT, detailing the compensation, support and resettlement and order of and procedures for land recovery, allocation and lease A Revised Land Law (45/2013/WH13) went into effect January 1, 2014. Under the new law, land recovery after January 1, 2014 is subject to the following decrees:

Item	Overview
	・ Decree No. 47/2014/ND-CP on Compensation, Support, Resettlement and Land Acquisition ・ Circular No. 37/2014/TT-BTNMT on MONRE Detailing Compensation, Support, Resettlement and Land Acquisition
Resettlement	Resettlement is defined by legislation for land recovery.

・Status of Environmental Permissions for the Project

Under Decree 29/2011/ND-CP, an EIA report must be prepared for Ba Thien 2. Under the decree, EIA reports will be evaluated and approved by either the provincial Department of Natural Resources and Environment (DONRE) or the central Ministry of Natural Resources and Environment (MONRE), depending on the project type and scale. As the MONRE is granted the authority for evaluating and approving EIA reports for development of industrial parks exceeding 200 ha, the Ba Thien 2 EIA report has already been approved by MONRE. An overview of social and environmental considerations is given below.

Table 10-6: Overview of Social and Environmental Considerations

Item	Overview
EIA status	・Submitted July 28, 2011.
EIA approval	・Approved by MONRE on December 12, 2011.
Flow of submission and approval	・Under Decree 29/2011/ND-CP, if there are any deficiencies in the EIA as received, the approving agency must report the deficiencies to the contractor within 5 days of receipt. For MONRE submissions, MONRE evaluates the report within 45 days of receipt of the completed EIA report, or within 60 days in cases in which complex environmental impacts are expected. For DONRE submissions, the DONRE evaluation period is 30 days, or 45 days for complex cases. For the evaluations, either an evaluation committee is established or evaluation is outsourced to a service provider. After the EIA report is received, the approving agency will request the contractor to pay the evaluation fees. The contractor is then informed of the evaluation results in writing. ・If informed that approval of the evaluation will require revisions or additions, the contractor must handle such revisions or additions. If informed that the EIA could not be approved, the contractor must prepare a new EIA report and repeat the above process. If not informed of any required revision or additions, the contractor then applies in writing to the approving agency for a certificate of EIA report approval. ・The approving agency must approve of the application within 15 days of receipt. ・Days required for MONRE cases are 45 days for evaluation and 15 days for approval. ・Days required for DONRE cases are 30 days for evaluation, 20 of which are for DONRE to confirm EIA content and 10 of which are for the PC to confirm EIA content. Approval takes 15 days. ・The EIA report for Ba Thien 2 took 4 months and 2 weeks from Vina CPK submission to approval; however, that was due to the time taken by revisions and additional requests based on consultation after report submission.
Study items	・Decree 29/2011/ND-CP17 articles and 26/2011 TT-BTNMT Appendix 2.5 define the following for EIA reports: negotiations between the project owner, EIA implementing agency and EIA approving agency at time of EIA report preparation; project details and items which may adversely impact the environment; present state of the environment; predicting environmental impact from project implementation; proposing mitigation measures;

Item	Overview
	environmental management planning; estimating cost for mitigation measures; and the project owner's commitment to mitigation measures. For the Ba Thien 2 EIA report, the chapters are formed to account for this.
Stakeholder's meeting	・The stakeholder's meeting took place through the PC, representing the residents. Also, Vina CPK requested the PC and Fatherland Front for their opinions in writing when drafting the EIA report. Vina CPK reflected content from the PC and Fatherland Front responses in the EIA report and put them in the report attachments.
Format for submitted documents	・The documents to be submitted are defined in Decree 29/2011/ND-CP. Other than the EIA report, there are the applications required for EIA report evaluation and approval, as well as a project FS report. Formats for the EIA report and applications are defined in Circular 26/2011/TT-BTNMT.
Environmental monitoring in the project	・Vina CPK is obligated to monitor the environment of Ba Thien 2 Industrial Park based on the environmental monitoring plan described in Chapter 5 of the EIA report and report the results to the DONRE annually. Vina CPK submitted monitoring results to DONRE in June 2014 and has received DONRE approval. ・A separate EIA report for the construction of rental factories within Ba Thien 2 Industrial Park is not required. ・Tenant companies are required to prepare EIAs for submission to the DONRE depending on their field. (Businesses subject to EIAs are defined in Decree 29/2011/ND-CP Attachment II.) ・Each tenant companies are required to implement the monitoring plan as described in the EIA.
Required environmental standards for tenant factories	・QCVN 01:2009/BYT, National Technical Regulation on Drinking Water Quality ・QCVN 03:2008/BTNMT, National Technical Regulation on the Allowable Limits of Heavy Metals in the Soil ・QCVN 05:2009/BTNMT, National Technical Regulation on Ambient Air Quality ・QCVN 06:2009/BTNMT, National Technical Regulation on Hazardous Substances in Ambient Air ・QCVN 07:2009/BTNMT, National Technical Regulation on Hazardous Waste Thresholds ・QCVN 08:2008/BTNMT, National Technical Regulation on Surface Water Quality ・QCVN 09:2008/BTNMT, National Technical Regulation on Underground Water Quality ・QCVN 14:2008/BTNMT, National Technical Regulation on Domestic Wastewater ・QCVN 19:2009/BTNMT, National Technical Regulation on Industrial Emission of Inorganic Substances and Dusts ・QCVN 20:2009/BTNMT, National Technical Regulation on Industrial Emission of Organic Substances ・QCVN 24:2009/BTNMT, National Technical Regulation on Industrial Wastewater ・QCVN 26:2010/BTNMT, National Technical Regulation on Noise ・QCVN 27:2010/BTNMT, National Technical Regulation on Vibration ・QCVN 40:2011/BTNMT, National Technical Regulation on Industrial Wastewater ・TCVN 6707:2009, Warning Signs for Hazardous Wastes

Table 10-7: Status of Social and Environmental Permissions Required for the Project

Item	Overview
Permit for project implementation in a protected area	n/a
Waste permissions	n/a (Waste will be collected by a contracted garbage collection and disposal sub-contractor)
Civil works permit for areas with buried cultural assets	n/a
Wastewater treatment permissions	Permissions required; under application as of October 2014

・Roles of Relevant Social and Environmental Agencies

The EIA report was prepared by the 2 project owners, Vina CPK and VCC Engineering Consultants Joint-Stock Company (VCC). VCC is a company established in 2007 under the 100% state-owned Vietnam National Consultant Corporation for Industrial and Urban Construction (VNCCIUC). VCC is preparing the FS and master plan, handling project management and evaluating the EIA. A summary of relevant social and environmental regulating authorities and other relevant agencies is given below.

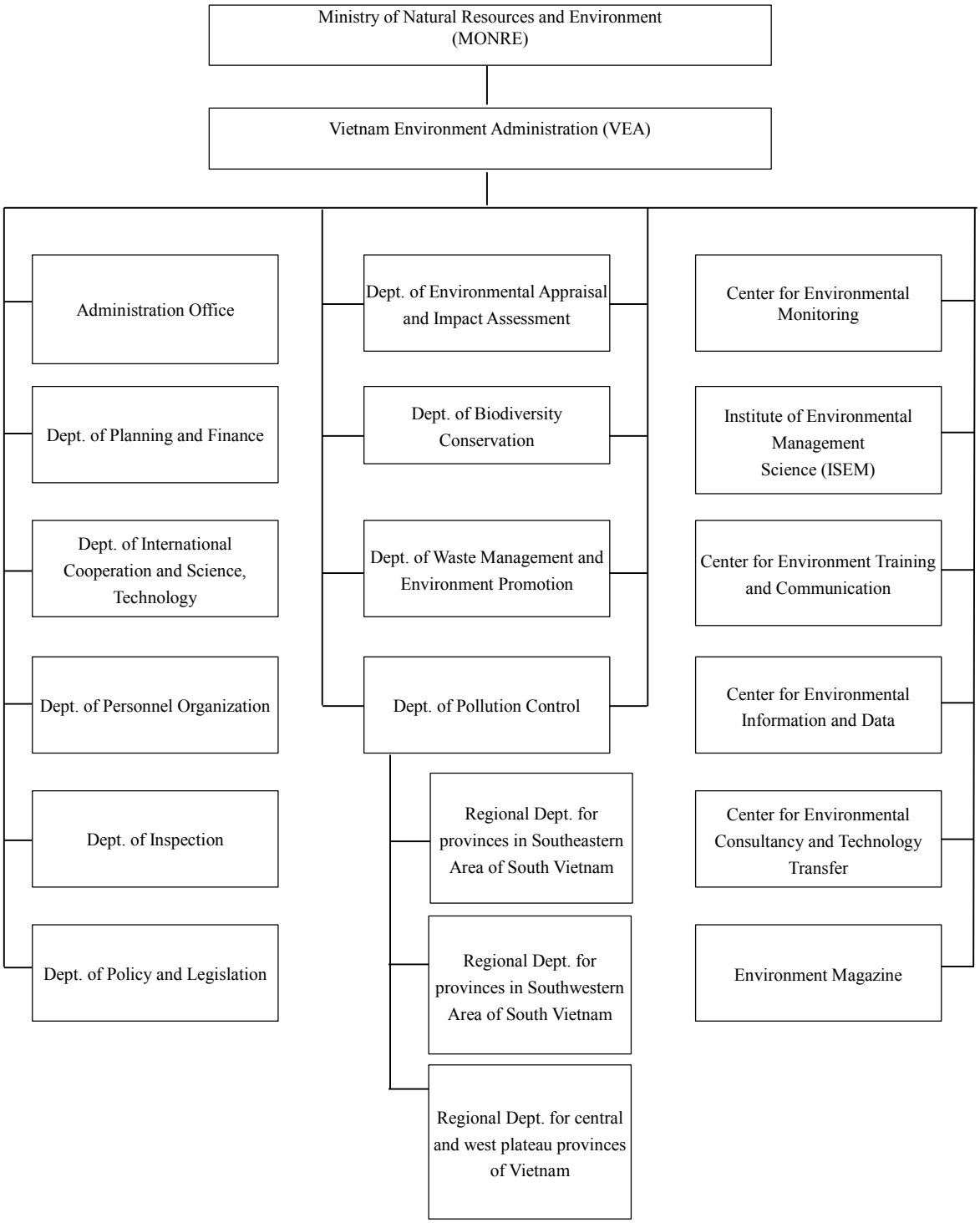


Figure 10-2: VEA Organizational Chart

(Source: Prepared by Study Team based on VEA website)

Table 10-8: Overview of Elevant Social and Environmental Regulating Authorities and Other Relevant Agencies

Social and Environmental Regulating Authorities	
Implementing agencies for social and environmental considerations	Under the Law on Environmental Protection, MONRE is granted administrative functions for environmental protection. Under MONRE, the VEA formulates environmental regulations, strategies, plans, national objectives, programs and projects and also oversees EIA evaluations. In addition, VEA also handles general environmental protections, including environmental pollution measures, promotion of environmental protections and waste management.
Experience in EIA preparations, land recovery and resettlement	As of November 2013, the Vinh Phuc Provincial DONRE had received EIA reports for 4 IPs in Vinh Phuc Province.
EIA Approving Agencies	
Functions	Under the Law on Environmental Protection and Decree 29/2011/ND-CP (Issued Aug. 18, 2011), either MONRE or the provincial DONREs are responsible for evaluating and approving EIA reports, depending on project type and scale. MONRE has authority for evaluating and approving EIA reports on development projects for IPs exceeding 200 ha, with VEA evaluating EIAs under MONRE.
Other Agencies	
Land recovery and poverty measures	Under Land Law 2003 Article 42, Decree 197/2004/ND-CP, Decree 84/2007/ND-CP, Circular No. 14/2009/TT-BTNMT Under Decree 29/2011/ND-CP, the Binh Xuyen District Compensation and Land Acquisition Committee is handling compensation work for the project, and the Ministry of Labor, Invalids and Social Affairs (MOLISA) and Bureau of Labour, Health and Social Welfare is handling poverty measures. Note here that there are no donor agencies, NGOs or other groups assisting in environmental protections for the Project Site.

(3) Differences between the JICA Environmental Guidelines and Vietnamese EIA laws

Differences between the new JICA Environmental Guidelines, World Bank Safeguard Policies and Vietnamese legislation relevant to the EIA are shown in the table below.

Table 10-9: Comparing JICA Environmental Guidelines/World Bank Safeguard Policies to relevant Vietnamese EIA laws

	JICA Environmental Guidelines & World Bank Safeguard Policies	**Relevant EIA Laws of Vietnam**	**Major Differences**	**Measures to Close Gap**
Assessment Procedures	Confirm that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments' policies and plans on the environment and local communities. Confirms that projects do not deviate significantly from the World Bank's Safeguard Policies.	An existing environmental assessment system regulated by the Department of Natural Resources and Environment (DONRE). (Decree NO.80/2006/ND-CP)	(Nothing in particular)	—
Language of EIA Reports	EIA reports (which may be referred to differently in different systems) must be written in the official language or in a	Written in either Vietnamese or English. (Circular No.08/2006/TT-	(Nothing in particular)	—

	JICA Environmental Guidelines & World Bank Safeguard Policies	Relevant EIA Laws of Vietnam	Major Differences	Measures to Close Gap
	language widely used in the country in which the project is to be implemented. When explaining projects to local residents, written materials must be provided in a language and form understandable to them;	BTNMT)		
Disclosure of Information about Environmental and Social Considerations	In principle, project proponents etc. disclose information about the environmental and social considerations of their projects, and assists project proponents etc. by implementing cooperation projects as needed. Encourage project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.	When preparing the EIA Report, the opinions of the administrative communes/districts or the municipal PC must be heard, and those opinions must be included in the EIA Report. (Law on Environment Protection Article 20) The EIA report is mandated to be announced at a public hearing Decree No. 80/2006/ND-CP). However, details for how to receive comments during the open period are not determined.	Japanese legislation has yet to reach to a decision regarding detailed issues about the disclosure of EIA Reports.	Given that the EIA report can be viewed at the commune PC, it deems unnecessary for further measures
Availability/ Copying	EIA reports are required to be made available to the local residents of the country in which the project is to be implemented. The EIA reports are required to be available at all times for perusal by project stakeholders such as local residents and copying much be permitted.	The EIA Report is publicized at the Project Site. (Circular No.08/2006/TT-BTNMT)	(Nothing in particular)	—
Consulting with local Stakeholders	Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus. In the case of Category A projects, encourage project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impact on the environment and society, and the analysis of alternatives at an early stage of the project.	Residents may participate in the scoping stage and appraisal stage of the EIA Report. Discussions with stakeholders are to be held for national projects under Category A during the scoping stage, and residents as well as stakeholders must be consulted. A public hearing must also be held during the appraisal stage of the EIA report. (Circular No.08/2006/TT-BTNMT)	Procedures and sanctions are currently not determined.	Given that stakeholders including the local residents has been extensively consulted multiple times and has executed EIA based on those consultation and agreements, it deems unnecessary for further measures.

	JICA Environmental Guidelines & World Bank Safeguard Policies	Relevant EIA Laws of Vietnam	Major Differences	Measures to Close Gap
Disclosing Monitoring Results	Confirm with project proponents etc. the results of monitoring to confirm that project proponents etc. are undertaking environmental and social considerations for projects. The information necessary for monitoring confirmation must be supplied by project proponents etc. by appropriate means, including in writing. Also, disclose the results of monitoring conducted by project proponents et. On its website to the extent that they are made public in project proponents etc.	Monitoring results shall be summarized in a white paper and archived within the country. (Three levels: provincial, local, and state) (Circular No.08/2006/TT-BTNMT)	(Nothing in particular)	—

Source: Profile of Vietnam Environmental and Social Considerations

(4) Verification of the Alternative Plan

Ba Thien 2 development is a project based on the industrial park development plan given in the "Master Plan for Socio-Economic Development in Vinh Phuc Province Through 2020". Various alternative plans were discussed when preparing the master plan, the results of which are reflected in the project plan.

Upon the implementation of the project, the plan to develop rental factories within an existing industrial park was chosen for further study as a result of comparing the following 3 plans. Summary of comparison are indicated in Appendix B.

① Develop rental factories within an existing industrial park (Ba Thien 2)
② Develop and operate rental factories independently of existing industrial parks
③ Do not implement development of the rental factories

(5) Scoping

In addition to direct and immediate environmental impacts of the project, the scope of environmental impact investigated in this study also included derivative and secondary impacts, cumulative impacts, and inseparable project impacts to the extent thought reasonable over the entire project life cycle. Following these conditions, a risk analysis was performed with the following scoping, referring to the descriptions in the EIA report as available in November 2013.

Table 10-10: Scoping results

Class	JICA Guidelines		Vietnam EIA		Evaluation		Reasons for Assessment
	No.	Impacts	No.	Impacts	Before/ During construction	During operation	
Anti-pollution Measures	1	Air pollution	1	Air quality	B-	B-	**During construction:** Air quality is expected to worsen at the work site and in the surrounding area due to airborne pollutants and dust from factory construction work. **During operation:** Impacts from air pollution are expected in connection with increased traffic and factory production.
	2	Water pollution	2	Water quality	B-	B-	**During construction:** The May River and groundwater could be contaminated by domestic wastewater from construction workers, wastewater from construction machinery, drainage from vehicle cleaning, sediment and oil runoff from surface runoff during rainfall, and other water. Groundwater could also be polluted by boring or pile work. **During operation:** In addition to the possible impacts of wastewater discharged from administrative buildings and factories, there could also be impacts from watering plants and road cleaning.
	3	Waste	3	Waste	B-	B-	**During construction:** Construction waste and general waste from workers is expected. **During operation:** Industrial waste and general waste is expected from administrative buildings and factories. Industrial waste could include hazardous waste.
	4	Soil pollution	4	Soil pollution	B-	B-	**During construction:** There could be soil pollution from workers' domestic wastewater, wastewater runoff containing oil from construction machinery or vehicles, and waste. **During operation:** If a drainage pipe ruptures and leaks wastewater, any pollutants in the wastewater could impact soil. Also, hazardous waste could pollute the soil if not handled properly.
	5	Noise and vibration	5	Noise and vibration	B-	B-	**During construction:** Noise and vibration is expected from work vehicles and construction machinery. **During operation:** Noise and vibration is expected from factory operations and increased traffic volume.
	6	Ground subsidence	6	Ground subsidence	B-	C	**During construction:** Construction with boring or pile work not meeting technical standards could impact the ground stratum. **During operation:** The ground could sink around work defects in areas where the ground is soft. Groundwater use could also result in ground subsidence.
	7	Offensive odors	7	Offensive odors	B-	B-	**During construction:** General waste from workers could produce offensive odors. **During operation:** The drainage system could produce offensive odors. Factories could also produce offensive odors, depending on their field of business.

Class	JICA Guidelines		Vietnam EIA		Evaluation		Reasons for Assessment
	No.	Impacts	No.	Impacts	Before/ During construction	During operation	
	8	Sediment	8	Sediment	B-	D	**During construction:** Gravel and sediment deposits from surface runoff could obstruct the flow of water. **During operation:** Given the low chances of sediment runoff during operation and the fast current of the river, it is unlikely that sediment deposits could impact riverbed material.
Natural Environment	9	Protected areas	1	Protected areas	D	D	**During construction/operation:** Despite its relative proximity to Tam Dao National Park and Dai Lai Lake being at the foot of Mt. Tam Dao, the Project Site has no protected areas, historic or cultural heritage sites, tourist areas, or resort areas and is far from any natural forests.
	10	Ecosystem	2	Ecosystem	D	B-	**During construction:** Levelling works for the Project Site is almost complete, and the surrounding area is developed into farmland and residential districts. Thus, no rare species have been reported and construction of rental factories is not expected to impact the ecosystem. **During operation:** Air and water pollution from factory operation is expected to impact the local ecosystem.
	11	Hydrology	3	Hydrology	B-	B-	**During construction/operation:** Rainwater and wastewater collected on the Project Site will be discharged to the May river and can possibly impact the hydrology.
	12	Topography and geology	4	Topography and geology	D	D	**During construction:** Given no soft ground is reported at the Project Site that may cause soil failures and landslides due to construction of rental factories of a similar size to the Project, no impact is anticipated on the topography and geology. **During operation:** Given there are no reports of soil failures or landslides from factories already operating in the industrial park, no impact is anticipated on the topography and geology during service.
Social Environment	13	Resettlement and land acquisition	1	Resettlement	B-	D	**Before and during construction:** Residents may be relocated as a result of Ba Thien 2 development. **During operation:** No resettlement is expected as a result of operation starting.
	14	Poverty	2	Living and livelihood	B-	B-	**During construction/operation:** Land acquisitions at the Project Site could impact the livelihoods of residents in the site area.
	15	Ethnic minorities and indigenous peoples	5	Ethnic minorities and indigenous peoples	B-	B-	**During construction/operation:** Some Project Site residents and landowners could be ethnic minorities or indigenous peoples.
	16	Local economies, such as employment, livelihood, etc.	2	Living and livelihood	B-	B+	**During construction/operation:** Land acquisitions at the Project Site could impact the livelihoods of residents in the site area. However, the local economy is expected to grow due to park operations.
	17	Land use and utilization			C	C	**During construction/operation:** Land usage will change from residential and agriculture to industry;

Class	JICA Guidelines		Vietnam EIA		Evaluation		Reasons for Assessment
	No.	Impacts	No.	Impacts	Before/ During construction	During operation	
		of local resources					however, this is not expected to have any severe impact on local resource usage.
	18	Water usage			B-	B-	**During construction/operation:** Residents living downstream of Ba Thien 2 on the May and Ca Lo Rivers who use river water could be impacted by wastewater from the IP.
	19	Existing social infrastructures and services			B-	C	**During construction:** Employment of construction workers from outside the area could be a strain on social infrastructures and services. Traffic is expected to increase due to transport of construction materials and workers. **During operation:** The increased residency and commuting that comes with regional growth could be a strain on social infrastructures and services. However, social infrastructures and services could be improved by offering new infrastructure and services.
	20	Social institutions such as social infrastructure and local decision-making institutions			D	D	**During construction/operation:** The Project is for construction and management of rental IP factories and is not expected to negatively impact social capital, local decision-making bodies or other social institutions.
	21	Misdistribution of benefits and damages			D	D	**During construction/operation:** Relocated residents could be victimized if not properly compensated; however, this point is discussed under "Local economies, such as employment, livelihood, etc." No parties have been found to receive any special benefits from the project.
	22	Local conflicts of interest			D	D	**During construction/operation:** No local conflicts are expected. The Project is for development of rental factories in Ba Thien 2, a project given in local development plans.
	23	Cultural heritage	3	Cultural heritage	C	D	**During construction:** As there are no items of cultural heritage in the Project Site, the project is not expected to have any direct impact to cultural heritage. However, cultural heritage items may be discovered during construction works. **During operation:** The project is not expected to have any direct impact on cultural heritage.
	24	Landscape	4	Landscape	B-	D	**During construction:** Although the project is to develop rental factories within an industrial park, it may impact the landscape if the construction site and construction waste is visible from the outside. **During operation:** Plans for Ba Thien 2 Industrial Park include planting a 20-meter wide barrier of trees around the periphery of the site, and given the Project is for development of rental factories within the industrial park, the implementation of the Project is unlikely to impact the landscape..
	25	Gender	6	Working environment	D	D	**During construction/operation:** The project is not expected to have any negative impact on gender relations.
	26	Children's rights			D	D	**During construction/operation:** The project is not expected to have any negative impact on children's rights.

Class	JICA Guidelines		Vietnam EIA		Evaluation		Reasons for Assessment
	No.	Impacts	No.	Impacts	Before/ During construction	During operation	
	27	Infectious diseases such as HIV/AIDS			B-	B-	**During construction/operation:** It is possible that infectious pathogens in domestic wastewater could contaminate the soil or groundwater. Also, with people gathering from various different regions, infections could spread or be communicated by mosquitoes or other intermediaries.
	28	Working environment (including occupational safety)			B-	B-	**During construction:** Workers' health could be impacted by the construction work. Dust or gases could impact respiratory organs and eyes, noises could impact hearing and high temperatures could be a factor affecting workers' health during the summertime. **During operation:** Inadequate working environment are expected to impact workers.
Other	29	Accidents			B-	B-	**During construction:** Sickness and work accidents, such as traffic accidents on the construction site, fire, falling or electrocution, are possible. **During operation:** The following are possible hazards: occupational accidents; fire; explosion; leaks or flooding and water pollution from ruptured supply pipes or drainage pipes; chemical or oil spills; electrical accidents; traffic accidents; food poisoning; sickness; secondary disasters from underdeveloped rescue systems; and traffic accidents from increased traffic volume.
	30	Trans-boundary impacts and climate change	—	Other	D	D	**During construction/operation:** No trans-boundary environmental impacts are expected. The Project Site is approximately 180 km from the border with China. With hydropower comprising a large percentage of electric power generated in Vietnam and the low emission factors of hydropower, impacts on climate change from power supply will be limited. As tenant businesses are also obligated to comply with Vietnamese emissions standards for air pollutants and other factors, the project is not expected to impact climate change.

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.

Terms of Reference (TOR) were discussed based on the EIA report for all social and environmental items scoring A, B or C in the scoping results.

Table 10-11: Terms of Reference Based on Scoping Results

Social / Environmental Item	Study items	Study Method
Air Pollution	1) Environmental standards (WHO guidelines, Vietnamese environmental and emission standards, Vietnam Institute of Tropical Technology and Environmental	1) Confirm existing EIA, conduct literature search and hold interviews with local stakeholders 2) Confirm existing EIA

Social / Environmental Item	Study items	Study Method
	Protection (VITTEP) emissions factors, etc.) 2) Current air quality 3) Impacts of construction work 4) Impacts during operation (industry, transport vehicles, drainage collection system, wastewater treatment plant, discharge from waste storage area)	3) Confirm existing EIA, inspect site and check expected project implementation plan 4) Confirm existing EIA and expected project rental factory development plan
Water Pollution	1) Environmental standards 2) Impacts from surface runoff 3) Impacts from worker domestic wastewater 4) Impacts from construction work wastewater 5) Impacts on groundwater contamination during construction 6) Impacts during operation (wastewater from public facilities and factories, surface runoff from rainwater, watering trees, cleaning roads)	1) Confirm existing EIA, conduct bibliographic study and hold local hearings 2) Confirm existing EIA, inspect site, and forecast impact of surface runoff based on rainfall intensity 3) Confirm existing EIA and forecast impact based on expected domestic wastewater volume 4) Confirm existing EIA and forecast impacts based on oil leaked from construction machinery and work vehicles and wastewater from washing vehicles, etc. 5) Confirm existing EIA and check expected project implementation plan 6) Confirm existing EIA and expected project rental factory development plan
Waste	1) Environmental standards 2) Volume of waste (incl. worker domestic waste and hazardous waste) to be produced during construction 3) Volumes of municipal waste, industrial waste and hazardous waste during operation	1) Confirm existing EIA, conduct bibliographic study and hold local hearings 2) Confirm existing EIA and forecast waste volumes based on expected project implementation plan 3) Confirm existing EIA and forecast waste volumes based on expected project rental factory development plans
Soil pollution	1) Possibility of soil pollution from workers' domestic wastewater or surface runoff 2) Discharged wastewater containing oil from construction machinery 3) Volume and treatment method of waste which could result in soil pollution 4) Drainage piping plan and measures for treating ruptured drainpipes	1) Confirm existing EIA and check methods for domestic wastewater management, etc. 2) Confirm existing EIA and measures for oil leaks from construction machinery 3) Confirm existing EIA, determine waste volumes and check disposal methods 4) Confirm existing EIA and countermeasures for ruptured drainpipes, as well as early detection schemes and measures for handling leaks when found
Noise and vibration	1) Environmental standards (Vietnamese environmental standards and US EPA reference values) 2) Impacts during construction 3) Impacts during operation (IP management systems and management systems for noise and vibration measures in each factory)	1) Confirm existing EIA, conduct bibliographic study and hold local hearings 2) Confirm existing EIA, inspect site and check expected project implementation plan 3) Confirm existing EIA and expected project rental factory development plan
Ground Subsidence	1) State of geology and ground 2) Existing soft ground 3) Impacts related with groundwater use 4) Impacts of ground subsidence	1) Confirm existing EIA and conduct bibliographic study 2) Confirm existing EIA and conduct local hearings 3) Confirm existing EIA, conduct local hearings and check expected project rental factory development plan 4) Confirm existing EIA, inspect site and check expected project construction plan and rental factory development plan

Social / Environmental Item	Study items	Study Method
Offensive Odors	1) State of general waste management during construction work 2) Robustness of wastewater collection and treatment systems 3) Management structures for odor measures at each factory	1) Confirm existing EIA, survey the site and conduct interviews with local stakeholders 2) Confirm existing EIA, conduct local hearings and check expected project rental factory development plan 3) Confirm existing EIA and expected project rental factory development plan
Sediment	1) Possibility of soil depositing during the work 2) Relative positions between the Project Site and May River	1) Confirm existing EIA, determine soil amounts and estimate the chances of sediment deposits 2) Confirm existing EIA and survey the site
Ecosystem	1) Impact of rental factory operation on local ecosystem	1) Confirm existing EIA and survey the site
Hydrology	1) Rainwater collected at the Project Site and wastewater treatment methods	1) Confirm existing EIA, inspect site and check expected project construction plan and rental factory development plan
Resettlement and land acquisition	1) Scale, etc. of resettlement and land acquisition	1) Confirm existing EIA, conduct bibliographic study and hold local hearings
Poverty	1) Impacts of farmland recovery on livelihoods	1) Confirm existing EIA and conduct local hearings
Ethnic minorities and indigenous peoples	1) Ethnic minorities and indigenous peoples within the Project Site	1) Confirm existing EIA and conduct local hearings
Local economies, such as employment, livelihood, etc.	1) Impacts of farmland recovery on livelihoods 2) Number of new jobs produced by the park	1) Confirm existing EIA and conduct local hearings 2) Confirm existing EIA, conduct local hearings and check expected project rental factory development plan
Land use and utilization of local resources	1) Land usage changes and the associated local resource usage	1) Confirm existing EIA and check land usage changes and the associated local resource usage
Water usage	1) Water usage on the Mei and Lo Rivers	1) Confirm existing EIA and expected project rental factory development plan
Existing social infrastructures and services	1) Impact of construction worker employment on social infrastructures and services 2) Increase in traffic density from transport of construction workers and materials 3) Impact of rental factory worker employment on social infrastructures and services 4) Impact of rental factory workers on traffic volumes	1) Confirm existing EIA and check expected project implementation plan 2) Confirm existing EIA and check expected project implementation plan 3) Confirm existing EIA and expected project rental factory development plan 4) Confirm existing EIA and expected project rental factory development plan
Cultural heritage	1) Measures for any cultural heritage discovered during the work	1) Confirm existing EIA and check measures for any cultural heritage discovered during the work
Landscape	1) Impact of construction waste during the work on the landscape	1) Confirm existing EIA and check expected project implementation plan
Infectious diseases such as HIV/AIDS	1) Transmission route during construction and service	1) Confirm existing EIA and check expected project construction plan and rental factory development plan
Working environment (including occupational safety)	1) Expected working environment during construction 2) Expected working environment during operation	1) Confirm existing EIA and check expected project implementation plan 2) Confirm existing EIA and expected project rental factory development plan
Accidents	1) Risk of accidents during construction and accident prevention measures 2) Risk of accidents during operation and accident prevention measures	1) Confirm existing EIA and check expected project implementation plan 2) Confirm existing EIA and expected project rental factory development plan

(6) あ Results of Environmental and Social Study

Various interviews and field studies were conducted for environmental and social items based on the results in (5) Scoping until November 2014. The results are as follows.

Table 10-12: Results of Environmental and Social Study

Impacts	Study results (including quantitative predictions)
Air Pollution	**During construction:** In the Ba Thien 2 EIA report, the amount of air pollutants that were generated from the preparation and construction work for the entire IP was calculated based on WHO guidelines and the VITTEP emissions factor. The result showed that the amount of air pollutants was within standards for both criteria, or the possibility of impacting the environment was low even if the standards were exceeded temporarily. The Project is for the development of rental factories in Ba Thien 2, and the construction work involved will not generate emissions in excess of air pollutant estimates for normal factory construction. Therefore, as described above, the Project does not create air pollution that impacts the environment. Nonetheless, the EIA report requires measures for dust generated during the preparation and construction work at Ba Thien 2 as it may affect the workers and surrounding area. As there is no preparation work in the Project and little dust will be generated during construction, dust is not expected to impact workers or the surrounding area. **During operation:** Based on the emission survey results for air pollutants in an industrial park in the Southern delta region of Vietnam and environmental protection research for an industrial park located in the Northern economic zone conducted by MONRE, air pollutant emissions in Ba Thien 2 were calculated as 29,227.67 kg/day. Health and lifestyle of the surrounding residents could be affected if appropriate measures are not taken. The maximum possible area for the project is 27.83 ha, which is roughly 9% of the 308ha that Ba Thien 2 occupies (see 7.1.1), and air pollutants of 2,630 kg/day are estimated to be generated based on the area ratio. As based on materials issued by the Research Institute for Transport Science and Technology in the Ministry of Transport (Vietnam), vehicle emissions including dust, SO_2 and NO_2 are estimated at 14.45 kg/day for the entire park. This estimate includes air pollutants that are generated from vehicles used by the tenant companies in the rental factories as well. Substances that cause bad odors and pollutants, such as NH_3, H_2S, CH_3SH and CH_4, as well as organic substances, bacteria, and mold may also be diffused by wind from the drainage system in the industrial park. Thus, this must also be considered in the Project Site.
Water pollution	**During construction:** In the EIA, domestic wastewater from workers for the entire park was estimated at 34.16 m^3/day. Workers will also need to be hired for long periods to construct the rental factories gradually. As domestic wastewater contains infectious pathogens and other harmful bacteria, it may affect the water quality of the surrounding area if appropriate sanitation facilities are not arranged. Surface runoff mixed with oil that leaks from construction machinery and from water used to wash vehicles may cause water pollution, and boring and piling work may affect the groundwater. As boring or piling work is not necessary in rental factory construction for the Project, groundwater is not expected to be impacted. However, surface runoff water may mix with oil leaked from construction machinery or the wastewater from washing vehicles. Also in the EIA, water quality may be affected by sediment and oil runoff from the construction site during rain, with the estimated amount of possible impurities due to surface runoff being 9,250 kg/308.83ha over a 15-day period. Based on the area ratio, it was estimated that 832.5 kg of impurities will be generated over a 15-day period for the Project. Some of these impurities may flow into the rainwater drainage system and worsen the water quality in the May River.

Impacts	Study results (including quantitative predictions)
	During operation: In the EIA, total drainage volume of the industrial park was estimated at 9,014.4 m^3/day, comprising domestic wastewater (1,848 m^3/day), wastewater from tenant companies (6,796.8 m^3/day), and wastewater from public facilities in the industrial park (369.3 m^3/day) that all travels through the drain pipes and collected at the wastewater treatment facility. For the Project, domestic wastewater from administrative offices and the rental factories is collected at the wastewater treatment facility in the industrial park. Wastewater contains both domestic and industrial wastewater, and may contain contaminants including pathogens. If it is not appropriately treated at the wastewater treatment facility, it may impact water quality of the May River, which receives the discharge after treatment. Also in the EIA, besides the domestic and industrial wastewater that is treated at the treatment facility described above, water that is used for watering and to wash the road surface in the industrial park may runoff into the rainwater drainage system and impact water quality of the May River once it is discharged into it. As the rainwater drainage system for the Project is to be connected to the industrial park's drainage system, it may affect the water quality of the May River if not appropriately treated.
Waste	**During construction:** The EIA estimated 122.5 l/month of waste oil from construction vehicle oil changes and roughly 50 kg/month of harmful waste, such as oily clothes, paint containers, and chemical tanks will be generated due to construction work in addition to the 100 to 120 kg/day of construction waste and chemicals such as bricks, aggregate, wood, and metal materials. It also estimated 213.5 kg/day of general waste from 427 construction employees, assuming each worker generates 0.5 kg/day in general waste. The plan for the Project is to develop a maximum of 27.83ha in stages by 2034, therefore, general waste will be generated from construction workers during this time. **During operation:** General waste, industrial waste, and harmful industrial waste will be generated during operation. For the EIA, estimated waste comprises 23,100 kg/day of general waste generated from 46,200 employees, 145.71 t/day of industrial waste for the construction area (212.40 ha), and 14.51 t/day of harmful industrial waste (10% of all industrial waste). The Project will construct a rental factory in stages and an administrative building over a total of 27.83 ha. Although the number of workers to be employed and types of factories to occupy the buildings are unknown, it can be assumed that 18.8 t/day of industry waste and 1.88 t of harmful industrial waste (10% of all industrial waste) will be generated based on the area ratio of the estimated values described above.
Soil pollution	**During construction:** The EIA estimates that 34.16 m^3/day of domestic wastewater will be generated during industrial park development, meaning that soil may be polluted if it is not appropriately treated. Soil pollution from the drainage of wastewater that contains oil from construction machinery and waste is also possible. The Project may also pollute the soil if domestic wastewater from construction workers, oil drained from construction machinery, and waste are not properly managed. **During operation:** The EIA lists the possibility of soil pollution from the discharge (domestic and industrial wastewater) generated from companies in the industrial park, waste, and contaminated water leaking from drain pipes; these concerns also apply to the Project Site.
Noise and vibration	**During construction:** In the EIA, the noise generated from construction machinery and vehicles during construction did not exceed Vietnamese standards based on noise calculations at 2m, 200m and 500m from the source based on construction machinery and vehicle reference values published by the US EPA in 1971. While some measure of vibration is inevitable, their impact can be kept to a minimum by observing Vietnamese standards. In the project as well, noise and vibrations from construction machinery and vehicles is inevitable. However, it is expected that the impact can be kept to a minimum by using construction machinery that complies with Vietnamese standards.

Impacts	Study results (including quantitative predictions)
	During operation: Noise and vibrations are expected to be generated mainly from factories in operation and vehicles during operation. However, noise is normally reduced by 1 to 1.5 decibels (dB) by planting trees at an interval of 3 to 5 meters apart. Noise and vibrations are expected to be generated mainly from factories in operation and vehicles during operation.
Ground subsidence	**During construction:** While the ground at the industrial park is stable and—as based on the geological surveys conducted by VCC—consists of clay, gravel, and lime, appropriate foundation work will be needed for taller buildings. As the rental factories planned for the Project do not require pile work and there have been no reports of ground subsidence from factories that have already constructed near the Project Site, the possibility of ground subsidence is considered to be low. **During operation:** The possibility of groundwater pumping resulting in ground subsidence is low as the plan is for the Vinh Phuc Water Supply Joint Stock Company to supply the park with water and in principle groundwater will not be used. Water should be supplied directly from the industrial park water supply system for the Project as well (see 7.1.1), thus eliminating the possibility of ground subsidence caused by pumping of groundwater.
Offensive odors	**During construction:** Both in the EIA and the project, general waste discarded by workers may result in offensive odors. **During operation:** While the EIA reported that the drainage system, the water treatment facility, and the soil waste storage area in the park might produce contaminants and substances that cause offensive odors, such as NH_3, H_2S, CH_3SH, and CH_4, amounts are small and offensive odors can be avoided by proactively taking action against air and water pollution, and waste. There is no water treatment facility or waste storage area in the Project Site. However, offensive odors should be avoidable by thoroughly managing waste with the drainage system and each tenant company.
Sediment	**During construction:** Although the EIA estimated sediment runoff from graded lands, this runoff is not likely to accumulate and impact riverbed material due to quick flow of the May River. The Project is to build rental factories on the graded land, and sediment is expected due to surface runoff of rainwater from graded surfaces. However, as the Project Site is on the west end of the park and the May River is located on the east side, the chances that sediment in surface runoff from the Project Site will accumulate in the May River are slim.
Ecosystem	**During operation:** From the EIA, conventional ecosystems and biological resources around the park mainly consist of agricultural crops, such as rice and corn, and there are no endangered species that have to be protected as listed in the Regional Red List. Conversely, air and water pollution from management of the park is expected to impact the ecosystem and will be alleviated by planting a 20-meter wide barrier of trees around the periphery on over 13.61% of the site area. Factory operations on the Project Site may also impact the ecosystems due to air and water pollution.
Hydrology	**During construction/ operation:** Recovered rainwater and wastewater from the Project Site will be released to the May River after being treated at the water treatment facility in the industrial park. Maximum treatment capacity is 10,000 m^3/day and will not affect the flow volume of the May River (monsoon season: 100 to 120 m^3/s, dry season: 10 m^3/s).
Resettlement and land acquisition	**During construction:** In the EIA, 41 residents were targeted for resettlement due to the development of this industrial park, and they will require appropriate compensation and support. However, hearings with related organizations have confirmed that no residents on the Project Site are to be relocated.

Impacts	Study results (including quantitative predictions)
	As the Project Site was primarily farmland before land acquisition, there are no residents that need to be relocated nor buildings that need to be dismantled. There was a cemetery (0.4844 ha) owned by the Thien Ke PC in the southeast of the Project Site, and it has already been relocated by Vine CPK. However, hearings have shown that 38.4342ha of the Project Site owned by the Thien Ke and Trung My PCs, and 65 individuals (mainly woodland, rice paddies, and farmland) have been targeted for the land acquisition. Vine CPK has already paid compensation for this land, and land acquisition has been completed.
Poverty	**During construction/ operation:** Hearings have confirmed that the majority of landowners on the Project Site are involved with agriculture and forestry and have received a higher education; hence they are not poor. While they may become poor if they stay jobless without replacing their livelihoods lost due to arable land acquisition for the project, hearings showed that this is not likely. The landowners will be given preferential treatment in hiring for the industrial park and receive other compensation, including vocational training support, from the Vinh Phuc PC.
Ethnic minorities and indigenous peoples	**During construction/operation:** Hearings have shown that there are no ethnic minority or indigenous peoples (San Diu) among the land owners for the Project Site.
Local economies, such as employment, livelihood, etc.	**During construction/operation:** The survey result expresses concern of the loss of livelihood of those who are involved in agriculture and forestry caused by unemployment after the land targeted for the Project Site is acquired as most of these workers do not have the necessary education to ensure any type of job other than agriculture and forestry. Although the plan is for Vinh Phuc Province and Vine CPK to take the necessary measures for these people, such as vocational training and preferential hiring in Ba Thien 2 and other industrial parks in Vinh Phuc Province, these measures must definitely be executed. Ba Thien 2 development is expected to modernize the local industry, increase land prices, attract businesses, create jobs (46,200 employees), and produce stable income, and the Project will contribute to that development.
Land use and utilization of local resources	**During construction/operation:** While those involved in agriculture may lose their employment due to the change from agricultural land to industrial land to develop the industrial park, impacts will be minimized through vocational training, preferential hiring and other measures. (These issues are discussed further in “Local economies, such as employment, livelihood, etc.”). In the EIA, annual yields of 81 t in rice and 5.22 t in aquaculture were expected to decrease as 98.55ha of rice paddies and 5.22ha of lakes are to be recovered for land acquisition for the park development, stability of the food supply will not be affected. Another 1.78ha of irrigation is also to be recovered; however, the irrigation targeted for land acquisition does not impact irrigation in the surrounding areas. As the Project Site is used to build rental factories and for the operation of these factories in the industrial park, it will not result in the impacts discussed in the EIA.
Water usage	**During construction/operation:** In the EIA, no impacts were anticipated on local ground water resources as the water required by the industrial park will be supplied by the Vinh Phuc Water Supply Joint Stock Company and groundwater would not be pumped to the surface in principle. The water for rental factories for the Project will also be directly supplied from the water supply system in the park by the Vinh Phuc Water Supply Joint Stock Company. Therefore, there is no impact expected on local groundwater resources as groundwater will not be pumped to the surface in principle. Domestic and industrial wastewater in the park will be treated at the water treatment facility and then discharged into the May River. Estimated discharge volume in the EIA is 9,014.4m^3/day, which will have little impact to the river flow volume as the river flow reaches 200 to 250 m^3/s in the monsoon season (10 m^3/s during dry season). However, residents around the May River and the basin of the Lo River downstream of the

Impacts	Study results (including quantitative predictions)
	May River may be affected if wastewater is not properly treated, and hence the wastewater standards must be followed. (These issues are discussed further in "Water pollution").
Existing social infrastructures and services	**During construction:** The EIA anticipated an increase in social infrastructures and service users from the employment of construction workers (427 employees for the entire industrial park) and an increase in traffic to transport construction materials and workers. As rental factory development will be in stages in the project, the employment of construction workers is limited compared to the rest of the industrial park, and a significant increase in social infrastructures and service users as well as a significant impact on traffic is not anticipated. **During operation:** In the EIA, an increase in population density and impact on social infrastructures and social services was expected from the employees in the industrial park (46,200 employees). More specifically, an impact on road conditions is expected due to the increase in traffic volume. Traffic volume on the TL310 is currently 50 vehicles per hour, expected to increase to 250 vehicles per hour once the industrial park starts operation. On other roads, an increase of traffic volume by 30% is anticipated. Measures will also be needed to meet increased demand for medical and educational facilities. The employment of workers for the Project may also lead to the impacts described above.
Cultural heritage	**During construction:** While no cultural heritage artifacts are currently known in the Project Site, cultural heritage artifacts may be discovered during construction. As the grading work for the Project Site is almost complete, the chances of finding cultural heritage artifacts is low.
Landscape	**During construction:** The EIA report does raise the possibility of impact on the landscape when developing the Ba Thien 2 industrial park, if construction waste (bricks, aggregate, and wood) generated 100 to 120kg/day is not regularly collected and disposed. However, the site of the Project is located at the far west side of Ba Thien 2 and sits back away from the surrounding roads. The area to the west of Ba Thien 2 is a wooded area, where neighboring residents cannot visually see the development site. Moreover, the Project is for development of rental factories in an industrial park designed accounting for the surrounding landscape that includes planting a 20-meter wide barrier of trees around the periphery of the site, and the rental factories are not expected to impact the surrounding land scape.
Infectious diseases such as HIV/AIDS	**During construction/operation:** The EIA raised the possibility of infectious pathogens contained in domestic wastewater from construction workers and in-service employees contaminating soil and groundwater, as well as that of the spread of infection by mosquitos among people coming from various areas. The same can be said of the Project as well.
Working environment	**During construction:** The EIA reported an anticipated impact on respiratory organs and eyes from dust and air pollution, and hearing from noise. It also describes damage to health, such as fatigue, thirst, headaches, and dizziness from the heat of the sun and construction machinery, traffic accidents involving construction vehicles, accidents from construction work in high places, and falls and electric shock on rainy days. **During operation:** The EIA did not mention working environment after service. The Project will develop and operate rental factories, and the direct employment of workers by the SPC is limited to the administrative offices and security guards for the rental factories. Working environment for these employees are expected to observe related regulations, and the same is required for the tenant companies in rental factories. If related regulations are not observed, there could be an adverse effect on the employees.
Accidents	**During construction:** In addition to accidents and sickness during construction, such as traffic accidents, fire, falls, and electric shock on the construction site, in Vietnam there is also the possibility of

Impacts	Study results (including quantitative predictions)
	landmines. With the reclamation work for the Project Site almost complete, there is no chance that landmines will be found. There is; however, still the possibility of accidents and sickness during construction, such as traffic accidents, fire, falls, and electric shock on the construction site. **During operation:** The EIA mentioned possible industrial accidents, fire, explosions, water leaks, flooding, and water pollution caused by damage to the supply and drainage pipes during operation as well as secondary disasters caused by chemical and oil leaks, and electric accidents, traffic accidents, food poisoning, and sickness due to rescue systems not being setup in the park. The same can be said of the Project as well.

(7) Impact Assessment

The following is the summary of the impact assessment based on the results of (5) and (6).

Table 10-13: Impact Assessment

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
Anti-pollution Measures	1	Air pollution	B-	B-	B-	B-	**During construction:** Dust generated from construction of the rental factory is not likely to impact on workers and residents in the surrounding area from. **During operation:** Air pollution generated from the construction site and rental factories may impact resident health and lifestyle in the surrounding area. Moreover, the site drainage system for the rental factories may generate substances that cause air pollution and offensive odors.
	2	Water pollution	B-	B-	B-	B-	**During construction:** Worker domestic wastewater, surface runoff mixed with oil that leaks from construction machinery, water used to wash vehicles, and surface runoff due to rainfall may affect the water quality of the surface water in the surrounding area that includes the May River. **During operation:** If industrial and domestic wastewater is not appropriately treated and released into the May River, it may adversely affect the river. As the rainwater drainage system in the rental factory is to be connected to the industrial park's drainage system, surface water runoff may affect the water quality of the May River if it is not appropriately managed.
	3	Waste	B-	B-	B-	B-	**During construction:** Construction waste, oil leaks from construction vehicles, and general waste from workers will be generated.

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
							During operation: General waste from workers, and industrial and hazardous waste from factories will be generated.
	4	Soil pollution	B-	B-	B-	B-	**During construction:** Discharged domestic wastewater and wastewater that contains oil from construction machinery, and waste may pollute the soil if not properly managed. **During operation:** Domestic and industrial wastewater drained from the factories, waste, and drain pipe leaks may pollute the soil.
	5	Noise and vibration	B-	B-	B-	B-	**During construction:** Construction vehicles and machinery are expected to generate noise and vibrations. **During operation:** The factories and related vehicles are expected to generate noise and vibrations.
	6	Ground subsidence	B-	C	D	D	**During construction:** The ground for the Project is stable, consisting mainly of gravel and clay, and ground subsidence from construction of the rental factories is not anticipated as there have been no reports of ground subsidence so far. **During operation:** Groundwater is not expected to be pumped at the Project Site, therefore, no ground subsidence is anticipated from the pumping of groundwater.
	7	Offensive odors	B-	B-	B-	B-	**During construction:** General waste may generate offensive odors. **During operation:** Waste and the drainage system may generate offensive odors.
	8	Sediment	B-	D	D	D	**During construction:** Sediment from the Project is not likely to accumulate and impact riverbed material as the Project Site is located at the west end of the park, making it improbable that surface runoff will reach the May River at the east end of industrial park. Moreover, the river flow is fast. **During operation:** Due to the low possibility of sediment runoff during operation and the fast river flow, little impact is anticipated on the riverbed material from sediment accumulation.
Natural environment	9	Protected areas	D	D	D	D	**During construction/operation:** There are no protected areas in the Project Site.
	10	Ecosystem	D	B-	D	B-	**During construction:** The reclamation work for the Project Site is almost complete and the surrounding area is farmland and residential areas with no reports of rare species. Therefore, no impact on the ecosystems is anticipated from rental factory construction. **During operation:** Air and water pollution from

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
							factory operation may impact the ecosystems.
	11	Hydrology	B-	B-	D	D	**During construction/operation:** The volume of drainage that will be released from the industrial park into the May River after it has been treated is not large enough to affect its flow volume.
	12	Topography and geology	D	D	D	D	**During construction:** Given no soft ground is reported at the Project Site that might cause soil failures and landslides due to construction of rental factories of a similar size to the Project, no impact is anticipated on the topography and geology. **During operation:** Given there are no reports of soil failures or landslides from factories already operating in the industrial park, no impact is anticipated on the geology and geography during operation.
Social environment	13	Resettlement and land acquisition	B-	D	D	D	**During construction:** While there are no residents that will be relocated because of the Project, land owned by the Thien Ke and Trung My PCs and 65 individuals was to be recovered. This land is mainly for used as woodland, rice paddies, and farmland, and land owned by the Thien Ke PC includes a cemetery. Compensation has already paid by Vina CPK and the land acquisition has been terminated. **During operation:** No resettlement is anticipated from rental factory operation.
	14	Poverty	B-	B-	D	D	**During construction/operation:** No residents, whose land is targeted for land acquisition in the Project, are poor.
	15	Ethnic minorities and indigenous peoples	B-	B-	D	D	**During construction/operation:** There are no ethnic minority or indigenous peoples (San Diu) among the land owners whose land is on the Project Site.
	16	Local economies, such as employment, livelihood, etc.	B-	B+	B-	B+	**During construction/operation:** Plans are to take the necessary measures for residents targeted for land acquisition, such as vocational training and preferential hiring in Ba Thien 2 and other industrial parks in Vinh Phuc Province. These measures must definitely be executed. Nonetheless, industrial park operations are expected to modernize local industry, increase land prices, attract businesses, create jobs, and product stable income.
	17	Land use and utilization of local	C	C	D	D	**During construction/operation:** While those involved in agriculture may lose their

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
		resources					employment due to the change from agricultural land to industrial land to develop the industrial park, the impact will be minimized through vocational training, preferential hiring and other measures (see "Local economies, such as employment, livelihood, etc."). There is also no impact anticipated on the stability of food supply from land acquisition of rice paddies and lakes.
	18	Water usage	B-	B-	D	D	**During construction/operation:** Water will be supplied by the Vinh Phuc Water Supply Joint Stock Company and groundwater will not be pumped to the surface. Moreover, as wastewater will be appropriately treated at the water treatment facility, chances are slim that water discharged into the May River will affect its flow volume.
	19	Existing social infrastructures and services	B-	C	D	B-	**During construction:** As the Project progresses in stages, there is little chance that there will be impact from the transportation of construction materials and workers. **During operation:** Increases in population density and traffic are expected to impact social infrastructures and services.
	20	Social institutions such as social infrastructure and local decision-making institutions	D	D	D	D	**During construction/operation:** As the Project is to build and operate rental factories in the industrial park, no negative impact on social capital, local decision-making bodies or other social institutions is expected.
	21	Misdistribution of benefits and damages	D	D	D	D	**During construction/operation:** If proper compensation was not paid to those who are targeted for land acquisition, they would become victims. This issue is discussed in "Local economies, such as employment, livelihood, etc." No parties have been found to receive any special benefits from the project.
	22	Local conflicts of interest	D	D	D	D	**During construction/operation:** As the purpose of the Project is to develop rental factories in Ba Thien 2 based on the regional development plan, no local conflict is expected in the area.
	23	Cultural heritage	C	D	D	D	**During construction:** As the reclamation work for the Project Site is almost complete, the chances of finding cultural heritage artifacts are low. **During operation:** The Project is not expected to have a direct impact on cultural heritage sites.
	24	Landscape	B-	D	D	D	**During construction:** The Project is for development of rental factories in an industrial park designed accounting for the surrounding landscape, and the rental factories are not

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
							expected to impact the surrounding land scape. **During operation:** Rental factory operation is not expected to impact the landscape. The Project is for development of IP rental factories, and Ba Thien 2 plans include planting a 20-meter wide barrier of trees around the periphery of the site.
	25	Gender	D	D	D	D	**During construction/operation:** The Project is not expected to have any negative impacts on gender relations.
	26	Children's rights	D	D	D	D	**During construction/operation:** The Project is not expected to have any negative impacts on children's rights.
	27	Infectious diseases such as HIV/AIDS	B-	B-	B-	B-	**During construction/operation:** Soil and groundwater may be contaminated from infectious pathogens contained in sewage. There is also the possibility of mosquitos spreading infection amongst people coming from various areas.
	28	Work environment (including occupational safety)	B-	B-	B-	C	**During construction:** An impact on respiratory organs and eyes from dust and air pollution, and hearing from noise is anticipated. Damage to health, such as fatigue, thirst, headaches, and dizziness from the heat of the sun and construction machinery, traffic accidents involving construction vehicles, accidents from construction work in high places, and falls and electric shock on rainy days is also anticipated. Measures are therefore necessary to develop a safe work environment. **During operation:** Employees who are directly employed by the Project and employees of tenant companies in the rental factories are required to maintain a work environment based on the related regulations. There could be adverse consequences if the related regulations are not observed.
Other	29	Accidents	B-	B-	B-	B-	**During construction:** Accidents and sickness during construction, such as traffic accidents, fire, falls, and electric shock on the construction site may occur. **During operation:** Industrial accidents, fire, explosions, water leaks, flooding, and water pollution caused by damage to the supply and drainage pipes during operation as well as secondary disasters caused by chemical and oil leaks, and electric accidents, traffic accidents, food poisoning, sickness due to rescue systems not being setup in the park, and traffic accidents from an increase in traffic are all possible.

Category	No.	Impacts	Impact assessment at scoping		Impact assessment based on study results		Reasons for assessment
			Before/ during construction	During operation	Before/ during construction	During operation	
	30	Trans-boundary impacts and climate change	D	D	D	D	**During construction/operation:** As the industrial park where the rental factories will be built is roughly 180 km away from the border with China, no trans-boundary environmental impact is anticipated. As the ratio of hydropower is high in Vietnam and has a low emission factor, the impact on climate change from the supply of power is limited. Moreover, as tenant companies are required to observe emission standards for air pollution in Vietnam, no impact on climate change is anticipated.

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.

(8) Reviewing Mitigation Measures and Drafting the Environmental Management Plan and Monitoring Plan

The EIA report reviews the avoidance, minimization, and compensation measures (mitigation measures) of impacts on the social environmental for the most of the items evaluated as B or C for the environmental evaluation in (7). This is summarized in the draft Environmental Management Plan with additional necessary mitigation measures at the Project Site. The currently anticipated implementing and responsible agencies, as well as mitigation costs, shall be estimated in as much detail as possible. Also, the environmental protection responsibilities and obligations for contractors will be clearly listed in contractor agreements so that these mitigation measures are properly executed during construction.

Table 10-14: Mitigation Measures and Environmental Management Plan

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
During construction				
Air pollution	・Spread water on the material route in the industrial park twice a day to prevent dust from spreading. ・In order to wash trucks to get rid of mud and sand before leaving the construction site to	Cost of air pollution mitigation measures (entire industrial park): 50,000,000VND/ implementation period: during construction	Vina CPK Contractor	－ Vina CPK

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	keep dust from spreading in the surrounding area, Vina CPK recommended using washing stations for trucks to be built at the main gate facing the road TL310 and the back gate.			
	・Use the hotline for the administrative office in the industrial park as installed by Vina CPK for complaints regarding dust and construction vehicles. ・Plant trees to prevent dust from spreading. ・Not use old vehicles for construction, to not overload vehicles, and to cover the material being transported.		Vina CPK Vina CPK Contractor	Vina CPK
Water pollution	Construction wastewater and rainwater runoff ・Install rainwater drainage channels directly connected to the rainwater drainage system installed by Vina CPK. ・Remove contamination through screening before it flows into the industrial park's rainwater drainage channels via rainwater drainage channels in the rental factories. ・Periodically inspect and dredge rainwater drainage channels so construction materials do not flow into and block the channels. ・Not assemble construction tools near the rainwater drainage channels to avoid leaks which may contaminate the rainwater drainage system. Domestic wastewater ・Provide toilets (200-liter mobile/portable toilets) based on Ministry of Health regulations (one toilet per 30 workers), and have the septic tank cleaned regularly by specialists.	Cost of water pollution mitigation measures (entire industrial park): 50,000,000VND/ implementation period: during construction Maintenance costs for rainwater drainage system (Project Site): included in project cost. Implementation period: during construction	SPC SPC Within industrial park: Vina CPK Project Site: SPC Contractor Vina CPK	Vina CPK

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	・Defecation outside is prohibited.		Contractor	Vina CPK
	・Restrict sewage generation by hiring local residents (as they can live in their own houses and not at the construction site).		Contractor	Vina CPK
	Floods ・Use large pumps installed by Vina CPK in areas with frequent floods.		Contractor	Vina CPK
	・Limit construction during monsoon season and storms.		Contractor	SPC
	Other ・Prohibit discharge hazardous materials and contaminants into the existing drainage systems, in particular into the May River.		Contractor	Vina CPK
Waste	・Use waste storage (100 m^2) and hazardous waste storage (50 m^2) installed by Vina CPK away from water sources in the industrial park.	Cost of waste mitigation measures (entire industrial park): 50,000,000VND/ implementation period: during construction	Contractor	Vina CPK
	・Sort into industrial (construction) waste, hazardous waste, and general waste.		Contractor	Vina CPK
	・Limit construction waste generated. Use waste materials effectively, and temporarily collect general waste and construction waste at the storage in the industrial park.		Contractor	Vina CPK
	・Use the twenty 200-liter trash cans installed by Vina CP in the industrial park.		Contractor	Vina CPK
	・Contract with local waste collection and recycling companies for waste collection (incl. hazardous waste) based on relevant laws.		Contractor	Vina CPK
	Waste oil ・Avoid repairing trucks and machines at the construction site.		Contractor	Vina CPK
	・Use a waste oil recovery tank (300 liters) installed by Vina CPK.		Contractor	Vina CPK
Soil pollution	・Carefully manage domestic wastewater (see “Water quality”) ・Carefully manage waste (See	(See “Water quality”) (See “Waste”)	(See “Water quality”) (See “Waste”)	(See “Water quality”) (See “Waste”)

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	"Waste")			
Noise and vibrations	・Use low-noise construction machinery according to Vietnamese technological standards TC3733/2022/BYT (90dB at 2m from the source) and 26:2010/BTNMT (70dB at 200m and 500m from the source) for noise and 27:2010/BTNMT (63-98dB at 10m and 55-83dB at 30m from the source) for vibrations. ・Notify local government and communities of working hours and measures to reduce noise. ・Avoid work that makes a lot of noise during local community (within 200m) rest hours (daytime: 11:00 to 13:30, night: 20:30 to 06:30 the next morning). ・Check the level of noise generated from construction machinery. When the level of noise exceeds allowable limits, either use noise-reduction devices or stop using that construction machinery. ・Suppress the spread of noise from roads by reforestation. ・Provide workers with hearing protection equipment. ・Use the hotline for the administrative office in the industrial park as installed by Vina CPK for complaints regarding noise at the work site.		Contractor Vina CPK Contractor Contractor Vina CPK Contractor Vina CPK	Vina CPK Vina CPK Vina CPK Vina CPK
Offensive odors	・Carefully manage waste (See "Waste")	(See "Waste")	(See "Waste")	(See "Waste")
Local economies, such as employment, livelihood, etc.	・Cooperate with Vina CPK on vocational training and preferential hiring in the industrial park.		Contractors and Vina CPK	DONRE
Existing social infrastructures and services	・Discuss plans accounting for impact on traffic density, such as varying times to drive construction vehicles, to minimize the increase of traffic density from the transportation of construction workers and material.		Contractor	Vina CPK
Infectious diseases such	・Perform on-going sanitation management, proper wastewater	(See "Water quality")	(See "Water quality")	(See "Water quality")

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
as HIV/AIDS	treatment, and continuous water quality monitoring to prevent infections. (See "Water quality")			
Working environment	・Provide equipment, and monitor and supervise to ensure worker safety. ・Inform related parties of emergency telephone numbers for hospitals, police stations, local government, disaster prevention organizations, etc. ・Inspect construction machinery and equipment regularly. ・Install lights for night work sites. ・Install fences and warning signs, and allocate personnel at dangerous places. ・Supply safety equipment (helmets and earmuffs, etc.) to workers. ・Arrange worker accommodations. ・Arrange medical facilities in the industrial park based on Ministry of Health regulations for contractor use.		Contractor Vina CPK Contractor Contractor Contractor Contractor Vina CPK	Vina CPK Vina CPK Vina CPK Vina CPK Vina CPK
Accidents	<u>Fire, falls, and electric shock</u> ・Install fire prevention equipment based on regulation TCVN 2600-92. ・Install safety equipment for the electrical system and electric devices. Periodically inspect safety equipment. ・Publish and distribute operation guidelines and safety regulations for machinery and equipment and inform all relevant parties. <u>Traffic accidents</u> ・Collect materials dropped during transportation. ・Notify related parties of hazard signs installed by Vina CPK.	Cost: Included in the agreed amount with contractors Implementation period: During construction (However, the cost of creating guidelines and allocating staff at road TL310 are included in the Vina CPK budget)	Contractor Contractor Contractor Vina CPK Contractor Contractor	Vina CPK Vina CPK Vina CPK Vina CPK Vina CPK Vina CPK

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	・Allocate personnel 24 hours a day at road TL 310 where an increase in traffic is expected. Safety measures ・Cooperate with the Vina CPK security team to prevent robberies. ・Cooperate with regular Vina CPK patrols. ・Notify all concerned of crime prevention measures provided by Vina CPK.		Vina CPK Contractor Contractor Contractor	 Vina CPK Vina CPK Vina CPK
During operation				
Air pollution	Air pollutant emissions from tenant companies ・Handle air pollutant emissions based on Vietnamese regulations. ・Implement environmental measures based on each EIA and environmental protection laws. ・Work with Vina CPK to enact measures and specify factories that are not fulfilling their emission treatment responsibilities. Air pollutant emissions from the water treatment system ・Treat industrial wastewater to meet the standards determined by Vina CPK. ・Companies that do not meet wastewater standards or neglect to fulfill their obligations for water treatment will be denied connection to the drainage treatment system. ・Firmly cover all drainage systems and manholes. ・Firmly cover mud storage tanks. ・Collect general and solid waste at least once a day.	Cost of air pollution mitigation measures (entire industrial park): 50,000,000VND/ implementation period: before investment promotion Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	Tenant Companies Tenant Companies SPC Tenant Companies Vina CPK Vina CPK Tenant Companies Tenant Companies	SPC and Vina CPK SPC and Vina CPK SPC and Vina CPK
Water Quality	Rainwater management ・Install rainwater drainage systems that consist of concrete squares, concrete drain pipes, open trenches, and grating covers in the Project Site and connect	Cost of mitigation measures involving water quality (entire industrial park): 10,000,000VND/ implementation period:	SPC	

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	them at the front road to the rainwater drainage system in the industrial park.	before investment promotion Mitigation measure costs (Project Site): included in the project cost Implementation period: after the Project has started		
	Industrial wastewater treatment ・Observe the following standards to treat industrial wastewater (incl. rental factories): －Metals and harmful chemical substances: Level A of the regulation 24:2009/BTNMT －Other substances: Level B of regulation 24:2009/BTNMT		Tenant Companies	SPC and Vina CPK
	・Compliance of standard values shall be stipulated in contracts with SPC and tenant companies. In addition, wastewater from each factory should comply with the standards described below: 1. Does not damage drain pipes physically or through a chemical reaction 2. Does not affect the health of workers who clean drain pipes 3. Does not interfere with the normal wastewater treatment process 4. Does not overload the water treatment facility		Tenant Companies	SPC and Vina CPK
	・Measure industrial wastewater discharged from tenant companies using a meter.		Tenant Companies	SPC and Vina CPK
	・Analyze wastewater quality discharged by tenant companies by pollution measure results or random sample inspection.		Tenant Companies	SPC and Vina CPK
	・Prevent wastewater not meeting the standards from being discharged.		SPC	Vina CPK
Waste	Collaboration with environmental impact management organizations ・Collaborate with organizations that manage environmental sanitation, collection, and transportation and cleaning in the industrial park installed by Vina	Waste mitigation measure costs (entire industrial park): 100,000,000VND/ implementation period: before investment promotion	SPC	Vina CPK

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
	CPK. General waste Place trash cans in the common area of the industrial park.	Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	Vina CPK	
	・General waste generated from tenant companies shall be collected by each factory and environmental sanitation management organizations shall transfer them to the disposal center based on the contract with each company.		Tenant Companies	SPC
	・Use the waste storage area prepared by Vina CPK in the industrial park.		Tenant Companies	Vina CPK
	Industrial waste ・Determine recycle measures (recycle by tenant companies or outsource to recycling companies) for recyclable industrial waste (excluding hazardous waste) and implement them.		Tenant Companies	SPC
	・Waste that cannot be recycled shall be collected and treated by environmental sanitation management organizations based on the contract with each company.		Tenant Companies	SPC
	・Sort industrial waste into hazardous waste and general waste.		Tenant Companies	SPC
	・Prepare equipment to collect and store industrial waste (excluding hazardous waste) in each area.		Tenant Companies	SPC
	Hazardous waste ・Manage all hazardous waste based on directive 12/2011 BNTN&MT.		Tenant companies and environmental sanitation management organizations	SPC and Vina CPK
	・Manage own hazardous waste as there is no primary storage place for hazardous waste will be prepared in the industrial park. Each company is required to select companies to collect and treat hazardous waste as necessary.		Tenant Companies	SPC

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
Soil pollution	・Carefully manage wastewater from the factory (See "Water quality") ・Carefully manage waste (See "Waste") ・Use HDPE pipes with high heat and shock resistance as the drain pipes to prevent leaks of wastewater that contains contaminants caused by damage to drain pipes, laying them in the reinforced concrete trench. ・Periodically inspect drain pipes.	(See "Water quality") (See "Waste") Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	(See "Water quality") (See "Waste") SPC SPC	(See "Water quality") (See "Waste")
Noise and vibrations	・Plant trees in the industrial park to reduce noise.	Cost: Included in the construction cost of entire industrial park. Implementation period: after the Project has started	Vina CPK	
Offensive odors	・Carefully manage waste (See "Waste") ・Carefully manage wastewater (See "Water quality")	(See "Waste") (See "Water quality")	(See "Waste") (See "Water quality")	(See "Waste") (See "Water quality")
Ecosystem	・Implement air and water pollution measures. (See "Air quality" and "Water quality") ・Plant a 20-meter wide barrier of trees around the periphery over 13.61% of the site to alleviate the impact on the flora and fauna ecosystems.	(See "Air pollution" and "Water quality")	(See "Air pollution" and "Water quality") Vina CPK	(See "Air pollution" and "Water quality")
Local economies, such as employment, livelihood, etc.	・Implement vocational training and preferential hiring in the industrial park with the cooperation of Vina CPK.	Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	Tenant companies, Vina CPK, and SPC	
Existing social infrastructures and services	・Notify personnel in the industrial park about residences and infrastructure developed by Vina CPK. ・Notify tenant companies about cultural and social activities organized by Vina CPK for industrial park workers and recommend that they participate. Traffic congestion ・Urge personnel to use buses arranged by Vina CPK and limit the usage of private cars.	Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	SPC SPC SPC	

Impacts	Mitigation measures	Costs and implementation period	Responsible party	Supervisor
Infectious diseases such as HIV/AIDS	・Conduct on-going sanitation management and water quality monitoring, and install a wastewater treatment system to prevent infections. (See "Water quality")	(See "Water quality")	(See "Water quality")	(See "Water quality")
Working environment	・Thoroughly observe the related regulations.	Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	Tenant Companies	SPC
Accidents	Fire and explosions ・Inspect machinery and equipment operated at high heat or voltage regularly based on clear analytical data.	Hazard preventive measure costs (entire industrial park): 200,000,000VND/ implementation period: before investment promotion	Tenant Companies	Vina CPK
	・Prepare thermometers, pressure gauges and other safety equipment for high pressure equipment.	Mitigation measure costs (Project Site): included in project cost Implementation period: after the Project has started	Tenant Companies	Vina CPK
	・Ensure safety to prevent fire when maintaining generators.		Tenant Companies	Vina CPK
	・Install fire prevention equipment if installing storage for fuel and heating materials.		Tenant Companies	Vina CPK
	・Notify all related parties about fire prevention plans and strict regulations concerning fire prevention determined by Vina CPK.		SPC	
	・Routinely inspect fire prevention equipment and have them at the ready.		Tenant Companies	Vina CPK
	・Prepare measures to reduce the impact on human bodies and assets if any risks arise.		Tenant Companies	Vina CPK
	・Collaborate with the Vina CPK Disaster Prevention Group.		Tenant Companies	SPC
	・Store heating materials away from fire sources.		Tenant Companies	Vina CPK

1) Draft Monitoring Plan

Vina CPK shall be responsible for monitoring all of Ba Thien 2. Although each tenant company is responsible for observing environmental regulations for IP factories, management of monitoring activities in the Project Site will be discussed to a certain degree in the project.

The following is the draft Monitoring Plan.

Table 10-15: Draft Monitoring Plan

Environmental item	Item	Location	Report system for responsible agency and results	Method	Frequency (stated period continued during operation)
During construction (construction stage)					
Air pollution	Microclimate conditions, dust, CO, SO2, NOx	Five total in the industrial park and five more in the surrounding area	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	QCVN 05: Based on 2009/BTNMT (national technical regulations based on environmental air standards)	Every six months
Water Quality	pH, TSS, DO, BOD, COD, E-coli, fecal coliform, NO_2^-, NO_3^-, PO_4^{3-}, SO_4^{2-}, Fe, Zn, Mn, phenol, oil	Three locations for surface water, two for wastewater	"	Surface water: Based on QCVN:08:2008/BTNMT (Vietnamese technical standard groundwater quality level A1) Wastewater: Based on QCVN 24: 2009/BTNMT (based on Vietnamese technical standard quality levels)	Every six months for surface water, every three months for wastewater
Waste	Waste management and treatment status	Rental factory construction site	Managed by: SPC Implemented by: Contractor	Monitor waste management and treatment status record	Expecting once a month; details to be fixed upon conclusion of contractor agreement
Soil pollution	(See "Water pollution" and "Waste")				
Noise and vibrations	Noise and vibration level of construction work	Rental factory construction site	Managed by: SPC Implemented by: Contractor	・Based on Vietnamese technological standards TC3733/2022/BYT (90dB at 2m from the source) and 26:2010/BTNMT (70dB at 200m and 500m from the source) for noise and 27:2010/BTNMT (63-98dB at 10m and 55-83dB at 30m from the source) for vibrations.	Expected during operation of construction machinery; details to be fixed upon conclusion of contractor agreement
Offensive odors	(See "Waste")				

Environmental item	Item	Location	Report system for responsible agency and results	Method	Frequency (stated period continued during operation)
Local economies, such as employment, livelihood, etc.	Employment conditions	Entire the Province	Implemented by: Bureau of Labour, Health, and Social Welfare	Bureau of Labour, Health, and Social Welfare to monitor employment conditions in the Province.	As necessary
Existing social infrastructures and services	Number of construction vehicles by time slot	Rental factory construction site	Managed by: SPC Implemented by: Contractor	Record and confirmation of the number of construction vehicles by time slot by contractor and other details to be determined upon conclusion of the contractor agreement	Determine upon conclusion of contractor agreement
Infectious diseases such as HIV/AIDS	(See "Water pollution")				
Working environment	Working environment	Rental factory construction site	Managed by: SPC Implemented by: Contractor	Maintenance log for safety equipment of workers and construction machinery, usage record of medical facilities and other details to be determined upon conclusion of contractor agreement.	Determine upon conclusion of contractor agreement
Accidents	Safety measures, safety management conditions, accidents and measures	Rental factory construction site	Managed by: SPC Implemented by: Contractor	On-site inspection of safety measures and safety management conditions, review written report, or monitor record management upon an accident	Determine upon conclusion of contractor agreement
During operation (operation stage)					
Air pollution	Wind direction and speed, humidity, temperature, SO_2, NO_x, CO, dust	18 in total: Eight in the industrial park; one each around wastewater treatment facility, waste collection site and office; three on area roads, four in surrounding areas	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	Measured with wind roses, wind gauges, moisture meters, thermometers, noise gauges, spectrums, and scales. Based on QCVN 05: 2009/BTNMT (average value of one hour and 24 hours)QCVN 05: 2009/BTNMT	Every six months
Water quality (wastewater)	(Reconfirmation) Temperature, pH, odor, color, BOD_5, COD, suspended solids, arsenic, mercury, lead,	Drain connection points of each tenant company in the Project Site	Managed by: SPC Implemented by: Tenant Companies	Based on QCVN 24: 2009/BTNMT (Vietnamese industrial wastewater technical standard quality level)	Every three months

Environmental item	Item	Location	Report system for responsible agency and results	Method	Frequency (stated period continued during operation)
	cadmium, chromium (VI), chromium (III), copper, zinc, nickel, mangan, steel, tin, cyanogen compounds, phenol, petrolatum, oil and fat, residual chloride, PCB, organic phosphoric ester, organochlorinated pesticide, sulfide, fluoride, chloride, ammonium (nitrogen), total nitrogen, E-coli Total: 34 items				
Water quality (surface water)	pH, DO, SS, COD, BOD_5, NO_2-N, NO_3-N, NH_3-N, Fe, Cd, Pb, Cu, Mn, E-coli Total: 14 items	Three in total: where the May River flows into the industrial park, worker residential areas, and 100m downstream from the wastewater discharge gate	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	Based on QCVN 08:2008/BTNMT (Vietnamese surface water technical standard quality level B1)	Every six months
Water quality (groundwater)	pH, electric conductivity, TS, SS, NO_3-N, Cl^-, SO_4^{2-}, Fe, Mn, Zn, Cd, Pb, Cu, As, E-coli, fecal coliform Total: 16 items	One location each for Ba Hien, Thien Ke and Trung My communes	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	Based on QCVN 09:2008/BTNMT (Vietnamese groundwater technical standard quality level B1)	Every six months
Waste	Volume of general waste generated from tenant companies, volume of recycle and reuse from factories, volume of hazardous waste generated from factories	TBD (determine based on factory occupancy)	Managed by: SPC Implemented by: Tenant Companies	TBD (waste volume to be monitored)	Every three months
Soil pollution	Pb, Cd, Ni, Mn, Fe, Cu, pH, OC%, total nitrogen, P_2O_5, K_2O, Al^{+3} Total: 12 items	Five in total: one each for the wastewater treatment facility, waste collection area, and Ba Hien, Thien Ke, and Trung My communes	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	Based on QCVN: 15:2008/BTNMT (Vietnamese technical standards for residual pesticides in soil) and QCVN: 03:2008/BTNMT (Vietnamese technical standards for maximum permissible levels of heavy metals in soil)	Every six months

Environmental item	Item	Location	Report system for responsible agency and results	Method	Frequency (stated period continued during operation)
Noise and vibration	Noise levels	18 in total: Eight in the industrial park; one each around wastewater treatment facility, waste collection site and office; three on area roads, four in surrounding areas	Managed by: Vina CPK Implemented by: A center in DONRE Approved by: DONRE	Measured with noise gauge. Based on QCVN 26: 2010/BTNMT (Vietnamese technical standards for noise)	Every six months
Offensive odors	(See "Waste" and "Water quality")				
Ecosystem	(See "Air pollution" and "Water quality")				
Local economies, such as employment, livelihood, etc.	Employment conditions	Entire the Province	Implemented by: Labor, Invalids and Social Welfare Bureau	Labor, Invalids and Social Welfare Bureau to review employment conditions in the Province.	As necessary
Existing social infrastructures and services	Usage of bus routes organized by Vina CPK and private cars	Near the Project Site	Implemented and managed by: SPC	Anti-traffic measures	As necessary
Infectious diseases such as HIV/AIDS	(See "Water quality")				
Working environment	Status of preventive measures for labor-related infractions	Each Tenant Company	Implemented and managed by: Tenant Companies	Initiatives to prevent labor-related infractions; investigation and measures to prevent reoccurrence when infractions are found	Determine upon conclusion of tenant company agreements
Accidents	Safety measures, safety management conditions, accidents and measures	Project Site	Managed by: SPC Implemented by: Tenant Companies	Initiatives for safety measures and management; record accidents and measures to prevention reoccurrence	Determine upon conclusion of tenant company agreement

2) Capacity Building and Training

As capacity building and training for monitoring can be outsourced to licensed consultants, it is thought to be not necessary to develop any new personnel.

3) Implementation Schedule and Cost Estimates

The entire industrial park will be monitored twice a year by Vina CPK, and reported to Vinh Phuc Province's DONRE by June 25 and December 25 each year. Vina CPK reserves 80,000,000 VND/time during construction and 70,000,000 VND/time during operation in the total investment budget (1,229,268,000,000 VND) for monitoring costs.

Total investment in the Ba Thien 2 Industrial Park is 1,229,268,000,000 VND. Excluding interest the figure is 1,123,256,000,000 VND, of which 350 billion VND is self-financing with the remaining 773,256,000,000 VND being a loan (at 6.5% interest) from a commercial bank. Costs related to environmental monitoring, mitigation measures, land acquisition/resident relocation and compensation are included in the investment amount as is the monitoring cost for this land. The budget for land acquisition/compensation, excluding the cost to relocate the 66th Regiment (army base), is a total of 148.1 billion VND (approx. 7,231,380,000 JPY[19]).

Most of the necessary monitoring within the Project Site overlaps with the monitoring that is necessary for the entire industrial park. Therefore, monitoring in the rental industrial park shall take place at the same time as the monitoring for the industrial park and as a result, the monitoring cost is considered part of the management costs for the rental industrial park.

4) Integrating Draft Environmental Management Plan into Comprehensive Project Plan for Case Formation, Design, Budget and Implementation

Vina CPK is the executor as well as the responsible party for mitigation measures and monitoring for all of Ba Thien 2, and the draft Environmental Management Plan is integrated into the comprehensive project plan, which includes case formation, design, budget, and implementation. For the Project Site, the differences to the draft Environmental Management Plan on the entirety of the industrial park are important, and most of the other parts are covered by the implementation of the draft Environmental Management Plan for the industrial park. The importance of the draft Environmental Management Plan in the Project Site is recognized in the project plan.

5) Consultation Activity Plan

Although no regular consultations with residents are scheduled, complaints are always accepted.

6) Implementation System and Method

The licensed specialized center within DONRE will monitor the industrial park as a whole, as assigned by Vina CPK. The center will carefully monitor activity with its own sufficient measurement devices and machinery and shall submit its reports to the government agencies. Vina CPK is responsible for monitoring, and DONRE gives the report final approval. Obtaining the DONRE-approved report for the Project from Vina CPK will cover most of the monitoring items. Items that

[19] Converted with an exchange rate (1 JPY = 204.802 VND) as of December 9, 2013 (see www.xe.com)

need to be obtained for the project will be collected and added to the report obtained from Vina CPK so this can be considered as the monitoring result at the Project Site.

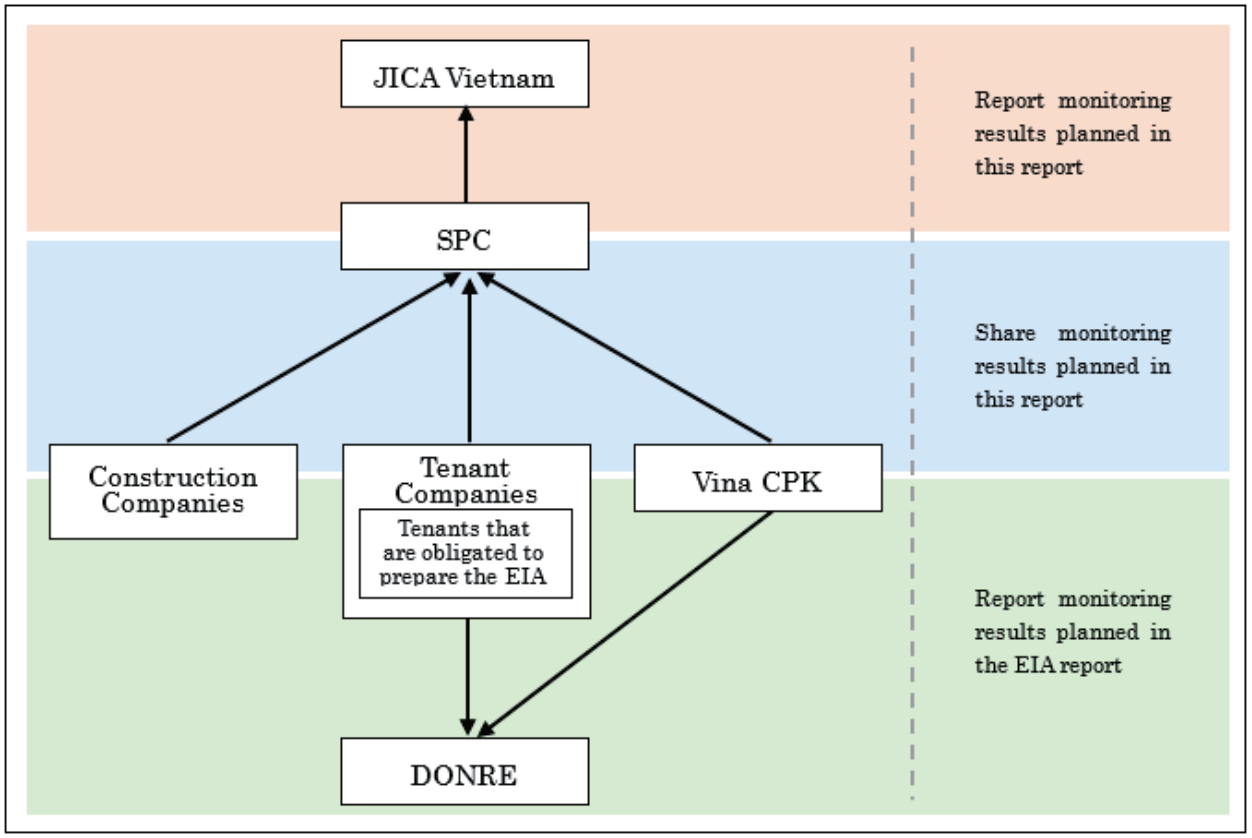


Figure 10-3: Draft Monitoring Implementation System

7) Draft Monitoring Form

According to the latest monitoring report conducted by Vina CPK, the monitoring form used throughout industrial parks during construction is as follows.

Table 10-16: Monitoring form

1 Overview
- 1.1 Contact information
- 1.2 Location
- 1.3 Business profile and size
- 1.4 Demand for resources (hydro/electric power)

2 Source of environmental impacts
- 2.1 Air pollutants, dust, and noise
- 2.2 Wastewater
  - 2.2.1 Worker urban wastewater
  - 2.2.2 Construction work wastewater
- 2.3 Solid waste
  - 2.3.1 Worker municipal solid waste
  - 2.3.2 Construction waste

3 Existing mitigation and response measures, measurements, and analysis results
- 3.1 Existing mitigation and response measures
  - 3.1.1 Air pollutants, dust, and noise
  - 3.1.2 Wastewater
  - 3.1.3 Solid waste
- 3.2 Measurement and analysis results
  - 3.2.1 Surface water analysis results
  - 3.2.2 Wastewater analysis results
  - 3.2.3 Surrounding area atmosphere analysis results
  - 3.2.4 Work area atmosphere analysis results

4 Inspection and management coordination

5 Conclusions and recommendations

6 Commitment

Appendices

Results of environmental analysis in the Ba Thien 2 Industrial Park

1. Surface water analysis results
2. Wastewater analysis results
3. Surrounding area atmosphere analysis results
4. Work area atmosphere analysis results

Table 10-17: Monitoring Form for the Water Quality of the Surface Water

No.	Item	Analysis method	Unit	Result	Reference value
1	pH		-		6-8.5
2	Total suspended solids (TSS)		mg/l		20
3	Dissolved Oxygen (DO)		mg/l		≥6
4	Biochemical oxygen demand (BOD_5)		mg/l		4
5	Chemical oxygen demand (COD)		mg/l		10
6	Nitrite ion (NO_2^-)		mg/l		0.01
7	Nitrate ion (NO_3^-)		mg/l		2
8	Phosphate ion (PO_4^{3-})		mg/l		0.1
9	Sulfate ion (SO_4^{2-})		mg/l		-
10	Zinc (Zn)		mg/l		0.5
11	Iron (Fe)		mg/l		0.5
12	Manganese (Mn)		mg/l		-
13	Oil		mg/l		0.01
14	Phenol		mg/l		0.005
15	Fecal coliform		MPN/100ml		-
16	Total coliform		MPN/100ml		2,500

Table 10-18: Monitoring Form for the Water Quality of the Wastewater

No.	Item	Analysis method	Unit	Result	Reference value
1	Temperature		℃		-
2	Color		Pt-Co		-
3	pH		-		5-9
4	Total suspended solids (TSS)		mg/l		60
5	Biochemical oxygen demand (BOD_5)		mg/l		36
6	Chemical oxygen demand (COD)		mg/l		-
7	Chlorine (Cl_2)		mg/l		-
8	Ammonium (NH_4)		mg/l		6
9	Cyanide CN^-		mg/l		-
10	Total nitrogen (N)		mg/l		-
11	Total phosphorus (P)		mg/l		-
12	Sulfide (S^{2-})		mg/l		1.2
13	Arsenic (As)		mg/l		-
14	Cadmium (Cd)		mg/l		-
15	Nickel (Ni)		mg/l		-
16	Lead (Pb)		mg/l		-
17	Copper (Cu)		mg/l		-
18	Zinc (Zn)		mg/l		-
19	Iron (Fe)		mg/l		-
20	Manganese (Mn)		mg/l		-
21	Trivalent chromium		mg/l		-
22	Hexavalent chromium		mg/l		-

23	Mineral oil		mg/l		12
24	Total coliform		MPN/100ml		3,000

Table 10-19: Monitoring Form for the Atmosphere (noise) of the Surrounding Regions

No.	Item	Analysis method	Unit	Result	Reference value
1	Temperature		℃		-
2	Humidity		%		-
3	Wind speed		m/s		-
4	Wind direction		-		-
5	Noise		dB_A		70
6	Airborne dust		mg/m^3		0.3
7	Carbon monoxide (CO)		mg/m^3		30
8	Sulfur dioxide (SO_2)		mg/m^3		0.35
9	Nitrogen dioxide (NO_2)		mg/m^3		0.2

Table 10-20: Monitoring Form for the Atmosphere (noise) of the Work Area

No.	Item	Analysis method	Unit	Result	Reference value
1	Temperature		℃		-
2	Humidity		%		-
3	Wind speed		m/s		-
4	Wind direction		-		-
5	Noise		dB_A		70
6	Airborne dust		mg/m^3		0.3
7	Carbon monoxide (CO)		mg/m^3		30
8	Sulfur dioxide (SO_2)		mg/m^3		0.35
9	Nitrogen dioxide (NO_2)		mg/m^3		0.2

In addition to the Monitoring form above, the draft monitoring form during construction for the Project will include the following items that SPC plans to request the provision of information to the contractors.

Table 10-21: Draft Monitoring Form of Additional Monitoring Items for Constructors

No.	Item	Method	Unit	Results	Limits
1	Waste (type, volume, disposal method)）	Waste management and disposal record, etc.			N/A
2	Noise	Confirm the measured values at rental factory construction site is as accord to the Vietnamese standard	dB		Vietnamese technological standards TC3733/2022/BYT (90dB at 2m point from source), 26:2010/BTNMT 70dB at 200m, 500m point from source)
3	Vibration	Confirm the measured values at rental factory	dB		27:2010/BTNMT (63-98dB at 10m point, 55-83dB

		construction site is as accord to the Vietnamese standard			at 30m point from source)
4	Number of Construction vehicles	Create a record of construction vehicles coming in and out of the rental factory construction site			N/A
5	Working environment	Create a maintenance record of safety devices and construction machinery, and a record the use of the medical facility.			N/A
6	Safety measures	On-site inspection of safety measures and safety management, or confirm documented reports, and monitor the recordkeeping upon accidents			N/A

Monitoring forms during operation is planned to be created based on the draft monitoring plan, and should be as follow.

Table 10-22: Draft Monitoring form during Operation

No.	Item	Method	Unit	Results	Limits
【Atmosphere（Noise）】（Vina CPK）					
1	Temperature		℃		-
2	Humidity		%		-
3	Wind speed		m/s		-
4	Wind direction		-		-
5	Noise		dB_A		70
6	Airborne dust		mg/m^3		0.3
7	Carbon monoxide (CO)		mg/m^3		30
8	Sulfur dioxide (SO_2)		mg/m^3		0.35
9	Nitrogen dioxide (NO_2)		mg/m^3		0.2
【Water discharge】（SPC）					
1	Temperature		℃		
2	pH		-		
3	Odor		-		
4	Color		-		
5	BOD_5		mg/l		
6	COD		mg/l		
7	Suspended Solid		mg/l		

8	Arsenic		mg/l		
9	Mercury		mg/l		
10	Lead		mg/l		
11	Cadmium		mg/l		
12	Chromium（VI）		mg/l		
13	Chromium（III）		mg/l		
14	Copper		mg/l		
15	Zinc		mg/l		
16	Nickel		mg/l		
17	Manganese		mg/l		
18	Steel		mg/l		
19	Tin		mg/l		
20	Cyanide		mg/l		
21	Phenol		mg/l		
22	Mineral Oil		mg/l		
23	Oil and fat		mg/l		
24	Residual chlorine		mg/l		
25	PCB		mg/l		
26	Organophosphate Ester		mg/l		
27	Organochlorinated pesticide		mg/l		
28	Sulfide		mg/l		
29	Fluoride		mg/l		
30	Chloride		mg/l		
31	Ammonium（Nitrogen）		mg/l		
32	Total nitrogen		mg/l		
33	Total phosphorus		mg/l		
34	Coliform		MPN/100ml		
【Surface water】（Vina CPK）					
1	pH		-		6-8.5
2	Total suspended solid（TSS）		mg/l		20
3	Dissolved oxygen（DO）		mg/l		≥6
4	Biochemical oxygen demand（BOD_5）		mg/l		4
5	Chemical oxygen demand (COD)		mg/l		10
6	Nitrite ion (NO_2^-)		mg/l		0.01
7	Nitrate ion (NO_3^-)		mg/l		2
8	Phosphate ion (PO_4^{3-})		mg/l		0.1
9	Sulfate ion (SO_4^{2-})		mg/l		-
10	Zinc (Zn)		mg/l		0.5
11	Iron (Fe)		mg/l		0.5
12	Manganese (Mn)		mg/l		-
13	Oil		mg/l		0.01
14	Phenol		mg/l		0.005
15	Fecal coliform		MPN/100ml		-
16	Total coliform		MPN/100ml		2,500
【Groundwater】（Vina CPK）					
1	Temperature		℃		
2	Color		Pt-Co		
3	pH		-		

4	Total suspended solids (TSS)		mg/l		
5	Biochemical oxygen demand (BOD_5)		mg/l		
6	Chemical oxygen demand (COD)		mg/l		
7	Chlorine (Cl_2)		mg/l		
8	Ammonium (NH_4)		mg/l		
9	Cyanide CN^-		mg/l		
10	Total nitrogen (N)		mg/l		
11	Total phosphorus (P)		mg/l		
12	Sulfide (S^{2-})		mg/l		
13	Arsenic (As)		mg/l		
14	Cadmium (Cd)		mg/l		
15	Nickel (Ni)		mg/l		
16	Lead (Pb)		mg/l		
17	Copper (Cu)		mg/l		
18	Zinc (Zn)		mg/l		
19	Iron (Fe)		mg/l		
20	Manganese (Mn)		mg/l		
21	Trivalent chromium		mg/l		
22	Hexavalent chromium		mg/l		
23	Mineral oil		mg/l		
24	Total coliform		MPN/100ml		
【Land contamination】（Vina CPK）					
1	Lead（Pb）		mg/kg		300
2	Cadmium（Cd）		mg/kg		10
3	Nickel（Ni）		mg/kg		-
4	Manganese（Mn）		mg/kg		-
5	Iron（Fe）		mg/100g		-
6	Copper（Cu）		mg/kg		100
7	pH		-		-
8	OC%		%		-
9	Total nitrogen（N）		%		-
10	P_2O_5		%		-
11	K_2O		%		-
12	Al^{+3}		mg/100g		-
【Others】（SPC）					
1	Waste (type, volume and disposal method)				N/A
2	Concentrated traffic				N/A
3	Working environment				N/A
4	Safety measures				N/A

Table 10-23: Amount Invested in the Ba Thien 2 Industrial Park

Item	Amount (in thousands of VND)
I. Construction costs	**669,805,060**
1. Grading work	25,498,636
2. Road development	141,907,741
3. Water supply equipment	39,097,174
4. Rainwater drainage equipment	25,071,105
5. Drainage equipment	115,014,423
6-1 Power supply system	182,847,876
6-2 Road lighting	14,978,135
7. Development of central functions	99,832,400
8. Reforestation and land reclamation	18,269,879
9. Construction of temporary housing and offices	7,287,691
II. Machine purchase and installation costs	**191,285,247**
Water and power supply equipment	26,651,741
Maintenance of the road and shared area power source	164,633,507
III. Project management costs (I + II) *10%	**86,109,031**
IV. Contingency costs	**176,056,888**
Sub total	**1,123,256,227**
V. Interest during construction period	**106,012,237**
Total	**1,229,268,646**
Total investment amount	**1,229,268,000**

・The Implementing Agency's Monitoring System and Status

Vina CPK is responsible for environmental monitoring in accordance with environmental protection laws. Vina CPK will outsource the monitoring work to a licensed consultant to perform the work in accordance with a monitoring system prescribed by the law.

The items to be monitored are defined by business category in the law and listed in the monitoring plan. Items are monitored either once every three or six months. The monitoring result from June 2014 has already been submitted to DONRE.

In accordance with Article 36 of the Law on Environment Protection, the steering committee, investor, and factory owners at the Ba Thien 2 Industrial Park are required to establish a department and/or specialized personnel for environmental management.

Vina CPK plan to establish an environmental task force consisting of 24 personnel in the future. The environmental task force will oversee duties involving environmental sanitation, disaster prevention, and worker health. The task force is planned to have a sanitation team and a disaster prevention team, including a doctor and nurse. At least three personnel will be stationed at Ba Thien 2 to manage environmental issues 24 hours a day. As of April 2014, a team of five personnel were performing these duties.

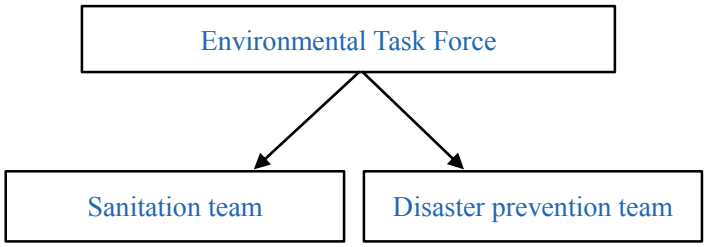


Figure 10-4: Monitoring Implementation System

Vinh Phuc Provincial Urban Environment Corporation plans to start an environmental sanitation business separately from the environmental task force. The environmental sanitation business will be made up of 30 people and its roles are as follows:

- Manage environmental sanitation and solid waste in Ba Thien 2
- Collect trash generated from IP roads, public facilities, and factories (by contract)
- Transport solid waste to disposal site
- Support sanitation services

If an environmental sanitation business is not established, Vinh Phuc Provincial Urban Environment Corporation will handle collection, transport, and disposal of solid waste.

While this system should fulfill Vietnamese Government requirements for environmental and social consideration, checks will be needed to confirm that Vina CPK is monitoring appropriately. Moreover, items not required by the Vietnamese Government but required according to JICA guidelines will be scrutinized, and clarification of the implementation structure, in addition to ensuring the necessary budget and finances, will be reviewed.

(9) Stakeholder Meeting

The Ba Thien 2 Industrial Park project will be discussed with the residents in the target site as well as those in the surrounding area at an early stage, and a plan will be formulated based on results of these discussions.

Vina CPK has had many approaches for consultation, and the Vina CPK representative has carefully and repeatedly deliberated during the EIA report and construction phases based on consultations with local government and Ba Hien, Thien Ke, and Trung My commune representatives. The stakeholder meeting was conducted as follows.

Table 10-24: Stakeholder Meeting Implementation Structure

Participants	Residents: 115 household representatives The Binh Xuyen District Compensation and Land Acquisition Committee and Land Register Committee Commune Head and PC Vina CPK
Scale	The Binh Xuyen District Compensation and Land Acquisition Committee collaborated with the PCs of Ba Hien, Thien Ke, and Trung My communes and Vina CPK to hold meetings with the owners targeted for land acquisition
Period	November 2008-September 2014 The consultation of Ba Thien 2Industrial Park began on Novemenber 2008 when Vina CPK sent out the draft of the EIA report to the Vietnamese Fatherland Front and PC's in the Ba Hien, Thien Ke, and Trun My communes in accorance with Circular 08/2006/TT-BTNMT. Multiple meeting were held with stakeholders and the final amount of compensation for the project field was agreed on September 2014.
Location	The cultural center of each commune where land was to be acquired
Purpose	To hear resident opinions on land acquisition and compensation with regards to industrial park development
Method	Assembly of residents
Details	・Explain the scope of the Project Site, outline, and format ・Explain compensation policies, livelihood restructuring measures, and relocation site to those residents outside of the targeted area ・Explain negative impacts (results of environmental and social evaluation) ・Collect local resident opinions and demands
Collective opinions of the PC and Fatherland Fronts of Ba Hien, Thien Ke, and Trung My communes	- Concur with the Ba Thien 2 Industrial Park location as it meets the master plan on development of industrial parks in Vietnam through 2015 and orientations to 2020 approved by the Prime Minister. - Recommend that the users of the industrial park be requested to not impact on the agriculture or other lifestyle aspects by treating wastewater before discharging it in the drainage system and not foul the environment. They must follow Vietnamese laws in regards to treatment of environment pollution, such as other emissions, noise, and waste. - Recommend the industrial park factories and companies to support favor employment of local workers and residents who responded to land acquisition request and give their lands.

	- Recommend that business developers and EIA report specialists follow the Law on Environment Protection and demand measures to prevent environmental pollution that is stated in the EIA report approved by MONRE. - Recommend that measures are fully executed to protect the environment as per the plan. - Require that a general sewage treatment plant be completed before land starts to be loaned. - Require participation in general environmental protection with the assistance of local government. For example, participating in the "National Food Safety Week" and/or the "National Fire Prevention and Worker Safety Week".
Comments and meeting results	- Reactions to requiring full compensation and resident relocation in the initial stages were mostly favorable. To provide compensation in the initial stages, Vina CPK pays compensation in advance of government compensation. Comments from multiple households about existing issues and eviction compensation were resolved. - A system will be established for PCs and Vina CPK to deal with any future issues that may occur.
Planned residents' meetings	None planned

While emphasis will be placed on Vina CPK initiatives, stakeholders will be consulted as necessary and environmental and social initiatives are planned.

10.2 Study for Verifying the Implementation Status of Involuntary Land Acquisition

Vina CPK has already acquired the site for the Project, and former landowners targeted for land acquisition have already received compensation and help rebuilding their livelihoods. Project Site was legally owned by 65 households (not including land owned by the Thien Ke and Trung My PC), and those households have already received compensation and support for restructuring their livelihoods. Thus, there are no residents subject to resettlement.

Since there are no residents subject to resettlement, this study mainly focused on land acquisition, compensation and livelihood restructuring measures for the Project and examined and reported the process and sequence of past land acquisition, specifically the degree to which "JICA Policy for Resettlement" was observed in terms of methods of discussing resettlement with residents, etc. The "World Bank Involuntary Resettlement Source Book Planning and Implementation in Development Projects", and "Resettlement Plan" from the "World Bank Safeguard Policy, OP4.12, Annex A" were used as references throughout the study.

10.2.1 Results of Study for Verifying the Implementation Status of Involuntary Land Acquisition

The following is an overview of the results of the study for verifying the implementation status of involuntary land acquisition for the Project.

(1) Scale of Land Acquisition and Resettlement

The policy for land acquisition and resettlement across the entire industrial park was to build residences for the relocation of all occupants (including landowners, non-permanent occupants, lessees, merchants and store employees) of Project Site on land in the same area in accordance with laws and regulations so that the occupants could promptly achieve stability in their lives following land acquisition and resettlement.

In order to avoid and minimize resettlement in the course of developing industrial parks, residents participate in the consideration of development plans from the initial design stage and consent to the resulting initial design proposal. Thus, there is no submission of alternative initial design plans. "Participation by residents from the initial stage" is thought to be a way to ensure that development plans reflect residents' wishes and minimize resettlement to the extent possible.

Across the entire industrial park, 41 households were subject to resettlement, and an asset assessment conducted in 2012 pegged their worth at around 50 billion VND. However, there are no houses within the Project Site; thus, there were no residents and no resettlement. According to an asset assessment with 2013 as the base year, the Project Site is worth around 1.3 billion VND (including the land, trees/crops, and livestock, etc.). Below are the results of a population census and surveys of assets and land, and of household finances and livelihoods.

People who lost their means of livelihood have already been compensated under Decision No. 18/2011 QD-UBND dated April 20, 2011 on "Compensation, Support and Resettlement when Land is Recovered in Vinh Phuc Province", and no grievances have been reported.

Note that the amount of compensation includes compensation for career changes and job seeking as well as that for assets, and that priority employment at IPs within the Province is promised to the resettled residents.

< Results of Population Census in Project Site >

Table 10-25: Population Census in Project Site (Number of People Impacted)

Type of loss		**Legal**	**Illegal**	**Total**
Required for displacement				
1	HH (Structure owner on Gov. land)	0	0	0
2	HH (Structure on Private land)	0	0	0
3	HH (Tenants)	0	0	0
4	CBEs (Structure owner Gov. land)	0	0	0
5	CBEs (Structure owner on Private land)	0	0	0
6	CBEs (Tenants)	0	0	0
7	Community owned structures including physical cultural resources	0	0	0
Not required for displacement				
8	Land owners	65	0	65
9	Wage earners	0	0	0
Grand Total (1-9)		65	0	65

HH: House Hold, CBEs: Commercial and Business Enterprises

In this study the number of landowners (not the number of households) was compiled.

< Survey of Assets and Land >

・Land

Table 10-26: Land Use

No.	Original Use	Project Site	
		(ha)	(%)
1	Legal residential	0	0
2	Agricultural	2.5414	6.61
3	Rice field	4.2087	10.95
4	Forest	19.7006	51.26
5	People's Committee-owned land Agricultural Rice field Forest Graveyard Road Irrigation Abandoned land	11.9835 0.05485 0.05458 7.29923 0.48441 3.75798 0.13 s 5 0.19903	31.18
6	Other (vacant land, riverbank)	0	0
	Total	38.4342*	100.00

*The existing cadastral dossier does not include measurements of the area of land targeted only for rental

factories, thus the total includes the total land area of rental factory spaces that overlap the borders of surrounding areas and the rest of Ba Thien 2 Industrial Park.

Note: The buildings below are included among buildings included on land subject to acquisition.

Table 10-27: Buildings on Land Subject to Acquisition

I	41 common dwellings	Mainly one-story, brick houses (IV level type) built in agricultural villages, but also includes dairy farm buildings and houses built atop scaffolding.
	Military barracks	Two-story houses (400m^2), three IV level type houses (total area 200m^2) and Regiment 66 military barracks have already been relocated to 4,505ha of land acquired in the Gia Khanh region.
Project Site	Four graveyards	Although the Thien Ke PC owned graveyards at the southeastern corner of the Project Site, these have already been relocated (Space numbers 4754, 4838, 4840 and 4841).

・Building Types

Table 10-28: Building Types

No.	Building Type	Industrial Park		Project Site		
		Number	Area (m^2)	Number	Number of Occupants	Area (m^2)
1	Temporary housing	6	180	0	0	0
2.	Housing (one-story, fiber-reinforced cement roof material)	137	5,200	0	0	0
3.	Housing (one-story, concrete)	2	135	0	0	0
4.	Housing (two-story)	2	360	0	0	0
5.	Housing (built atop scaffolding)	1	90	0	0	0
6.	Water tanks	3	50	0	0	0
7.	Pump station (water)	1	12	0	0	0
8.	35-kW power lines	3.2km	－	0	0	0
9.	Wastewater channel	1.65km	－	0	0	0
10.	Graves	60	－	4	0	4,844.1

(Source: Vina CPK Co Ltd, demonstration of construction investment and infrastructure business project Industry Park Ba Thien II.)

・Crops, Fruit, Livestock, Fish

According to the study results, Vina CPK has appropriately compensated for crops, fruit, livestock, fish, etc.; however, no data exists for the time of the census. As of now, no grievances on this matter have been reported.

Table 10-29: Survey of Household Finances and Livelihoods

Standard attributes of households receiving compensation	・The 65 households subject to land acquisition were mainly agricultural households. They were neither wealthy nor poor, earning incomes at a level similar to those who have received advanced education. Compensation and educational opportunities provided to them are expected to improve their standard of living.
Household structure	・No households are subject to resettlement. Thus, household structure was not studied.
Income earned from official and unofficial economic activity	・Some residents had other sources of income such as agricultural land other than that acquired, or roadside shops. ・The land use system is explicit, and there were no shared natural resources or common land on which residents lived or earned a living.
Unofficial resident organizations	・As Vietnam is a socialist republic, PC serve as administrative organizations. There is no involvement by NGO or other organizations, nor is there activity by traditional ritual groups, etc.
Basic information and manufacturing system for livelihoods in surrounding regions	・Gross production for the Binh Xuyen District has grown an average of 25% per year in recent years, from 225 billion VND in 1998 to 4,232 billion VND in 2010. Industry as a percentage of the economy has increased from 18% to 84%, and agriculture has decreased to 9%. Only 9% of households are in poverty, and none are starving. Investment in infrastructure development has been appropriate and effective. Each year, 35–40% of the district budget is allocated to infrastructure development and improvement. The district is moving ahead with a welfare program (electricity, schools, high-rise buildings) and activities related to social development and improving the quality of life are moving forward smoothly in all its communes. <Agriculture> Agricultural production in Binh Xuyen District has developed on all fronts in the past several years. PC and the government have interest in and are leading efforts to apply science and technology to the production and changes in the composition of crops and livestock. Livestock breeding is gradually improving in establishing a partial or full management system. The total area of aquaculture reached 8,332ha in 2010, and the annual yield of harvested and wild-caught seafood is 1,225.4 tons. The average annual income across the livestock and marine product industries has reached 100 million VND. The structure of the rural economy is trending in a positive, promising direction. The amount of agricultural land has decreased due to disasters, epidemics, inflation and industrial development. PC and the government proactively changed the economic structure by forming concentrated industrial zones for products as well as highly competitive and economically valuable agricultural zones bordering urban areas. These changes have allowed the area to provide a sufficient volume of food products, and agricultural production in Binh Xuyen District is growing 5% each year. Residents' lives are improving day by day; 99% of rural households have access to electricity and 80% have access to audio-visual media. Thirty-five percent of rural households own a motor scooter. Cottage-like houses with roofs made of leaves have disappeared. The poverty rate declined to 9.01% in 2010. Rural roads have been paved; welfare facilities, cultural facilities and farmer's markets have been built; and the government, public security and social order are stable. <Industry> Binh Xuyen District is bordered by National Route 2 and the international railway, and connects the industrial hubs of Vinh Phuc Province, the cities of Phuc Yen and Vinh Yen. The district promises various business opportunities as it develops economically, particularly the construction of industrial parks and the acceleration of their expansion.

	Currently there are four industrial parks, two industrial clusters and a craft village industry in Binh Xuyen Province. One hundred forty-five Vietnamese and non-Vietnamese companies are registered to do business there, an increase of 29 companies since 2010. Sixty-two of those companies are operating with capital of 430 billion VND. Most registered companies hold the district's investment attraction policies in high regard. Nearly all the companies are effectively operated, consistently employ workers from the district and provide a stable source of income for the district. The district's economy has grown tremendously in recent years, and emphasis has rapidly shifted to industry. Total industrial production reached 2,180 billion VND in the first half of 2008, a year-over-year increase of 71.2%. Main products include ceramic tiles (Prime Group), steel pipes (Vietnam Germany Steel Pipe), motorcycle parts, electronics assembly and livestock feed.
Social and cultural attributes of surrounding regions	1. Service There is room in communes for continuous expansion and development, and 420 households are providing services as they manufacture. Small-scale retailers are expanding, and the main products are basic supplies for manufacturing and construction activities, and daily necessities for residents. Over 1,000 traveling laborers from inside and outside the province earn high incomes. The Project is expected not to interrupt but rather to enhance social services. 2. Education Both the material foundation and the quality of education are being emphasized. The total number of students fell to 2,986 in the 2009-2010 school year, 146 fewer than the previous year. A fund was established to maintain and develop the activities of a training promotion committee to encourage members to participate proactively in committee activities. The Number 8 Central Resolution 2, Vinh Phuc Province No. 14 Party Resolution, Binh Xuyen Party PC Scheme No. 2 concerning education and growth activities from 2005-2010 was implemented throughout the 2009-2010 school year. Intellectual and cognitive levels are good or better for 89.7% of children, and normal for 10.3%. Preschool education has achieved planned objectives, and the attendance rate is high. However, the nursery school attendance rate is relatively low compared to the number of children in the equivalent age bracket. The elementary school has 25 classes and 505 students, both of which are 100% of the objectives. There are 69 fewer students than in the 2009-2010 school year (appropriate family planning by residents is the cause of the decrease). The attendance rate is 100%. The junior high school has 18 classes, and the number of students decreased by 22 compared to the 2009-2010 school year. The attendance rate is 100%. 3. Matters related to medicine, health, population, family, elderly care and children In 2010, 19,390 people were examined, an increase of 4%. One hundred seventy-nine people were admitted to the hospital, 99.4% of the total from the previous year, and 17,211 qualified for outpatient care. Preventive care, state medicine and immunization of youths is being administered properly, and various epidemics have been prevented, initial responses to residents with troubles with examinations, treatment and health made and elderly care administered without delay. Examinations were given to 3,303 children, which is 50% of the objective. Children were administered immunizations for various diseases. The number of children was 483, 100% of the objective for children in the equivalent age bracket. In addition, health clinics hosted specialized training for specialized staff members and training on preventing the spread of communicable diseases. 4. Culture and sports Cultural committees at the commune level provided inter-commune entertainment activities, and activities in the spring time. The district hosted cultural and sporting events, and advertised effectively to bring all residents together to build a new cultural network in the area. The district also carried out the content of Central Directive 27/TW and Vinh Phuc

	Province Party PC Directive No. 03 regarding ceremonial functions. The district is managing the historical heritage in Quang Cai Village. The 18 village speaker system is being used to disseminate party and government guidance and policy, and a democratic system between communes and citizens has been implemented.

(2) Laws and Regulations Applied to Past Land Acquisition and Resettlement

Below are the laws and regulations applied to land acquisition for the Project.

Laws related to land acquisition

- Land Law 2003 (No. 13/2003/QH11)
- Decree No. 181/2004/ND-CP of October 29, 2004 on the "2003 Implementation of Land Law"
- Decree No. 197/2004/ND-CP of December 3, 2004 on "Compensation, Support and Resettlement when Land is Recovered by the State"
- Decision No. 18/2011/QD-UBND dated April 20, 2011 on "Compensation, Support and Resettlement when Land is Recovered in Vinh Phuc Province"
- Decision No. 36/2012/QD-UBND dated October 23, 2012 on "Supplements and Revisions to Decision No. 18/2011/QD-UBND"
- Decision No. 55/2012/QD-UBND dated December 28, 2012 on "2013 Decisions Regarding Land Value in Vinh Phuc Province"

Note that the following regulations will be applied for future land acquisition for Ba Thien 2 Industrial Park.

- Land Law 2013 (No. 45/2013/QH13)
- Decree No. 47/2014/ND-CP of May 15, 2014 on "Compensation, Support, Resettlement and Land Acquisition"
- Circular No. 37/2014/TT-BTNMT of June 30, 2014 on "MONRE Detailing Compensation, Support, Resettlement and Land Acquisition"
- Decision No. 35/2014/QD-UBND dated August 15, 2014 on "Compensation, Support, Resettlement and Land Acquisition in Vinh Phuc Province"

Landholding system

The landholding system in Vietnam is defined in Chapter 1 of Land Law 2003. Under this law, land belongs to all citizens, and the government manages land as a representative of its owners. The government distributes land use rights to citizens in accordance with the provisions of this law. Note Land Law No. 45/2013/QH13 was established in 2013 and went into effect on January 1, 2014.

Procedures related to land acquisition, and methods for calculating asset and compensation costs, etc.

Decision No. 18/2011/QD-UBND dated April 20, 2011 on "Compensation, Support and Resettlement when Land is Recovered in Vinh Phuc Province" defines procedures related to land acquisition, and methods for calculating asset and compensation costs, etc. Below is the main content from this decision that relates to the Project.

Timing of determining compensation rate

Article 9, Paragraph 1

- Compensation amounts are determined according to unit prices for each type of land use issued by Provincial PC on January 1 each year.
- When unit prices for each type of land use at the time of compensation exceed unit prices when the written decision concerning land recovery was issued, compensation amounts will be paid based on unit prices for each type of land use at the time of compensation. When unit prices for each type of land use at the time of compensation are less than unit prices when the written decision concerning land recovery was issued, compensation amounts will be paid based on unit prices when the written decision concerning land recovery was issued.
- When compensation has been delayed at the convenience of people whose land is subject to recovery, and unit prices for each type of land use at the time of compensation are less than unit prices when the written decision concerning land recovery was issued, compensation amounts will be paid based on unit prices for each type of land use at the time of compensation. When unit prices for each type of land use at the time of compensation exceed unit prices when the written decision concerning land recovery was issued, compensation amounts will be paid based on unit prices when the written decision concerning land recovery was issued

Policy for property compensation

Article 17, Paragraphs 1-7

- Owners of real property subject to land recovery will be compensated.
- When owners of real property subject to land recovery are deemed ineligible for compensation, compensation or the provision of support will be considered on a case-by-case basis.
- Houses and other structures built after publication of land use plans without approval by regulating authorities are not eligible for compensation.
- Houses and other structures built after July 1, 2004 in violation of land use set forth in land use plans at the time of construction are not eligible for compensation.
- Structures built after the written decision concerning land recovery was issued are not eligible for compensation.
- Compensation for machinery and manufacturing chains that can be dismantled or relocated are eligible for compensation only for the cost of their dismantling, relocation and reassembly.
- Damage suffered in safety zones will be compensated depending on according to the conditions of the region.

Compensation for relocation of graves

Article 19

- Compensation for the relocation of graves will be provided for a reasonable amount of land, excavation, exhumation, relocation, rebuilding and other related expenses. Compensation rate are set forth in Table 3 of this decision.

Compensation for trees and livestock

Article 20

- Compensation and support for annual crops is based on the yieldability of harvests. The yieldability of harvests is derived from the average price at the time of land recovery of the maximum yieldability of main crops over the past three years.
- Compensation for perennial crops is the value of the perennial crops (excluding the value of the land) at the time of land recovery and is based on Table 2B of this decision.
  - Fruit trees and timber: Estimate based on density per hectare
  - Crops planted prior to the land recovery decision: Maximum of 50% of crop prices
  - Crops planted after the land recovery decision: Not eligible for compensation
  - Saplings: Cost of relocation
  - Break crops: Based on actual conditions

- Compensation for trees planted from the government budget and natural forests will be provided at an amount equivalent to the damage. Compensation amounts will be distributed amongst relevant personnel (managers, forestry employees, etc.) based on the Forest Development and Protection Law.
- Agricultural crops, livestock and marine products whose harvest seasons come prior to the land recovery are not eligible for compensation.
- Compensation for actual losses resulting from early harvesting will be provided for agricultural crops, livestock and marine products whose harvest seasons come after the land recovery. For items that can be relocated, compensation will be provided for the cost of relocation and damage caused by relocation.

Compensation for suspension of work

Article 22

- Compensation for suspension of work is defined in Article 26 of Decree No. 197/2004/ND-CP of December 3, 2004 on "Compensation, Support and Resettlement when Land is Recovered by the State". The following is an overview of Article 26.
  - When organizations and households that employ laborers under employment contracts must suspend manufacturing or operations due to land recovery, an agreed-upon allowance greater than the minimum wage will be paid to employers and employees in accordance with Article 62, Paragraph 3 of the Labor Law of 1994. Laborers who have concluded indefinite employment contracts or employment contracts lasting 12 to 36 months have the right to be compensated as set forth in Items a and b of Article 27, Paragraph 1 of the Labor Law of 1994. The compensation period is the work suspension period, up to a maximum of six months.

The Project will not cause the suspension of work by laborers under employment contracts.

Resettlement support

The Project will not cause any resettlement, thus resettlement support will not be implemented. However, Articles 23 and 24 of this decision will be applied to resettlement caused across Ba Thien 2 Industrial Park as a whole.

Restructuring livelihoods

Article 25

- The following people are eligible beneficiaries of support for restructuring livelihoods.
  - Households and individuals to whom agricultural land was distributed under the conditions set forth in 64/CP dated September 27, 1993, 02/CP dated January 15, 1994, 85/1999/ND-CP dated August 28, 1999, 163/1999/ND-CP dated November 16, 1999 and 181/2004/ND-CP dated October 29, 2004.
  - Agricultural employees of households to whom land was distributed under the aforementioned system who have taken over land due to relocation, inheritance, donation, etc. and are deemed by PC to be engaged in agricultural work on that agricultural land.
  - Households and individuals who fulfill the aforementioned agricultural land distribution conditions but to whom agricultural land has not been distributed, and those who are engaged in agricultural work on agricultural land acquired through inheritance or donation.
- Support for restructuring livelihoods is as follows.
  - Land for agricultural production or aquaculture: 15,000 VND/m^2
    The area of land eligible for support is the maximum area defined in 64/CP dated September 27, 1993, 85/1999/ND-CP dated August 28, 1999, 163/1999/ND-CP dated November 16, 1999 and 181/2004/ND-CP dated October 29, 2004.
  - Land for afforestation: 1,500 VND/m^2
    The maximum area of land eligible for support is 30 hectares (defined in Land Law 2003, Article 70, Paragraph 3).
- Organizations, households and individuals who must suspend production or operations due to land recovery: 20% of average annual post-tax income over the past three years.
- Households and individuals who, prior to becoming SLLC, leased land owned by the government

and used it for agricultural, forestry or aquaculture purposes and people employed by those households and individuals; and people whose main source of income is agricultural work or forestry work will receive support as follows.

- Annual crops with lease contract of three or more years: 30% of rent for land
- Perennial crops or forestry work with lease contract of three or more years: 20% of rent for land
- Annual or perennial crops, or forestry work with lease contract of less than three years: 10% of rent for land
- The area of land eligible for support is the maximum area defined in 64/CP dated September 27, 1993, 85/1999ND-CP dated August 28, 1999, 163/1999/ND-CP dated November 16, 1999 and 181/2004/ND-CP dated October 29, 2004.

Note that the percentages in this paragraph were revised to a uniform 30% in Decision No. 36/2012/QD-UBND dated October 23, 2012 on "Supplements and Revisions to Decision No. 18/2011/QD-UBND".

Support for career changes, training and job seeking

Article 27

- Eligible beneficiaries as defined in Article 25 who are also eligible for financial assistance for career changes or job seeking will receive support of double the value of the agricultural land or forest land acquired, over a maximum area defined in 64/CP dated September 27, 1993, 85/1999ND-CP dated August 28, 1999, 163/1999/ND-CP dated November 16, 1999 and 181/2004/ND-CP dated October 29, 2004.

Other support

Article 28

- Households and individuals who hand over their land within the allotted time period will receive the following bonuses for the early recovery of their land:
  - Annual or perennial crops, aquaculture or forest land allotted for 50 years: 2,000 VND/m^2
  - Forest land or land on which perennial crops are grown, which is managed by the government and worked on by individuals: 1,000 VND/m^2
  - Residential land: 20,000 VND/m^2
  - Handover due to resettlement: 2,000,000 VND/household
- Households eligible for social support measures or preferential treatment will receive support as follows:
  - Revolutionary activists prior to 1945, heroes of the People's Army, family of war dead, wounded soldiers, people regarded as wounded soldiers or disabled soldiers who have lost 81% of working capacity, etc.: 7,000,000 VND/head of household
  - Wounded soldiers, disabled soldiers, people regarded as wounded soldiers, and disabled soldiers who have lost 61% to 81% of working capacity: 6,000,000 VND/head of household
  - Wounded soldiers, disabled soldiers, people regarded as wounded soldiers, and disabled soldiers who have lost 41% to 61% of working capacity: 5,000,000 VND/head of household
  - Families of war dead, eligible beneficiaries of monthly subsidiary aid for their achievements in the revolution, and disabled soldiers who have lost 21% to 41% of working capacity: 4,000,000 VND/head of household
  - Other households receiving subsidiary aid from the government: 3,000,000 VND/head of household

  If multiple people in a single household are eligible for the aforementioned support, the only type of support applied will be the support worth the highest value.
- Under Decision No. 36/2012/QD-UBND dated October 23, 2012 on "Supplements and Revisions to Decision No. 18/2011/QD-UBND", people who hand over their agricultural land within 20 days of receiving compensation money, and people who hand over their residential land within 60 days of receiving compensation money are eligible for an early handover bonus determined for each project by decision of Provincial PC.

Below is analysis of the differences between JICA guidelines for resettlement and the Vietnamese legal system based on the results of this study. Items for which no differences exist are those where the resettlement guidelines for the Project were confirmed to comply with the Vietnamese legal system. Items for which differences do exist are those where the resettlement guidelines for the Project were confirmed to be in line with JICA resettlement policies.

Table 10-30: JICA Guidelines for Resettlement and the Vietnamese Legal System

	JICA Guidelines	Vietnamese Legal System	Difference between Guidelines and Legal System	Project Land Acquisition and Resettlement Policy	Evaluation of Project Resettlement Policy
1	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA GL)	Land recovery rights for building industrial zones are granted by the government, and when such recovery involves resettlement, new land will be distributed, and financial compensation and support for career changes provided in accordance with Land Law 2003, Article 42, Decree No. 197/2004/ND-CP, Decree No. 84/2007/ND-CP and Circular No. 14/2009/TT-BTNMT. (Land Law 2003, Articles 38 and 40)	Land acquisition rights are granted by the government, and there are no provisions for an alternative plan or requiring avoidance of resulting resettlement.	・The 41 households subject to resettlement have already agreed to the details of their compensation. Alternative plans have not been considered. However all eligible households agreed to the compensation, and measures including preferential hiring in the industrial park have been taken.	All eligible households agreed to the compensation subject to land acquisition. Actions has been taken to secure future means of livelihood by preferential treatment in employment at industrial parks. Given that land acquisition and compensation has been agreed, it deems unnecessary for further measures.
2	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA GL)	(Copied) When resettlement is involved, new land will be distributed, and financial compensation and support for career changes provided in accordance with Land Law 2003, Article 42, Decree No. 197/2004/ND-CP, Decree No. 84/2007/ND-CP and Circular No. 14/2009/TT-BTNMT. *(Land Law 2003, Articles 38 and 40)*	None (Land acquisition rights are granted by the government, and there are no provisions requiring avoidance of resulting resettlement. However, there are laws and regulations that aim to minimize the impact of land acquisition through measures such as granting equivalent land as the land acquired and providing financial compensation.)	Residents subject to resettlement are granted new housing in the area to which they resettle, and compensation for any lost assets (land, trees, livestock, etc.) determined upon deliberation with the residents, and will be given necessary support for a career change or employment. (Although residents subject to resettlement have already agreed on the areas to which they will resettle, the infrastructure construction at the resettlement site is behind schedule, and resettlement has been delayed as of September 2014.)	There are no resident subject for resettlement on the Project site. Land acquisition and compensation amount has been agreed and completed as of September 8th, 2014. Given there are no resident subject for resettlement, it deems unnecessary for further measures.
3	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels. (JICA GL)	The land to which residents will resettle must be as developed as or more developed than the land being acquired. If land to which residents will resettle cannot be prepared, financial compensation must be provided and residents must be granted preferential rights to purchase housing or residences. When the value of land granted as compensation is less than the land being acquired, the difference must be provided as financial compensation. Note that if the land to be acquired is used by residents for manufacturing activities, and they are not granted land at the place to which they will resettle with which to continue those activities, those residents may receive support for stabilizing their livelihoods in the form of preparing new jobs or training for changing careers, in addition to financial compensation. *(Land Law 2003, Article 42)*	None	・The land for resettlement will be provided after infrastructure construction. Therefore, the land for resettlement is believed to worth more than the acquired land. (In fact, resident subject to resettlement are wishing to move early to the land of resettlement.) ・For residents subject for compensation, a compensation amount calculated based on unit prices set by provincial PC as well as support for career changes and job seeking and early handover bonuses in amounts set by provincial PC have been paid for both land as well as crops and trees lost to the acquisition. ・Those eligible for compensation have been promised preferential hiring at industrial parks throughout Vin Phuc Province.	As above
4	Compensation must be based on the full replacement cost as much as possible. (JICA GL)	Same as above	If full replacement cannot be compensated, compensation for reacquisition may possibly be uncovered.	Same as above	If financial guarantees are given, it is required to confirm that the compensation accounts for the cost of reacquisition. The amount of compensation for the Project must be calculated based on the

	JICA Guidelines	Vietnamese Legal System	Difference between Guidelines and Legal System	Project Land Acquisition and Resettlement Policy	Evaluation of Project Resettlement Policy
					compensation rate defined by the Vinh Phuc Province. These compensation rate has been confirmed with the local administration and real-estate, that the prices are of reasonable level for trade deals of farm lands. Given there has been no complaints concerning the amount of compensation, it deems unnecessary for further measures.
5	Compensation and other kinds of assistance must be provided prior to displacement. (JICA GL)	Compensation in the form of land of equal value to the land to be acquired or money equal to use fees and lease fees for that land must be provided prior to recovery to people impacted by resettlement or loss of means of livelihood. *(Land Law of 2003, Article 42)*	None	Same as above	Given that compensation subject to land acquisition for the Project has already been paid, it deems unnecessary for further correspondence.
6	For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. (JICA GL)	Plans for compensation, support and resettlement due to land recovery are considered part of investment projects, and investors must cooperate with the Compensation and Land Acquisition Committee to create those plans, which must be approved by government organizations or PC. *(Circular No. 14/2009/TT-BTNMT, Article 20)* Organizations ordered by provincial PC to implement resettlement must inform all households subject to land recovery of the contents of provisional resettlement plans and officially announce and publicly discuss those contents with commune PC. *(Decree No. 197/2004/ND-CP, Article 34)*	Provisional resettlement plans must be created and publicized regardless of the scale of the resettlement.	・The Compensation and Land Acquisition Committee created phased compensation plans and publicized them throughout the target area. ・Upon deliberation with the eligible residents, Vina CPK will proceed with land acquisition and resettlement of residents based on the Vietnamese law.	Given there are no resident subject for resettlement on the Project, and that the publicized compensation plan has not received any complaints, and that land acquisition and compensation has been agreed and completed as of September 8th, 2014, it deems unnecessary for further measures
7	In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. (JICA GL)	Organizations ordered by provincial PC to implement resettlement must inform all households subject to land recovery of the contents of provisional resettlement plans and officially announce and publicly discuss those contents with commune PC. *(Decree No. 197/2004/ND-CP, Article 34)*	None	Same as above	Same as above
8	When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. (JICA GL)	Organizations ordered by provincial PC to implement resettlement must inform all households subject to land recovery of the contents of provisional resettlement plans and officially announce and publicly discuss those contents with commune PC. (Decree No. 197/2004/ND-CP, Article 34)	There are no provisions related to language.	・Sufficient information was publicized in advance of resettlement, and discussions based on this information were held with afflicted people and communities. Even though the language used in these discussions was the local language, there were no problems. ・Discussions are held in Vietnamese, the official language that people impacted by the Project understand, and explanations are made in Vietnamese.	Given that the discussions are held in Vietnamese, which is the official language of the area, it deems unnecessary for further measures.
9	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (JICA GL)	Organizations ordered by provincial PC to implement resettlement must inform all households subject to land recovery of the contents of provisional resettlement plans and officially announce and publicly discuss those contents with commune PC. (Decree No. 197/2004/ND-CP, Article 34) Grievances from residents after resettlement has been implemented	Publication and discussion of the contents of provisional resettlement plans are required. However, there are no provisions encouraging the participation of residents in the implementation or monitoring	・The location to which residents will resettle was determined after studying and holding discussions about the resettlement desires of residents subject to resettlement. ・Residents subject to resettlement were surveyed before selecting the location to which they will resettle.	Given there are no resident subject for resettlement on the Project, and that land acquisition and compensation has been agreed and completed as of September 8th, 2014, it deems

	JICA Guidelines	Vietnamese Legal System	Difference between Guidelines and Legal System	Project Land Acquisition and Resettlement Policy	Evaluation of Project Resettlement Policy
		must be handled in accordance with Land Law 2003, Article 138 and Decree No. 181/2004/ND-CP, Articles 162-164. (Decree No. 197/2004/ND-CP, Article 49)	of the plans.	・Based on the results of the survey, a location three kilometers away from the land to be acquired was selected as the place to which residents will resettle (currently in the same province, district and commune). ・After resettlement, PC at the location of resettlement will manage and take responsibility of conducting the monitoring.	unnecessary for further measures
10	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. (JICA GL)	Grievances from residents after resettlement has been implemented must be handled in accordance with Land Law 2003, Article 138 and Decree No. 181/2004/ND-CP, Articles 162-164. (Decree No. 197/2004/ND-CP, Article 49) The same law allows relevant entities to submit grievances to the People's Committee within 30 days of the announcement of the decision to acquire land. The People's Committee must decide how to handle the grievance and report its decision to the aggrieved party and publicize it. If dissatisfied with the committee's decision, the aggrieved party may file suit with the People's Court or submit the grievance to the provincial People's Committee within 45 days. (Decree No. 181/2004/ND-CP, Articles 162-164)	None	・The Binh Xuyen People's Committee and Vina CPK (the project manager) will cooperate and appropriately handle any dissatisfaction or requests submitted after resettlement. (according to an interview with Vina CPK on March 5, 2014)	Same as above
11	Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits. (WB OP4.12 Para.6)	DONRE or a land-use rights registry office designated by DONRE must use investment project approval documents prepared by provinces or District PC or land recovery guidelines to create a cadastral dossier for the target land to be acquired, and must send that dossier to the organizations that acquire the land and provide compensation. The cadastral dossier will include the names of those with use rights, sizes of the land, uses of the land, etc. (Decree No. 84/2007/ND-CP, Article 50)	After the investment project is approved, DONRE or a land-use rights registry office designated by DONRE creates a cadastral dossier for the target land to be acquired.	・Compensation was provided in accordance with the registered cadastral dossier. (according to an interview with Vina CPK on March 5, 2014)	Given there has been no complaints on compensation, and the amount of compensation has been agreed and completed as of September 8th, 2014, it deems unnecessary for further measures.
12	Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying. (WB OP4.12 Para.15)	People from whom land is acquired by the government may receive compensation if they fulfill all conditions set forth in Article 8 of Decree No. 197/2004/ND-CP. People unable to satisfy all conditions must be granted support after examination by provincial PC. (Decree No. 197/2004/ND-CP, Article 6) People with certificates granting land-use rights under Article 42 of Land Law 2003 for land targeted for recovery, and people who satisfy the conditions for certification under Article 50 of the same law are eligible for compensation, except in the following cases. ・Organizations allotted land-use rights at no charge ・Organizations whose land-use rights fees were paid from the government budget ・Organizations that leased land from the government but dissolved, failed or relocated, and organizations that no longer need the land ・When the land is not being used effectively, or when the land is being used improperly ・When the user has intentionally destroyed the land ・When the land was allotted erroneously ・When the land is being used illegally ・When the entity holding use rights voluntarily returns the land	Out of those people afflicted by land acquisition, the law does not set any compensation for those that do not have proper legal Land-use rights	・Compensation is only for those with legal Land-use rights, however will provide utmost care for the others as well. (according to an interview with Vina CPK on September 17th, 2014)	Given there are no resident subject for resettlement on the Project, and that land acquisition and compensation has been agreed and completed as of September 8th, 2014, it deems unnecessary for further measures.

	JICA Guidelines	Vietnamese Legal System	Difference between Guidelines and Legal System	Project Land Acquisition and Resettlement Policy	Evaluation of Project Resettlement Policy
		・When the entity holding use rights is not fulfilling its obligations to the government ・When the period of use rights has expired and has not been renewed ・Arable land that has not been used for a set period of time ・Land that was allotted for implementing an investment project when project implementation is delayed for a set period of time without permission from the government ・Forest land that is protected or designated for special use ・Agricultural land used by a community ・Land leased from the government (Land Law, Article 42, Paragraphs 1-3) **Supplements** Land in Vietnam is common property of Vietnamese citizens, and the right to use it is allocated or leased under government management for a fee (land-use fee) or at no charge to individuals and organizations who require it. Land users eligible for compensation must be compensated through the new allotment of land equivalent to the land targeted for acquisition. If such a new allotment cannot be made, land users eligible for compensation must be compensated through the payment of an amount of money equivalent to land use fees. Compensation and resettlement must be implemented by PC prior to land acquisition, and the areas to which residents will resettle must be equivalent to or more developed than their original residences. When areas to which residents will resettle cannot be prepared, financial compensation must be provided, and residents must be granted preferential rights to purchase housing or residences. When the value of land granted as compensation is less than the land being acquired, the difference must be provided as financial compensation. (Land Law, Article 42, Paragraphs 1-3)			
13	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. (WB OP4.12 Para.11)	The land to which residents will resettle must be equivalent to or more developed than their original residences. When areas to which residents will resettle cannot be prepared, financial compensation must be provided, and residents must be granted preferential rights to purchase housing or residences. When the value of land granted as compensation is less than that of the land being acquired, the difference must be provided as financial compensation. Note that if the land to be acquired is used by residents for manufacturing activities, and they are not granted land at the place to which they will resettle with which to continue those activities, those residents may receive support for stabilizing their lives in the form of preparing new jobs or training for changing careers, in addition to financial compensation. (Land Law 2003, Article 42)	None	・All households that required resettlement were agricultural employees and have been paid compensation money for career changes because they are not able to engage in agricultural work in the new location. The total compensation for rent for the land where they currently reside (the resettlement area) and for career changes is three times the rent for land. ・Companies moving into the industrial park will hire resettled people preferentially. ・ Residents who received compensation money are sending their sons to vocational training schools, starting new businesses, buying new cars and saving money in banks. (according to an interview with Vina CPK on March 5, 2014)	Same as above
14	Provide support for the transition period (between displacement and livelihood restoration). (WB OP4.12 Para.6)	If the land to be acquired is used by residents for manufacturing activities, and they are not granted land at the place to which they will resettle with which to continue those activities, those residents may receive support for stabilizing their livelihoods in the form of preparing new jobs or training for changing careers, in addition to financial compensation. (Land Law 2003, Article 42)	None	・ Upon deliberation with the eligible residents, Vina CPK will proceed with land acquisition and resettlement of residents based on the Vietnamese law.	Same as above

	JICA Guidelines	Vietnamese Legal System	Difference between Guidelines and Legal System	Project Land Acquisition and Resettlement Policy	Evaluation of Project Resettlement Policy
		In addition, resettlement support is provided in accordance with Decree No. 197/2004/ND-CP Articles 17-23 and Circular No. 14/2009/TT-BTNMT Articles 14-17.			
15	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc. (WB OP4.12 Para.8)	Article 28 of Decision No. 18/2011/QD-UBND on “Compensation, Support and Resettlement when Land is Recovered in Vinh Phuc Province” defines support for households eligible for social support measures or preferential treatment.	None	・Upon deliberation with the eligible residents, Vina CPK will proceed with land acquisition and resettlement of residents based on the Vietnamese law Also, social support measures will be provided in accordance to the Vietnamese law prepared separately.	Same as above
16	For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared. (WB OP4.12 Para.25)	The provision contains nothing related to resettlement.	There are no provisions for drafting resettlement plans based on the scale of the resettlement.	Although Resettlement plans has not been drafted, Vina CPK will carefully deliberate the desires of the eligible residents and proceed with land acquisition and resettlement based on the Vietnamese law.	Same as above

(Reference): JICA Policies on Resettlement

The key principle of JICA policies on involuntary resettlement is summarized below.

I. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (非自発的住民移転及び生計手段の喪失は、あらゆる方法を検討して回避に努めねばならない。)

II. When, population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken. (このような検討を経ても回避が可能でない場合には、影響を最小化し、損失を補償するために、実効性ある対策が講じられなければならない。)

III. People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.(移転住民には、移転前の生活水準や収入機会、生産水準において改善又は少なくとも回復できるような補償・支援を提供する。)

IV. Compensation must be based on the full replacement cost[20] as much as possible. (補償は可能な限り再取得費用に基づかなければならない。)

V. Compensation and other kinds of assistance must be provided prior to displacement. (補償やその他の支援は、物理的移転の前に提供されなければならない。)

VI. For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. It is desirable that the resettlement action plan include elements laid out in the World Bank Safeguard Policy, OP 4.12, Annex A. (大規模非自発的住民移転が発生するプロジェクトの場合には、住民移転計画が、作成、公開されていなければならない。住民移転計画には、世界銀行のセーフガードポリシーの OP4.12 Annex A に規定される内容が含まれることが望ましい。)

VII. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. (住民移転計画の作成に当たり、事前に十分な情報が公開された上で、これに基づく影響を受ける人々やコミュニティとの協議が行われていなければならない。協議に際しては、影響を受ける人々が理解できる言語と様式による説明が行われていなければならない。)

VIII. Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (非自発的住民移転及び生計手段の喪失にかかる対策の立案、実施、モニタリングには、影響を受ける人々やコミュニティの適切な参加が促進されていなければならない。)

IX. Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. (影響を受ける人々やコミュニティからの苦情に対する処理メカニズムが整備されていなければならない。)

Above principles are complemented by World Bank OP 4.12, since it is stated in JICA Guideline that "JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies". Additional key principle based on World Bank OP 4.12 is as follows. (また、JICA ガイドラインには、「JICA は、環境社会配慮等に関し、プロジェクトが世界銀行のセーフガードポリシーと大きな乖

[20] Description of "replacement cost" is as follows.

Land	Agricultural Land	The pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
	Land in Urban Areas	The pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.
Structure	Houses and Other Structures	The market cost of the materials to build a replacement structure with an area and quality similar or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.

離がないことを確認する。」と記載されていることから、上記の原則は、世界銀行 P 4.12 によって補完される。世銀 OP 4.12 に基づき追加すべき主な原則は以下のとおりである。)

X. Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits. (被影響住民は、補償や支援の受給権を確立するため、初期ベースライン調査(人口センサス、資産・財産調査、社会経済調査を含む)を通じて特定・記録される。これは、補償や支援等の利益を求めて不当に人々が流入することを防ぐため、可能な限り事業の初期段階で行われることが望ましい。)

XI. Eligibility of Benefits include, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying. (補償や支援の受給権者は、土地に対する法的権利を有するもの、土地に対する法的権利を有していないが、権利を請求すれば、当該国の法制度に基づき権利が認められるもの、占有している土地の法的権利及び請求権を確認できないものとする。)

XII. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.(移転住民の生計が土地に根差している場合は、土地に基づく移転戦略を優先させる)

XIII. Provide support for the transition period (between displacement and livelihood restoration.(移行期間の支援を提供する)

XIV. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc. (移転住民のうち社会的な弱者、得に貧困層や土地なし住民、老人、女性、子ども、先住民族、少数民族については、特段の配慮を行う。)

XV. For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared.(200 人未満の住民移転または用地取得を伴う案件については、移転計画(要約版)を作成する。)

In addition to the above core principles on the JICA policy, it also laid emphasis on a detailed resettlement policy inclusive of all the above points; project specific resettlement plan; institutional framework for implementation; monitoring and evaluation mechanism; time schedule for implementation; and, detailed Financial Plan etc. (上記の主要原則に加え、各事業の住民移転計画、実施体制、モニタリング・評価メカニズム、スケジュール、詳細な資金計画も必要である。)

(3) Requirements for Receiving Compensation for Lost Assets and Support for Restructuring Livelihoods

In this process, the Binh Xuyen District People's Committee issued a written approval of the compensation plan, and within the following 10 days the Compensation and Land Acquisition Committee paid compensation money to each household and provided support for displacement of residents. The date the written approval was issued was the cutoff date; the influx of new residents past the cutoff date was prohibited. Eligible beneficiaries of compensation for lost assets and support for restructuring livelihoods were those with legal rights to land prior to the cutoff date, specifically those ownership rights and land-use rights.

Table 10-31: Requirements for Receiving Compensation for Lost Assets and Support for Restructuring Livelihoods

Type	Requirements for the Project
Compensation for lost assets	Vina CPK paid compensation money in accordance with compensation rate defined by Vinh Phuc Province. The compensation rate applied for the Project are as follows. ・ Table 2 (Trees) and Table 3 (Graveyards) from Decision No. 18/2011/QD-UBND dated April 20, 2011 on "Compensation, Support and Resettlement when Land is Recovered in Vinh Phuc Province". ・ Land values in Binh Xuyen District from Decision No. 55/2012/QD-UBND dated December 28, 2012 on "2013 Decisions Regarding Land Value in Vinh Phuc Province". ・Compensation was provided in phases, and by April 2014 at least 13 written approvals of compensation plans were issued. The specific cutoff dates for each are as shown below. The compensation amounts for land acquired for the Project have been approved by the following written decisions from the Binh Xuyen District People's Committee. □ 4215/QD-UBND dated December 24, 2010 on "Approval of Compensation Plan for Thien Ke and Trung My Communes" □ 4518/QD-UBND dated December 30, 2010 on "Approval of Compensation Plan for Thien Ke Commune" □ 2647/QD-UBND dated May 10, 2011 on "Approval of Compensation Plan for Thien Ke Commune" □ 2995/QD-UBND dated May 30, 2011 on "Approval of Compensation Plan for Thien Ke, Ba Hien and Trung My Communes" □ Decision No. 3282/QD-UBND dated June 17, 2011 on "Approval of Compensation Plan for Thien Ke and Trung My Communes" □ 4533/QD-UBND dated September 1, 2011 on "Approval of Compensation Plan for Thien Ke and Ba Hien Communes" □ 1985/QD-UBND dated May 24, 2012 on "Approval of Compensation Plan for Thien Ke Commune (Ngu Ho Village)" □ 3761/QD-UBND dated September 21, 2012 on "Approval of Compensation Plan for Thien Ke Commune (Ngu Ho Village)" □4171/QD-UBND dated November 15, 2012 on "Approval of Compensation Plan for Thien Ke, Ba Hien and Trung My Communes" □ 4480/QD-UBND dated December 21, 2012 on "Approval of Compensation Plan for Thien Ke Commune" □ 1172/QD-UBND dated April 10, 2013 on "Approval of Compensation Plan for Thien Ke, Ba Hien and Trung My Communes" □ 2400/QD-UBND dated July 19, 2013 on "Approval of Compensation Plan for Thien Ke Commune" □1024/QD-UBND dated April 22, 2014 on "Approval of Compensation Plan for Thien Ke Commune"
Requirements for receiving support for rebuilding livelihoods	・People subject to land acquisition will be hired preferentially at industrial parks throughout Vinh Phuc Province. ・People engaged in agricultural work on land to be acquired and who have ownership rights or land-use rights for that land are eligible to receive support for rebuilding livelihoods. The following compensation money has been paid for the Project. →Vocational training: Land value x 2 →Livelihood rebuilding: Average 15,000 VND/m^2 ・The cutoff date is the day on which the written approval of compensation plans for lost assets is issued.

(4) Actual Compensation for Lost Assets

Compensation for lost assets was calculated based on compensation rate issued by Vinh Phuc Province on January 1 each year. These compensation rate has been confirmed with the local administration and real-estate agency, that the prices are of reasonable level for trade deals of farm lands. Given there has been no complaints on the compensation, it appears that the compensation was accounted for reacquisition based on actual transactions and replacement cost.

Compensation rate used as references in the Project were set by law in accordance with the following written decisions:

Decision No. 55/2012/QD-UBND dated December 28, 2012 (2013 Land Values in Binh Xuyen District)

Decision No. 18/2011/QD-UBND dated April 20, 2011 (2013 Compensation Rate for Trees in Binh Xuyen District)

Land values for 2014 (Decision No. 42/2013/QD-UBND) were announced on December 31, 2013; however, these are currently subject to revision, and land values from the previous year is used to determine compensation rate. If land values for 2014 exceed those for 2013, additional measures required to accurately reflect the price of reacquiring lost assets, such as providing additional compensation to serve as a financial adjustment, can be undertaken at a later date.

Compensation money has been paid in accordance with provincial regulations for land acquisition and the relocation of graves. The Binh Xuyen District People's Committee established the Compensation and Land Acquisition Committee to handle payment of compensation money. Project manager Vina CPK pays all compensation costs.

As of September 2014, compensation for lost assets on Project Site for rental factories is complete.

(5) Actual Support for Rebuilding Livelihoods

Based on the findings of needs for a livelihood reestablishment measures, measures to help beneficiaries to improve or at least restore their household finances and standard of living prior to the resettlement has been implemented. The result indicates that the standard of living for residents has improved since their land was acquired. One example of measures for rebuilding livelihoods is measures taken to provide financial support for vocational training and preferential hiring in industrial parks throughout Vinh Phuc Province for residents who engaged in agricultural work prior to land acquisition but became unable to do so after the acquisition.

1) Measures for Restructuring Livelihoods

・People who made livelihoods from land targeted for acquisition received compensation money to cover the expense of vocational training and have been promised preferential hiring at industrial parks throughout Vinh Phuc Province.

・Although the Vietnamese legal system normally calls for compensation of equivalent land to substitute for land targeted for acquisition, there were not enough equivalent land in the region desired by eligible beneficiaries for the Project, and eligible beneficiaries preferred to receive

financial compensation. Thus, compensation amounts were calculated based on the compensation rate annually set by Vinh Phuc Province for each district according to the land use, and were paid to eligible beneficiaries.

・The total compensation amount for land and vocational training reached the equivalent of around three times the compensation rate of each land use. The total compensation amount for the Project Site was approximately 20.7 billion VND (payment to PC included).

Below is a detailed entitlement matrix based on the information above.

Table 10-32: Entitlement Matrix

No.	Type of Loss	Eligible Beneficiaries	Compensation Details	Standards and Guidelines	Responsible Organization
1.	Graves	Owners	Land, excavation, exhumation, relocation, restructuring and other related expenses	Decision No. 18/2011/QD-UBND	Vinh Phuc Province People's Committee
2.	Annual crops	"	Yieldability of harvests (derived from the average price at the time of land acquisition of the maximum yieldability of main crops over the past three years)	"	"
3.	Trees planted from the government budget, natural forests	Forestry employees	Amount equivalent to damage	"	"
4.	Agricultural crops, livestock and marine products (excluding those whose harvest seasons come prior to the land acquisition)	Owners	Financial compensation for losses resulting from early harvesting, and for the cost and relocation and damage caused by relocation for items that can be relocated	"	"
5.	Land for agricultural production or aquaculture	Households and individuals allotted agricultural land by decree* and other agricultural employees who satisfied the conditions of Decision No. 18/2011/QD-UBND	15,000 VND/m^2 *There is a maximum eligible land area	"	"

No.	Type of Loss	Eligible Beneficiaries	Compensation Details	Standards and Guidelines	Responsible Organization
6.	Forest land	"	1,500 VND/m^2 *Maximum of 30 ha	"	"
7.	Suspension of manufacturing or operations due to land acquisition	Organizations, households and individuals who must suspend manufacturing or operations due to land acquisition	20% of average post-tax income over the past three years	"	"
8.	Suspension of manufacturing or operations due to land acquisition	People who, prior to becoming SLLC, engaged in agricultural, forestry or aquaculture work on target land	Annual crops with lease contract of three or more years: 30% of rent for land Perennial crops or forestry work with lease contract of three or more years: 30% of rent for land Annual or perennial crops, or forestry work with lease contract of less than three years: 30% of rent for land * There is a maximum eligible land area	"	"
9.	Loss of employment	Households and individuals allotted agricultural land by decree* and other agricultural employees who satisfied the conditions of Decision No. 18/2011/QD-UBND	Double the value of the agricultural land or forest land acquired * There is a maximum eligible land area	"	"
10.	Annual or perennial crops, aquaculture or forest land allotted for 50 years	Households and individuals who hand over their land within the allotted time period	2,000 VND/m^2	"	"
11.	Forest land or land on which perennial crops	"	1,000 VND/m^2	"	"

No.	Type of Loss	Eligible Beneficiaries	Compensation Details	Standards and Guidelines	Responsible Organization
	are grown, which is managed by the government and worked on by individuals				
12.	Livelihood stability for wounded soldiers, etc.	People subject to land acquisition, and people eligible for social support measures or preferential treatment	・Revolutionary activists prior to 1945, heroes of the People's Army, family of war dead, wounded soldiers, people regarded as wounded soldiers or disabled soldiers who have lost 81% of working capacity, etc.: 7,000,000 VND/head of household ・Wounded soldiers, disabled soldiers, people regarded as wounded soldiers, and disabled soldiers who have lost 61% to 81% of working capacity: 6,000,000 VND/head of household ・Wounded soldiers, disabled soldiers, people regarded as wounded soldiers, and disabled soldiers who have lost 41% to 61% of working capacity: 5,000,000 VND/head of household ・Families of war dead, eligible beneficiaries of monthly subsidiary aid for their achievements in the revolution, and disabled soldiers who have lost 21% to 41% of working capacity: 4,000,000 VND/head of household ・Other households receiving subsidiary aid from the government: 3,000,000 VND/head of household If multiple conditions are met within a single household, only the compensation amount worth the highest value will be applied. ※ Presence of relevant losses at the Project site could not be confirmed.	"	"

*64/CP dated September 27, 1993, 02/CP dated January 15, 1994, 85/1999/ND-CP dated August 28, 1999, 163/1999/ND-CP dated November 16, 1999, 181/2004/ND-CP dated October 29, 2004

(6) Considerations for the Vulnerable Groups

Considerations for the vulnerable groups of society who require special support are not measures for resettlement but are the same as measures to consider these groups based on general laws and regulations. These laws and regulations provide for general preferential treatments for impoverished people, elderly people, people with disabilities, indigenous people and minority people. However, there is no systematic compensation for resettlement for these people. Vina CPK is providing compensation that considers the circumstances of the vulnerable groups to the extent possible on a case-by-case basis. As of October 2014,

no grievances regarding considerations for these groups have been submitted, which could suggest that it is not likely for situations that cause substantial problems to occur.

(7) Process for Handling Grievances and Implementation Status of those Processes

・Overview of Mechanisms for Handling Grievances

Existing administrative procedures and the judiciary system are the main mechanisms for handling grievances. Currently grievances pass in order from communes to districts, provinces and finally the central government. If a grievance filed by a resident is resolved at the commune level, the procedure ends there. The entity responsible for handling grievances differs depending on the nature of the grievance.

The district People's Committee and project manager Vina CPK will cooperate to handle grievances related to the Ba Thien 2 Industrial Park development project.

Table 10-33: Mechanisms for Handling Grievances

Overview	
Members of the organization responsible for handling grievances	In accordance with existing administrative procedures and the judiciary system, PC handle grievances.
Grievance handling procedure	It is possible to petition commune and district PC for arbitration, and it is also possible to file grievances with regional People's Courts.
Do any trustworthy arbitration organizations (independent from the judiciary system) or procedures exist on target Project land?	In accordance with existing administrative procedures and the judiciary system, they are not independent from the judiciary system.
Do they follow traditional conflict resolution mechanisms?	They do not follow traditional conflict resolution mechanisms.
Ease of filing grievances	
Is it possible to file grievances verbally?	In principle, grievances are filed in writing; however, for the Project the district People's Committee or Vina CPK can intervene.
Is it possible to file grievances in the local language?	It is possible to file grievances in the local language.
Convenience	
Is access easy?	Commune PC are located in the communes; thus, they are easily accessible.
Are there any fees for filing grievances?	Required fees are waived when afflicted residents file grievances.
Trustworthiness	
Are resident representatives, NGOs or legal expert members of the organizations responsible for handling grievances?	PC exist to represent residents. If residents are dissatisfied with the results of commune People's Committee arbitration, the Compensation and Land Acquisition Committee submits proposed resolutions to the People's Committee.
Are the results of grievance examinations publicized and highly transparent?	The process following the Compensation and Land Acquisition Committee's submission of proposed resolutions is recorded, stored, managed and publicized.

・Status of Grievance Handling

Land acquisition and compensation for land acquisition has been implemented as agreed to by residents subject to land acquisition, and no grievances have been filed (according to an interview with Vina CPK).

(8) Resettlement Responsibilities and the Organizations Responsible for them

The Project zone for Ba Thien 2 Industrial Park is located within Binh Xuyen District, thus the Binh Xuyen District Compensation and Land Acquisition Committee will provide compensation related to Ba Thien 2 Industrial Park. The committee will create a list of the areas of land targeted for acquisition and assets eligible for compensation, and calculate compensation amounts based on standard prices for each district issued by Vinh Phuc Province on January 1 each year. Then the Binh Xuyen District Natural Environment Office will approve these compensation amounts.

Currently neither consultants nor NGOs are directly involved in the resettlement. The resettlement is progressing smoothly and there does not seem to be any need for additional consulting services or support for environmental or social considerations in the implementation phase.

Table 10-34: Organization of Institutions Responsible for Resettlement

<table>
<tr><td>Numbers of employees and their roles</td><td>Binh Xuyen District Natural Environment Office
1 director
3 deputy directors (one each in charge of environment, land and certification)
2 Environment Division staff members
4 Land Division staff members
8 Certification Division staff members
(Total of 18 people)</td></tr>
<tr><td>Coordination of relevant organizations</td><td>PC and the Natural Environment Office will meet with the Compensation and Land Acquisition Committee and Vina CPK in an effort to resolve problems.
<table>
<tr><th></th><th>Organizations</th><th>Responsibilities</th></tr>
<tr><td>The Compensation and Land Acquisition Committee</td><td>Calculate compensation amounts for land targeted for acquisition and present them to the Natural Environment Office.</td><td>Calculation. The Natural Environment Office has the authority to approve compensation amounts.</td></tr>
<tr><td>Vina CPK (project manager)</td><td>The project management company operating under a private investment company, assists with gathering and providing information as needed.</td><td>Practical support for providing compensation, nevertheless, basically a land purchaser with no authority.</td></tr>
</table></td></tr>
</table>

(9) Implementation Schedule

Compensation payment for assets lost on Project implementation land was completed in September 2014. Below is the schedule to date.

Table 10-35: Payment Schedule for Compensation for Lost Assets

(1)	Binh Xuyen District People's Committee establishes the Compensation and Land Acquisition Committee
(2)	The Compensation and Land Acquisition Committee visits each household subject to resettlement and creates lists of assets
(3)	The Compensation and Land Acquisition Committee estimates values of assets and compensation amounts for each asset
(4)	Binh Xuyen District Natural Environment Office approves compensation amounts
(5)	The Compensation and Land Acquisition Committee notifies compensation amounts to each household subject to settlement after the Natural Environment Office approved that
(6)	When residents accept, agreements formed with resident signatures

(10) Expenses and Finances

Vina CPK has already paid "compensation money" for lost assets, "support needed for physical resettlement (moving allowances, etc.)" and expenses for restructuring livelihoods in the course of acquiring land. As the project manager, Vina CPK is responsible for the cost of compensation for land acquisition. The total cost of compensation for the acquisition of Project Site (38.4342 ha, 12.4% of the total industrial park area of 308.83 ha) was 20.7 billion VND, which is equivalent to 14% of the budget for compensation for all of Ba Thien 2 Industrial Park (148.1 billion VND).

Below is a breakdown of the total compensation amount for acquisition of Project Site.

Table 10-36: Cost of Compensation

Expense item	Amount (VND)
Compensation for land (38.4342 ha)	6,977,827,040
Bonuses for early handover of land	497,875,850
Assets (trees, crops)	5,663,356,115
Other assets (livestock, etc.)	863,775,330
Vocational training	6,730,498,000
Other	14,746,229
Total	20,748,078,535

(11) Implementing Organization Monitoring System and its Implementation Status

A monitoring framework (monitoring and reporting procedures, system for reporting results, independent oversight, a framework for encouraging residents subject to land acquisition to participate in the monitoring process, monitoring of the implementation status of various types of livelihood support, methods for monitoring the results of land acquisition and compensation projects, methods for assessing the impact of land acquisition, methods for using monitoring results, etc.), monitoring plans and

monitoring form for land acquisition will be examined in the near future. Monitoring organizations are as follows.

Table 10-37: Monitoring Organizations

Monitoring Organization	Overview
Binh Xuyen District People's Committee	Prior to land acquisition, the Binh Xuyen District Compensation and Land Acquisition Committee conducts a survey of residents subject to resettlement regarding their desires for replacement land and compensation details, discusses these matters with them and then determines replacement land and compensation details. For the Project, the committee decided to provide financial compensation due to the lack of replacement land and the desires of residents subject to resettlement.
Ministry of Labour, Invalids and Social Affairs, Bureau of Labour, Heath, and Social Welfare	The Bureau of Labour, Health, and Social Welfare of the Ministry of Labour, Invalids and Social Affairs monitor employment circumstances throughout the province in order to fully understand the condition of livelihood restructuring.
Vinh Phuc Province	Job fairs for residents of the province are held twice per month to promote employment and restructuring of livelihoods.
Vina CPK	Monitor the lives of those afflicted by the Project through complaints, and if there are any problems with rebuilding their livelihood, prompt an official for a consultation.

(12) Results of Discussing Initial Design and Alternative Plans for Livelihood Restructuring Measures with Residents

Initial design and livelihood restructuring measures were discussed with residents from the initial phase, and as a result no grievances have been filed as of September 2014. The method of discussions with residents was the same as the method summarized in Section 10.1.2 (9) Discussions with stakeholders.

(13) Results of Relevant Studies Implemented during the Study for Verifying the Implementation Status of Involuntary Land Acquisition

As described in the previous items, the results of the study for verifying the implementation status of involuntary land acquisition have confirmed that procedures for land acquisition are progressing appropriately.

(14) Tracking Study of Current Livelihoods of Residents Afflicted by Past Land Acquisitions

Acquisition of Project Site was complete as of September 2014, and residents will be displaced from the entire industrial park in the near future. The province and Vina CPK are responsible for appropriately handling any grievances that arise.

Note that a specific study of "livelihoods of residents afflicted by the land acquisition" from the Project has not been planned. However, that the content will be covered by studies of employment status in the province conducted by the Bureau of Labour, Health, and Social Welfare.

10.2.2 Divergence between Study for Verifying the Implementation Status of Involuntary Land Acquisition and JICA Environmental Guidelines

(1) Analysis of the Divergence between Past Examinations of Validity of Compensation and Support, and "JICA Guidelines for Resettlement"

・Land Acquisition Policies for the Project

Vina CPK emphasizes absolute respect for the laws of Vietnam its policy for past compensation and support for land acquisition and resettlement from Project Site, and believes that "JICA Guidelines for Resettlement" sufficiently comply with the provisions of Vietnamese laws. However, Vina CPK has closely investigated items set forth in JICA Guidelines for Resettlement but not clearly set forth in Vietnamese laws, and items that differ significantly from JICA guidelines.

(2) Considering and Assessing Measures for Resolving Divergence from JICA Guidelines

There is no significant divergence regarding past compensation and support between "JICA Guidelines for Resettlement" and "Land Acquisition Policies for the Project", and there is probably no need to take measures to resolve divergence from JICA guidelines. Therefore, the approach of past compensation and support is largely considered to be appropriate.

(3) Considering the Establishment of Mechanisms for Handling Grievances

At present no arbitration organizations or procedures for handling grievances independent from the judiciary system have been established. Information about existing grievance handling mechanisms was used to consider the need for establishment of a grievance handling mechanism.

The common method for handling grievances is as described in Section 10.2.1 (7), where the grievance handling mechanism for afflicted residents is Vina CPK as liaison cooperating with the province, which implements the system for receiving grievances. These procedures for handling grievances are excellent in terms of ease of filing and convenience.

The World Bank Safeguard Policy, OP4.12, Annex A, Paragraph 17 defines grievance procedures as "affordable and accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms". Grievance reception with the provincial People's Committee

serving as liaison, in addition to the current conflict resolution mechanisms provided by the judiciary system, is thought to be an affordable and accessible procedure.

The fact that there are no unresolved problems as of September 2014 also could suggest that there is currently no need to establish a new grievance handling mechanism. However, if a large number of grievances from afflicted residents arise in the future, it is considered to be necessary to establish a separate mechanism based on grievance redress mechanisms in the World Bank Involuntary Resettlement Sourcebook (2004), JICA environmental guidelines, etc.

(4) Conclusions and Recommendations

The study results described in the previous items, as of September 2014, did not show any matters within Project Site that conflict with JICA environmental guidelines and could cause problems during execution of the Project. However, there is still a need to analyze the results of various types of monitoring and continue to verify that the Project is not causing any problems.

(5) Other Matters

(List of relevant personnel, sources of information)

- EIA report
- Vietnam environmental and social consideration profile
- Vietnamese laws and ordinances
- Interviews with Relevant Personnel

Table 10-38: Sources of Information

Organization	Main Relevant Personnel
Vinh Phuc Province DONRE	Chu Quac Hai (Vice Director, Department of Natural Resources and Environment), Vice Director Khuoc, Environmental Management Division Director Cuong, Environmental Monitoring Manager Dung, Resettlement and Compensation Manager Luyun
Vina CPK	Hoang Tieu Son (General Director)
Vinh Phuc Province IPA	Nguyen Tien Hanh (Deputy Head), Nguyen Thi Huyen Trang
Binh Xuyen District People's Committee	
JICA Hanoi Office	Takashi Matsushita (Senior Project Formulation Adviser)

Chapter 11 Considered Project Planning

11.1 Considered Operation and Maintenance Systems

11.1.1 Manner of Providing Services

The maintenance and operational services SPC provides to tenant companies are divided into two types: basic services and additional services.

Basic services are A. Services provided directly to tenant companies by SPC; and B. Services subcontracted to specialized companies by SPC and provided to tenant companies by those specialized companies. Additional services are C. Services provided to tenant companies by companies comprised of SPC or subcontracted partners (referred to throughout this section as "entities such as companies comprised of SPC") after SPC introduces those entities to tenant companies.

Table 11-1: Manner of Providing Services

	Basic services		Additional services
What tenant companies pay	Rent, administrative fees	Rent, administrative fees	Individual fees (different for each service)
Target services	-Rental factory maintenance and operation -Common facility maintenance and operation	-Expansion assistance *If the building permit services, fire permit services and EIA assistance of individual companies differ from one another, they will be charged separately.	- Operational assistance -Introduction to possible tie-up partner companies, business matching support -Meals, vehicles, IT, logistics, insurance -Assistance with securing a workforce -Serviced apartments next to industrial parks
System for providing services	A. Provided directly to tenant companies by SPC	B. Subcontracted to specialized companies by SPC and provided to tenant companies by those specialized companies	C. Provided to tenant companies by entities such as companies comprised of SPC introduced to tenant companies by SPC.

(Prepared by the study team)

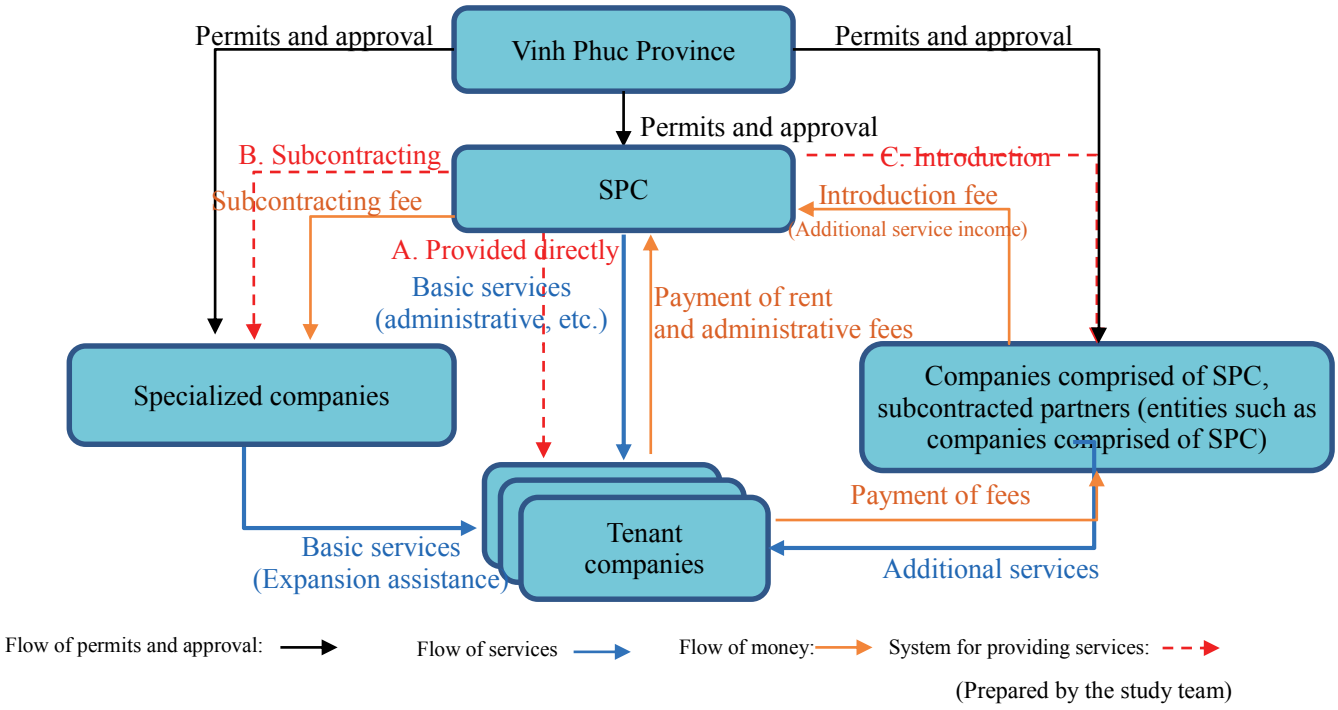


Figure 11-1: Proposed Operation and Maintenance Systems

11.1.2 Approaches to Fees for Provided Services and SPC Revenue

For basic services, tenant companies will pay rent and administrative fees, and SPC will collect that rent and those administrative fees. For additional services, tenant companies will pay fees for each service separately from rent and administrative fees, and entities such as companies comprised of SPC will pay introduction fees to SPC. Details are as follows.

(1) Basic Services

Fees for basic services are set at 5.5 USD/m^2 per month for rent and 1.0 USD/m^2 per month for administrative fees (a total of 6.5 USD/m^2 per month). As described in Section 4, the average rent at the five factories exclusively for rental factories in industrial parks in Northern Vietnam similar to the rental factories for the Project is 5.0 to 5.2 USD/m^2 per month, and the average administrative fees are 0.43 USD/m^2 per month. As the occupancy rate at those factories is 100%, the fees are generally considered to be appropriate. The fees for these rental factories were set in light of the fact that fees at Dai An Industrial Park, which is an example of a competitor, are 6.8 to 7.8 USD/m^2 per month for rent and are 0.2 USD/m^2 per month for administrative fees (total of 7.0 to 8.0 USD/m^2 per month).

Expansion assistance services should be provided as part of basic fees at or approximately at cost, but services for business permit acquisition, fire permit acquisition and EIA assistance will cost extra, depending on the tenant's type of business.

Table 11-2: Rent and Administrative Fees from Similar Rental Factories in Northern Vietnam, and Settings for the Project

Factories in Northern Vietnam that are exclusively rental factories	Rent (USD/m^2/mo.)	Administrative fees (USD/m^2/mo.)	Occupancy rate (Japanese companies)
Viet Phap in Dai Dong-Hoan Son Industrial Park	6.0	-	0%
Fuji Precision Co., Ltd. in Yen Phong Industrial Park	4.0	0.5	100%
IDE International Co., Ltd. in Pho Noi A Industrial Park	4.0	0.5	100%
Forval Vietnam Co., Ltd. in Dai An Industrial Park	6.8-7.8	0.2	Surveying
IDE International Co., Ltd. in Hoa Mac Industrial Park	4.0	0.5	25%
Average	5.0-5.2	0.43	-
Setting for these rental factories	5.5	1.0	

(Prepared by the study team)

(2) Additional Services

Fees for additional services are different for each service. The table below shows basic fee settings in light of the considered services in Section 9. Under consideration is the payment to SPC of a commission fee from part of fees collected by entities such as companies comprised of SPC. In other words, SPC will receive these fees as additional service revenue separate from rent and administrative fee revenue.

Table 11-3: Proposed Additional service Fees

Additional services	Fees (per company)	Commission fee to be paid to SPC
Operational assistance services (employment, legal, accounting)	600 to 1,000 USD/month	200 to 300 USD/month
Business matching support	From 100,000 JPY	Discuss for each case
Meal services	(150 JPY per meal) x (number of meals)	Discuss for each case
Vehicle services	Approx. 150,000 JPY/month	Approx. 100 USD/month
IT services	Different for each service (See Table 9-13)	Approx. 50 USD/month
Logistics services	Depends on the range of work and volume	Approx. 50 USD/month
Insurance services	Differs for individual and group insurance	Approx. 50 USD/month

(Prepared by the study team)

11.1.3 Considered Systems for Providing Services

(1) Basic Services

Of the consortium member companies implementing this study, the Itochu Group has experience developing and operating the Amata Industrial Park, as well as the Karawan Industrial Park in Indonesia and others. In addition, the president and construction division chairperson of Vietnamese partner company Vina CPK have abundant experience and a fine track record with industrial park operations inside and outside Vietnam (See Chapter 13). The Project requires distinct know-how for operating rental factories for SMEs, and Operating Company V, which has experience with attracting companies and rental factory operation assistance at Kizuna Rental Factories, Long Hau Industrial Park (including the rental factories there) and other locations, plans to become involved in operations by investing in SPC. This rental factory operation know-how will be exercised to provide basic services.

There are no local management companies that provide comprehensive building inspection, cleaning and other maintenance services as there are in Japan. Thus, for the implementation of the Project, SPC itself will hire employees for maintenance.

Expansion assistance services such as overseas expansion consulting, investment development permission acquisition services, moving preparation assistance services, building permit and fire permit acquisition services and EIA assistance services will be outsourced to specialized companies with know-how in those areas. Note that these services will be provided separately and for a fee in Vinh Phuc Province as well.

(2) Additional Services

1) Coordination with Entities such as Companies Comprised of SPC

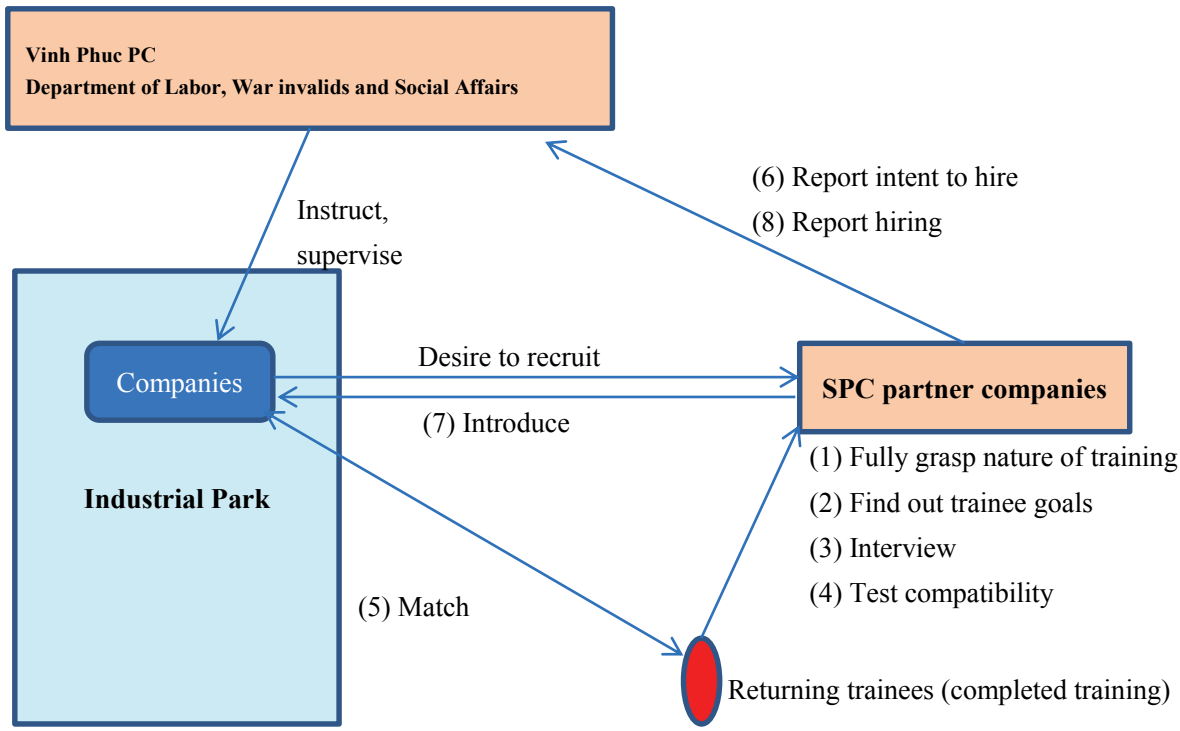
Additional services in particular fields will be provided mainly by member companies that have know-how and experience in those fields. However, to provide services in fields in which member companies lack sufficient know-how, member companies will coordinate with partner companies selected by SPC.

For example, for employment, accounting and other operational assistance services for tenant companies, plans currently call for SPC to choose from among Accounting Company I, Operating Company V or Operating Company B, all of which have experience have experience providing accounting services to Japanese companies in Vietnam. Plans also call for member companies to coordinate with IT vendors to provide IT services.

2) Coordinating with Educational Institutions

SPC partner companies will form a system for striving to facilitate the securing of workforces for Japanese SMEs by coordinating with the JICA support desk for Japanese companies, vocational schools within the province and others.

Vinh Phuc Province is enhancing efforts to send technical school graduates and other trainees to Japan and other foreign countries for training. SPC partner companies will match returning trainees with rental factory tenant companies in need of workers.



(Prepared by the study team)

Figure 11-2: System for Employing Returning Trainees

3) Coordinating with Japanese Business Organizations

A system for coordinating with JETRO, the Japan Business Association in Vietnam and other business organizations to introduce possible tie-up partner companies, provide business matching support and provide other information to companies expanding into Vietnam will be formed. Each year, Japanese chambers of commerce send study groups (business missions) to develop business in Vietnam. They also coordinate with local investigative agencies and industrial organizations to hold business negotiation events and site inspections. According to interviews, chambers of commerce are proactive about business matching but recognize that creating opportunities for business negotiations in local areas is a challenge to face in the near future. SPC coordinates with these organizations to assist with business matching for companies expanding into Vietnam.

11.2 Proposed Division of Member Company Roles

Table 11-4 shows the proposed division of roles between member companies and additional companies (consortium member companies) for the Project. When “SPC” appears in the rightmost column, it means that SPC itself are to provide services.

Table 11-4: Proposed Division of Member Company Roles

Item	Details	Type	Proposed division of roles (companies to provide services)
Factory operation	・Operation of rental factories and common facilities	●	SPC
Factory construction	・Construction of rental factories and common facilities	●	Japanese construction companies
Maintenance	・Maintenance of rental factories and common facilities	●	SPC, specialized companies
Expansion assistance	・Overseas expansion consulting services	●	SPC, Operation Company V
	・Investment development permission acquisition services	●	SPC, Operation Company V
	・Moving preparation assistance services	●	SPC, Operation Company V
	・Building permit and fire permit acquisition services	●	Specialized companies
	・EIA assistance services	●	Specialized companies
Operational assistance	・Employment, legal, accounting	○	Specialized companies
	・Environmental matters	○	Specialized companies
	・Assistance with securing a workforce	○	Partner companies (Japanese language schools)
	・Introduction to possible tie-up partner companies	○	SPC or partner companies
	・Business matching support	○	SPC or partner companies
Meals	・Meal services	○	Galaxy Shidax (Shidax)
Vehicles	・Personal cars for company presidents and other executives	○	Galaxy Shidax (Shidax)
	・Personal cars for permanent employees	○	Galaxy Shidax (Shidax)
	・Shuttle buses for local staff members	○	Galaxy Shidax (Shidax)
	・Buses and passenger cars for business travelers and inspection groups	○	Galaxy Shidax (Shidax)
IT	・IT consulting groups	○	Partner companies (IT vendors)
	・IT maintenance and operation services	○	Partner companies (IT vendors)
	・Network quality control services	○	Partner companies (IT vendors)
	・IT environment creation services	○	Partner companies (IT vendors)
	・IT equipment rental services	○	Partner companies (IT vendors)
	・Software sales and cloud services	○	Partner companies (IT vendors)
Logistics	・Factory facilities, machinery and equipment shipping, installation and setup	○	Itochu Logistics
	・Material procurement and shipping	○	Itochu Logistics
	・Product shipping	○	Itochu Logistics
	・Rental warehouses (storage services)	○	Itochu Logistics
	・Personal moving for permanent employees	○	Itochu Logistics
	・Logistics financing	○	Export management companies
Insurance	・Comprehensive packages suited to tenants	○	Willis Group
	・Individual insurance (including introductions)	○	Willis Group
Housing	・Serviced apartments next to industrial parks	○	ADW
	・Housing for workers	○	Under consideration
	・Short-term lodging facilities for business travelers	○	Under consideration
Other	・Entertainment facilities	○	Under consideration
	・Convenience stores	○	Under consideration
	・Clinics	○	Under consideration

●: Basic service, ○: Additional service

(Prepared by the study team)

11.3 Setting Operation and Effect Indicators

The indicators on the table below will be measured periodically to evaluate how the various benefits envisioned during the planning phase have contributed since Project operation began.

Table 11-5: Operation and Effect Indicators

Indicator	Operation indicator	Effect indicator
Number of companies occupying rental factories	○	
Number of local employees		○
Number of users of provided services	○	
Sales	○	
Total added value		△

○: Measured periodically, △: Measured as information is obtained

(Prepared by the study team)

11.4 Devising a Project Implementation Schedule (including Permits and Approval)

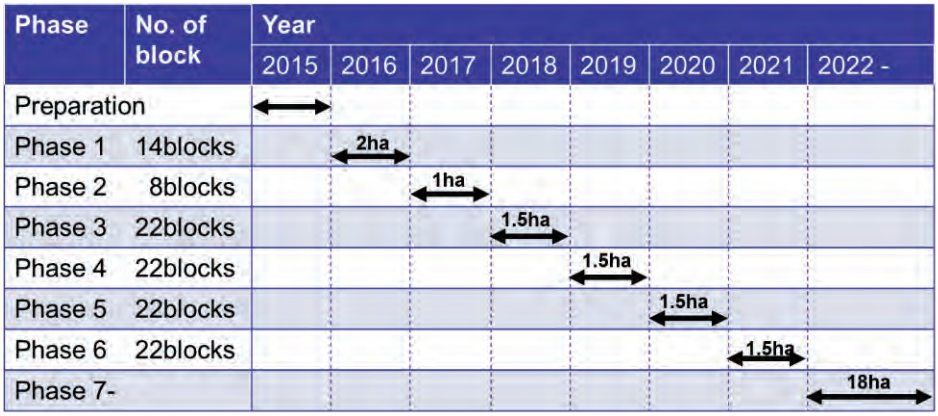
11.4.1 Establishing SPC, Acquiring Permits and Approval

SPC is scheduled to be established in 2015. Once established, SPC will acquire permits and approval required to construct and operate rental factories for Japanese SMEs, and will begin construction of Phase 1 in 2016. Operation of Phase 1 will start in January 2017 and will be complete in 2052.

11.4.2 Phased Development Planning

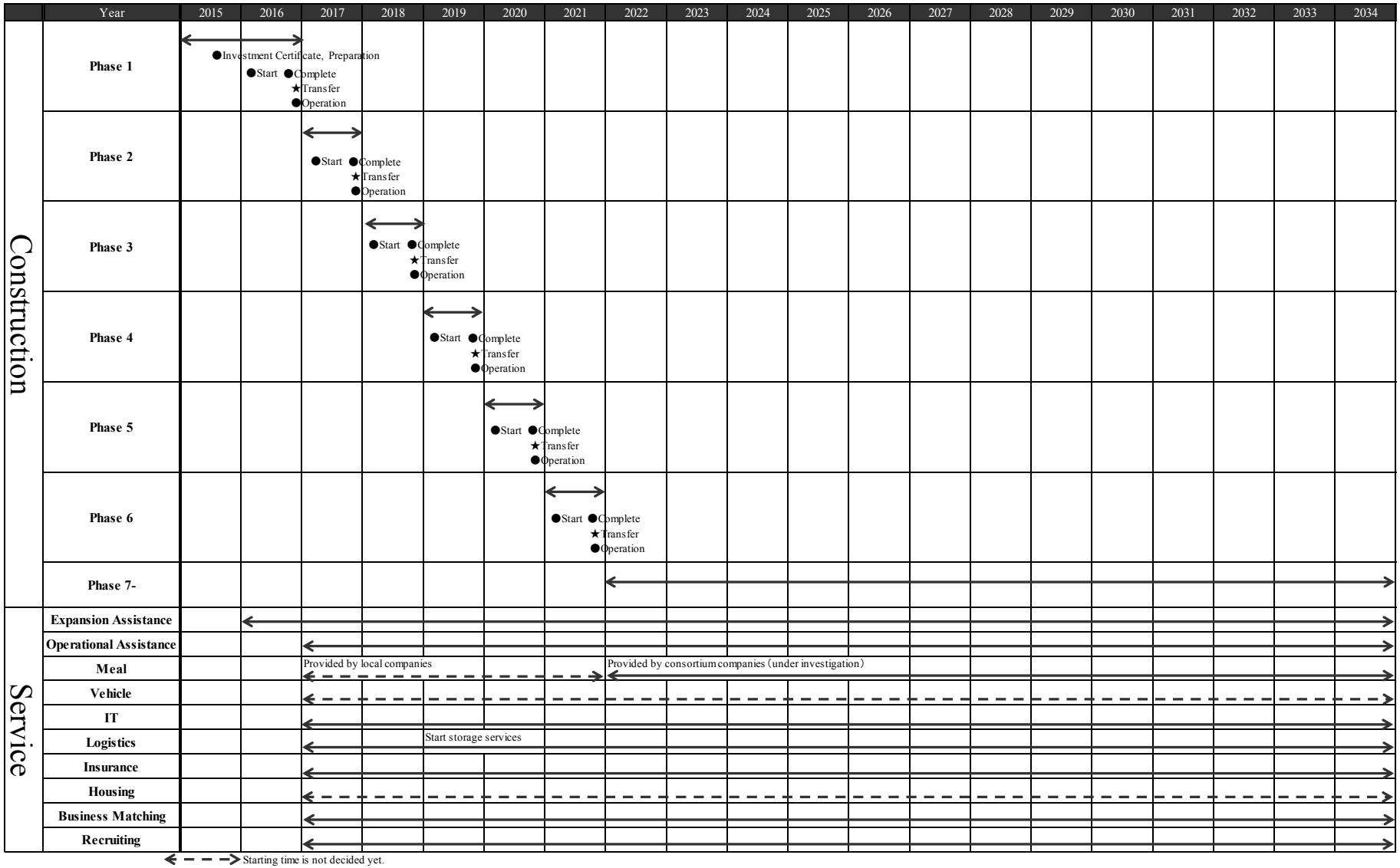
From 2016 to 2021, a total of 9.0 ha of land will be developed: 2.0 ha in Phase 1; 1.0 ha in Phase 2; and 1.5 ha in each of Phases 3 through 6. Phase 7 and onward involve phased development based on demand and intent to occupy rental factories in Phases 1 through 6. Thus, the content will be determined in light of factors such as deliberations with Vina CPK and progress to that point. However, as of now, plans call for the development of approximately 18 ha of the land in Phase 7 (2022) and onward. Below are the current proposed number of blocks to be developed and proposed project implementation schedule.

Table 11-6: Proposed Number of Blocks to be Developed



(Prepared by the study team)

Table 11-7: Proposed Project Implementation Schedule



11.5 Considered Project Implementation System

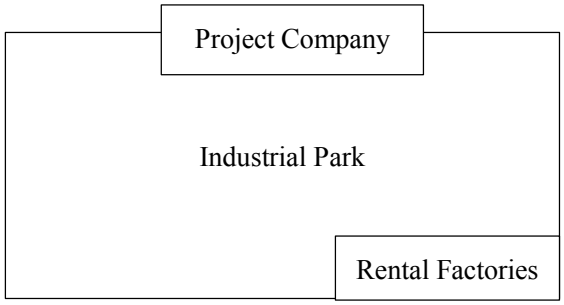
11.5.1 Examples of Project Implementation Systems

(1) Project Entities

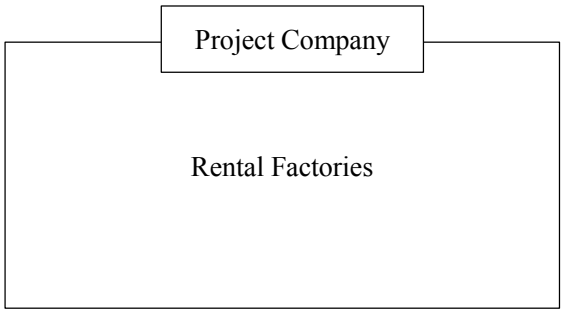
Industrial park operation companies were established in each of the similar projects studied. Most of those operation companies did not establish a separate entity for operating rental factories, but some did, including Amata Summit by Amata in Thailand. In addition, there are cases where entities engage mainly in the construction and operation of rental factories, as does Ticon Industrial Connection in Thailand.

Kizuna Rental Factories in Vietnam was established to operate individual rental factories, but in terms of management it is currently not recognized as an SPC that does not conduct any business other than factories.

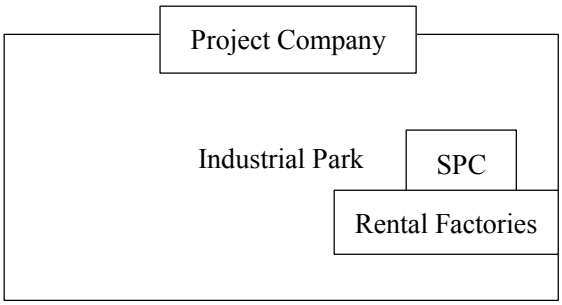
1) Existing Industrial Parks (that Have Not Established Separate Companies for Operating Rental Factories)



2) Single Rental Factory Operator (Kizuna JV Corporation, etc.)



3) Separate Entity Established (Amata Summit)



(Prepared by the study team)

Figure 11-3: Rental Factory Operation System Patterns

(2) Operations Covered by Project Entities

The following three examples of operations covered by project entities were noted in the similar projects studied, and the approaches of investors and attributes of tenant companies were probably different in each one.

(1) Outsourcing used and project entities providing a wide range of services (Sumitomo Thang Long Industrial Park, TT Techno-Park Indonesia (Indonesia))

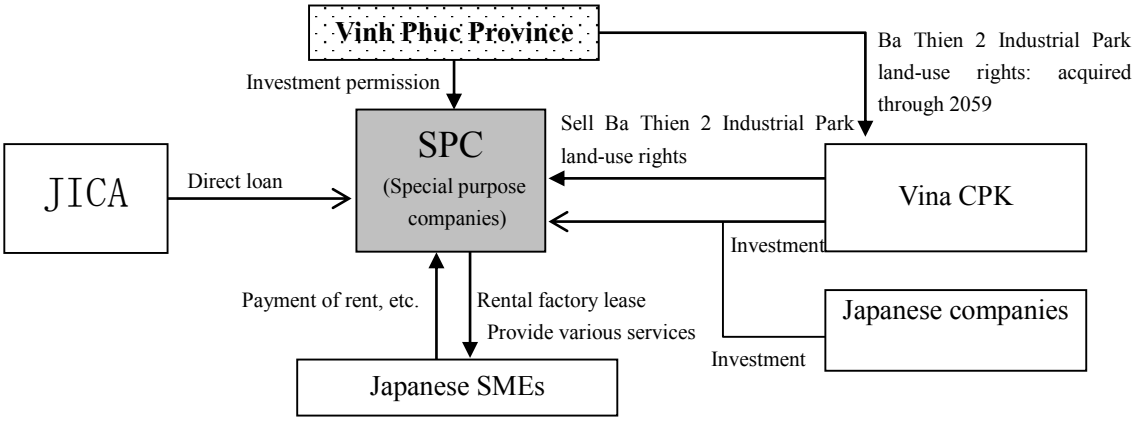
(2) Procuring services left to tenant companies, project entities concentrated on real property business (managing and operating facilities) (Nomura Hai Phong Industrial Park, Ticon Industrial Connection (Thailand)

(3) Examples that fell between the (1) and (2) (other examples)

11.5.2 Project Implementation System for the Project

(1) System Using SPC

Although there are few examples of SPC established solely to operate rental factories within industrial parks, the following system premised on the need for the establishment of such SPC to serve as vessels for procuring funds and possibilities for official investment from Japan. The following system is envisioned:



(Prepared by the study team)

Figure 11-4: Proposed Project Implementation System for the Project

(2) SPC Scope of Operations

1) Consortium Member Company Participation Method

The following configuration is envisioned for the Project because the intertwining of project risks for real property services (the main services) and other services necessitates the clarification of project risks in terms of investment and funding procurement, because the targets for individual services can extend into the entire industrial park, and because there are limits to the services that can be provided in the initial phase of phased development due to lack of advantages from scale.

(1) Limit the scope of SPC operations to facility administration for the time being
(2) Have SPC serve as the overall consultation service for tenant companies, and have SPC provide services on their own and have the capacity to introduce tenant companies to partner companies for various services
(3) Consortium member companies will strive to provide services on their own or through partner companies

2) Considering the Levels of Services

SMEs represent an extremely wide range of sizes and needs, and services must be provided at the following three levels. This diversity lends importance to building relationships with good, local partners.

(1) Japanese quality service from coordinating with major Japanese companies
(2) Best quality of service available from coordinating with major local companies
(3) Inexpensive services from local companies

(3) Approaches to Phased Development and SPC

As phased development progresses, SPC must take action as follows.

- Increase capital, change funding procurement methods (including determining whether or not to use institutional financing)
- Restructure services to be provided (focusing initially on providing facilities and equipment)
- Change shareholder distribution along with the above changes

(4) Assistance from SPC Personnel System, Shareholder Companies, etc.

As demonstrated in similar projects studied, there is a significant need for consultation services in Japanese.

SPC aims to employ Japanese or people who understand Japanese, but given the financial constraints against hiring permanent Japanese staff members, particularly in the initial phase of phased development, the following can be considered.

- The Vietnamese headquarters of consortium member companies correspond in Japanese
- Local partner Vina CPK shares correspondence in Japanese in the interest of the entire industrial park

(5) Division of Roles with Vinh Phuc Province and Local Partners

- The potential of introductions to human resources in Vinh Phuc Province must be built into the Project implementation system.
- Local partner Vina CPK must coordinate the relationship between (planned) services that can be provided to the entire industrial park and those to be provided to tenant companies in rental factories and select the most efficient method for providing services.

(6) Legal Standing of SPC

The amount of funds is expected to fluctuate and be transferred throughout Project phases, and the multi-member limited liability company (MLLC) designation since fluctuations are possible and since investor rights, the internal organization and restrictions on equity transfers can be freely defined in the articles of incorporation.

Currently, a great many Japanese and other non-Vietnamese companies are formed as limited liability corporations or joint-stock corporations, and over 90 percent of Japanese companies in Vietnam have elected the MLLC designation when establishing local corporations. Thus, the MLLC designation is appropriate.

11.5.3 Coordinating with Municipalities

Below is a description of the progress of negotiations for coordinating with municipalities regarding involvement with the Project, including investment in SPC.

(1) Examples of National and Municipal SME Overseas Expansion Assistance

Ota Techno Park in Thailand is an example of coordination with rental factories by the national government and municipalities for the expansion of SMEs into countries other than Japan. The Kansai Supporting Industry Collective Assistance Model Project, “Kansai Support Industry Complex” currently in progress and led by METI Kinki Bureau of Economy, Trade and Industry is a recent example of such a project in Vietnam.

In this highly meaningful model project, The Kinki Bureau of Economy, Trade and Industry and 10 other assistance institutions in Kansai coordinate with Dong Nai Province, industrial park operating companies and local support agencies to assist the expansion of SMEs from Kansai into Vietnam.

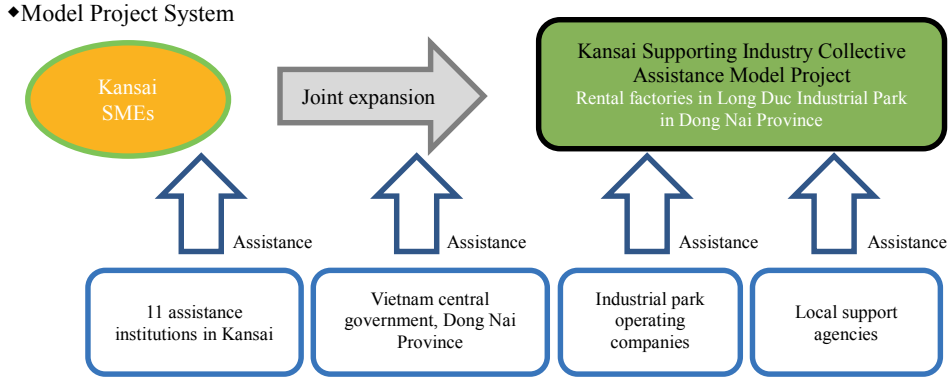


Figure 11-5: Model Project System Based on Kansai Supporting Industry Assistance Model Project

(Source: METI Kinki Bureau of Economy, Trade and Industry news release)

(2) Negotiations for Coordinating with Municipalities

The above examples notwithstanding, municipalities believe the promotion of SMEs within their borders is more closely linked to clarification of the prefecture's responsibilities and roles in the support of SME expansion into Vietnam. That objective matches SPC Project concepts (see Chapter 5) and philosophies.

Municipal investment in SPC, master leases for certain spaces and enhancement of municipal help desks are some Project schemes to achieve that objective.

11.6 Procurement Package Proposals

The Project concept requires overall designs and construction focused on maintenance and operation work to strive to make the cost of services to be provided affordable to tenant SMEs.

In order to counter the high percentage and liability for Project construction costs and eliminate the risk of inventory (open spaces), the lead time for every process from design to the final stage of construction and handing over to tenants must be optimized, and factory construction costs and maintenance costs must be minimized.

In light of these points, procurement packages that allow for the consolidated order of design and construction of rental factories have been proposed. Note that related construction facilities are separate and can themselves comprise a package.

All services related to vehicles and logistics are to be outsourced, and SPC is not to procure materials and other items.

Table 11-8: Procurement Package Proposals

Name	Item	Range	Package details
Package A	Rental factory	Design, procurement, construction	・Construction of architecture, electrical facilities, water supply and wastewater facilities, air conditioning facility, etc. ・Ordering design and construction from Japanese construction companies
	Administrative building	Design, procurement, construction	・Construction of architecture, electrical facilities, water supply and wastewater facilities, air conditioning facility, office furniture, etc. ・Ordering design and construction from Japanese construction companies
	Outer wall	Design, procurement, construction	・Security building, roads on property, automobile parking space, bicycle parking space, trees and other factory area facilities ・Ordering design and construction from Japanese construction companies
Package B	Emergency generator facilities	Design, procurement, construction	・Construction of emergency generator facilities and related electrical facilities (Consolidated order with Package A envisioned)

Name	Item	Range	Package details
Package C	Water supply facilities	Design, procurement, construction	・Water tanks and other water supply facilities, pipes, etc. (Consolidated order with Package A envisioned)
Package D	Wastewater facilities	Design, procurement, construction	・Wastewater treatment facilities (Consolidated order with Package A envisioned)
Package E	Information infrastructure	Design, procurement	・Communications environment, server and client PCs Order from Japanese IT vendors
Package F	Factory cafeteria	Design, procurement, construction	・Kitchen equipment, appliances, etc. (Kitchen facilities to be located within administrative buildings)

*Major points as to whether or not to involve Japanese companies in the construction of factories are understood from the results of interviews with Japanese SMEs that have already expanded outside Japan.

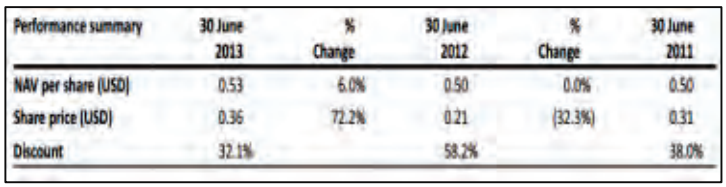
(Prepared by the study team)

Chapter 12 Risk Analysis

12.1 Identifying Project Risks and Problem Areas

The following risks were identified to determine problem areas on which to focus.

Table 12-1: Risk Types and Problem Areas

<table>
<tr><th>No.</th><th>Risk Type</th><th>Risks and Problem Areas</th></tr>
<tr><td rowspan="2">1</td><td colspan="2">Sponsor Risk</td></tr>
<tr><td>・Financial situation of stakeholders and other information</td><td>1. VinaCapital (VNI)
・An investment and real estate fund established in 2003. Owns VOF, VNL, VNI and DFJV (explained in detail in Chapter 13). NAV of 196.9 million USD and NAV per share of 0.53 USD as of June 30, 2013, which is 6.0% higher than they were on June 30, 2012.
・Has a 97.2% stake in Vina CPK.
・Actual figures for June 30 in 2011 and 2012 from the VNI Annual Report 2013 show a 6% year-over-year increase in the NAV per share and a 72.2% year-over-year increase in the share price. The discount rate decreased from 58.6% in 2012 to 32.1% in 2013.
・VNI is not performing as well as it could be, but it is developing consistently. Thus, the sponsor risk is assessed as low.
 
<table>
<tr><th>Performance summary</th><th>30 June 2013</th><th>% Change</th><th>30 June 2012</th><th>% Change</th><th>30 June 2011</th></tr>
<tr><td>NAV per share (USD)</td><td>0.53</td><td>6.0%</td><td>0.50</td><td>0.0%</td><td>0.50</td></tr>
<tr><td>Share price (USD)</td><td>0.36</td><td>72.2%</td><td>0.21</td><td>(32.3%)</td><td>0.31</td></tr>
<tr><td>Discount</td><td>32.1%</td><td></td><td>58.2%</td><td></td><td>38.0%</td></tr>
</table>

2. CPK Vinh Phuc Joint Stock Company
・A company established in Vinh Phuc Province in 2007.
・Has a 2.8% stake in Vina CPK.
・As a minor investor, the sponsor risk is assessed as low.</td></tr>
</table>

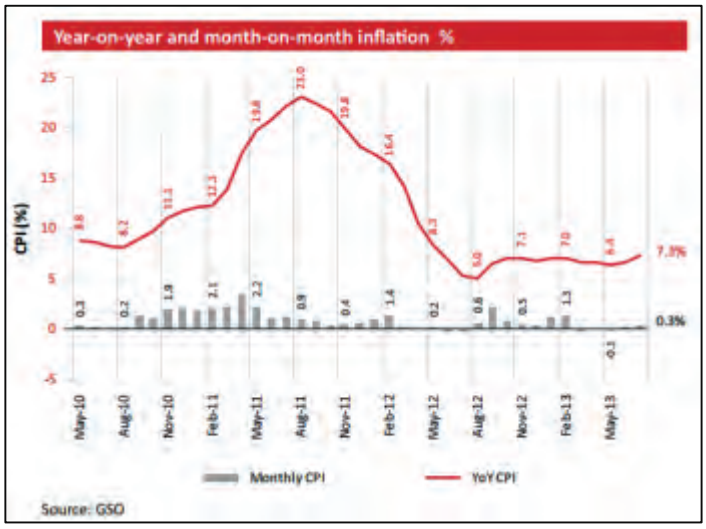
No.	Risk Type	Risks and Problem Areas
2	Investor/Project Approval System Risk	
	・Government/ ministry systems, treatment	・Lease projects are not open to foreign investment. Companies involved in dedicated machinery in Japan cannot be used.[21] ・There is an operation period restriction of 50 years for foreign investment that is not applied to domestic capital.[22] ・It is difficult to obtain an investment license for foreign investment.[23] ・It is difficult to decrease contributed capital.[24] ・Various tax incentives for foreign investment have been abolished.[25] ・Companies that invest need to acquire local shares and register investments.[26] ・Business license categories are too strict; new categories need to be created any time there is a misfit. ・Even when investment certificates clearly specify the eligibility of foreign investment for preferential treatment, approval from other agencies is still required.[27] ・Watch parts and steel products are subject to high tariffs and frequent tariff increases.[28] ・Tariff classification and the process for tariff refunds differ for each agent. ・Time is required for inspections during customs procedures. ・An IPA that provides various services has been organized in Vinh Phuc Province. However, most services involve the approval process and approval periods and do not significantly resolve the aforementioned problem areas of investment and project approval systems.
3	Money Transfer System Risk	
	・Foreign remittance risk, etc.	・Tax authorities must be notified seven business days in advance of transferring profits from foreign investment, resulting in a loss of seven days' interest.[29] ・There are restrictions on currency trading because of the confirmations of actual demand trade.[30] ・There are constraints on exchange rates when remitting foreign currency.[31] ・There are restrictions against taking out foreign currency.[32]

[21] Decree No. 59/2006/ND-CP
[22] Article 53, Investment Law 2005
[23] Common Investment Law
[24] Legal use of increases and reductions, Article 60, Law on Enterprises
[25] Abolition of tax incentives for industrial zones, etc. (Decree No. 108/2006/ND-CP, Decree No. 87/2010/ND-CP, Decree No. 29/2008/ND-CP, Decision No. 50/2005/QD-TTg, Decision No. 25/2010/QD-TTg)
[26] Directive 1617/CT-TTg
[27] Article 32 -39, Part 2, Chapter V, Investment Law 2005, Decree No. 108/2006/ND-CP
[28] Law on Customs
[29] Circular No. 186/2010/TT-BTC
[30] It is not possible to send or receive funds to or from foreign banks when executing a settlement of exchange, even if the foreign bank is a member of the group (SBC exchange system)
[31] Document regarding SBC exchange system and corporate income tax (Circular No. 130/2008, Decree No. 160/2006/ND-CP)
[32] 2011/8/12 State Bank of Vietnam Notification 15/2011TT-NHNN

No.	Risk Type	Risks and Problem Areas
4	Funding Risk (Exchange Risk)	
	・Lease fees in USD, dividends in VND or JPY, financing or repayment from local financial institutions in VND	・There are restrictions on currency trading because of the confirmations of actual demand trade.[28] ・There are constraints on exchange rates when remitting foreign currency.[29] ・As a condition for borrowing foreign currency for import products or to pay for services, the borrower either needs to have foreign currency revenue equivalent to the amount to be repaid, or if the borrower does not have such revenue, the borrower needs to obtain a letter from the lending bank in which it promises to provide the foreign currency by the repayment deadline. Vietnam suffers a perpetual deficiency of foreign currency financing, and it may become particularly difficult for companies with no foreign currency revenue (companies that import and sell within Vietnam) to procure foreign currency. ・Separate approval from the State Bank of Vietnam is required when borrowing USD. VND are volatile and difficult to use due to high interest rates. ・Companies with little foreign currency revenue cannot borrow foreign currency.[33] ・The State Bank of Vietnam's rates do not reflect market rates; it has created a dual exchange rate. This results in exchange rate loss for transactions involving foreign currencies.

[33] Circular No. 07/2011/TT-NHNN, State Bank of Vietnam Notification, Circular No. 37/2012/TT-NHNN

<table>
<tr><th>No.</th><th>Risk Type</th><th>Risks and Problem Areas</th></tr>
<tr><td rowspan="2">5</td><td>Market (Macroeconomic) Risk</td><td></td></tr>
<tr><td>・ Macroeconomic situation</td><td>・GDP per capita and GDP growth rate are showing healthy growth.
・The inflation rate grew worse in 2011 but has since stabilized, fluctuating between 5% and 7% in 2012 and 2013.
 

Changes in Vietnam GDP Per Capita and GDP Growth Rate
(Source: VNI Annual Report 2013)


Changes in Vietnam Inflation Rate
(Source: VNI Annual Report 2013)</td></tr>
<tr><td rowspan="2">6</td><td>Operational (Commercial) Risk</td><td></td></tr>
<tr><td>・Demand fluctuation risk in light of the macroeconomic situation</td><td>・At this time, there is no danger of operational risk in light of the macroeconomic situation described in 5 above.</td></tr>
</table>

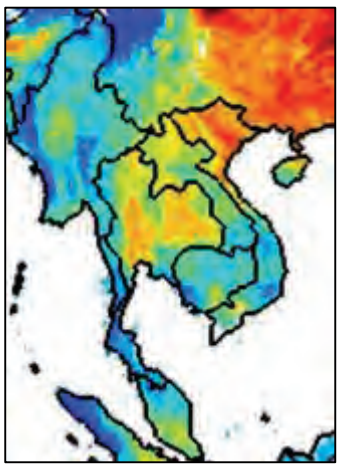
<table>
<tr><th>No.</th><th>Risk Type</th><th>Risks and Problem Areas</th></tr>
<tr><td rowspan="2">7</td><td>Social Situation Risk</td><td></td></tr>
<tr><td>・Safety and security</td><td>・According to the Willis Atlas map of terrorism and political unrest, Vietnam is stable and secure.
 

Color-coded Degree of Risk from Willis Atlas Map of Terrorism and Political Unrest

・ 44,033 crimes were committed in Vietnam in 2013, an 18.6% increase over 2012. A total of 28,543 people were arrested on drug-related offenses, and 64 kg of heroin and 110 kg of synthetic drugs were seized. There is an organized crime network in Vietnam, and 2,643 people were arrested in connection with it. In addition, AIDS is rampant.[34]
・The population of drug users in Vinh Phuc Province is approximately 2,000 people, and those 2,000 people are said to have contracted HIV.[35]
・The crime rate in Vietnam is low compared to other Asian nations (the crime rate in Japan in 2002 was 2.3%).

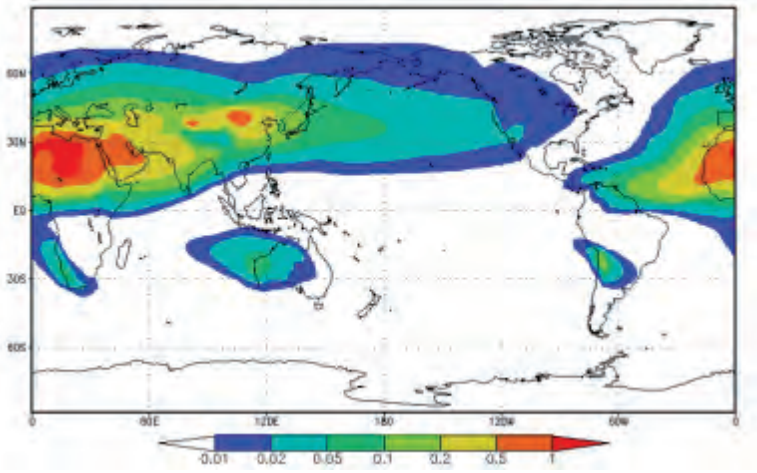
Crimes Rate in Vietnam in 2000
<table>
<tr><td>Population of Vietnam</td><td>78,300,000</td></tr>
<tr><td>Crime rate</td><td>0.08%</td></tr>
<tr><td>Arrest rate</td><td>64%</td></tr>
<tr><td>Most common crime</td><td>Theft</td></tr>
<tr><td>Crimes/100,000 people</td><td>12.77</td></tr>
</table>
(Source: 2000 crime rate statistics from ICPO Study)</td></tr>
<tr><td rowspan="2">8</td><td>Technical/Completion Risk</td><td></td></tr>
<tr><td>・ Technical/delay risk, precedents</td><td>・No particular technical/delay risks have been observed in existing industrial parks in which local construction companies did construction work.</td></tr>
</table>

[34] *Safety Guide* for staying in Vietnam, March 1, 2014, Embassy of Japan in Vietnam
[35] Takvietnam article, March 11, 2014

No.	Risk Type	Risks and Problem Areas
9	Environmental Risk	
	・Soil environment	・The target properties were previously pasture lands, fields and forests. Thus, there are no particular environmental risks. ・The herbicide Agent Orange was not sprayed in Northern Vietnam during the Vietnam War. Thus, there are no risks associated with herbicides.  Cleaveland.com OHIO, USA
	・Air pollution	・The target properties for the Project are located in the suburbs of Hanoi. Other than the risks of PM 2.5 and Asian Dust, there are no air pollution problems. 1. PM 2.5 ・The PM 2.5 levels in the suburbs of Hanoi are somewhat high (50μg/m^3).   Global satellite-derived map of PM2.5 averaged over 2001-2006. Credit: Dalhousie University, Aaron van Donkelaar

2. Asian Dust

・There is a low (0.01~0.02 g/㎡) risk of Asian Dust in Northern Vietnam.



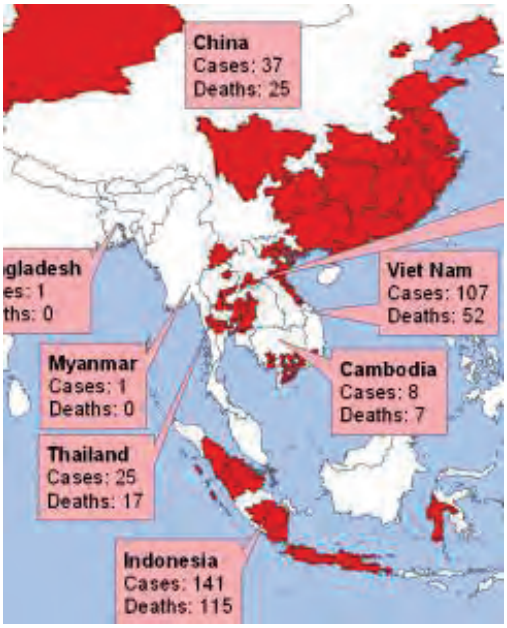
Distribution of Asian Dust in the Atmosphere in Spring (average spring from 1974–2001) Reproduced from a Global Asian Dust Model

(Source: Japanese Meteorological Agency, cumulative volume in g/m^2 within the atmosphere)

・Epidemics

1. Avian influenza

・Cases of avian influenza originate in Northern Vietnam; there were 107 cases and 52 deaths from 2003 to 2009.



Avian Influenza Map

(Source: WHO statistics from 2003–2009)

2. Other

・There are risks of cholera (occurred in Hanoi in 2008), food poisoning, dengue fever (epidemic in 2008), parasites and others.

・As many as 206,000 people in Vietnam have contracted HIV.[36]

[36] 2013 statistics from the HIV/AIDS Prevention Office of the Vietnamese Ministry of Health

	・Industrial waste	・The industrial waste from rental factories is expected to be common industrial waste (plastic, metal, glass) and should be collected and recycled by recycling companies. Thus, there are no problems.
	・Water contamination	・It is difficult to imagine the use of particular chemicals at rental factories that would cause environmental contamination. ・Wastewater passes through industrial park drainage facilities and public wastewater treatment facilities before being discharged into the nearest river (the Song Tranh). Thus, water contamination risk is low.
10	Relevant Infrastructure and Utility Risk	
	・Water supply risk (information not included in the industrial park pamphlet)	・As explained below, the BA Hien WPP Distribution Pump Station is the main facility for supplying water to the industrial park, and two other facilities supply water in emergencies: (1) 350-mm pipes from the BA Hien WPP Distribution Pump Station (main water supply) (2) 160-mm pipes from the PHUC Yen WPP Distribution Pump Station/Dai Lai Booster Pump ST Relay Pump Station (emergency water supply) (3) 160-mm pipes from the VIET XUAN WPP Distribution Pump Station (emergency water supply) ・As there are two emergency supply facilities, the water supply is highly reliable. However, all pumps are powered by electric motors. Thus, a widespread power failure could cut off the water supply. ・The BA Hien and PHUC Yen facilities connect to each other at a 160-mm grid located about 1.8 km away from the industrial park. ・All water is filtered and can be used as drinking water. There are no distribution facilities for industrial water. ・To prevent damage to water pipes from water hammer, appropriate concrete fixtures have been installed at critical points. ・Water is drawn from Dai Lai Lake and other large lakes, filtered and then distributed from pump stations. It is difficult to imagine the depletion of these water sources. ・Other than minor water pipe repairs, there have been no accidents in the past five years. ・The water department is run by 30 employees. A special repair team of eight workers is always available, and the team is equipped with sufficient instruments and vehicles for repairs. There is also an emergency hotline that connects to a network of mobile phones. ・Through daily drills, the water department has the ability to repair cracks in 350-mm water pipes inside their jurisdiction within eight hours. ・Wastewater passes through treatment facilities at each plant to industrial park drainage facilities and public wastewater treatment facilities before being discharged into the nearest river (the Song Tranh).

No.	Risk Type	Risks and Problem Areas
10	・Electrical power supply risk (information not included in the industrial park pamphlet)	・Two power plants that are relatively nearby are Phalai 2 Coal Fire Plant (about 100 km) and Son La Hydraulic Power Plant (about 200 km). ・Vietnam has one nuclear power plant, Ninh Thuan Power Plant, that is located over 1,000 km from Ba Thien 2 Industrial Park. ・Vietnam has a 110-kV national power grid. Power is relayed to Ba Thien 2 Industrial Park through transformer stations in two locations, Vinh Yen and Thien Ke, thus forming a highly reliable, looped power supply system. ・The power department is run by 30 employees, and several monitors are always monitoring the power supply situation at a control center. A hotline that connects to a network of mobile phones is used in emergencies to enable repair teams to reach the sites of accidents within two hours. The team is equipped with sufficient instruments and vehicles for repairs. ・In an effort to maintain instruments and equipment, infrared testing is performed once per month at the large transformer, switchboards and other facilities owned by the power department. ・Other than normal power line maintenance, there have been no accidents in the past five years. ・Residential and other areas experience scheduled blackouts, but the Vietnamese government's policy is to exempt industrial parks from blackouts. ・In 2013, the SON LA Hydraulic Power Plant began operating, further increasing the reliability of the power supply.
	・Industrial park management risk	・Preventive, compulsory, predictive and other types of maintenance are planned. Machinery is to be inspected twice per year. Implementation of 5S (sort, set in order, shine, standardize, sustain) is also planned. ・Common areas of the industrial park will be cleaned every day. Trash will be sorted, and picked up once per week by a waste management company. ・There are no planned controls on smoking. ・There are no plans to use authorization documentation for cutting and welding work, but they will be used if samples can be obtained. ・A dedicated fire brigade will be stationed in the industrial park. ・The management company will have a staff of approximately 25 people. ・Fire evacuation drills will be implemented once per year. ・Water pressure for fighting fires will be checked once every six months. ・Depending on how the project progresses, the implementation of safety, close call analysis and emergency planning as well as ISO certification will be considered.

No.	Risk Type	Risks and Problem Areas
	Risk of Accidents/Disasters	
11	・Fires, etc. caused internally	1. Potential fire hazards ・Different types of fires could start at rental factories. Paper, wood and other material can cause common fires. Plastics (including commonly used PVC electrical cables) can cause plastic fires. Lubricants, cutting fluids, hydraulic fluid and other substances used for industrial work can cause oil fires. ・There is also a risk of electrical fires caused by electrical equipment and machinery facilities. 2. Fire extinguishing equipment and fire stations ・Vietnam fire code requires the installation of fire extinguishers, indoor and outdoor fire hydrants, automatic and manual fire alarm systems and the like. ・Vietnam fire code requires the installation of sprinklers where dangerous work is being done. ・Regular fire brigade drills and regular maintenance of firefighting equipment will continue so that initial firefighting activities can be counted on to extinguish fires at incipient stages. ・The closest fire station is the PCS PCCC Dluric Yen Fire Station (a substation located at Phuory Doiy Xuan – TX Phuc Yen) located 5 km away from the industrial park. Another fire station with the same name (the main station located at 2 Phuory Khai Quay – TP. Vinl Yen) is located about 9 km away from the industrial park. Since the main fire station is 9 km away from the industrial park, the time between the start of the fire and the arrival of the fire fighters is estimated to be about 15 minutes, which is a rather long time to wait to fight the fire. Each station has one pump truck and one hazardous material truck. ・There are 16 outdoor fire hydrants within the industrial park as well as three public fire hydrants along public road Durong Tinh 310, which connects to the main gate of the industrial park. ・Water pipes within the industrial park are 250 mm in diameter while the pipes outside the industrial park are 160 mm in diameter (there are plans to switch to larger pipes in the future). ・There are no fire cisterns within the industrial park. 3. Access roads ・The main road on the south side of the industrial park is Duron Tinh 310. ・There are plans to add an access road on the north side, but the progress of the project may push back the start of construction. ・The construction of an access road on the east side has not yet been determined. ・There are no plans for an access road on the west side. ・The maximum truck weight is 45 tons. Plans call for a speed limit of 30-km/hr. and speed bumps to prevent accidents. As the road is wide, there is a low risk of collisions.

No.	Risk Type	Risks and Problem Areas
		4. Other ・There are no plans to build a heliport. The closest airfield is Gia Lain Military Airfield about 30 km away. Thus, there is a low risk of helicopters or airplanes crashing into the industrial park. ・Four security guards will be permanently stationed at the industrial park. Security guards will be available from their own staff or from a private security company. One security guard will be stationed at each of the four guard stations, including the guard station at the main gate. All guards will participate in regular emergency response drills. ・There are no plans to install a police box. ・The areas to the north, east and west of the industrial park are largely residential. The area to the south is currently open land, and across the road from the open land is Ba Thien 1 Industrial Park. Thus, there is a low risk of the industrial park catching fire from its surroundings.
	・Disasters	・Other than typhoons, floods and droughts, no major accidents are caused by natural disasters. Asia Disaster Reduction Center, Report on Vietnam, 1999 Since 1954, a total of 212 typhoons have made landfall in and directly impacted Vietnam. On average, 30 typhoons start over the Western Pacific Ocean per year, with 10 of them originating over the East China Sea. On average, four to six of those 10 strike Vietnam and cause damage. In many years, at least 10 strike Vietnam, most recently in 1964 (18 typhoons), 1973 and 1978 (12 each), and 1989 and 1996 (10 each). The areas impacted most by typhoons are the provinces on the coast of Northern Vietnam and central regions. While typhoons do not strike Southern Vietnam as often, there is still concern that they could become extremely dangerous. Typhoons frequently impact 62% of the population and 44% of the territory of Vietnam and are responsible for an average of 250 deaths per year. The worst typhoons of this century were the typhoon in Southern Vietnam in 1904, in which 5,000 people were killed or injured, and the typhoon that struck Binh Tri Thien Province in 1985, in which 900 people were killed. Typhoons cause storm surges. Over the past 30 years, half of typhoons have caused storm surges over 1 m, 30% have caused storm surges over 1.5 m and 11% have caused storm surges over 2.5 m. These typhoons rise up again and again, flooding lowlands in coastal areas and frequently destroying seawalls. As in other countries around the world, the damage caused by floods and typhoons in Vietnam appears to be growing worse. For example, between 1985 and 1989 approximately 540 people per year died because of typhoons and floods, compared to 225 per year between 1976 and 1979.

<table>
<tr><th>No.</th><th>Risk Type</th><th>Risks and Problem Areas</th></tr>
<tr><td></td><td></td><td>Asia Disaster Reduction Center, Vietnam Report, 2006
<table>
<tr><th>Year</th><th>Disaster</th><th>Deaths</th><th>Injuries</th><th>Afflicted people</th><th>Financial damage (US$1,000)</th></tr>
<tr><td>2005</td><td>Drought</td><td>0</td><td>0</td><td>410,000</td><td>42,120</td></tr>
<tr><td>2005</td><td>Flood</td><td>19</td><td>0</td><td>30,000</td><td>-</td></tr>
<tr><td>2005</td><td>Flood</td><td>67</td><td>0</td><td>33,800</td><td>-</td></tr>
<tr><td>2005</td><td>Wind damage</td><td>13</td><td>0</td><td>6,500</td><td>-</td></tr>
<tr><td>2005</td><td>Wind damage</td><td>75</td><td>28</td><td>337,660</td><td>219,250</td></tr>
<tr><td>2004</td><td>Infectious disease</td><td>21</td><td>0</td><td>43</td><td>-</td></tr>
<tr><td>2004</td><td>Flood</td><td>53</td><td>18</td><td>18</td><td>8,000</td></tr>
<tr><td>2004</td><td>Flood</td><td>34</td><td>0</td><td>30,000</td><td>-</td></tr>
<tr><td>2004</td><td>Landslide</td><td>23</td><td>0</td><td>-</td><td>-</td></tr>
<tr><td>2004</td><td>Wind damage</td><td>56</td><td>0</td><td>500,000</td><td>23,000</td></tr>
</table>
(Source: EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net, Katholieke Universiteit Leuven, Brussels Campus (Belgium))

・Recent disasters
December 13, 2007: Typhoon No. 5 struck Da Bac District in Hoa Binh Province and caused total financial damage of 160 million JPY.
November 11, 2013: Typhoon No. 31 caused flood damage in Central Hoi An, killing 34 people.</td></tr>
<tr><td></td><td>・Natural disasters</td><td>See Section 12.2 Natural Dangers.</td></tr>
</table>

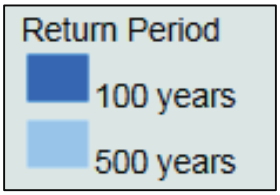
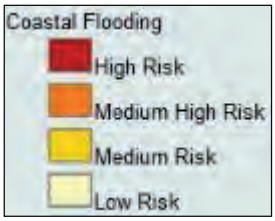
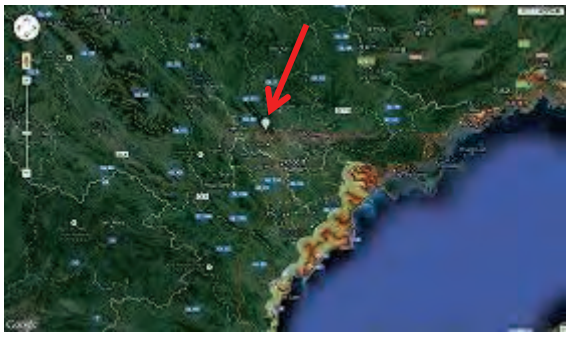
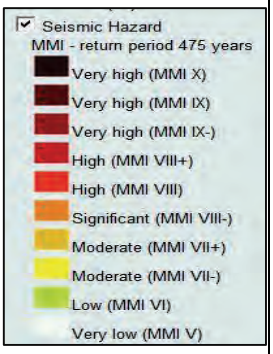
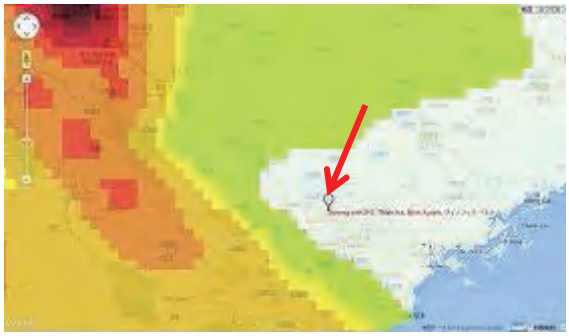
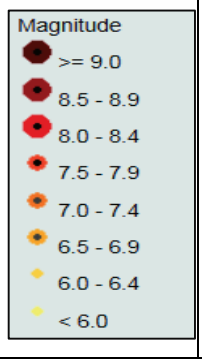
12.2 Natural Dangers

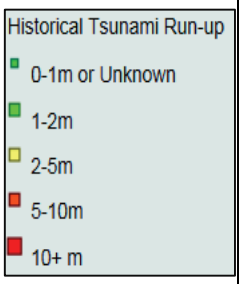
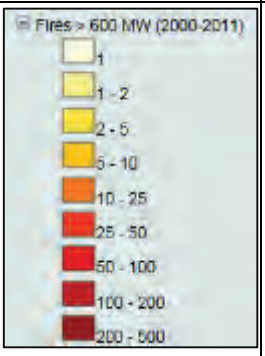
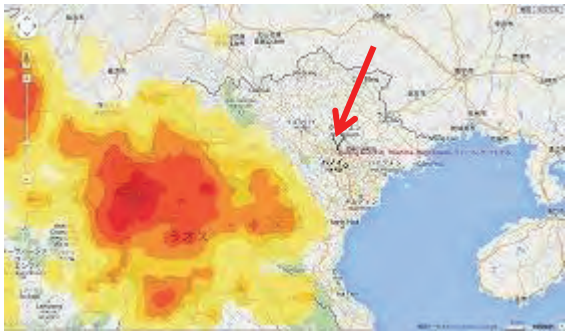
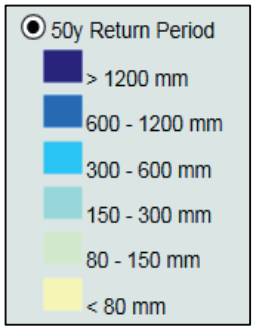
The degree of risk for each natural danger was analyzed based on Swiss Re's CatNet hazard maps.

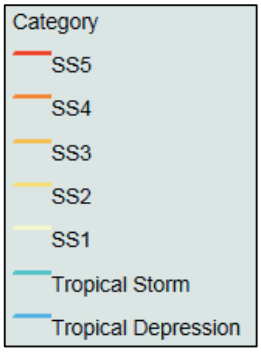
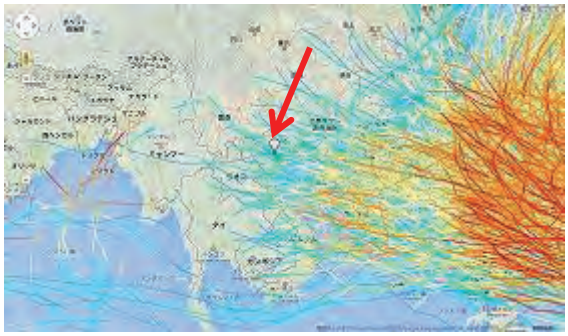
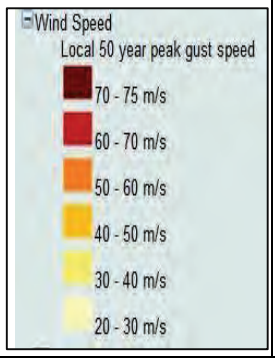
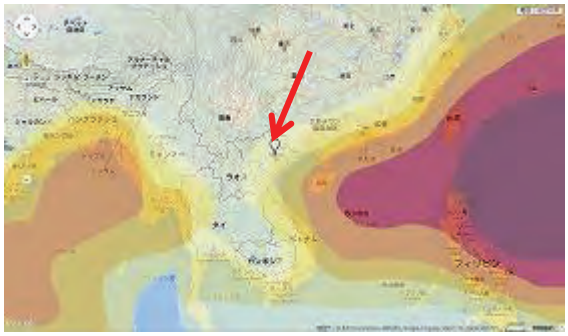
Table 12-2: Analysis of Degree of Risk for Natural Dangers

Natural Danger	Risk	Comments
1. Flood	Low	The industrial park is not located in an area at risk for floods.
2. Storm surge	Low	There is no danger from storm surges.
3. Earthquake	Low	There is a low risk of earthquakes. Different bases for calculation make it difficult to properly apply the MMI or the Japanese Meteorological Agency seismic scale used in Japan, but a simple conversion to MMI using acceleration indices yields the equivalent of a seismic intensity of 3 in Japan.
4. Seismic origin	Low	As there are no past seismic origins nearby, the risk is low.
5. Tsunami	Low	As the industrial park is far from the ocean, there is no risk of tsunami.
6. Volcano	Low	As there are no volcanoes nearby, the risk is low.
7. Brush fire	Low	As there have not been any brush fires nearby in the past, the risk is low.
8. Rainfall	Low	The annual three-day rainfall (50-year rainfall) at the site is 150–300 mm; the site is in an area with low rainfall.
9. Typhoon	Low	Not many typhoons pass through the area; most of the ones that do are categorized as tropical depressions or tropical storms. Thus, the typhoon risk is low.
10. Strong wind	Low	The 50-year maximum wind velocity is 20–30 m/s. Thus, there is a low risk of wind damage.

Table 12-3: Breakdown of Assessment and Potential Dangers in Target Area
(comments in red type and shaded parts)

No	Assessed Disaster	Degree of Risk	Hazard Map Source: Swiss Re's CatNet
1	Flood	The 100-year flood area is dark blue, and the 500-year flood area is light blue. 	
2	Storm surge	Red is the highest risk, followed by orange, yellow and light yellow. 	
3	Earthquake	Dark brown is the highest risk. The lighter the color, the lower the risk. The figures in parentheses are Modified Mercalli Intensities. 	
4	Seismic origin	Dark brown is the highest risk. The lighter the color and the smaller the circle, the lower the risk (magnitude). 	

No	Assessed Disaster	Degree of Risk	Hazard Map Source: Swiss Re's CatNet
5	Tsunami	Red is the highest risk. The smaller the square, the lower the risk (tsunami height). 	
6	Volcano	Red is volcanic activity in the last 100 years, followed by orange, light green and grey in order from most to least recent. 	
7	Brush fire	Dark red is the highest risk. The lighter the color, the longer ago the fires occurred. MW stands for megawatts. 	
8	Rainfall	Dark navy blue is the highest risk. The lighter the color, the lower the risk. Based on a 50-year return period. 	

No	Assessed Disaster	Degree of Risk	Hazard Map Source: Swiss Re's CatNet
9	Typhoon	SS stands for Saffir-Simpson Hurricane Scale. Blue is atmospheric depression. 	
10	Strong wind	Brown is the highest risk. The lighter the color, the lower the risk. Based on a 50-year return period. 	

12.3 Considering Methods for Hedging Risks and Security Packages

12.3.1 Methods for Hedging Risks

This is a consideration of methods for hedging each of the risks assessed in the previous section.

Table 12-4: Consideration of Methods for Hedging Risks

No.	Risk	Countermeasures[37]	Method of Hedging
1	Sponsor risk	Avoid Reduce	・Obtain and analyze supplementary materials, etc. related to the financial condition of Vina CAPITAL and Vina CPK and the actual operation of the industrial park to assess the sponsors' qualifications as partners. ・Thoroughly study and analyze relevant information about CPK Vinh Phuc Joint Stock Company, which has a minor stake in Vina CPK, to assess whether or not sponsor risk exists.
2	Investor/project approval system risk	Reduce	・Hold discussions with Vinh Phuc Province to clarify the procedures for obtaining investment certificates; applying for building, fire and environmental permits; and other approval regarding the implementation of the Project, and appeal for support for streamlined approval acquisition. ・Appeal to shorten the time required for procedures. ・Hold discussions with Vinh Phuc Province to clarify incentives applicable to the Project, and appeal for those incentives to be granted without fail.
3	Foreign remittance risk	Reduce	・Appeal to Vinh Phuc Province and the government of Vietnam for the softening or elimination of regulations.
4	Funding risk	Reduce Avoid	・Use the JICA investment and loan system, to procure funding at low interest rates. ・Reduce funding risk with corporate financing on the strength of the creditworthiness of partner company Vina CAPITAL.
5	Market (macroeconomic) risk	Reduce	・Make an effort to gather information about factors such as the market environments surrounding Asian nations and industrial trends related to the ASEAN economic integration in 2015 in order to recognize signs of market risk as soon as possible.

[37] Countermeasures to take against risks are separated into four categories: Avoid, Reduce, Maintain and Shift.

No.	Risk	Countermeasures[37]	Method of Hedging
6	Operational (commercial) risk	Reduce	・Make an effort to gather information about factors such political and economic situations and industrial trends in Asian nations in order to recognize signs of risk as soon as possible.
7	Social situation risk	Reduce	・The Project site was assessed as stable and secure, but events such as anti-China demonstrations could erode that stability and security. The demonstrations are calming down, but observe trends in Vietnam, China and other Asian nations in order to recognize signs of worsening situation as soon as possible.
8	Technical/completion risk	Reduce	・Appropriately supervising and monitoring construction companies prevents risks from materializing. ・Project costs are estimated after obtaining quotes from multiple companies, including both Japanese and local construction companies. However, reviewing project costs and observing trends in markets related to construction as the project is being implemented prevents risks from materializing.
9	Environmental risk	Reduce	・Make an effort to promptly and continuously gather information about the risks of air pollution and epidemics in order to recognize signs of risk occurring or spreading as soon as possible. ・Observe environmental laws and regulations in order to prevent environmental risks from materializing.
10	Relevant infrastructure and utility risk	Reduce	・Install emergency household power generators on the grounds of the Project site to mitigate the risk of power outages and water supply interruptions due to widespread power outages. ・Draft plans to continue the Project during water supply interruptions, power outages and other emergencies.
11	Risk of accidents/disasters	Shift	・Enroll in various insurance plans (construction, fire, automobile, accident, liability, workers' compensation, etc.) in an effort to shift damage from accidents and disasters.

(Prepared by the study team)

12.3.2 Proposed Security Packages

The table below shows proposed security packages based on methods for hedging the risks assessed in the previous section.

Table 12-5: Proposed Security Packages

No	Risk	Contents	Status
1	Sponsor risk	・Fully understand information about sponsor companies	○
2	Investment/project approval system risk	・Clarify procedures for project approval ・Appeal for support from Vinh Phuc Province	○
3	Foreign remittance risk	・Appeal to Vinh Phuc Province and the government of Vietnam for the softening or elimination of regulations	○
4	Funding risk	・Use JICA investment and loan system ・Use corporate financing	○ Under consideration
5	Market (macroeconomic) risk	・Gather information about factors such as the market environments of Asian nations and industrial trends	○
6	Operational (commercial) risk	・Gather information about factors such as the political and economic situations and industrial trends in Asian nations	○
7	Social situation risk	・Observe trends in Asian nations regarding anti-China demonstrations	○
8	Technical/completion risk	・Supervise and monitor construction companies ・Review project costs and observe trends in markets related to construction during project implementation	○
9	Environmental risk	・Promptly and continuously gather information about environmental risks ・Observe environmental laws and regulations	○
10	Relevant infrastructure and utility risk	・Install emergency household power generators ・Draft plans for continuing the Project during emergencies	○ Under consideration
11	Risk of accidents/disasters	・Enroll in various insurance plans	○

(Prepared by the study team)

Chapter 13 Financing Plan

13.1 Stakeholder Analysis

13.1.1 Overview of Stakeholders

(1) VinaCapital

VinaCapital, established in 2003, is a Vietnamese investment and real estate fund and owned assets of USD 1.5 billion as of March 2014. The headquarters is in Ho Chi Minh, and branch offices in Hanoi, Da Nang, and Singapore. The workforce is about 130, of whom 50 are investment professionals.

VinaCapital manages three closed-end funds listed on the London Stock Exchange's Alternative Investment Market (AIM), as well as a venture capital fund called DFJ VinaCapital (DFJV).

Table 13-1: Three Funds Listed by VinaCapital

Fund name	Investment area	Major investment sector	Target asset allocation
VinaCapital Vietnam Opportunity Fund Limited (VOF)	・ Vietnam and neighboring countries (China, Cambodia and Lao PDR)	・ Retails, consumable goods, financing, tourism, industrial and construction materials, real estate, infrastructure, etc.	60-75%
VinaLand Limited (VNL)	・ Vietnam and neighboring countries (China, Cambodia and Lao PDR) ・ Major investment areas include Ho Chi Minh and major leisure areas such as Hanoi, Nha Trang, Hoi An and Da Nang.	・ Housing, retails, tourism, offices and industry	25% (maximum)
Vietnam Infrastructure Limited (VNI)	・ Vietnam and neighboring countries (China, Cambodia and Lao PDR) ・ Major investment areas include Ho Chi Minh, Hanoi and other major economic regions such as Da Nang and Can Tho.	・ Energy, transport, industrial parks, communication, and water and environment utilities	10% (maximum)

(Sources: VinaCapital Vietnam Opportunity Fund Limited Annual Report 2013, VinaLand Limited Annual Report 2013, Vietnam Infrastructure Limited Annual, http://www.vinacapital.com/, and Nikko Vietnam Fund (from SMBC Nikko Securities Inc.)

(2) Vietnam Infrastructure limited (VNI)

1) Summary

VNI is a closed-end fund of VinaCapital. Through this fund, VinaCapital has a stake of 97.2% in Vina CPK, the owner of Ba Thien 2 Industrial Park.

The following table outlines VNI, its major shareholders and fund management status.

Table 13-2: Summary of Vietnam Infrastructure Limited (VNI)

Item	Descriptions
Investment objective	・ Medium to long term capital gains recurring income through investment in such sectors as energy, transportation, industrial parks, telecommunication, and water and environmental utilities.
Area	・ Seventy percent or more of the fund is invested in Vietnam. ・ The remaining is in Cambodia, Lao PDR and southern China.
Net asset value (NAV)	・ USD 218 million (approx. JPY 22 billion) ・ Of which, cash and the equivalent totals USD 18.6 million (approx. JPY 1.9 billion)
Maximum investment	・ The maximum amount of investment in one project is 30% of the NAV at the time of investment, and the maximum amount of investment in any other fund is 10% of the NAV at the time of investment.
Distribution policy	・ A large part of income is reinvested.
Base fee	・ Management fee of 2% annual rate of the NAV.
Performance fee	・Performance fee of 20% of total NAV increase over the higher of an 8% compound annual return and the high water mark.
Fund type	・Closed-end exempted company established in Cayman Islands
Exchange market	・ Listed on the London Stock Exchange's Alternative Investment Market (AIM)
Term of fund	・ The fund was launched on July 5, 2007 ・ No expiration date is set. But the shareholders vote for continuation of every five years after 2017 at shareholders' meetings.
Settling day	・ June 30 each year

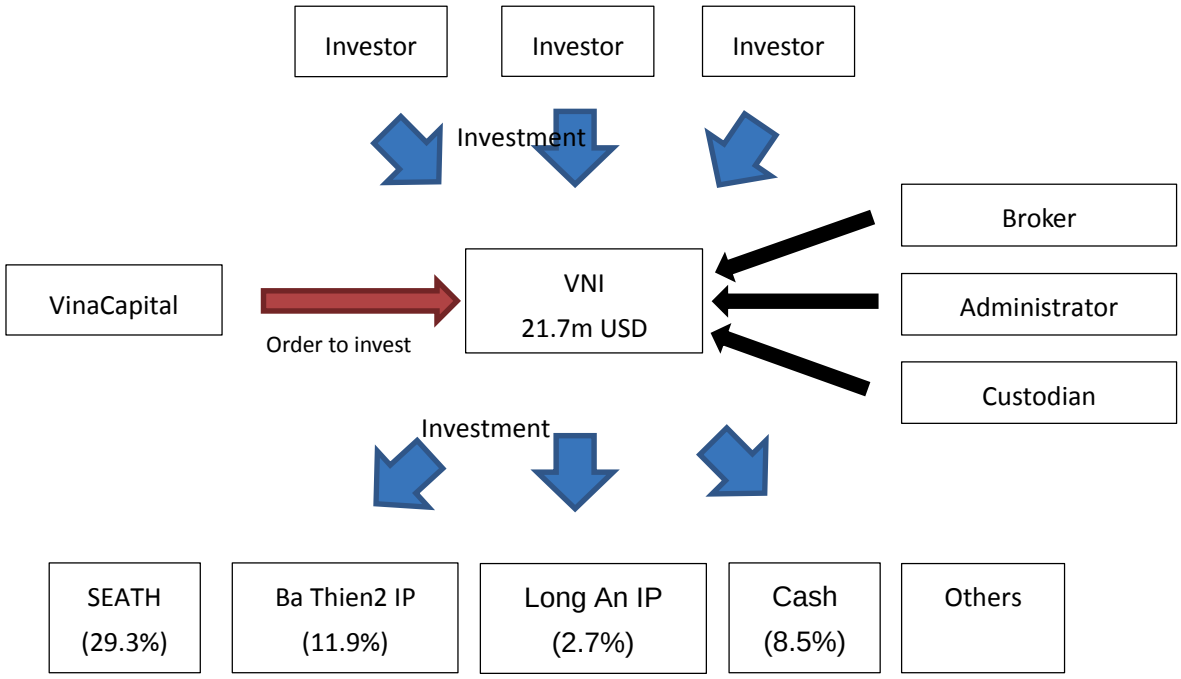
Table 13-3: Major Shareholders of VNI (as of June 26, 2014)

主要株主 (Investor Name)	保有株式 (Number of shares)	保有比率 (% holding)
IRONSIDES	82,491,350	23.46%
THE BANK OF NEW YORK MELLON	52,442,896	14.91%
CITIBANK NA	37,800,000	10.75%
KBL EUROP	22,475,000	6.39%
MORGAN STANDLEY	21,596,500	6.14%
JP MORGAN BK	20,333,000	5.78%
GOLDMAN SACHS CO CL AC,NY	19,860,000	5.65%
JULIUS BAER BK	19,813,600	5.63%
JP MORGAN LDN	17,345,000	4.93%
VIETNAM MASTER HOLDING	12,050,000	3.43%
GOLDMAN SACHS INT	11,775,290	3.35%
EUROCLEAR	11,777,120	3,34%

(Source: website of VinaCapital)

Table 13-4: Management of Vietnam Infrastructure Limited (VNI)

Title	Trustee	Responsibility
Investment Manager	VinaCapital Investment Management Ltd	Instructions
Auditor	PricewaterhouseCoopers (Hong Kong)	Auditing
Nominated Adviser	Grant Thornton UK LLP	Decision on listing the fund on the AIM and advice after listing
Custodian	Standard Chartered (Singapore)	Asset management
Administrator		Trading and calculation of NAV
Brokers	Edmond de Rothschild Securities (Bloomberg: LCFR), Numis Securities(Bloomberg: NUMI)	Transaction execution, settlement, valuable securities and loan
Lawyers	Lawrence Graham (UK), Maples and Calder (Cayman Islands)	Legal advice



Note: The NAV and the proportions are as of the end of February 2014.
(Prepared by the Study Team based on publications of VinaCapital)

Figure 13-1: Scheme of VNI

2) Portfolio

Ba Thien 2 Industrial Park accounted for 11.9% of the VNI investment portfolio, and Long An Industrial Park for 2.7% (as of the end of February, NAV).

By sector, VNI invests in three agribusiness projects, two general infrastructure projects, five industrial parks and commercial projects, four oil and gas projects, two power plants, 4 communication projects, two transport and logistics, and three other projects. The largest destination of the fund money is a communication project, Southeast Asia Telecommunications Holding Pte. Ltd. (SEATH), accounting for 29.3% of all the NAV.

The decision to invest in Ba Thien 2 Industrial Park – that is, the establishment of Vina CPK – was made in March 2008, and the investment license was acquired in February 2009. The 100% rights to Lon An Industrial Park was acquired in March 2008.

As of December 2013, funds of VNI were directed to the industrial park itself (37.5%), industrial projects (50%), and harbors and ports (37.5%) of all the funds invested in Long An Industrial Services and Residential. These projects are currently on sale.

3) Business and Financial Status

The following table shows the financial status of VNI in the previous three years.

The financial position of VNI seems stable on the grounds that the equity ratio, fixed ratio and current ratio hovered at high levels. On the other hand, the return on asset and return on equity were approximately -25 - 26% in 2011, approximately 6% in 2012 and approximately 0% in 2013.

Recurring profits were negative in 2011 due to the selloff of three matters from the investment project that did not perform well in 2007 and 2008.[38]

Table 13-5: Financial Indicators of VNI 1 (in the previous three years) (unit: USD 1,000)

Item	2013	2012	2011
Current assets	120,814	126,537	144,963
Non-current assets	84,402	74,641	68,495
Liabilities	7,756	6,368	9,377
Current liabilities	5,737	4,285	9,068
Non-current liabilities	2,019	2,083	309
Equity	197,460	212,158	204,081
Revenue	10,801	8,071	1,168
Cost of sales	-3,951	-585	-559
Gross profit	6,850	7,486	609
Net accounting loss before tax	532	15,124	-54,686
Profit for the year	-386	12,716	-54,718

(Prepared by the Study Team based on publications on the website of VNI)

Table 13-6: Financial Indicators of VNI 2 (in the previous three years)

Indicator	2013	2012	2011
Equity ratio	96%	97%	96%
Fixed ratio	43%	35%	34%
Current ratio	2106%	2953%	1599%
Return on asset (ROA)	0.3%	6.9%	-25.6%
Return on equity (ROE)	-0.2%	6.0%	-26.8%
Gross profit ratio	63.4%	92.8%	52.1%
Total asset turnover (TAT)	0.05	0.04	0.01

(Prepared by the Study Team based on publications on the website of VNI)

[38] Vina Capital. ”Vietnam Infrastructure Limited Annual Report 2011” (2011)

(3) CPK Vinh Phuc Joint Stock Company

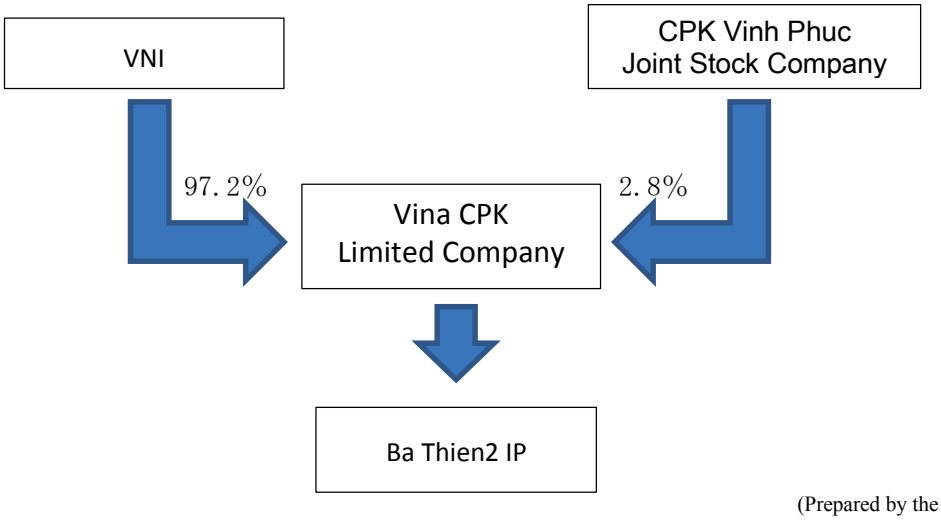
CPK Vinh Phuc Joint Stock Company is a private company established in 2007 and has a stake of 2.8% in Vina CPK, the owner of Ba Thien 2 Industrial Park.

(4) Vina CPK Limited Company

1) Summary

Vina CPK Limited Company, established in 2009, is in charge of sales and management of Ba Thien 2 Industrial Park. It has a stake of 97.2% in VinaCapital, and CPK Vinh Phuc Joint Stock Company has a stake of 2.8%. A total of USD 600,000 (approx. JPY 60 million) is for minority stakes, and capital fund totals approximately USD 21 million (approx. JPY 2.1 billion).

According to publications of Vina CPK, the company was presided by Mr. Thieu Son as of April 2014. The workforce was 30, of which male employees totaled 19 and female employees 11.



(Prepared by the study team)

Figure 13-2: Stakeholders of Ba Thien 2 Industrial Park

Land of 40ha has been developed on the entire site of Ba Thien 2 Industrial Park. The development of land of another 40ha started in the second quarter of 2014 as Phase 2. Nippon Paint Co., Ltd. and Suzukaku Co., Ltd., as well as a South Korean IT company, are building their factories.

Table 13-7: Information about Ba Thien 2 Industrial Park

Item	Q'ty	Unit
Asset value	25.9	USD million
(Proportion to the NAV of VNI)	11.9	%
Total area	308	ha
Industrial area	221	ha
Proportion of land whose right to use has already been sold	4	%
No. of tenant companies	3	companies

(Sources: Vietnam Infrastructure Limited Interim results for the six months ended 31 December 2013
: Investment Manager's monthly update 28 February 2014)

Table 13-8: Calculation of the Prevent Value of Ba Thien 2 Industrial Park

Land area currently acquired	120	ha	According to hearings to Vinh Xuyen Province. No residential building.
Acquisition cost	83,000	VND million	According to hearings to Vinh Xuyen Province
Acquisition cost (in USD)	3,934,115	USD	
Acquisition cost/m2	3.28	USD	
Ratio of land lots whose rights to use is salable	40	%	
(Total) area whose rights to use have been sold	48	ha	
Present value	25,900,000	USD	According to Vina reports
Present value/ha	539,583.3	USD	
Present value/m2	54.0	USD	
Capital of Vina-CPIK Ltd.	21,000,000	USD	
Exchange rate	21097.5	USD/VND	

(Prepared by the Study Team based on the field survey and information materials published)

2) Business and Financial Status

The following table shows the financial status of Vina CPK in the previous three years.

The financial position of Vina CPK seems stable, as in the case of VNI, on the grounds that the equity ratio, fixed ratio and current ratio hovered at high levels. On the other hand, its industrial park project is not profitable very much at the moment: the return on asset and return on equity were approximately -2.6% in 2011, -2.1% in 2012 and -1.2% in 2013. This is likely because, while large initial investments are made into industrial park projects, time is required for sales activities to acquire tenant companies, to develop the land after entering contracts with tenant companies, and to collect funds.

Table 13-9: Financial Indicators of Vina CPK 1 (in the previous three years) (unit: VND)

Item	2013	2012	2011
Current assets	161,037,303,930	146,899,176,962	62,231,487,646
Cash and cash equivalents	71,051,822,141	79,510,015,469	51,777,379,184
Short-term investments	85,000,000,000	50,000,000,000	0
Accounts receivable	2,176,857,456	15,309,779,849	569,760,540
Other current assets	2,808,624,333	2,079,381,644	9,884,347,922
Long -term assets	275,239,966,009	233,591,374,550	154,871,676,400
Long term receivables	108,039,098,071	104,207,018,071	0
Fixed assets	159,500,063,442	128,243,353,004	149,842,279,491
Investment property	6,995,933,875	0	0
Other long-term assets	704,870,621	1,141,003,475	5,029,396,909
Liabilities	89,442,157,035	28,609,541,912	24,031,894,625
Current liabilities	21,890,199,407	28,609,541,912	24,031,894,625
Long term receivables	67,551,957,628	0	0
Equity	346,835,112,904	351,881,009,600	193,071,269,421
Sales	893,882,237	0	0
Cost of sales	-4,590,827,239	-2,491,760,212	0
Gross profit	-3,696,945,002	-2,491,760,212	0
Net accounting loss before tax	-5,045,896,696	-7,814,259,821	-5,669,215,922

(Prepared by the Study Team based on materials supplied by Vina CPK)

Table 13-10: Financial Indicators of Vina CPK 2 (in the previous three years)

Indicator	2013	2012	2011
Equity ratio	79%	92%	89%
Fixed ratio	46%	36%	78%
Current ratio	736%	513%	259%
Return on asset (ROA)	-1.2%	-2.1%	-2.6%
Return on equity (ROE)	-1.2%	-2.1%	-2.6%
Gross profit ratio	-414%	NA	NA
Total asset turnover (TAT)	0.002	0.000	0.000

(Prepared by the Study Team based on materials supplied by Vina CPK)

13.1.2 Operation and Maintenance Capacity of Industrial Parks

As shown in the following table, the president and construction director of Vina CPK, the project partner, have a great deal of experience and work records in industrial park projects in Vietnam and abroad. With respect to the operation and maintenance (O&M) of industrial parks, they have experienced services to tenant companies at Amata Industrial Park (Ho Chi Minh) and the O&M of infrastructure, and security at Thang Long Industrial Park. Their experience and work record will be highly useful for the project, and it can be said that Vina CPIK has good capacity to operate and manage industrial parks.

Table 13-11: Experience and Work Records at Other Industrial Parks

Industrial park	Experience and work records	Person in charge
Amata Industrial Park (Ho Chi Minh)	・ Planning (master plan, step-by-step development, land use planning, etc.) （Chief Planner） ・ Infrastructure development (road, water supply and sewerage, wastewater treatment, electricity, etc.) （Chief Planner） ・ O&M of the industrial park（Chief Planner） ・ Planning of sales lots to meet the needs of tenant companies（Sales Engineer） ・ Provision of technical data on factory construction to tenant companies （Sales Engineer） ・ Assistance to application for various licenses (construction, environmental, fire prevention and other permits) （Sales Engineer） ・ Tenant services (water supply and sewerage, and electricity) （Sales Engineer）	President of Vina CPK
Amata Industrial Park (Bangkok)	・ Feasibility study ・ Master plan ・ Expansion to Phases 4 and 5	President of Vina CPK
VSIP Industrial Park (Bac Ninh Province)	・ Construction planning and bidding management for the project ・ Design management to the consultant ・ Land acquisition and compensation in Phase 1 ・ Technical assistance to tenant companies ・ Assistance to coordination with the relevant Vietnamese organizations and authorities ・ Assistance to land sales and payments according to the progress of the progress	Construction director of Vina CPK

Industrial park	Experience and work records	Person in charge
Tong Lung Industrial Park (Hanoi)	・ Technical O&M of infrastructure systems (wastewater treatment and water purification facilities) ・ Responsibility for ISO14001 environmental management (concurrent) ・ Responsibility for land acquisition and compensation (concurrent) ・Responsibility for security (concurrent) ・ Project coordination (civil engineer)	Construction director of Vina CPK

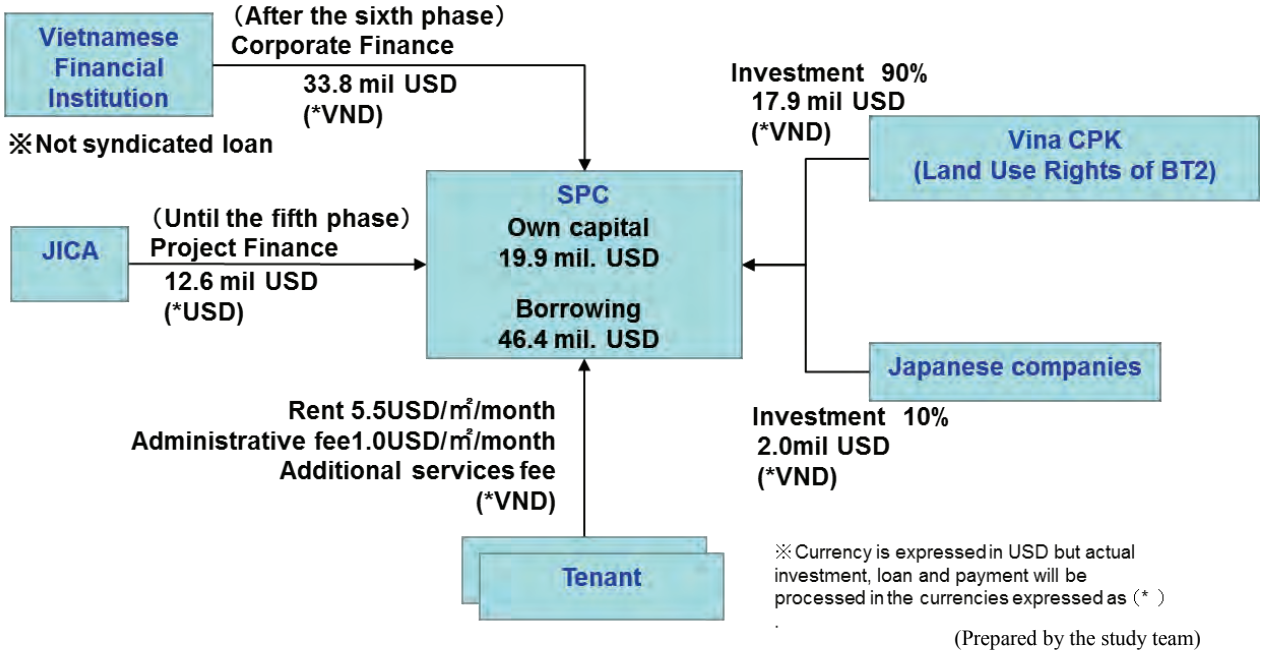
(Prepared by the Study Team based on materials supplied by Vina CPK)

13.2 Deliberation and Coordination with Vina CPK

13.2.1 Results of Deliberation and Coordination with Vina CPK

The figure below shows the results of deliberation with Vina CPK as well as investment ratios, amounts and other information.

Vina CPK, a partner company of the Project and the Japanese companies comprising the consortium jointly invest in and establish an SPC which implement the rental factory project for Japanese SMEs. The SPC procures construction cost by capital and loan. Investment ratio is 90% for Vina CPK and 10% for the Japanese companies comprising the consortium. The first five years of loans will come directly from JICA PSIF and Vietnamese financial institutions will provide corporate financing from the sixth year on.



(Prepared by the study team)

Figure 13-3: Project Scheme

SPC will implement the rental factory project by revenue from rent, administrative fees and additional services fees paid from tenants.

The services SPC provides to tenant companies are divided into two types: basic services and additional services. Basic services are those for rental factory maintenance and operation and expansion assistance.

SPC will collect fees from rent and administrative fees by tenant companies. Additional services are operational assistance services, meals, vehicles, IT, logistics, insurances, housing, introduction of candidate companies for tie-ups, and business matching, etc. Tenant companies will pay fees for each service separately from rent and administrative fees to companies providing additional services, and SPC will collect introduction fees from those companies.

13.2.2 Proposed Term Sheet for Main Conditions for Shareholders Agreements

The table below is a proposed term sheet for the main conditions for shareholders agreements for the Project.

Table 13-12: Proposed Term Sheet for Main Conditions for Shareholders Agreements

Item	Details
SPC type	Multi-member limited liability company (MLLC)
Shares	All common shares Each share is 10 million JPY (in Vietnamese dong (VND))
Restriction on share transfer, divestiture method and price	Restrictions exist. Pre-emptive rights clearly written. If a pre-emptor intends to purchase shares, shares eligible for transfer will be transferred to the person who exercised pre-emptive rights. The price is the value of the shares at the time of divestiture.
Subscription rights (increase)	New shares are issued in accordance with ownership ratios at the time of share issue. However, a shareholder may decline to receive shares, and in those cases, the ownership ratio of that shareholder will decrease.
Shareholder meeting resolutions	A quorum is 65% of voting shares. For special resolutions, the quorum is 75% of voting shares; for ordinary resolutions, it is 65% (according to Vietnamese law).
Appointment of directors	Three to 11 people appointed by shareholders (according to Vietnamese law)
President	Appointed by the Japan side. Plans call for a director to be appointed.
Anti-competitive measures	Defined. Shareholders may not engage in the same business within Vinh Phuc Province.
Termination	Contracts are terminated if shareholders become bankrupt. Shares are distributed to other shareholders based on their ownership ratios at the value of the shares at the time of divestiture.

(Prepared by the Study Team)

13.3 Coordinating with Vietnamese Financial Institutions

Three banks were interviewed in the course of selecting an intermediary bank for two-step loans in order to use JICA's overseas investment system: the Joint-Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank), the Vietnam Bank for Industry and Trade (Vietinbank) and the Vietnam Export-Import Bank (EXIM Bank). The results are as follows.

13.3.1 Interviews with Vietnamese Financial Institutions

(1) Joint-Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank)

Vietcombank has a full understanding of the frameworks of multiple PPP projects for JICA PSIF over the past two years, and conducted a detailed investigation of them that revealed major issues. Vietcombank explained that it believes these projects cannot progress unless those issues are resolved. JICA is an

extremely important counterpart to Vietcombank (through ODA, etc.), and Vietcombank wants to find a way to break through those issues, but the issues are too major to resolve.

Below are three matters raised as issues.

1) Problems with Interest Rates and Exchange Rates

JICA PSIF are generally in JPY, and funding is procured in JPY and subleased in VND, but interest rates in VND are above 12% and difficult to decrease below 10%. JICA could procure funds in USD and loan them to SPC in USD as one way to achieve low interest rates in pursuit of Project profitability, but that creates the problem of SPC securing USD to repay the loans. Or, SPC could procure USD through a foreign currency swap with JPY procured from JICA, but that would involve a certain cost.

2) Problems with Security

In the first step of JICA two-step loans, JICA provides a corporate finance loan to Vietcombank, and in the second step, Vietcombank provides a project finance loan to SPC. Since Vietcombank is restricted by authorities, it does not have experience with project financing serving as security for project cash flow. The bank does real property-based loans, but in those cases, costs are approximately 60% of the weight in evaluating security. In either case, sufficient security is required.

3) Problems with the Lending Period

JICA two-step loans last 20 years with a five-year deferment. The longest loans at Vietcombank are 10 years, and it is difficult to adjust loan periods.

(2) Vietnam Bank for Industry and Trade (VietinBank)

VietinBank discussed two-step loans with JICA about one year ago, and VietinBank informed JICA that the Project scheme was similar. In addition, for local intermediary banks there are two types of transactions (borrowing transactions and lending transactions) in two-step loans, but the bank believes there are various issues with borrowing transactions in their current state and would need to hold discussions with JICA and developers in the near future in that case. The bank has experience with lending transactions within Vietnam and is not particularly worried about them (in that case, the bank would need Project C/F and other detailed information, and would examine it and respond as to whether or not to lend).

Below are more of the views of VietinBank.

- JICA loan periods are generally 15 to 20 years. On the other hand, VietinBank SWAP are a maximum of seven years. Thus, JICA must allow its loan period to be broken into three seven-year periods.
- Transactions between SPC and tenant companies are in VND. Thus, loans and repayment between local intermediary banks and SPC are also in VND. However, it is also possible for local intermediary banks to loan and accept repayment in USD.
- JICA loans are in JPY, thus local intermediary banks currently bear foreign currency risk. Therefore, JICA must consider some framework by which it also bears foreign currency risk, such as lending in USD.
- Project financing is extremely rare in Vietnam. If project financing is used, local intermediary banks bear project risks.

- VietinBank heard that JICA loans to local banks at interest rates below 2%. In comparison, local intermediary banks generally lend to SPC at 12% to 13% for corporate financing and 7% for project financing. Demand risk for rental factory projects is high, thus there is a higher possibility that the interest rates can be decreased for corporate financing than for project financing.

(3) Vietnam Export-Import Bank (EXIM Bank)

Below are the results of deliberations with EXIM Bank.

- All EXIM Bank branches are located within Vietnam. Thus, it is not possible to procure funds for SPC through an offshore scheme.
- Loans are based on real demand, thus it should be possible to allow repayment of loans offshore.
- EXIM Bank cannot loan USD to SPC.
- The currency in the first step of a JICA two-step loan differs from that of the second step, thus the two steps are treated as separate matters.
- It is unclear whether or not EXIM Bank is permitted to serve as an intermediary bank for JICA PSIF.
- In general terms, interest rates for project financing in VND are at least 10%.
- The most important factor in EXIM Bank's assessment of demand risk is the composition of project financing.
- As an intermediary bank with the initial deferment period of five years from JICA PSIF, EXIM Bank must also consider collecting only interest from borrowers.
- In Vietnam, there is a regulation that states a bank cannot open local offices in provinces in which it does not have a branch. EXIM Bank currently has no plans to establish a branch in Vinh Phuc Province.
- In the course of executing loans, financial statements from the past three years are subject to EXIM Bank credit department examination. This examination is not possible if the borrower does not have a branch office or the like in Vietnam, thus it is not possible at this time to loan to SPC.

13.3.2 Results of Coordinating with Vietnamese Financial Institutions

Interviews with three Vietnamese financial institutions revealed that a loan scheme premised on two-step loans would be difficult. The main reasons for this difficulty are problems with project risk, exchange and interest rates, and loan periods as well as the institutions' lack of experience with project financing. Therefore, it is envisioned that the first five years of loans will come directly from JICA PSIF, and that Vietnamese financial institutions will provide corporate financing from the sixth year on. However, the trend of PSIF and the possibility of its application are continued to be explored because procurement by JICA two-step loans can be possible when the conditions are satisfied by resolution of problems presented by local financial institutions that would become intermediary banks in the future.

13.3.3 Proposed Term Sheet of Main Conditions Related to Loan Agreements

The table below is a proposed term sheet of main conditions related to loan agreements for the Project, reflecting deliberations with Vina CPK and the results of coordination with Vietnamese financial institutions. Note that conditions related to loan contracts with Vietnamese financial institutions will be discussed and determined with JICA as they come up when the Project expands in the sixth year and beyond.

Table 13-13: Proposed Term Sheet of Main Conditions Related to Loan Agreements

Item	Details
Fund procurement Execution period	JICA PSIF (direct loan): First five years, 70% of Project costs Loans for project costs are executed when construction work begins.
Loan period	20 years from the initial contract (five-year deferment period)
Currency	USD
Interest	According to separate agreements between JICA and SPC
Security	Land-use rights and structures owned by SPC
Other	SPC will open a Revenue Account to receive payment from tenant companies, and will distribute funds from that account to an Operating Cost Account, Loan Repayment Account and Surplus Reserve Account, in that order.

(Prepared by the Study Team)

Chapter 14 Economic and Financial Analysis

14.1 Organization of Prerequisites

This section will calculate revenue and expenditure of the project, and analyze the financial standing of the SPC. To this end, the financial analysis will use such indicators as net present value (NPV), project internal rate of return (PIRR), economic internal rate of return (EIRR), debt-service coverage ratio (DSCR) and loan life coverage ratio (LLCR).

The financial analysis defines the "base case" as a case where the entire area of the industrial park is developed in a step-by-step manner from Phase 1 to Phase 7. To clarify the sensitivity to risk of demand fluctuations with a number of uncertain elements, the financial analysis will also deal with a "medium-term development case", where the industrial park is developed in Phases 1 to 6. In addition, to clarify the project feasibility, the financial analysis will also deal with on a "start-up case", the development under Phase 1 only, because the initial development is considered to be particularly important for financing organizations

It is envisioned that funds for the first five years will be procured from direct loans from JICA using JICA PSIF, and through corporate financing from Vietnamese financial institutions from the sixth year on. Foreign currency risk is expected because JICA direct loans are procured and repaid in USD and SPC income and payments are in VND. However, the cash flow will be evaluated through sensitivity analysis of demand fluctuation risk because future exchange rate fluctuations cannot be predicted and because there is room for the fluctuation of occupancy rates, inflation rates and interest rates from procuring JICA PSIF.

(1) Project Schedule and Development Area

Table 14-1: Project Schedule and Development Area

Phase	Construction	Inauguration of business	Land area	Building area	Grounds, etc.
Phase 1	2016	January 2017	20,000 ㎡	10,438 ㎡ (of which the administrative building: 500m²)	・ Developing approximately two thirds of all the model units of 30,820m², and the administrative building
Phase 2	2017	January 2018	11,820 ㎡	6,182 ㎡	・ Developing approximately one third of all the model units of 30,820m²
Phase 3	2018	January 2019	15,410 ㎡	8,060 ㎡	・ Developing a half of all the model units of 30,820m²
Phase 4	2019	January 2020	15,410 ㎡	8,060 ㎡	・ Developing a half of all the model units of 30,820m²
Phase 5	2020	January 2021	15,410 ㎡	8,060 ㎡	・ Developing a half of all the model units of 30,820m²
Phase 6	2021	January 2022	15,410 ㎡	8,060 ㎡	・ Developing a half of all the model units of 30,820m²
Phase 7	2022	January 2023	184,850 ㎡	89,861 ㎡ (of which the administration building: 500m²)	・ Calculated by multiplying the entire land area minus areas for rental factories/administrative building/paving by 52.3% ・ In reality, developing the area in accordance with the project progress
Total are			278,310 ㎡	138,721 ㎡ (of which the administration building: 1,000m2)	

(2) Operation Period

Table 14-2: Operation period

Base case	Medium-term development case	Start-up case
36 years (2017 – 2052)	30 years (2017 – 2046)	30 years (2017 – 2046)

(3) Financing

Table 14-3: Financing

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Own capital	Investment	USD 19.9million	USD 6.6million	USD 1.4million	・ 30% of the entire investment
Borrowing	JICA PSIF	USD 12.6million	USD 12.6million	USD 3.3million	・First five years, 70% of total investment ・Project financing ・Procurement and repayment in USD ・Interest rate: 8% (Set with consideration for foreign currency risk) ・Loan period: 20 years (five-year deferment period)
	Vietnamese Financial Institutions	USD 33.8million	USD 2.7million	-	・From sixth year on, 70% of total investment ・Corporate financing ・Procurement and repayment in VND ・Interest rate: 8% (Set with consideration for VNIBOR as of November 2014, Vietnamese financial institution short-term loan interest rates, and project risks. Envisioning discussion from sixth year on as necessary.) ・Loan period: 20 years (five-year deferment period)

(4) Revenue from Operation

Table 14-4: Revenue from Operation

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Revenue from operation	Rents	USD 788.7million	USD 188.0million	USD 50.3million	・ Rent: USD 5.5/m^2/month[39] ・ Rent is calculated by multiplying the building area by unit rent and by occupancy rate.
	Administrative fees	USD 143.4million	USD 34.2million	USD 9.2million	・ Administrative fee: USD 1.0/m^2/month[39] ・ Administrative fee is calculated by multiplying the building area by unit administrative fee and by occupancy rate.
Additional service fees		USD 104.5million	USD 23.4million	USD 6.4million	・ USD 500/month/company[39] ・ Handling charges from agencies to which additional service is re-commissioned, and intermediate agencies
Total revenue		USD 1,036.6million	USD 245.5million	USD 65.9million	

(5) Occupancy Rate

Occupancy rates were set for each phase and account for the time required for tenant companies to move out or switch. There are five factories in North Vietnam that exclusively provide rental factories, [39] and two of them are 100% occupied (completely full) by Japanese companies while one has a Japanese company occupancy rate of 25%. Thus, there is a level of need for rental factories for Japanese companies. Interviews revealed that the main reasons for tenant companies to move out was construction of their own factories or complete withdrawal, but there were hardly any complete withdrawals in preceding cases, and 10–20% of them moved out due to the construction of their own factories.

In light of the above, an occupancy rate of 80–85% was estimated for both the base case (through Phase 7) and the medium-term development case (through Phase 6). The Project will be expanded once the occupancy rate reaches 100% in the start-up case (Phase 1 only).

Table 14-5: Occupancy Rate (Base case)

Phase	1st year	2nd year	3rd year and afterward
Phase 1	100%	100%	100%
Phases 2 – 7	50%	65%	85%

Table 14-6: Occupancy Rate (Medium-term development case)

Phase	1st year	2nd year	3rd year and afterward
Phase 1	65%	65%	80%
Phases 2 – 6	50%	65%	80%

Table 14-7: Occupancy Rate (Start-up case)

Phase	1st year	2nd year	3rd year and afterward
Phase 1	100%	100%	100%

[39] See Chapter 11 for more details.

(6) Initial Cost

Table 14-8: Initial Cost

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Initial investment cost	Cost of acquiring land use right	USD 13.1million	USD 4.4million	USD 0.9million	・ Unit cost of acquiring land use right: USD 47/m^2 ・ Calculated by multiplying the unit cost by the land area
	Construction cost	USD 50.6million	USD 15.6million	USD 3.2million	・ Unit cost of factory construction: USD 270 m^2 ・ Unit cost of construction of administrative building: USD 1,000/m^2 ・ Calculated by multiplying the unit cost by the building area ・ The cost includes construction cost of administrative building.
	Start-up cost	USD 2.5million	USD 1.8million	USD 0.6million	・ Phase 1: USD500,000 ・ Phase 2: USD200,000 ・ Phase 3: USD200,000 ・ Phase 4: USD200,000 ・ Phase 5: USD200,000 ・ Phase 6: USD200,000 ・ Phase 7: USD500,000 * The cost of Phase 1 includes the marketing cost of USD 100,000.
Total cost		USD 66.2million	USD 21.8million	USD 4.7million	

(7) Operating Cost

Table 14-9: Operating Cost

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Operating cost	Labor cost for the Chief	USD 89.8million	USD 24.5million	USD 7.6million	・ USD1,500/month/person ・ One Japanese staff member is stationed. * Reasonable payments will be set based on the findings of interview surveys.
	Labor cost for office workers				・ USD800/month/person ・ Local workers speaking Japanese will be stationed. ・ Phase 1: 2 workers ・ Phase 2: 2 workers ・ Phase 3: 3 workers ・ Phase 4: 3 workers ・ Phase 5: 4 workers ・ Phase 6: 4 workers ・ Phase 7: 10 workers * Reasonable payments will be set based on the findings of interview surveys.
O&M cost	Administrative cost				・ USD0.3/m^2 (building area)/month ・ Regular expenses not included in the repair and updating cost (guards, planting, cleaning, utilities and maintenance) ・ Basic units calculated in the O&M plan ・ Constant throughout the phases

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
	Administrative fee to the industrial park				・ USD0.025/m^2 (land area)/year ・ Payment from SPC to Vina CPK as the operator of the Industrial Park ・ Constant throughout the phases
General administrative cost					・ 20% of the operating cost and O&M cost ・ Constant throughout the phases
Repair, updating and demolition costs		USD 130.0million	USD 38.8 million	USD 8.4million	・ Calculated by multiplying the repair, updating and demolition cost per square meter by the building area in accordance with the repair and updating plan
Other costs	Cost of administrative office	USD 3.6million	USD 1.4million	USD 0.9million	・ 20% of the sum of the O&M cost and general administrative cost in Phases 1 and 2 ・ Constant at the 20% above from Phase 1 to 6 and doubled in Phase 7 and afterwards
	Marketing cost	USD 11.9million	USD 7.9million	USD 7.9million	・ USD 100,000/year ・ Constant throughout the phases
	Intermediate fees	USD 3.5million	USD 2.4million	USD 2.4million	・ USD 30,000/year ・ Constant throughout the phases
Total cost		USD 238.7million	USD 75.0million	USD 27.3million	

(8) Depreciation

Table 14-10: Depreciation

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Property	Land	USD 9.8million	USD 2.8million	USD 0.6million	・ Depreciation in 45 years under straight-line
	Building	USD 50.6million	USD 15.6million	USD 3.2million	・ Depreciation in 30 years under straight-line

(9) Taxation

Table 14-11: Taxation

Item		Base case	Medium-term development case	Start-up case	Grounds, etc.
Tax type	Corporate income tax (national tax)	20%	20%	20%	・ Corporate income tax exemption is available for investment in preferential sectors and regions under the Common Investment Law. The project is a real estate project, which is categorized as a sector with conditioning, and is not eligible for the tax exemption. ・ Loss carry-forward period: 5 years

(10) Inflation Rate

Table 14-12: Inflation Rate

Item	Base case	Medium-term development case	Start-up case	Grounds, etc.
Inflation rate	6.0%	6.0%	6.0%	In 2013, CPI grew at the rate of 6.6%.

(11) Dividend Policy

Table 14-13: Dividend policy

Base case	Medium-term development case	Start-up case
・ 80% of distributable cash ・ No dividend for three years after the commencement of the project (FY2017-FY2019)	・ 80% of distributable cash ・ No dividend for five years after the commencement of the project (FY2017-FY2021)	・ 80% of distributable cash ・ No dividend for three years after the commencement of the project (FY2017-FY2019)

14.2 Financial Analysis of the Private Sector

The project revenue and expenditure has been analyzed based on the prerequisites above.

Table 14-14: Results of Financial Analysis

Indicator	Base case	Medium-term development case	Start-up case
Facility development cost (inflation taken into account)	USD 66.2 million	USD 21.8 million	USD 4.7million
Total investment	USD 66.2 million	USD 21.8 million	USD 4.7million
Operating income	USD 1,036.6 million	USD 245.5 million	USD65.9million
Operating expenditure	USD 238.7 million	USD 75.0 million	USD 27.3million
NOI (Net Operating Income)	USD 656.5 million	USD 141.9million	USD 32.1million
NPV	USD 76.9 million	USD 135.3 million	USD 4.5million
P-IRR	18.88 %	15.82 %	15.52 %
E-IRR	23.36 %	16.12 %	15.10 %
DSCR (Average during the project term)	3.670	4.954	2.390
LLCR	2.397	2.309	2.644

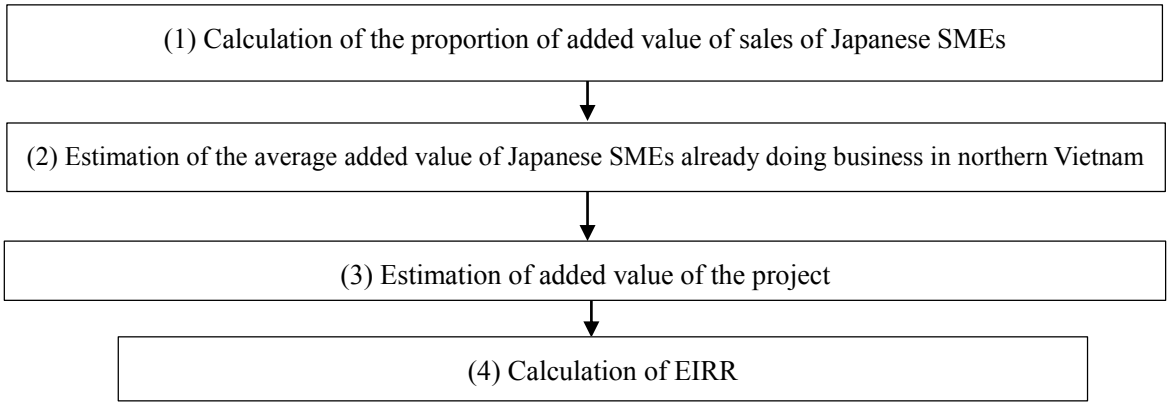
* A simulation table is attached as the appendix D, E and F at the end of the chapter.

14.3 Economic Analysis of the Project

This section gives an account of the economic analysis of the entire project that has been conducted to assess the validity of the project.

14.3.1 EIRR Analysis

After Japanese SMEs rent factories at the Industrial park, a number of new factories start production. This is expected to increase the factory production and added value (GDP) in Vinh Phuc Province. An EIRR analysis has been conducted in accordance with the following flowchart.



(Prepared by the Study Team)

Figure 14-1: Flow of the EIRR Analysis

(1) Calculation of the Proportion of Added Value of Sales of Japanese SMEs

The proportions of sales to sales per worker, sales per company and sales of SMEs classified in terms of workforce have been calculated based on the number of employees, sales and added value of the manufacturing sector in the FY2014 Basic Survey on Small and Medium Enterprises published by Japan's Small and Medium Enterprise Agency. The following table shows the proportions of added values to sales.

Table 14-15: Proportions of Added Values to Sales of Japanese SMEs (annual amount)

Category	5 or less workers	6 – 20 workers	21 – 50 workers	51 or more workers	Average
Average workforce per company (people)	4.3	14.0	37.1	156.8	53.1
Sales per worker (JPY million/worker)	9.8	12.5	14.4	21.2	14.5
Sales per company (JPY million/company)	43	176	534	3,303	1,014
Proportion of added value to sales	0.37	0.35	0.33	0.27	0.33

(Prepared by the Study Team based on the FY2014 Basic Survey on Small and Medium Enterprises (the Small and Medium Enterprise Agency of Japan))

(2) Estimation of the Average Added Value of Japanese SMEs Already Doing Business in Northern Vietnam

The annual added value per company has been estimated by multiplying sales of Japanese SMEs that are in the manufacturing or automobile industry and has already been doing business in northern Vietnam[40] by the proportion of value added to sales calculated in the previous section. The following table shows the results.

Table 14-16: Added Value of Japanese SMEs Already Doing Business in Northern Vietnam (annual amount)

Category	5 or less workers	6 – 20 workers	21 – 50 workers	51 or more workers
Total number of SMEs doing business in northern Vietnam (companies)	1	3	6	24
Total sales (JPY million)	78	294	1,915	37,626
Total added value (JPY million)	29	104	625	10,287
Added value per company (JPY million/company)	29	35	104	429

(Prepared by the Study Team based on "Data Bank Series for Research & Analysis: Comprehensive Guide for Japanese Companies Operating Overseas" (Toyo Keizai Inc.))

(3) Estimation of Added Value of the Project

The project plans to build apartment-type, two-in-one and stand-alone factories to create a total of 202 rental factory units. The number of tenants varies depending on the composition of units, but the EIRR analysis has assumed that one company will rent one rental factory unit. It has also assumed that companies renting apartment-type factories have 10 workers each; that those renting two-in-one factories have 50 workers each; and that those renting stand-along factories have 100 workers each. Based on these assumptions, the added values for various possible numbers of tenant companies have been calculated with the average added value per company estimated in the previous section.

Table 14-17: Prerequisite for Estimation of Added Value of the Project

Item	Apartment type	Two-in-one	Stand-alone
Workforce per company	10 workers	50 workers	100 workers
Average added value per company (annual)	JPY 35 million	JPY 104 million	JPY 429 million
No. of rental factory units to be created (total during the entire project period)	129 units	55 units	18 units
Possible number of tenants (total during the entire project)	129 companies	55 companies	18 companies

(Prepared by the Study Team)

[40] The source material lists Japanese SMEs (the number of employees is under 300) that are in the manufacturing or automobile industry and doing business in northern Vietnam. But the added value per company was estimated for 34 companies, whose data on sales and workforce were available.

The accumulated added value during FY2016-2022 has been estimated at JPY 38.8 billion when the occupancy rate is 100%; JPY 31.0 billion when the occupancy rate is 80%; and JPY 23.3 billion when the occupancy rate is 60%.

Table 14-18: Added Value during FY2016 and FY2022

Year	2017	2018	2019	2020	2021	2022	2023	Total
Project plan								
Building area (m^2)	10,438	6,182	8,060	8,060	8,060	8,060	89,861	138,721
Land area (m^2)	20,000	11,820	15,410	15,410	15,410	15,410	184,850	278,310
No. of rental factory units								
Apartment type	9	5	7	7	7	7	87	129
Two-in-one	4	2	3	3	3	3	37	55
Stand-alone	1	1	1	1	1	1	12	18
Total	14	8	11	11	11	11	136	202
If the occupancy rate is 100%								Unit: JPY million
Apartment type								
Added value (additional)	312	174	243	243	243	243	3,020	4,479
Added value (single year)	312	486	729	972	1,215	1,458	4,479	9,651
Two-in-one								
Added value (additional)	417	208	313	313	313	313	3,856	5,732
Added value (single year)	417	625	938	1,251	1,563	1,876	5,732	12,401
Stand-alone								
Added value (additional)	429	429	429	429	429	429	5,143	7,715
Added value (single year)	429	857	1,286	1,714	2,143	2,572	7,715	16,716
Total								
Added value (additional)	1,158	811	984	984	984	984	12,019	17,925
Added value (single year)	1,158	1,969	2,953	3,937	4,921	5,906	17,925	**38,768**
If the occupancy rate is 80%								Unit: JPY million
Apartment type								
Added value (additional)	250	139	194	194	194	194	2,416	3,583
Added value (single year)	250	389	583	778	972	1,167	3,583	7,721
Two-in-one and stand alone								
Added value (additional)	333	167	250	250	250	250	3,085	4,585
Added value (single year)	333	500	750	1,000	1,251	1,501	4,585	9,921
Stand-alone								
Added value (additional)	343	343	343	343	343	343	4,115	6,172
Added value (single year)	343	686	1,029	1,372	1,714	2,057	6,172	13,373
Total								
Added value (additional)	926	648	787	787	787	787	9,616	14,340
Added value (single year)	926	1,575	2,362	3,150	3,937	4,724	14,340	**31,014**
If the occupancy rate is 60%								Unit: JPY million
Apartment type								

Year	2017	2018	2019	2020	2021	2022	2023	Total
Added value (additional)	187	104	146	146	146	146	1,812	2,687
Added value (single year)	187	292	437	583	729	875	2,687	5,791
Two-in-one and stand alone								
Added value (additional)	250	125	188	188	188	188	2,313	3,439
Added value (single year)	250	375	563	750	938	1,125	3,439	7,441
Stand-alone								
Added value (additional)	257	257	257	257	257	257	3,086	4,629
Added value (single year)	257	514	771	1,029	1,286	1,543	4,629	10,029
Total								
Added value (additional)	695	486	591	591	591	591	7,212	10,755
Added value (single year)	695	1,181	1,772	2,362	2,953	3,543	10,755	**23,261**

(Prepared by the Study Team)

(4) Calculation of EIRR

The gross added value and EIRR have been calculated based on the added value estimated in the previous sections. The EIRR for the initial seven years after the commencement of the operation (2017-2023) has been estimated at 27-43%.

Table 14-19: Gross Added Value and EIRR

Item	The occupancy rate		
	100%	80%	60%
Gross investment (JPY million) *	6,752	6,752	6,752
Gross added value (JPY million) (2017-2023)	38,768	31,014	23,261
EIRR（2017-2023）	43%	36%	27%

* USD 66.2 million x JPY102/USD = JPY 6,752 million

(Prepared by the Study Team)

14.3.2 Employment Creation Effect

As stated in Chapter 2, there are 53 vocational training schools in Vinh Phuc Province, which produce 50,000 or more new workers each year. The Project will be able to create employment opportunities for local workers including graduates from the vocational and training schools. As stated in the previous section, the project plans to build apartment-type, two-in-one and stand-alone factories to create a total of 202 rental factory units. Assuming that companies renting apartment-type factories have 10 workers each; that those renting two-in-one factories have 50 workers each; and that those renting stand-along factories have 100 workers each, the project will create 5,840 jobs if the occupancy rate is 100%, 3,950 jobs if the occupancy rate is 80%, or 2,910 jobs if the occupancy rate is 60%. This will have a considerable positive impact on the economy of Vinh Phuc Province.

Table 14-20: Employment Creation Effect

Year	2017	2018	2019	2020	2021	2022	2023	Total
Project plan								
Building area (m^2)	10,438	6,182	8,060	8,060	8,060	8,060	89,861	138,721
Land area (m^2)	20,000	11,820	15,410	15,410	15,410	15,410	184,850	278,310
No. of rental factory units								
Apartment type	9	5	7	7	7	7	87	129
Two-in-one	4	2	3	3	3	3	37	55
Stand-alone	1	1	1	1	1	1	12	18
Total	14	8	11	11	11	11	136	202
No. of jobs created (at the occupancy rate of 100%)								
Apartment type	90	50	70	70	70	70	870	1,290
Two-in-one	200	100	150	150	150	150	1,850	2,750
Stand-alone	100	100	100	100	100	100	1,200	1,800
Total	390	250	320	320	320	320	3,920	**5,840**
No. of jobs created (at the occupancy rate of 80%)								
Apartment type	70	40	50	50	50	50	690	1,000
Two-in-one	150	50	100	100	100	100	1,450	2,050
Stand-alone	0	0	0	0	0	0	900	900
Total	220	90	150	150	150	150	3,040	**3,950**
No. of jobs created (at the occupancy rate of 60%)								
Apartment type	50	30	40	40	40	40	520	760
Two-in-one	100	50	50	50	50	50	1,100	1,450
Stand-alone	0	0	0	0	0	0	700	700
Total	150	80	90	90	90	90	2,320	**2,910**

(Created by the Study Team)

Chapter 15 Overall Evaluation of Project Potential

15.1 Summary of the Study

This study has discussed the feasibility of a rental factory project for Japanese SMEs in the view of private investment by confirmation of private investment environment, demand forecasting, consideration of the scope of project, financial analysis, risk analysis and verification and implementation of environmental and social consideration. A draft term sheet of principal conditions of loan agreement has been also prepared.

Apartment-type of 360-540 ㎡ par lot, two-in-one type of approximately 1,000 ㎡ and stand-alone type of 2,000 ㎡ and over have been planned based on the demand forecasting and the market survey as the Project mainly targets at SMEs.

The scheme that Vina CPK and the Japanese companies comprising the consortium jointly invest in and establish an SPC which implement the rental factory project for Japanese SMEs has been developed. Estimation is 66.2 million USD (approx.7.8 billion JPY) for the entire construction cost, 238.7 million USD (approx.28.1 billion JPY) for operating expenditure, 1036.6 million USD (approx. 122.2 billion JPY) for operating income. The SPC procures the entire construction cost by capital for 30% and loan for 70% and the investment ratio is 90% for Vina CPK and 10% for the Japanese companies comprising the consortium. The first five years of loans will come directly from JICA PSIF and Vietnamese financial institutions will provide corporate financing from the sixth year on. SPC will implement the rental factory project by revenue from rent, administrative fees and additional services fees paid from tenants.

The services SPC provides to tenant companies are divided into two types: basic services and additional services. Basic services are those for rental factory maintenance and operation and expansion assistance. SPC will collect fees from rent and administrative fees by tenant companies. Additional services are operational assistance services, meals, vehicles, IT, logistics, insurances, housing, introduction of candidate companies for tie-ups, and business matching, etc. Tenant companies will pay fees for each service separately from rent and administrative fees to companies providing additional services, and SPC will collect introduction fees from those companies.

SPC is scheduled to be established in 2015. Once established, SPC will acquire permits and approval required to construct and operate rental factories for Japanese SMEs, and will begin construction of Phase 1 in 2016. Operation of Phase 1 will start in January 2017 and will be complete in 2052.

From 2016 to 2021, a total of 9.0 ha of land will be developed: 2.0 ha in Phase 1; 1.0 ha in Phase 2; and 1.5 ha in each of Phases 3 through 6. Phase 7 and onward involve phased development based on demand and intent to occupy rental factories in Phases 1 through 6. Thus, the content will be determined in light of factors such as deliberations with Vina CPK and progress to that point. However, as of now, plans call for the development of approximately 18 ha of land in 2022 and onward.

As a result of financial analysis based on the above project plan, P-IRR is 18.88%, E-IRR is 23.36%, average DSCR during the project term is 3.670 and LLCR is 2.397. The rental factory has the potential to be a profitable project.

15.2 Future Subjects of Discussion

(1) JICA Two-step Loans

Each Vietnamese financial institution indicated that it would be difficult to accommodate JICA two-step loans as an intermediary bank. This is due to the problems related to initial project risk, interest and exchange rates, and loan periods. Another major factor is the institutions' lack of experience with project financing. Thus, a Project scheme with direct loans from JICA PSIF is proposed. However, the trend of JICA PSIF and the possibility of its application are continued to be explored because procurement by JICA two-step loans can be possible when the conditions are satisfied by resolution of problems presented by local financial institutions that would become intermediary banks in the future.

(2) Relationship between Vina CPK and Vina Capital

Rental factory projects are not as profitable as the business of buying and selling land-use rights, but local partners Vina CPK and Vina Capital have decided to participate in the Ba Thien 2 Industrial Park rental factory project and continue to prepare for construction of a pilot factory because they have determined a need from Japanese SMEs and because rental factories can increase the added value of industrial parks in their own right.

An investment ratio of approximately 90% for Vina CPK is preliminarily determined, and final discussions about SPC governance and land-use rights acquisition prices are continuing toward that end.

APPENDIX

APPENDIX A

Financial Analysis for the Serviced Apartments

Ba Thien Serviced Apartments Feasibility Study

Property name	Ba Thien Serviced Apartment		
Location	Land adjacent to Ba Thien 2 Industrial Park		
Structure	RC structure	Six-stories above the ground	
Completion	201X		
Total number of apartments	50	40㎡/apartment	12tsubo/apartment
Land area	1,000.00㎡	302.50tsubo	
Building area (floor area)	3,000.00㎡	907.50tsubo	
Building area (exclusive area)	2,000.00㎡	605.00tsubo	
Ratio of exclusive area	66.67%		

	Price	Unit price/m2	Unit price/tsubo	Price per apartment
Property acquisition cost	3,398,500	1,699/㎡	5,617/tsubo	67,970/apartment
Capitalization rate (3rd year)	6.44%			
	NOI			
IRR for the entire 40-year project (pretax)	8.55%			
IRR for the entire 40-year project (after-tax)	7.59%			

Breakdown of cost at the time of acquisition

Cost of establishment of SPC	20,000		
Cost of permit/approval acquisition	100,000		
Cost of land title acquisition	100,000	100/㎡	
Construction cost (designing and FFE inclusive)	2,700,000	900/㎡	
SPC administration cost during construction	200,000		
Interest during construction	78,500	5%	Term of construction :1year
Tableware and linen	100,000		
Other reserve funds	100,000		
Total acquisition cost	3,398,500		

Breakdown of construction cost

Design cost (5%)	135,000
Cost of exterior work and site preparation (10%)	270,000
Building work (75%)	2,025,000
Furniture (5%)	135,000
Electrical appliances (5%)	135,000
Others	
Subtotal	2,700,000

Income

Monthly rent for 1st fiscal year	$1,000/apartment, month		
Gross potential income	600,000	82.6/month, tsubo	
Occupancy rate (3rd year)	90%		
Effective rent income	540,000		

Cost

Land use fee	450	$0.450/㎡	VND9000/㎡	
Labor cost (local staff)	104,000	26 persons	$4,000/person	
Labor cost (Japanese staff)	100,000			
Supplies expenses	18,000		$30/apartment, month	
Repair	27,000	1.00%	To construction cost	* Efforts will be made for preventive maintenance in light of LCC.
Utility expenses	18,000		$30/apartment, month	
Pest control	2,400		$200/month	
Cleaning and other administration costs	0		Included in labor cost	
Advertising expenses	10,000			
Insurance	2,700	0.10%		
Cost of restoration to the original condition	6,000	2apartment/month	$250/apartment	
Depreciation cost (main body: 65%)	53,253	40 years	Straight-line	* The term of land use right is deemed as the service life.
Depreciation cost (facilities: 35%)	28,675	40 years	Straight-line	* The service life is set at longer than the standard statutory service life.
Depreciation cost (land)	3,034	40 years	Straight-line	The facility service life will be prolonged with appropriate repair.
Subtotal	373,513			

Table of Expected Income and Expenditure

At the time of acquisition	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year	11th year	12th year	13th year	14th year	15th year
Income															
Gross potential income (sales tax inclusive)	600,000	624,000	648,960	674,918	701,915	729,992	759,191	789,559	821,141	853,987	888,147	923,672	960,619	999,044	1,039,006
Occupancy rate	50%	80%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	300,000	499,200	584,064	607,427	631,724	656,993	683,272	710,603	739,027	768,588	799,332	831,305	864,557	899,140	935,105
Other income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross rent income	300,000	499,200	584,064	607,427	631,724	656,993	683,272	710,603	739,027	768,588	799,332	831,305	864,557	899,140	935,105
Expenditure															
Sales tax (10%)	27,273	45,382	53,097	55,221	57,429	59,727	62,116	64,600	67,184	69,872	72,667	75,573	78,596	81,740	85,010
Land use fee	450	468	487	506	526	547	569	592	616	640	666	693	720	749	779
Labor cost (local staff)	104,000	108,160	112,486	116,986	121,665	126,532	131,593	136,857	142,331	148,024	153,945	160,103	166,507	173,168	180,094
Labor cost (Japanese staff)	100,000	104,000	108,160	112,486	116,986	121,665	126,532	131,593	136,857	142,331	148,024	153,945	160,103	166,507	173,168
Supplies expenses	18,000	18,720	19,469	20,248	21,057	21,900	22,776	23,687	24,634	25,620	26,644	27,710	28,819	29,971	31,170
Repair	27,000	28,080	29,203	30,371	31,586	32,850	34,164	35,530	36,951	38,429	39,967	41,565	43,228	44,957	46,755
Utility expenses	18,000	18,720	19,469	20,248	21,057	21,900	22,776	23,687	24,634	25,620	26,644	27,710	28,819	29,971	31,170
Pest control	2,400	2,496	2,596	2,700	2,808	2,920	3,037	3,158	3,285	3,416	3,553	3,695	3,842	3,996	4,156
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advertising expenses	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	14,233	14,802	15,395	16,010	16,651	17,317
Insurance	2,700	2,808	2,920	3,037	3,159	3,285	3,416	3,553	3,695	3,843	3,997	4,157	4,323	4,496	4,676
Cost of restoration to the original condition	6,000	6,240	6,490	6,749	7,019	7,300	7,592	7,896	8,211	8,540	8,881	9,237	9,606	9,990	10,390
Total cash expenditure	315,823	345,474	365,192	379,800	394,992	410,792	427,223	444,312	462,085	480,568	499,791	519,783	540,574	562,197	584,685
Net cash	−15,823	153,726	218,872	227,626	236,732	246,201	256,049	266,291	276,942	288,020	299,541	311,523	323,983	336,943	350,420
(NOI cap rate)	−0.47%	4.52%	6.44%	6.70%	6.97%	7.24%	7.53%	7.84%	8.15%	8.47%	8.81%	9.17%	9.53%	9.91%	10.31%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	−100,785	68,764	133,909	142,664	151,769	161,238	171,086	181,328	191,980	203,058	214,578	226,560	239,021	251,980	265,458
	−2.97%	2.02%	3.94%	4.20%	4.47%	4.74%	5.03%	5.34%	5.65%	5.97%	6.31%	6.67%	7.03%	7.41%	7.81%
Accumulated loss	−100,785	−32,022	101,888	244,552	396,321	557,559	728,645	909,973	1,101,953	1,305,011	1,519,589	1,746,149	1,985,170	2,237,150	2,502,608
Cash flow −3,398,500	−15,823	153,726	218,872	227,626	236,732	246,201	256,049	266,291	276,942	288,020	299,541	311,523	323,983	336,943	350,420
Project IRR									−9.37%	−6.65%	−4.45%	−2.65%	−1.16%	0.09%	1.16%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

Table of Expected Income and Expenditure

At the time of acquisition	16th year	17th year	18th year	19th year	20th year	21st year	22nd year	23rd year	24th year	25th year	26th year	27th year	28th year	29th year	30th year	31st year
Income																
Gross potential income (sales tax inclusive)	1,080,566	1,123,789	1,168,740	1,215,490	1,264,110	1,314,674	1,367,261	1,421,951	1,478,829	1,537,982	1,599,502	1,663,482	1,730,021	1,799,222	1,871,191	1,946,039
Occupancy rate	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	972,509	1,011,410	1,051,866	1,093,941	1,137,699	1,183,206	1,230,535	1,279,756	1,330,946	1,384,184	1,439,552	1,497,134	1,557,019	1,619,300	1,684,072	1,751,435
Other income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross rent income	972,509	1,011,410	1,051,866	1,093,941	1,137,699	1,183,206	1,230,535	1,279,756	1,330,946	1,384,184	1,439,552	1,497,134	1,557,019	1,619,300	1,684,072	1,751,435
Expenditure																
Sales tax (10%)	88,410	91,946	95,624	99,449	103,427	107,564	111,867	116,341	120,995	125,835	130,868	136,103	141,547	147,209	153,097	159,221
Land use fee	810	843	877	912	948	986	1,025	1,066	1,109	1,153	1,200	1,248	1,298	1,349	1,403	1,460
Labor cost (local staff)	187,298	194,790	202,582	210,685	219,112	227,877	236,992	246,472	256,330	266,584	277,247	288,337	299,870	311,865	324,340	337,313
Labor cost (Japanese staff)	180,094	187,298	194,790	202,582	210,685	219,112	227,877	236,992	246,472	256,330	266,584	277,247	288,337	299,870	311,865	324,340
Supplies expenses	32,417	33,714	35,062	36,465	37,923	39,440	41,018	42,659	44,365	46,139	47,985	49,904	51,901	53,977	56,136	58,381
Repair	48,625	50,570	52,593	54,697	56,885	59,160	61,527	63,988	66,547	69,209	71,978	74,857	77,851	80,965	84,204	87,572
Utility expenses	32,417	33,714	35,062	36,465	37,923	39,440	41,018	42,659	44,365	46,139	47,985	49,904	51,901	53,977	56,136	58,381
Pest control	4,322	4,495	4,675	4,862	5,056	5,259	5,469	5,688	5,915	6,152	6,398	6,654	6,920	7,197	7,485	7,784
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advertising expenses	18,009	18,730	19,479	20,258	21,068	21,911	22,788	23,699	24,647	25,633	26,658	27,725	28,834	29,987	31,187	32,434
Insurance	4,863	5,057	5,259	5,470	5,688	5,916	6,153	6,399	6,655	6,921	7,198	7,486	7,785	8,096	8,420	8,757
Cost of restoration to the original condition	10,806	11,238	11,687	12,155	12,641	13,147	13,673	14,220	14,788	15,380	15,995	16,635	17,300	17,992	18,712	19,460
Total cash expenditure	608,072	632,395	657,691	683,999	711,358	739,813	769,405	800,182	832,189	865,476	900,095	936,099	973,543	1,012,485	1,052,984	1,095,104
Net cash	364,437	379,015	394,175	409,942	426,340	443,394	461,129	479,575	498,758	518,708	539,456	561,034	583,476	606,815	631,087	656,331
(NOI cap rate)	10.72%	11.15%	11.60%	12.06%	12.54%	13.05%	13.57%	14.11%	14.68%	15.26%	15.87%	16.51%	17.17%	17.86%	18.57%	19.31%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	279,475	294,052	309,213	324,980	341,378	358,431	376,167	394,612	413,795	433,745	454,494	476,072	498,513	521,852	546,125	571,368
	8.22%	8.65%	9.10%	9.56%	10.04%	10.55%	11.07%	11.61%	12.18%	12.76%	13.37%	14.01%	14.67%	15.36%	16.07%	16.81%
Accumulated loss	2,782,083	3,076,135	3,385,348	3,710,328	4,051,706	4,410,137	4,786,304	5,180,916	5,594,711	6,028,457	6,482,950	6,959,022	7,457,536	7,979,388	8,525,513	9,096,881
Cash flow −3,398,500	364,437	379,015	394,175	409,942	426,340	443,394	461,129	479,575	498,758	518,708	539,456	561,034	583,476	606,815	631,087	656,331
Project IRR	2.06%	2.84%	3.52%	4.10%	4.62%	5.07%	5.47%	5.83%	6.14%	6.43%	6.68%	6.91%	7.12%	7.31%	7.48%	7.63%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

Table of Expected Income and Expenditure

At the time of acquisition	32nd year	33rd year	34th year	35th year	36th year	37th year	38th year	39th year	40th year
Income									
Gross potential income (sales tax inclusive)	2,023,880	2,104,835	2,189,029	2,276,590	2,367,653	2,462,360	2,560,854	2,663,288	2,769,820
Occupancy rate	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	1,821,492	1,894,352	1,970,126	2,048,931	2,130,888	2,216,124	2,304,769	2,396,959	2,492,838
Other income	0	0	0	0	0	0	0	0	0
Gross rent income	1,821,492	1,894,352	1,970,126	2,048,931	2,130,888	2,216,124	2,304,769	2,396,959	2,492,838
Expenditure									
Sales tax (10%)	165,590	172,214	179,102	186,266	193,717	201,466	209,524	217,905	226,622
Land use fee	1,518	1,579	1,642	1,707	1,776	1,847	1,921	1,997	2,077
Labor cost (local staff)	350,806	364,838	379,432	394,609	410,393	426,809	443,881	461,637	480,102
Labor cost (Japanese staff)	337,313	350,806	364,838	379,432	394,609	410,393	426,809	443,881	461,637
Supplies expenses	60,716	63,145	65,671	68,298	71,030	73,871	76,826	79,899	83,095
Repair	91,075	94,718	98,506	102,447	106,544	110,806	115,238	119,848	124,642
Utility expenses	60,716	63,145	65,671	68,298	71,030	73,871	76,826	79,899	83,095
Pest control	8,096	8,419	8,756	9,106	9,471	9,849	10,243	10,653	11,079
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0
Advertising expenses	33,731	35,081	36,484	37,943	39,461	41,039	42,681	44,388	46,164
Insurance	9,107	9,472	9,851	10,245	10,654	11,081	11,524	11,985	12,464
Cost of restoration to the original condition	20,239	21,048	21,890	22,766	23,677	24,624	25,609	26,633	27,698
Total cash expenditure	1,138,908	1,184,464	1,231,843	1,281,116	1,332,361	1,385,656	1,441,082	1,498,725	1,558,674
Net cash	682,584	709,888	738,283	767,814	798,527	830,468	863,687	898,234	934,164
(NOI cap rate)	20.08%	20.89%	21.72%	22.59%	23.50%	24.44%	25.41%	26.43%	27.49%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	597,622	624,925	653,321	682,852	713,564	745,506	778,724	813,272	849,201
	17.58%	18.39%	19.22%	20.09%	21.00%	21.94%	22.91%	23.93%	24.99%
Accumulated loss	9,694,503	########	10,972,749	11,655,601	########	13,114,671	13,893,395	14,706,667	15,555,868
Cash flow −3,398,500	682,584	709,888	738,283	767,814	798,527	830,468	863,687	898,234	934,164
Project IRR	7.77%	7.90%	8.02%	8.12%	8.22%	8.31%	8.40%	8.47%	8.55%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

Table of Expected Income and Expenditure

At the time of acquisition	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year	11th year	12th year	13th year	14th year	15th year
Income															
Gross potential income (sales tax inclusive)	600,000	624,000	648,960	674,918	701,915	729,992	759,191	789,559	821,141	853,987	888,147	923,672	960,619	999,044	1,039,006
Occupancy rate	50%	80%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	300,000	499,200	584,064	607,427	631,724	656,993	683,272	710,603	739,027	768,588	799,332	831,305	864,557	899,140	935,105
Other income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross rent income	300,000	499,200	584,064	607,427	631,724	656,993	683,272	710,603	739,027	768,588	799,332	831,305	864,557	899,140	935,105
Expenditure															
Sales tax (10%)	27,273	45,382	53,097	55,221	57,429	59,727	62,116	64,600	67,184	69,872	72,667	75,573	78,596	81,740	85,010
Land use fee	450	468	487	506	526	547	569	592	616	640	666	693	720	749	779
Labor cost (local staff)	104,000	108,160	112,486	116,986	121,665	126,532	131,593	136,857	142,331	148,024	153,945	160,103	166,507	173,168	180,094
Labor cost (Japanese staff)	100,000	104,000	108,160	112,486	116,986	121,665	126,532	131,593	136,857	142,331	148,024	153,945	160,103	166,507	173,168
Supplies expenses	18,000	18,720	19,469	20,248	21,057	21,900	22,776	23,687	24,634	25,620	26,644	27,710	28,819	29,971	31,170
Repair	27,000	28,080	29,203	30,371	31,586	32,850	34,164	35,530	36,951	38,429	39,967	41,565	43,228	44,957	46,755
Utility expenses	18,000	18,720	19,469	20,248	21,057	21,900	22,776	23,687	24,634	25,620	26,644	27,710	28,819	29,971	31,170
Pest control	2,400	2,496	2,596	2,700	2,808	2,920	3,037	3,158	3,285	3,416	3,553	3,695	3,842	3,996	4,156
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advertising expenses	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	14,233	14,802	15,395	16,010	16,651	17,317
Insurance	2,700	2,808	2,920	3,037	3,159	3,285	3,416	3,553	3,695	3,843	3,997	4,157	4,323	4,496	4,676
Cost of restoration to the original condition	6,000	6,240	6,490	6,749	7,019	7,300	7,592	7,896	8,211	8,540	8,881	9,237	9,606	9,990	10,390
Total cash expenditure	315,823	345,474	365,192	379,800	394,992	410,792	427,223	444,312	462,085	480,568	499,791	519,783	540,574	562,197	584,685
Net cash	−15,823	153,726	218,872	227,626	236,732	246,201	256,049	266,291	276,942	288,020	299,541	311,523	323,983	336,943	350,420
(NOI cap rate)	−0.47%	4.52%	6.44%	6.70%	6.97%	7.24%	7.53%	7.84%	8.15%	8.47%	8.81%	9.17%	9.53%	9.91%	10.31%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	−100,785	68,764	133,909	142,664	151,769	161,238	171,086	181,328	191,980	203,058	214,578	226,560	239,021	251,980	265,458
	−2.97%	2.02%	3.94%	4.20%	4.47%	4.74%	5.03%	5.34%	5.65%	5.97%	6.31%	6.67%	7.03%	7.41%	7.81%
Accumulated loss	−100,785	−32,022	101,888	244,552	396,321	557,559	728,645	909,973	1,101,953	1,305,011	1,519,589	1,746,149	1,985,170	2,237,150	2,502,608
Corporate tax 20%	*0*	*0*	*10,189*	*14,266*	*15,177*	*16,124*	34,217	36,266	38,396	40,612	42,916	45,312	47,804	50,396	53,092
(0% in the initial 2 years and 10% for 4 years)															
After-tax cash flow −3,398,500	−15,823	153,726	208,683	213,360	221,555	230,077	221,832	230,025	238,546	247,409	256,625	266,211	276,179	286,547	297,329
Project IRR									−10.83%	−8.13%	−5.92%	−4.10%	−2.58%	−1.30%	−0.22%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

Table of Expected Income and Expenditure

At the time of acquisition	16th year	17th year	18th year	19th year	20th year	21st year	22nd year	23rd year	24th year	25th year	26th year	27th year	28th year	29th year	30th year	31st year
Income																
Gross potential income (sales tax inclusive)	1,080,566	1,123,789	1,168,740	1,215,490	1,264,110	1,314,674	1,367,261	1,421,951	1,478,829	1,537,982	1,599,502	1,663,482	1,730,021	1,799,222	1,871,191	1,946,039
Occupancy rate	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	972,509	1,011,410	1,051,866	1,093,941	1,137,699	1,183,206	1,230,535	1,279,756	1,330,946	1,384,184	1,439,552	1,497,134	1,557,019	1,619,300	1,684,072	1,751,435
Other income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross rent income	972,509	1,011,410	1,051,866	1,093,941	1,137,699	1,183,206	1,230,535	1,279,756	1,330,946	1,384,184	1,439,552	1,497,134	1,557,019	1,619,300	1,684,072	1,751,435
Expenditure																
Sales tax (10%)	88,410	91,946	95,624	99,449	103,427	107,564	111,867	116,341	120,995	125,835	130,868	136,103	141,547	147,209	153,097	159,221
Land use fee	810	843	877	912	948	986	1,025	1,066	1,109	1,153	1,200	1,248	1,298	1,349	1,403	1,460
Labor cost (local staff)	187,298	194,790	202,582	210,685	219,112	227,877	236,992	246,472	256,330	266,584	277,247	288,337	299,870	311,865	324,340	337,313
Labor cost (Japanese staff)	180,094	187,298	194,790	202,582	210,685	219,112	227,877	236,992	246,472	256,330	266,584	277,247	288,337	299,870	311,865	324,340
Supplies expenses	32,417	33,714	35,062	36,465	37,923	39,440	41,018	42,659	44,365	46,139	47,985	49,904	51,901	53,977	56,136	58,381
Repair	48,625	50,570	52,593	54,697	56,885	59,160	61,527	63,988	66,547	69,209	71,978	74,857	77,851	80,965	84,204	87,572
Utility expenses	32,417	33,714	35,062	36,465	37,923	39,440	41,018	42,659	44,365	46,139	47,985	49,904	51,901	53,977	56,136	58,381
Pest control	4,322	4,495	4,675	4,862	5,056	5,259	5,469	5,688	5,915	6,152	6,398	6,654	6,920	7,197	7,485	7,784
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advertising expenses	18,009	18,730	19,479	20,258	21,068	21,911	22,788	23,699	24,647	25,633	26,658	27,725	28,834	29,987	31,187	32,434
Insurance	4,863	5,057	5,259	5,470	5,688	5,916	6,153	6,399	6,655	6,921	7,198	7,486	7,785	8,096	8,420	8,757
Cost of restoration to the original condition	10,806	11,238	11,687	12,155	12,641	13,147	13,673	14,220	14,788	15,380	15,995	16,635	17,300	17,992	18,712	19,460
Total cash expenditure	608,072	632,395	657,691	683,999	711,358	739,813	769,405	800,182	832,189	865,476	900,095	936,099	973,543	1,012,485	1,052,984	1,095,104
Net cash	364,437	379,015	394,175	409,942	426,340	443,394	461,129	479,575	498,758	518,708	539,456	561,034	583,476	606,815	631,087	656,331
(NOI cap rate)	10.72%	11.15%	11.60%	12.06%	12.54%	13.05%	13.57%	14.11%	14.68%	15.26%	15.87%	16.51%	17.17%	17.86%	18.57%	19.31%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	279,475	294,052	309,213	324,980	341,378	358,431	376,167	394,612	413,795	433,745	454,494	476,072	498,513	521,852	546,125	571,368
	8.22%	8.65%	9.10%	9.56%	10.04%	10.55%	11.07%	11.61%	12.18%	12.76%	13.37%	14.01%	14.67%	15.36%	16.07%	16.81%
Accumulated loss	2,782,083	3,076,135	3,385,348	3,710,328	4,051,706	4,410,137	4,786,304	5,180,916	5,594,711	6,028,457	6,482,950	6,959,022	7,457,536	7,979,388	8,525,513	9,096,881
Corporate tax 20% (0% in the initial 2 years and 10% for 4 years)	55,895	58,810	61,843	64,996	68,276	71,686	75,233	78,922	82,759	86,749	90,899	95,214	99,703	104,370	109,225	114,274
After-tax cash flow −3,398,500	308,542	320,204	332,333	344,946	358,065	371,707	385,896	400,652	415,999	431,959	448,557	465,820	483,773	502,444	521,862	542,057
Project IRR	0.72%	1.52%	2.22%	2.84%	3.38%	3.85%	4.27%	4.65%	4.98%	5.29%	5.56%	5.80%	6.03%	6.23%	6.41%	6.58%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

Table of Expected Income and Expenditure

At the time of acquisition	32nd year	33rd year	34th year	35th year	36th year	37th year	38th year	39th year	40th year
Income									
Gross potential income (sales tax inclusive)	2,023,880	2,104,835	2,189,029	2,276,590	2,367,653	2,462,360	2,560,854	2,663,288	2,769,820
Occupancy rate	90%	90%	90%	90%	90%	90%	90%	90%	90%
Effective rent income	1,821,492	1,894,352	1,970,126	2,048,931	2,130,888	2,216,124	2,304,769	2,396,959	2,492,838
Other income	0	0	0	0	0	0	0	0	0
Gross rent income	1,821,492	1,894,352	1,970,126	2,048,931	2,130,888	2,216,124	2,304,769	2,396,959	2,492,838
Expenditure									
Sales tax (10%)	165,590	172,214	179,102	186,266	193,717	201,466	209,524	217,905	226,622
Land use fee	1,518	1,579	1,642	1,707	1,776	1,847	1,921	1,997	2,077
Labor cost (local staff)	350,806	364,838	379,432	394,609	410,393	426,809	443,881	461,637	480,102
Labor cost (Japanese staff)	337,313	350,806	364,838	379,432	394,609	410,393	426,809	443,881	461,637
Supplies expenses	60,716	63,145	65,671	68,298	71,030	73,871	76,826	79,899	83,095
Repair	91,075	94,718	98,506	102,447	106,544	110,806	115,238	119,848	124,642
Utility expenses	60,716	63,145	65,671	68,298	71,030	73,871	76,826	79,899	83,095
Pest control	8,096	8,419	8,756	9,106	9,471	9,849	10,243	10,653	11,079
Cleaning and other administration costs	0	0	0	0	0	0	0	0	0
Advertising expenses	33,731	35,081	36,484	37,943	39,461	41,039	42,681	44,388	46,164
Insurance	9,107	9,472	9,851	10,245	10,654	11,081	11,524	11,985	12,464
Cost of restoration to the original condition	20,239	21,048	21,890	22,766	23,677	24,624	25,609	26,633	27,698
Total cash expenditure	1,138,908	1,184,464	1,231,843	1,281,116	1,332,361	1,385,656	1,441,082	1,498,725	1,558,674
Net cash	682,584	709,888	738,283	767,814	798,527	830,468	863,687	898,234	934,164
(NOI cap rate)	20.08%	20.89%	21.72%	22.59%	23.50%	24.44%	25.41%	26.43%	27.49%
Depreciation cost (main body: 65%)	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253	53,253
Depreciation cost (facilities: 35%)	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675	28,675
Depreciation cost (land)	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034	3,034
Net operating income	597,622	624,925	653,321	682,852	713,564	745,506	778,724	813,272	849,201
	17.58%	18.39%	19.22%	20.09%	21.00%	21.94%	22.91%	23.93%	24.99%
Accumulated loss	9,694,503	########	10,972,749	11,655,601	########	13,114,671	13,893,395	14,706,667	15,555,868
Corporate tax 20%	119,524	124,985	130,664	136,570	142,713	149,101	155,745	162,654	169,840
(0% in the initial 2 years and 10% for 4 years)									
After-tax cash flow −3,398,500	563,060	584,903	607,619	631,244	655,814	681,367	707,942	735,580	764,323
Project IRR	6.73%	6.87%	7.00%	7.12%	7.23%	7.33%	7.42%	7.51%	7.59%

* Prerequisites

Annual turnover	50%
Inflation rate	4.00%

APPENDIX B

Comparison of Alternative Plans

Appendix B: Comparison of Alternative Plans

Alternative 1　Develop rental factories within an existing industrial park (Ba Thien 2)

Alternative 2　Develop and operate rental factories independently of existing industrial parks.

Alternative 3　Do not implement development of the rental factories

Item	General		Environmental/Social Impact		Evaluation
	Advantages	Disadvantages	Advantages	Disadvantages	
【Alternative 1】 Development rental factories within an existing industrial park (Ba Thien 2)	・ Through the intermediary of Industrial Zone Management Board, licensing procedures and establishment of the company can proceed smoothly. ・ Already equipped with Infrastructures, ready for immediate start of the rental factory business. ・ Information can be accessed through locally stationed employees of existing Japanese-tenant companies.	・ Lease fees are relatively high.	・ Negative impacts (such as livelihood, health, landscapes) on residents, and environmental burden due to acquisition and levelling of new land can be avoided by developing land for which the development and EIA has already been approved, and acquisition and levelling has already been completed. ・ Can utilize infrastructures which will be facilitated in Ba Thien 2 industrial park, such as the effluent treatment facility, etc. ・ Can receive support from local counterpart (Vina-CPK) well-versed in the local policies, such as the social and environmental consideration, and can anticipate thorough consideration on socio-environment.		◎

【Alternative 2】 Develop and operate rental factories independently of existing industrial parks	・ Lease fees are relatively high.	・ May face challenges in obtaining investment permits, establishing a company, tax affairs, labor services, etc., due to vertically divided structure of local government agencies. ・ Needs to build infrastructures from zero, which will require a large sum of money and time for investigation and construction. ・ Needs to collect local information in order to attract new Japanese tenants.		・ Supposed impact on residents (livelihood, health, landscape, etc.) and environmental burden by acquisition and levelling of new land. ・ Needs development of infrastructure such as waste water treatment facility etc., to reduce environmental burden.	×
【Alternative 3】 Do not implement development of the rental factories		・ Risks of missed business opportunity for Japanese small and medium enterprises.	・ Environmental and social impact by the execution of the project can be avoided.	・ Lost opportunity on job creation [山内　愛1], and regional revitalization by the implementation of the project. ・ Lost opportunity to improve the environment by development of infrastructures (waste water treatment facility, etc.) for the implementation of the project.	△

Reference: Vietnam Judicial Handbook (2013)

APPENDIX C

Proposed Environmental Checklist

Appendix C: Proposed Environmental Checklist

Checklist Number 19 "Other Infrastructure Projects" of JICA's environmental checklist was used for the proposed environmental checklist. Details are as follows.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
1. Permits and Explanation	(1) EIA and Environmental permits	(a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	(a) Y (b) Y (c) Y (d) N	(a) Vina CPK has already prepared an EIA report for all of Ba Thien 2 Industrial Park. In the course of rental factory development, EIA reports are required for some of the tenant companies' lines of business. (b) MONRE approved the EIA report for Ba Thien 2 Industrial Park in December 2011. (c) As a condition of the EIA report approval for Ba Thien 2 Industrial Park, tenant companies must observe environmental standards (provided on pages 36 and 37 of the EIA report), and tenant companies under the Project also must satisfy that condition. (d) As explained previously, some tenant companies' lines of business obligate them to create and submit EIA reports to operate in rental factories. Tenant companies must also meet environmental standards to obtain approval for their EIA reports. Vina CPK must obtain the approval of the provincial DONRE for the wastewater treatment facility under construction, and is currently preparing to apply for the approval.
	(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders? (b) Have the comment from	(a) Y (b) Y	(a) The EIA report, which includes a Project overview, environmental impact, alleviation measures and environmental management plans, was presented to the People's Committee (a government organization) and the Fatherland Front (an organization representing local citizens). The People's Committee and Fatherland Front provided a document with recommendations and proposals made in both their names. Residents subject to resettlement were surveyed, and individual conditions were adjusted. In light of the above, local stakeholders understand and have cooperated with the Project.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		the stakeholders (such as local residents) been reflected to the project design?		(b) Local resident opinions and proposals have been carefully considered and reflected during every phase of the Project.
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	(a) Y	(a) Ba Thien 2 Industrial Park as a whole has been developed based on industrial park development plans described in the Master Plan on Socio-Economic Development of Vinh Phuc Province through 2020. The drafting of development plans was based on a selection between several proposed industrial parks (alternative plans) after the consideration of many points of view; thus it appears that alternative plans were considered in the process of drafting plans to development of the industrial park. Development plans for Ba Thien 2 Industrial Park were discussed with residents from an early stage, and plans were drafted in light of the results of those discussions.
2. Pollution Control	(1) Air Quality	(a) Do air pollutants, (such as sulfur oxides (SO_x), nitrogen oxides (NO_x), and soot and dust) emitted from the proposed infrastructure facilities and ancillary facilities comply with the country's emission standards and ambient air quality standards? Are any mitigating measures taken? (b)Are electric and heat source at accommodation used fuel which emission factor is low?	(a) Y (b) Y	(a) Air pollutants emitted from target infrastructure facilities, auxiliary facilities, etc. have been designed so that they satisfy the standards set forth in Vietnamese law. In addition, each factory is required to satisfy emission limits set forth in Vietnamese standards. (b) Vietnam Electricity (EVN) supplies electricity to Ba Thien 2 Industrial Park; electricity is not generated independently in either the industrial park or the Project Site. A high percentage of electricity supplied by EVN is hydropower and gas power, thus the emission coefficients are low.
	(2) Water Quality	(a) Do effluents or leachates from various facilities, such as infrastructure facilities and the ancillary facilities comply with the country's effluent standards and ambient water quality	(a) Y	(a) All Ba Thien 2 Industrial Park effluent is treated at an on-site wastewater treatment facility to the water quality standard set forth in QCVN 24:2009/BTNMT, and then discharged offsite. Effluent from Project Site is treated at the on-site wastewater treatment facility and then discharged offsite as described previously, and the industrial park is obligated to satisfy the distinct effluent

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		standards?		standards set forth in QCVN 24:2009/BTNMT for this effluent as well.
	(3) Wastes	(a) Are wastes from the infrastructure facilities and ancillary facilities properly treated and disposed of in accordance with the country's regulations?	(a) Y	(a) Each tenant company enters a contract with a waste treatment company to properly treat and dispose of waste. Each type of waste (general waste, hazardous waste) generated from Project Site is disposed of according to contracts with each tenant company. SPCs support and otherwise facilitate agreements between tenant companies and waste treatment companies and make sure that waste is being properly managed. If SPCs find that waste is not being properly managed, they will provide suggestions for improvement to the tenant companies and waste treatment companies, and will levy fines or take other measures if the management does not improve.
	(4) Soil Contamination	(a) Are adequate measures taken to prevent contamination of soil and groundwater by the effluents or leachates from the infrastructure facilities and the ancillary facilities?	(a) Y	(a) During the operation phase, soil contamination from waste and damage to water pipes is expected, thus measures to properly manage waste are being taken, and a response team has been established to deal with any environmental problems that arise.
	(5) Noise and Vibration	(a) Do noise and vibrations comply with the country's standards?	(a) Y	(a) Trees will be planted on industrial park grounds to strive to reduce noise to help tenant companies on Project Site manage noise in a way that satisfies Vietnamese standards.
	(6) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	(a) N	(a) As Vinh Phuc Water Supply Joint Stock Company provides clean water to Ba Thien 2 Industrial Park, there are no plans to use groundwater. Penalties will be applied to any factories that use groundwater. Therefore, it is considered that ground subsidence due to pumping groundwater will not occur.
	(7) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	(a) N	(a) Any tenant company on Project Site that may produce offensive odors is obligated to take the utmost measures to conceal the source of offensive odors, etc. Tenant companies are required in particular to take measures against offensive odors arising from waste and effluent, and fines will be levied and other measures taken against tenant companies that do not satisfy this

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
				requirement.
3. Natural Environment	(1) Protected Areas	(a) Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	(a) N	(a) The land planned for the industrial park is located outside protected areas, which could suggest that the Project should not impact any protected areas.
	(2) Ecosystem	(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?(b) Does the project site encompass the protected habitats of endangered species designated by the country's law or international treaties and conventions? (c) Is there a possibility that changes in localized micro-meteorological conditions, such as solar radiation, temperature, and humidity due to a large-scale timber harvesting will affect the surrounding vegetation? (d) Is there a possibility that the amount of water (e.g., surface water, groundwater) used by the project will adversely affect aquatic environments, such as rivers? Are adequate measures taken to reduce the	(a) N (b) N (c) Y (d) N	(a) The Project Site was originally zoned for man-made forests and rice fields, and does not fit the definition of a virgin forest, natural forest or ecologically important habitat. (b) The land planned for the industrial park (including Project Site) does not include habitats for rare species that require protection under Vietnamese law or international treaties. (c) No endangered species requiring protection and listed in Vietnam's Red Data Book live on the land planned for the industrial park (including Project Site), and green spaces have been prepared in part to protect ecosystems. Thus, the Project is considered not to have any significant impact on ecosystems. (d) As water used in Ba Thien 2 Industrial Park comes mainly from the public water supply, there are no plans to directly use surface water or groundwater. Wastewater will be purified and then used to water plans, clean road surfaces and put out fires and should not significantly impact rivers or other aquatic environments as it is treated by the wastewater system on industrial park grounds. Thus, it is considered that the impact to aquatic organisms would be limited.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		impacts on aquatic environments, such as aquatic organisms?		
	(3) Hydrology	(a) Is there a possibility that hydrologic changes due to the project will adversely affect surface water and groundwater flows?	(a) N	(a) Plans call for surface water from Project Site and treated effluent to be discharged into the May River; however, it is an extremely small volume compared to the flow of the Mei River and thus is not expected to impact the river's hydrology.
	(4) Topography and geology	(a) Are there any places in poor geological condition, where mudslides or landslides are likely to occur on (electrical transmission and distribution, roadway, etc.) routes? If so, have appropriate construction methods and other measures been taken? (b) Has banking, earth cutting and other earth work caused mudslides or landslides? Have appropriate measures been taken to prevent mudslides and landslides? Was ground stability considered in plans for banking, earth cutting and other ground transformation work? (c) Is there a possibility the project will cause large-scale alteration of the topographic features and geologic structures in the project site and surrounding areas?	(a) N (b) N (c) N (d) N	(a) There are no places in poor geological condition where mudslides or landslides are likely to occur on (electrical transmission and distribution, roadway, etc.) routes. (b) There is no possibility that banking, earth cutting and other earth work will cause mudslides or landslides. (c) Plans make use of the soil and geography, which could suggest that the plans should not significantly be modified. (d) Sediment runoff from banked areas, cut earth, soil dumps and borrow pits is not expected.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		(d) Does sediment run from banked areas, cut earth, soil dumps or borrow pits? Have appropriate measures been taken to prevent sediment runoff?		
4. Social Environment4	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement? (b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement? (c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement? (d) Is the compensations going to be paid prior to the resettlement? (e) Is the compensation policies prepared in document?? (f) Does the resettlement plan pay particular attention	(a) N (b) N/A (c) N/A (d) N/A (e) Y (f) Y (g) N/A (h) Y (i) N/A (j) Y	The construction of Ba Thien 2 Industrial Park as a whole involved the relocation of 41 households; however, there are no residences in the Project Site and thus did not cause any involuntary resettlement. Although_65 landowners (excluding land owned by the Thien Ke and Trung My PC) are subject to acquisition of the Project Site none of them are minority or indigenous people. (a) No involuntary resettlement occurred from Project Site. (b) Project Site was explained to people subject to land acquisition, and they agreed to compensation and measures for rebuilding livelihoods. (c) Financial compensation through a reacquisition payment and measures for livelihood recovery through financial compensation for vocational training have been implemented based on the results of studies of land targeted for acquisition. (d) Owners of Project Site and local residents agreed to compensation for land subject to acquisition, which was paid prior to the acquisition. (e) Policy for compensation is carried out in accordance with the documented Vietnamese legal system and as prescribed by Vietnamese law. (f) Relevant laws for the women, children, elderly people, impoverished people, minority people, indigenous people and other vulnerable groups resettled from the land planned for the industrial park have been sufficiently observed.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples? (g) Are agreements with the affected people obtained prior to resettlement? (h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan? (i) Are any plans developed to monitor the impacts of resettlement? (j) Is the grievance redress mechanism established?		(g) The consent of people subject to acquisition of the land planned for the industrial park was obtained. (h) The People's Committee carried out the resettlement implementation system and Vina CPK paid compensation money, thus sufficient implementation capabilities and budget measures have been carried out. (i) Monitoring specific to owners of land subject to acquisition will not be implemented. (j) Official administrative procedures and a judiciary system have been built according to Land Law. If grievances arise, the People's Committee and the local office of Vina CPK will correspond as a mechanism specific to this industrial park.
	(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	(a) Y	(a) Land has already been acquired for 233 spaces in the course of building rental factories. These spaces were mainly agricultural land owned by 65 people (excluding land owned by the Thien Ke and Trung My PC). Compensation was provided according to compensation unit prices determined by the government in the course of land acquisition. However, agricultural income was lost because new agricultural land was not provided unless residents indicated that they wanted to be compensated with agricultural land. Measures to alleviate the impact of these losses include the provision of compensation money equivalent to the cost of vocational training, and preferential hiring for local residents.

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?	(a) N	(a) The land planned for the industrial park does not contain cultural heritage, etc.
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken? (b) Is there a possibility that landscape is spoiled by construction of highrise buildings such as huge hotels?	(a) N (b) N	(a) The land planned for the industrial park does not include landscape that warrants special consideration. (b) There are no plans to build large lodging facilities or high-rise buildings.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	(a) N (b) N	(a) No ethnic minorities or indigenous peoples live on Project Site. (b) No ethnic minorities or indigenous peoples live on Project Site.
	(6) Working	(a) Is the project proponent	(a) Y	(a) The Vietnamese labor code has been

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
	conditions	not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project? (b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	(b) Y (c) Y (d) Y	observed. In addition, safety measures for laborers have been taken to mitigate risks throughout the development of Ba Thien 2 Industrial Park. (b) The EIA report mentions that construction subcontractors are required to prepare prevention strategies and rescue measures to prevent work-related accidents, fires, electrical accidents, traffic accidents, food poisoning and illness and mitigate other risks. In addition, plans call for measures such as publication of emergency contact information, an equipment inspection system, provision of safety equipment, and the establishment of medical facilities, procedures for loading containers and rules for operating machinery to be taken to prevent work-related accidents. (c) Plans call for measures such as publication of emergency contact information, an equipment inspection system, provision of safety equipment, and the establishment of medical facilities, procedures for loading containers and rules for operating machinery to be taken to prevent work-related accidents. In addition, promotional and educational activities for traffic safety, road signage and other strategies to prevent traffic accidents have been considered. (d) SPCs hire security guards for the Project. SPCs will hire security guards introduced by trustworthy personnel dispatch services, run background checks of guards to be hired and take other measures prior to hiring, in addition to rigorously training guards after hiring, so that the guards do not compromise the safety of rental factory personnel or local residents.
5. Other	(1) Impact during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g.,	(a) Y (b) N (c) Y	(a) Environmental measures to alleviate pollution from construction (noise, vibration, turbid water, dust, exhaust, waste, etc.) have been prepared. Soil contamination from effluent including

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?		sewage produced by workers and oils produced by construction machinery, and soil erosion from surface water flow are expected. However, measures to minimize the impact of effluent by restricting its production have been considered. The EIA report mentions Vietnamese standards for noise and vibrations and that noises and vibrations created during the construction phase are being checked. (b) There are no reports of rare species on the land planned for the industrial park, thus there is no specific mention of measures to alleviate impact to the natural environment or ecosystems. (c) The EIA report mentions the need to pay attention to traffic congestion from a concentration of workers and other pressures on social infrastructures as well as impacts to safety in the area. In response, strategies to alleviate traffic congestion, regular patrols to combat theft, and disclosure of information to prevent crimes have been implemented.
	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring program? (c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate	(a) Y (b) Y (c) Y (d) Y	(a) The EIA report includes plans for environmental management and monitoring for the entire Ba Thien 2 Industrial Park. Proposed plans for environmental management and monitoring have also been drafted for the Project Site. (b) They are included in monitoring plans shown in the EIA report for Ba Thien 2 Industrial Park. For the Project, the items, methodology and frequency has been set forth in the proposed monitoring plans in this report. (c) The DONRE dedicated center will monitor Ba Thien 2 Industrial Park under the budget of Vina CPK. Tenant companies or SPCs will monitor rental factories according to the contents of the contracts with tenant companies. (d) Industrial park monitoring results are reported to the Vinh Phuc Province DONRE twice per year. As with EIA

Category	Environmental Items	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
		budget to sustain the monitoring framework)? (d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?		reports, some tenant companies' lines of business obligate them to report the results of rental factory monitoring. SPCs report rental factory monitoring results to Vina CPK as necessary.

APPENDIX D

Financial Analysis for the "Base Case"

Statement of Cash Flow
【US＄】

Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
			1	2	3	4	5	6	7	8	9
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25
RECEIPTS FROM OPERATIONS											
Rental Income	788,704,013	0	655,908	872,154	1,316,954	1,855,333	2,559,590	3,260,601	7,928,254	9,532,502	12,358,244
Rental Income(The 1 tarm)	50,344,560		655,908	655,908	736,978	736,978	828,069	828,069	930,418	930,418	1,045,418
Rental Income(The 2 tarm)	27,978,902		0	216,246	281,120	413,056	413,056	464,110	464,110	521,474	521,474
Rental Income(The 3 tarm)	38,667,187		0	0	298,855	388,512	570,849	570,849	641,406	641,406	720,684
Rental Income(The 4 tarm)	40,987,218		0	0	0	316,786	411,822	605,100	605,100	679,890	679,890
Rental Income(The 5 tarm)	43,446,451		0	0	0	0	335,794	436,532	641,406	641,406	720,684
Rental Income(The 6 tarm)	46,053,238		0	0	0	0	0	355,941	462,724	679,890	679,890
Rental Income(The 7 tarm)	541,226,456		0	0	0	0	0	0	4,183,089	5,438,016	7,990,203
Common Service Income	143,400,730	0	119,256	158,574	239,446	337,333	465,380	592,837	1,441,501	1,733,182	2,246,953
Common Service Income(The 1 tarm)	9,153,556		119,256	119,256	133,996	133,996	150,558	150,558	169,167	169,167	190,076
Common Service Income(The 2 tarm)	5,087,073		0	39,318	51,113	75,101	75,101	84,384	84,384	94,814	94,814
Common Service Income(The 3 tarm)	7,030,398		0	0	54,337	70,638	103,791	103,791	116,619	116,619	131,033
Common Service Income(The 4 tarm)	7,452,221		0	0	0	57,598	74,877	110,018	110,018	123,616	123,616
Common Service Income(The 5 tarm)	7,899,355		0	0	0	0	61,053	79,369	116,619	116,619	131,033
Common Service Income(The 6 tarm)	8,373,316		0	0	0	0	0	64,717	84,132	123,616	123,616
Common Service Income(The 7 tarm)	98,404,810		0	0	0	0	0	0	760,562	988,730	1,452,764
Additional Fee	104,517,167	0	84,000	109,440	159,890	227,327	312,141	395,862	1,027,275	1,246,878	1,631,319
Additional Fee(The 1 tarm)	6,447,464		84,000	84,000	94,382	94,382	106,048	106,048	119,156	119,156	133,883
Additional Fee(The 2 tarm)	3,385,356		0	25,440	31,800	50,023	50,023	56,205	56,205	63,152	63,152
Additional Fee(The 3 tarm)	4,616,646		0	0	33,708	47,191	68,174	68,174	76,600	76,600	86,068
Additional Fee(The 4 tarm)	4,893,644		0	0	0	35,730	50,023	72,264	72,264	81,196	81,196
Additional Fee(The 5 tarm)	5,187,263		0	0	0	0	37,874	53,024	76,600	76,600	86,068
Additional Fee(The 6 tarm)	5,498,499		0	0	0	0	0	40,147	56,205	81,196	81,196
Additional Fee(The 7 tarm)	74,488,296		0	0	0	0	0	0	570,245	748,978	1,099,755
Sale of Land	3,296,291	0	0	0	0	0	0	0	0	0	0
Sale of Land(The 1 tarm)	313,333										
Sale of Land(The 2 tarm)	176,763										
Sale of Land(The 3 tarm)	218,965										
Sale of Land(The 4 tarm)	206,934										
Sale of Land(The 5 tarm)	194,316										
Sale of Land(The 6 tarm)	181,068										
Sale of Land(The 7 tarm)	2,004,912										
Cash Inflow from Operations		0	859,164	1,140,168	1,716,290	2,419,993	3,337,112	4,249,300	10,397,030	12,512,562	16,236,516
PAYMENTS FOR OPERATIONS											
Operation Cost	89,797,846	0	96,575	136,378	204,504	266,593	349,941	426,914	1,215,578	1,288,513	1,365,823
Operation Cost(The 1 tarm)	8,356,197	0	96,575	102,370	108,512	115,023	121,924	129,240	136,994	145,214	153,926
Operation Cost(The 2 tarm)	2,688,618	0	0	34,008	36,049	38,211	40,504	42,934	45,510	48,241	51,136
Operation Cost(The 3 tarm)	4,738,998	0	0	0	59,943	63,540	67,352	71,393	75,677	80,217	85,031
Operation Cost(The 4 tarm)	3,938,620	0	0	0	0	49,819	52,808	55,977	59,336	62,896	66,669
Operation Cost(The 5 tarm)	5,324,738	0	0	0	0	0	67,352	71,393	75,677	80,217	85,031
Operation Cost(The 6 tarm)	4,425,433	0	0	0	0	0	0	55,977	59,336	62,896	66,669
Operation Cost(The 7 tarm)	60,325,241	0	0	0	0	0	0	0	763,049	808,832	857,361
Common Cost	18,983,151	0	148,292	157,189	166,621	176,618	187,215	198,448	236,302	250,480	265,509
Office & Others Cost(The 1 tarm)	1,446,107	0	18,292	19,389	20,553	21,786	23,093	24,478	25,947	27,504	29,154
Office & Others Cost(The 7 tarm)	2,051,331	0	0	0	0	0	0	0	25,947	27,504	29,154
Marketing Cost	11,912,087	0	100,000	106,000	112,360	119,102	126,248	133,823	141,852	150,363	159,385
Introduction Fee	3,573,626	0	30,000	31,800	33,708	35,730	37,874	40,147	42,556	45,109	47,815
Repair Cost	130,017,106	0	4,980	7,913	12,029	16,610	21,698	27,336	122,410	277,295	300,617
Repair Cost(The 1 tarm)	6,859,742		3,996	4,235	4,489	4,759	5,044	5,347	40,103	129,316	79,099
Repair Cost(The 2 tarm)	4,523,178		0	2,635	2,793	2,960	3,138	3,326	3,526	26,443	85,269
Repair Cost(The 3 tarm)	6,251,088		0	0	3,641	3,859	4,091	4,337	4,597	4,873	36,544
Repair Cost(The 4 tarm)	6,626,153		0	0	0	3,859	4,091	4,337	4,597	4,873	5,165
Repair Cost(The 5 tarm)	7,023,722		0	0	0	0	4,091	4,337	4,597	4,873	5,165
Repair Cost(The 6 tarm)	7,445,145		0	0	0	0	0	4,337	4,597	4,873	5,165
Repair Cost(The 7 tarm)	87,496,769		0	0	0	0	0	0	50,964	54,021	57,263
Repair Cost of Office(The 1 tarm)	1,567,616		984	1,043	1,106	1,172	1,242	1,317	8,035	46,545	25,380
Repair Cost of Office(The 7 tarm)	2,223,693		0	0	0	0	0	0	1,396	1,480	1,568
Repair Cost Reserve	0	0	0	0	0	0	0	268,142	410,194	542,413	761,143
Repair Cost Reserve (The 1 tarm)	0							268,142	233,386	144,173	194,390
Repair Cost Reserve (The 2 tarm)	0								176,807	153,890	95,065
Repair Cost Reserve (The 3 tarm)	0									244,350	212,678
Repair Cost Reserve (The 4 tarm)	0										259,011
Repair Cost Reserve (The 5 tarm)	0										
Repair Cost Reserve (The 6 tarm)	0										
Repair Cost Reserve (The 7 tarm)	0										
(Total Repair Cost Reserve)		*0*	*0*	*0*	*0*	*0*	*0*	*268,142*	*678,335*	*1,220,748*	*1,981,892*
Income Tax	141,362,309	0	0	0	0	25,038	199,308	207,891	624,532	1,002,653	1,734,273
Cash Outflow from Operations		0	249,847	301,480	383,153	484,859	758,162	1,128,731	2,609,014	3,361,354	4,427,365
Cash flow from Operations		0	609,317	838,688	1,333,137	1,935,134	2,578,950	3,120,569	7,788,016	9,151,209	11,809,150
INVESTING ACTIVITIES											
Factory Construction Cost	50,583,801	3,183,260	1,769,288	2,445,178	2,591,889	2,747,402	2,912,247	34,934,537	0	0	0
Factory Construction Cost (The 1 tarm)	3,183,260	3,183,260	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	1,769,288	0	1,769,288	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	2,445,178	0	0	2,445,178	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	2,591,889	0	0	0	2,591,889	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	2,747,402	0	0	0	0	2,747,402	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	2,912,247	0	0	0	0	0	2,912,247	0	0	0	0
Factory Construction Cost (The 7 tarm)	34,934,537	0	0	0	0	0	0	34,934,537	0	0	0
Land Cost	13,080,570	940,000	555,540	724,270	724,270	724,270	724,270	8,687,950	0	0	0
Land Cost(The 1 tarm)	940,000	940,000									
Land Cost(The 2 tarm)	555,540		555,540								
Land Cost(The 3 tarm)	724,270			724,270							
Land Cost(The 4 tarm)	724,270				724,270						
Land Cost(The 5 tarm)	724,270					724,270					
Land Cost(The 6 tarm)	724,270						724,270				
Land Cost(The 7 tarm)	8,687,950							8,687,950			
Commencement Cost	2,504,323	600,000	212,000	224,720	238,203	252,495	267,645	709,260	0	0	0
Commencement Cost(The 1 tarm)	600,000	600,000	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	212,000	0	212,000	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	224,720	0	0	224,720	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	238,203	0	0	0	238,203	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	252,495	0	0	0	0	252,495	0	0	0	0	0
Commencement Cost(The 6 tarm)	267,645	0	0	0	0	0	267,645	0	0	0	0
Commencement Cost(The 7 tarm)	709,260	0	0	0	0	0	0	709,260	0	0	0
Cash flow from Investing		4,723,260	2,536,828	3,394,168	3,554,362	3,724,168	3,904,162	44,331,746	0	0	0
Cash flow from Operations and Investing		−4,723,260	−1,927,511	−2,555,480	−2,221,225	−1,789,034	−1,325,212	−41,211,177	7,788,016	9,151,209	11,809,150

Period	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
	10	11	12	13	14	15	16	17	18	19	20	21	22	23
End of Period	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39
Beginning of Period	1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39
RECEIPTS FROM OPERATIONS														
Rental Income	12,590,767	13,885,723	14,146,986	15,601,998	15,895,553	17,530,405	17,860,243	19,697,163	20,067,769	22,131,732	22,548,146	24,867,214	25,335,096	27,940,802
Rental Income(The 1 tarm)	1,045,418	1,174,631	1,174,631	1,319,816	1,319,816	1,482,945	1,482,945	1,666,237	1,666,237	1,872,184	1,872,184	2,103,586	2,103,586	2,363,589
Rental Income(The 2 tarm)	585,929	585,929	658,349	658,349	739,721	739,721	831,151	831,151	933,881	933,881	1,049,309	1,049,309	1,179,003	1,179,003
Rental Income(The 3 tarm)	720,684	809,760	809,760	909,847	909,847	1,022,304	1,022,304	1,148,661	1,148,661	1,290,635	1,290,635	1,450,158	1,450,158	1,629,397
Rental Income(The 4 tarm)	763,925	763,925	858,346	858,346	964,438	964,438	1,083,642	1,083,642	1,217,580	1,217,580	1,368,073	1,368,073	1,537,167	1,537,167
Rental Income(The 5 tarm)	720,684	809,760	809,760	909,847	909,847	1,022,304	1,022,304	1,148,661	1,148,661	1,290,635	1,290,635	1,450,158	1,450,158	1,629,397
Rental Income(The 6 tarm)	763,925	763,925	858,346	858,346	964,438	964,438	1,083,642	1,083,642	1,217,580	1,217,580	1,368,073	1,368,073	1,537,167	1,537,167
Rental Income(The 7 tarm)	7,990,203	8,977,792	8,977,792	10,087,447	10,087,447	11,334,255	11,334,255	12,735,169	12,735,169	14,309,236	14,309,236	16,077,858	16,077,858	18,065,081
Common Service Income	2,289,230	2,524,677	2,572,179	2,836,727	2,890,101	3,187,346	3,247,317	3,581,302	3,648,685	4,023,951	4,099,663	4,521,312	4,606,381	5,080,146
Common Service Income(The 1 tarm)	190,076	213,569	213,569	239,967	239,967	269,626	269,626	302,952	302,952	340,397	340,397	382,470	382,470	429,743
Common Service Income(The 2 tarm)	106,532	106,532	119,700	119,700	134,495	134,495	151,118	151,118	169,797	169,797	190,783	190,783	214,364	214,364
Common Service Income(The 3 tarm)	131,033	147,229	147,229	165,427	165,427	185,873	185,873	208,847	208,847	234,661	234,661	263,665	263,665	296,254
Common Service Income(The 4 tarm)	138,895	138,895	156,063	156,063	175,352	175,352	197,026	197,026	221,378	221,378	248,741	248,741	279,485	279,485
Common Service Income(The 5 tarm)	131,033	147,229	147,229	165,427	165,427	185,873	185,873	208,847	208,847	234,661	234,661	263,665	263,665	296,254
Common Service Income(The 6 tarm)	138,895	138,895	156,063	156,063	175,352	175,352	197,026	197,026	221,378	221,378	248,741	248,741	279,485	279,485
Common Service Income(The 7 tarm)	1,452,764	1,632,326	1,632,326	1,834,081	1,834,081	2,060,774	2,060,774	2,315,485	2,315,485	2,601,679	2,601,679	2,923,247	2,923,247	3,284,560
Additional Fee	1,659,196	1,832,950	1,864,272	2,059,502	2,094,697	2,314,057	2,353,601	2,600,074	2,644,506	2,921,443	2,971,367	3,282,533	3,338,628	3,688,255
Additional Fee(The 1 tarm)	133,883	150,431	150,431	169,025	169,025	189,916	189,916	213,390	213,390	239,764	239,764	269,399	269,399	302,697
Additional Fee(The 2 tarm)	70,958	70,958	79,729	79,729	89,583	89,583	100,655	100,655	113,096	113,096	127,075	127,075	142,782	142,782
Additional Fee(The 3 tarm)	86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134	154,134	173,185	173,185	194,591
Additional Fee(The 4 tarm)	91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410	163,382	163,382	183,576	183,576
Additional Fee(The 5 tarm)	86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134	154,134	173,185	173,185	194,591
Additional Fee(The 6 tarm)	91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410	163,382	163,382	183,576	183,576
Additional Fee(The 7 tarm)	1,099,755	1,235,685	1,235,685	1,388,416	1,388,416	1,560,024	1,560,024	1,752,843	1,752,843	1,969,494	1,969,494	2,212,923	2,212,923	2,486,441
Sale of Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sale of Land(The 1 tarm)														
Sale of Land(The 2 tarm)														
Sale of Land(The 3 tarm)														
Sale of Land(The 4 tarm)														
Sale of Land(The 5 tarm)														
Sale of Land(The 6 tarm)														
Sale of Land(The 7 tarm)														
Cash Inflow from Operations	16,539,193	18,243,349	18,583,437	20,498,227	20,880,350	23,031,808	23,461,161	25,878,539	26,360,961	29,077,126	29,619,176	32,671,059	33,280,106	36,709,202
PAYMENTS FOR OPERATIONS														
Operation Cost	1,447,773	1,534,639	1,626,717	1,724,320	1,827,780	1,937,446	2,053,693	2,176,915	2,307,530	2,445,981	2,592,740	2,748,305	2,913,203	3,087,995
Operation Cost(The 1 tarm)	163,162	172,952	183,329	194,328	205,988	218,348	231,448	245,335	260,055	275,659	292,198	309,730	328,314	348,013
Operation Cost(The 2 tarm)	54,204	57,456	60,903	64,558	68,431	72,537	76,889	81,502	86,393	91,576	97,071	102,895	109,069	115,613
Operation Cost(The 3 tarm)	90,132	95,540	101,273	107,349	113,790	120,617	127,854	135,526	143,657	152,277	161,413	171,098	181,364	192,246
Operation Cost(The 4 tarm)	70,670	74,910	79,404	84,169	89,219	94,572	100,246	106,261	112,637	119,395	126,558	134,152	142,201	150,733
Operation Cost(The 5 tarm)	90,132	95,540	101,273	107,349	113,790	120,617	127,854	135,526	143,657	152,277	161,413	171,098	181,364	192,246
Operation Cost(The 6 tarm)	70,670	74,910	79,404	84,169	89,219	94,572	100,246	106,261	112,637	119,395	126,558	134,152	142,201	150,733
Operation Cost(The 7 tarm)	908,803	963,331	1,021,131	1,082,399	1,147,343	1,216,184	1,289,155	1,366,504	1,448,494	1,535,404	1,627,528	1,725,180	1,828,690	1,938,412
Common Cost	281,439	298,325	316,225	335,198	355,310	376,629	399,227	423,180	448,571	475,485	504,015	534,255	566,311	600,289
Office & Others Cost(The 1 tarm)	30,903	32,758	34,723	36,806	39,015	41,356	43,837	46,467	49,255	52,211	55,343	58,664	62,184	65,915
Office & Others Cost(The 7 tarm)	30,903	32,758	34,723	36,806	39,015	41,356	43,837	46,467	49,255	52,211	55,343	58,664	62,184	65,915
Marketing Cost	168,948	179,085	189,830	201,220	213,293	226,090	239,656	254,035	269,277	285,434	302,560	320,714	339,956	360,354
Introduction Fee	50,684	53,725	56,949	60,366	63,988	67,827	71,897	76,211	80,783	85,630	90,768	96,214	101,987	108,106
Repair Cost	290,459	380,027	848,419	1,508,310	2,805,021	2,031,717	1,463,786	2,296,752	6,277,419	6,697,629	3,937,012	1,134,426	3,795,034	4,554,587
Repair Cost(The 1 tarm)	6,750	52,481	378,786	431,969	234,988	9,034	218,985	304,373	133,636	242,335	12,089	90,668	99,625	14,398
Repair Cost(The 2 tarm)	52,156	4,451	34,605	249,764	284,832	154,946	5,957	144,394	200,697	88,117	159,791	7,971	59,785	65,691
Repair Cost(The 3 tarm)	117,842	72,081	6,151	47,825	345,177	393,641	214,138	8,232	199,555	277,366	121,779	220,833	11,016	82,623
Repair Cost(The 4 tarm)	38,737	124,913	76,406	6,521	50,694	365,888	417,260	226,986	8,726	211,528	294,008	129,086	234,083	11,677
Repair Cost(The 5 tarm)	5,475	41,061	132,407	80,990	6,912	53,736	387,841	442,295	240,605	9,249	224,220	311,649	136,831	248,128
Repair Cost(The 6 tarm)	5,475	5,803	43,525	140,352	85,849	7,326	56,960	411,111	468,833	255,042	9,804	237,673	330,348	145,041
Repair Cost(The 7 tarm)	60,698	64,340	68,201	511,512	1,649,442	1,008,919	86,102	669,405	4,831,458	5,509,814	2,997,298	115,224	2,793,180	3,882,308
Repair Cost of Office(The 1 tarm)	1,662	13,134	106,470	27,980	81,102	2,225	74,185	71,324	42,879	64,488	2,977	18,166	24,932	3,546
Repair Cost of Office(The 7 tarm)	1,662	1,762	1,868	11,398	66,025	36,002	2,358	18,631	151,030	39,690	115,045	3,156	105,233	101,175
Repair Cost Reserve	1,026,286	1,243,284	4,292,372	3,563,521	2,374,559	3,038,964	3,645,212	2,825,657	−1,051,057	−1,560,998	1,213,464	3,919,350	1,367,586	582,588
Repair Cost Reserve (The 1 tarm)	266,738	221,007	−105,297	−158,480	38,501	264,455	54,504	−30,884	139,852	31,154	261,400	182,821	173,863	259,091
Repair Cost Reserve (The 2 tarm)	128,177	175,882	145,728	−69,431	−104,499	25,387	174,377	35,939	−20,364	92,216	20,542	172,362	120,548	114,642
Repair Cost Reserve (The 3 tarm)	131,380	177,142	243,071	201,398	−95,954	−144,419	35,085	240,990	49,668	−28,144	127,443	28,389	238,206	166,599
Repair Cost Reserve (The 4 tarm)	225,439	139,263	187,770	257,655	213,482	−101,712	−153,084	37,190	255,450	52,648	−29,832	135,090	30,093	252,499
Repair Cost Reserve (The 5 tarm)	274,552	238,965	147,619	199,036	273,115	226,291	−107,814	−162,269	39,421	270,777	55,806	−31,622	143,195	31,898
Repair Cost Reserve (The 6 tarm)		291,025	253,303	156,476	210,979	289,502	239,868	−114,283	−172,005	41,786	287,024	59,155	−33,520	151,787
Repair Cost Reserve (The 7 tarm)			3,420,179	2,976,867	1,838,937	2,479,460	3,402,277	2,818,974	−1,343,079	−2,021,434	491,081	3,373,155	695,199	−393,928
(Total Repair Cost Reserve)	*3,008,177*	*4,251,462*	*8,543,834*	*12,107,355*	*14,481,915*	*17,520,878*	*21,166,090*	*23,991,747*	*22,940,690*	*21,379,692*	*22,593,156*	*26,512,506*	*27,880,092*	*28,462,680*
Income Tax	1,787,873	2,103,430	2,070,205	2,349,149	2,190,923	2,799,084	3,018,846	3,357,031	2,675,587	3,151,111	3,825,202	5,009,132	4,605,308	5,141,447
Cash Outflow from Operations	4,833,830	5,559,706	9,153,939	9,480,499	9,553,594	10,183,840	10,580,764	11,079,536	10,658,050	11,209,210	12,072,433	13,345,468	13,247,441	13,966,907
Cash flow from Operations	11,705,363	12,683,643	9,429,498	11,017,728	11,326,756	12,847,968	12,880,398	14,799,003	15,702,911	17,867,917	17,546,743	19,325,591	20,032,664	22,742,296
INVESTING ACTIVITIES														
Factory Construction Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 7 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Cost(The 1 tarm)														
Land Cost(The 2 tarm)														
Land Cost(The 3 tarm)														
Land Cost(The 4 tarm)														
Land Cost(The 5 tarm)														
Land Cost(The 6 tarm)														
Land Cost(The 7 tarm)														
Commencement Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 7 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Investing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Operations and Investing	11,705,363	12,683,643	9,429,498	11,017,728	11,326,756	12,847,968	12,880,398	14,799,003	15,702,911	17,867,917	17,546,743	19,325,591	20,032,664	22,742,296

Period	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
	24	25	26	27	28	29	30	31	32	33	34	35	36	37
End of Period	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47	31-Dec-48	31-Dec-49	31-Dec-50	31-Dec-51	31-Dec-52	31-Dec-53
Beginning of Period	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47	1-Jan-48	1-Jan-49	1-Jan-50	1-Jan-51	1-Jan-52	1-Jan-53
RECEIPTS FROM OPERATIONS														
Rental Income	28,466,514	31,394,285	31,984,976	35,274,619	35,938,319	39,634,561	40,380,295	40,766,191	39,492,682	40,775,475	38,362,893	39,443,575	36,350,493	0
Rental Income(The 1 tarm)	2,363,589	2,655,729	2,655,729	2,983,977	2,983,977	3,352,796	3,352,796	0	0	0	0	0	0	0
Rental Income(The 2 tarm)	1,324,728	1,324,728	1,488,465	1,488,465	1,672,439	1,672,439	1,879,152	1,879,152	0	0	0	0	0	0
Rental Income(The 3 tarm)	1,629,397	1,830,791	1,830,791	2,057,076	2,057,076	2,311,331	2,311,331	2,597,011	2,597,011	0	0	0	0	0
Rental Income(The 4 tarm)	1,727,161	1,727,161	1,940,638	1,940,638	2,180,501	2,180,501	2,450,011	2,450,011	2,752,832	2,752,832	0	0	0	0
Rental Income(The 5 tarm)	1,629,397	1,830,791	1,830,791	2,057,076	2,057,076	2,311,331	2,311,331	2,597,011	2,597,011	2,918,002	2,918,002	0	0	0
Rental Income(The 6 tarm)	1,727,161	1,727,161	1,940,638	1,940,638	2,180,501	2,180,501	2,450,011	2,450,011	2,752,832	2,752,832	3,093,082	3,093,082	0	0
Rental Income(The 7 tarm)	18,065,081	20,297,925	20,297,925	22,806,749	22,806,749	25,625,663	25,625,663	28,792,995	28,792,995	32,351,809	32,351,809	36,350,493	36,350,493	0
Common Service Income	5,175,730	5,708,052	5,815,450	6,413,567	6,534,240	7,206,284	7,341,872	7,412,035	7,180,488	7,413,723	6,975,071	7,171,559	6,609,180	0
Common Service Income(The 1 tarm)	429,743	482,860	482,860	542,541	542,541	609,599	609,599	0	0	0	0	0	0	0
Common Service Income(The 2 tarm)	240,860	240,860	270,630	270,630	304,080	304,080	341,664	341,664	0	0	0	0	0	0
Common Service Income(The 3 tarm)	296,254	332,871	332,871	374,014	374,014	420,242	420,242	472,184	472,184	0	0	0	0	0
Common Service Income(The 4 tarm)	314,029	314,029	352,843	352,843	396,455	396,455	445,457	445,457	500,515	500,515	0	0	0	0
Common Service Income(The 5 tarm)	296,254	332,871	332,871	374,014	374,014	420,242	420,242	472,184	472,184	530,546	530,546	0	0	0
Common Service Income(The 6 tarm)	314,029	314,029	352,843	352,843	396,455	396,455	445,457	445,457	500,515	500,515	562,379	562,379	0	0
Common Service Income(The 7 tarm)	3,284,560	3,690,532	3,690,532	4,146,682	4,146,682	4,659,211	4,659,211	5,235,090	5,235,090	5,882,147	5,882,147	6,609,180	6,609,180	0
Additional Fee	3,751,282	4,144,123	4,214,941	4,656,336	4,735,908	5,231,860	5,321,266	5,396,064	5,240,821	5,458,835	5,170,712	5,372,599	5,003,207	0
Additional Fee(The 1 tarm)	302,697	340,111	340,111	382,148	382,148	429,382	429,382	0	0	0	0	0	0	0
Additional Fee(The 2 tarm)	160,429	160,429	180,259	180,259	202,539	202,539	227,572	227,572	0	0	0	0	0	0
Additional Fee(The 3 tarm)	194,591	218,642	218,642	245,667	245,667	276,031	276,031	310,149	310,149	0	0	0	0	0
Additional Fee(The 4 tarm)	206,266	206,266	231,761	231,761	260,407	260,407	292,593	292,593	328,757	328,757	0	0	0	0
Additional Fee(The 5 tarm)	194,591	218,642	218,642	245,667	245,667	276,031	276,031	310,149	310,149	348,483	348,483	0	0	0
Additional Fee(The 6 tarm)	206,266	206,266	231,761	231,761	260,407	260,407	292,593	292,593	328,757	328,757	369,392	369,392	0	0
Additional Fee(The 7 tarm)	2,486,441	2,793,765	2,793,765	3,139,074	3,139,074	3,527,064	3,527,064	3,963,009	3,963,009	4,452,837	4,452,837	5,003,207	5,003,207	0
Sale of Land	0	0	0	0	0	0	0	313,333	176,763	218,965	206,934	194,316	181,068	2,004,912
Sale of Land(The 1 tarm)								313,333						
Sale of Land(The 2 tarm)									176,763					
Sale of Land(The 3 tarm)										218,965				
Sale of Land(The 4 tarm)											206,934			
Sale of Land(The 5 tarm)												194,316		
Sale of Land(The 6 tarm)													181,068	
Sale of Land(The 7 tarm)														2,004,912
Cash Inflow from Operations	37,393,527	41,246,460	42,015,367	46,344,522	47,208,466	52,072,705	53,043,432	53,887,624	52,090,753	53,866,998	50,715,611	52,182,049	48,143,948	2,004,912
PAYMENTS FOR OPERATIONS														
Operation Cost	3,273,275	3,469,671	3,677,852	3,898,523	4,132,434	4,380,380	4,643,203	4,470,499	4,543,403	4,471,725	4,453,892	4,334,289	4,272,843	0
Operation Cost(The 1 tarm)	368,894	391,027	414,489	439,358	465,720	493,663	523,282	103,383	109,586	116,161	123,131	130,518	138,350	0
Operation Cost(The 2 tarm)	122,549	129,902	137,697	145,958	154,716	163,999	173,839	184,269	0	0	0	0	0	0
Operation Cost(The 3 tarm)	203,781	216,007	228,968	242,706	257,268	272,704	289,067	306,411	324,795	0	0	0	0	0
Operation Cost(The 4 tarm)	159,777	169,364	179,526	190,297	201,715	213,818	226,647	240,246	254,660	269,940	0	0	0	0
Operation Cost(The 5 tarm)	203,781	216,007	228,968	242,706	257,268	272,704	289,067	306,411	324,795	344,283	364,940	0	0	0
Operation Cost(The 6 tarm)	159,777	169,364	179,526	190,297	201,715	213,818	226,647	240,246	254,660	269,940	286,136	303,305	0	0
Operation Cost(The 7 tarm)	2,054,717	2,178,000	2,308,680	2,447,200	2,594,032	2,749,674	2,914,655	3,089,534	3,274,906	3,471,400	3,679,684	3,900,466	4,134,494	0
Common Cost	636,307	674,485	714,954	757,852	803,323	851,522	902,613	851,712	902,815	956,984	1,014,403	1,075,267	1,139,783	0
Office & Others Cost(The 1 tarm)	69,870	74,062	78,506	83,216	88,209	93,501	99,111	0	0	0	0	0	0	0
Office & Others Cost(The 7 tarm)	69,870	74,062	78,506	83,216	88,209	93,501	99,111	105,058	111,362	118,043	125,126	132,633	140,591	0
Marketing Cost	381,975	404,893	429,187	454,938	482,235	511,169	541,839	574,349	608,810	645,339	684,059	725,103	768,609	0
Introduction Fee	114,592	121,468	128,756	136,481	144,670	153,351	162,552	172,305	182,643	193,602	205,218	217,531	230,583	0
Repair Cost	3,632,778	4,127,082	2,344,458	3,264,421	4,141,626	2,843,957	15,887,222	3,817,543	13,681,367	5,005,394	8,569,691	1,869,110	1,956,350	20,064,620
Repair Cost(The 1 tarm)	1,075,436	16,178	921,359	225,776	531,285	20,424	21,649	1,541,128	0	0	0	0	0	0
Repair Cost(The 2 tarm)	9,494	709,121	10,667	607,526	148,872	350,319	13,467	14,275	1,016,189	0	0	0	0	0
Repair Cost(The 3 tarm)	90,786	13,121	980,014	14,742	839,608	205,743	484,145	18,612	19,728	1,404,386	0	0	0	0
Repair Cost(The 4 tarm)	87,581	96,233	13,908	1,038,815	15,627	889,985	218,088	513,194	19,728	20,912	1,488,649	0	0	0
Repair Cost(The 5 tarm)	12,378	92,835	102,007	14,742	1,101,144	16,564	943,384	231,173	543,986	20,912	22,167	1,577,968	0	0
Repair Cost(The 6 tarm)	263,016	13,121	98,405	108,127	15,627	1,167,213	17,558	999,987	245,043	576,625	22,167	23,497	1,672,646	0
Repair Cost(The 7 tarm)	1,704,548	3,091,012	154,195	1,156,480	1,270,731	183,649	13,717,309	206,348	11,752,037	2,879,797	6,776,603	260,510	276,141	19,657,258
Repair Cost of Office(The 1 tarm)	328,716	3,984	59,678	72,443	183,364	5,030	5,332	287,175	0	0	0	0	0	0
Repair Cost of Office(The 7 tarm)	60,824	91,478	4,223	25,770	35,367	5,030	466,290	5,652	84,655	102,761	260,105	7,135	7,563	407,363
Repair Cost Reserve	1,789,216	1,000,834	2,751,898	1,866,245	1,109,559	2,198,556	−10,383,146	1,234,248	−9,018,080	−573,223	−4,244,353	1,923,232	1,539,592	−19,657,258
Repair Cost Reserve (The 1 tarm)	−801,948	257,311	−647,870	47,713	−257,797	253,065	251,839	−1,541,128						
Repair Cost Reserve (The 2 tarm)	170,839	−528,788	169,666	−427,193	31,461	−169,986	166,866	166,058	−1,016,189					
Repair Cost Reserve (The 3 tarm)	158,437	236,102	−730,792	234,480	−590,386	43,479	−234,923	230,611	229,494	−1,404,386				
Repair Cost Reserve (The 4 tarm)	176,595	167,943	250,268	−774,639	248,549	−625,809	46,088	−249,018	244,447	243,264	−1,488,649			
Repair Cost Reserve (The 5 tarm)	267,649	187,191	178,020	265,284	−821,118	263,462	−663,357	48,853	−263,959	259,114	257,859	−1,577,968		
Repair Cost Reserve (The 6 tarm)	33,812	283,707	198,423	188,701	281,201	−870,385	279,270	−703,159	51,785	−279,797	274,661	273,331	−1,672,646	
Repair Cost Reserve (The 7 tarm)	1,783,832	397,367	3,334,184	2,331,899	2,217,648	3,304,730	−10,228,929	3,282,031	−8,263,658	608,582	−3,288,224	3,227,869	3,212,239	−19,657,258
(Total Repair Cost Reserve)	*30,251,896*	*31,252,730*	*34,004,627*	*35,870,872*	*36,980,431*	*39,178,987*	*28,795,841*	*30,030,089*	*21,012,009*	*20,438,786*	*16,194,433*	*18,117,665*	*19,657,258*	*0*
Income Tax	5,459,570	6,123,473	6,620,066	7,282,291	7,223,763	8,396,915	5,919,625	8,509,853	6,194,547	8,299,722	6,971,802	8,641,327	7,841,330	0
Cash Outflow from Operations	14,791,146	15,395,545	16,109,227	17,069,332	17,410,704	18,671,331	16,969,517	18,883,855	16,304,052	18,160,601	16,765,435	17,843,224	16,749,899	407,363
Cash flow from Operations	22,602,381	25,850,914	25,906,139	29,275,190	29,797,761	33,401,374	36,073,915	35,003,769	35,786,701	35,706,397	33,950,175	34,338,825	31,394,049	1,597,549
INVESTING ACTIVITIES														
Factory Construction Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 7 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Cost(The 1 tarm)														
Land Cost(The 2 tarm)														
Land Cost(The 3 tarm)														
Land Cost(The 4 tarm)														
Land Cost(The 5 tarm)														
Land Cost(The 6 tarm)														
Land Cost(The 7 tarm)														
Commencement Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 7 tarm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Investing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Operations and Investing	22,602,381	25,850,914	25,906,139	29,275,190	29,797,761	33,401,374	36,073,915	35,003,769	35,786,701	35,706,397	33,950,175	34,338,825	31,394,049	1,597,549

Statement of Cash Flow
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			1	2	3	4	5	6	7	8	9
Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25
FINANCING AND DEBT SERVICE											
Loan & Capital	66,168,695	4,723,260	2,536,828	3,394,168	3,554,362	3,724,168	3,904,162	44,331,746	0	0	0
Capital	19,850,608	1,416,978	761,049	1,018,250	1,066,309	1,117,250	1,171,248	13,299,524	0	0	0
Senior Loan	46,318,086	3,306,282	1,775,780	2,375,918	2,488,054	2,606,917	2,732,913	31,032,223	0	0	0
Senior LoanA(The 1 tarm)	3,306,282	3,306,282									
Senior LoanB(The 2 tarm)	1,775,780		1,775,780								
Senior LoanC(The 3 tarm)	2,375,918			2,375,918							
Senior LoanD(The 4 tarm)	2,488,054				2,488,054						
Senior LoanE(The 5 tarm)	2,606,917					2,606,917					
Senior LoanF(The 6 tarm)	2,732,913						2,732,913				
Senior LoanG(The 7 tarm)	31,032,223							31,032,223			
Net Cash Flows in the Period before Debt Service(①)		0	609,317	838,688	1,333,137	1,935,134	2,578,950	3,120,569	7,788,016	9,151,209	11,809,150
Debt Service	94,522,567	0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	4,026,618	4,167,937	4,284,002
Principal Repayment-Senior LoanA	3,306,282	0	0	0	0	0	0	220,419	220,419	220,419	220,419
Interest Payment-Senior LoanA	3,440,611	0	264,503	264,503	264,503	265,227	264,503	264,503	246,869	229,864	211,602
Principal Repayment-Senior LoanB	1,775,780	0	0	0	0	0	0	0	118,385	118,385	118,385
Interest Payment-Senior LoanB	1,848,031	0	0	142,062	142,062	142,452	142,062	142,062	142,062	132,955	123,121
Principal Repayment-Senior LoanC	2,375,918	0	0	0	0	0	0	0	0	158,395	158,395
Interest Payment-Senior LoanC	2,472,725	0	0	0	190,073	190,594	190,073	190,073	190,073	190,594	177,402
Principal Repayment-Senior LoanD	2,488,054	0	0	0	0	0	0	0	0	0	165,870
Interest Payment-Senior LoanD	2,589,539	0	0	0	0	199,590	199,044	199,044	199,044	199,590	199,044
Principal Repayment-Senior LoanE	2,606,917	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanE	2,712,832	0	0	0	0	0	208,553	208,553	208,553	209,125	208,553
Principal Repayment-Senior LoanF	2,732,913	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanF	2,844,107	0	0	0	0	0	0	218,633	218,633	219,232	218,633
Principal Repayment-Senior LoanG	31,032,223	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanG	32,296,637	0	0	0	0	0	0	0	2,482,578	2,489,379	2,482,578
Forex appreciation rate		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Debt Service- Forex Adjustment	94,522,567	0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	4,026,618	4,167,937	4,284,002
Cash flow from Financing Activities		4,723,260	2,272,326	2,987,603	2,957,724	2,926,305	2,899,926	42,888,459	−4,026,618	−4,167,937	−4,284,002
Net Cash Flows in the Period before Dividend		0	344,815	432,123	736,499	1,137,271	1,574,714	1,677,281	3,761,398	4,983,272	7,525,148
Dividend Payout	565,235,222					909,817	1,259,771	1,341,825	3,009,118	3,986,617	6,020,118
Net Cash Flows in the Period after Dividend		0	344,815	432,123	736,499	227,454	314,943	335,456	752,280	996,654	1,505,030
Opening Cash Balance		0	0	344,815	776,938	1,513,437	1,740,891	2,055,834	2,391,290	3,143,569	4,140,224
Closing Cash Balance (exclude Repair Cost Reserve Account)		0	344,815	776,938	1,513,437	1,740,891	2,055,834	2,391,290	3,143,569	4,140,224	5,645,253
Balance of Repair Cost Reserve Account		0	0	0	0	0	0	268,142	678,335	1,220,748	1,981,892
Cashflow available for Debt Service		0	609,317	838,688	1,333,137	1,935,134	2,578,950	3,120,569	7,788,016	9,151,209	11,809,150
Debt Service		0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	4,026,618	4,167,937	4,284,002
<<DSCR>>	3,670	−	2,304	2,063	2,234	2,425	2,568	2,162	1,934	2,196	2,757
<<LLCR>>	2,397	−	−	838,688	1,226,486	1,644,864	2,011,581	2,246,810	5,140,090	5,582,237	6,613,124
discountrate	8,0%			1,00	0,92	0,85	0,78	0,72	0,66	0,61	0,56

		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Period		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
End of Period		31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41
Beginning of Period		1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41
FINANCING AND DEBT SERVICE																	
Loan & Capital		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital		0	0	0	0	0	0	0	0	0							
Senior Loan		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Senior LoanA(The 1 tarm)																	
Senior LoanB(The 2 tarm)																	
Senior LoanC(The 3 tarm)																	
Senior LoanD(The 4 tarm)																	
Senior LoanE(The 5 tarm)																	
Senior LoanF(The 6 tarm)																	
Senior LoanG(The 7 tarm)																	
Net Cash Flows in the Period before Debt Service(①)		11,705,363	12,683,643	9,429,498	11,017,728	11,326,756	12,847,968	12,880,398	14,799,003	15,702,911	17,867,917	17,546,743	19,325,591	20,032,664	22,742,296	22,602,381	25,850,914
Debt Service		4,404,751	4,519,996	6,516,655	6,260,257	6,013,227	5,766,197	5,525,828	5,272,137	5,025,108	4,778,078	4,535,002	4,063,599	3,715,818	3,337,498	2,965,852	2,596,595
Principal Repayment-Senior LoanA		220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	0	0	0	0	0
Interest Payment-Senior LoanA		193,969	176,335	159,136	141,068	123,435	105,801	88,409	70,534	52,901	35,267	17,682	0	0	0	0	0
Principal Repayment-Senior LoanB		118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	0	0	0	0
Interest Payment-Senior LoanB		113,650	104,179	94,968	85,237	75,767	66,296	56,981	47,354	37,883	28,412	18,994	9,471	0	0	0	0
Principal Repayment-Senior LoanC		158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	0	0	0
Interest Payment-Senior LoanC		164,730	152,059	139,769	126,716	114,044	101,372	88,944	76,029	63,358	50,686	38,119	25,343	12,672	0	0	0
Principal Repayment-Senior LoanD		165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	0	0
Interest Payment-Senior LoanD		185,775	172,505	159,672	145,966	132,696	119,427	106,448	92,887	79,618	66,348	53,224	39,809	26,539	13,270	0	0
Principal Repayment-Senior LoanE		173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	0
Interest Payment-Senior LoanE		208,553	194,650	181,241	166,843	152,939	139,036	125,475	111,228	97,325	83,421	69,708	55,614	41,711	27,807	13,942	0
Principal Repayment-Senior LoanF		0	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194
Interest Payment-Senior LoanF		218,633	218,633	204,617	189,482	174,906	160,331	146,155	131,180	116,604	102,029	87,693	72,878	58,302	43,727	29,231	14,576
Principal Repayment-Senior LoanG		0	0	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815	2,068,815
Interest Payment-Senior LoanG		2,482,578	2,482,578	2,489,379	2,317,073	2,151,567	1,986,062	1,825,545	1,655,052	1,489,547	1,324,041	1,161,710	993,031	827,526	662,021	497,876	331,010
Forex appreciation rate		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Debt Service- Forex Adjustment		4,404,751	4,519,996	6,516,655	6,260,257	6,013,227	5,766,197	5,525,828	5,272,137	5,025,108	4,778,078	4,535,002	4,063,599	3,715,818	3,337,498	2,965,852	2,596,595
Cash flow from Financing Activities		−4,404,751	−4,519,996	−6,516,655	−6,260,257	−6,013,227	−5,766,197	−5,525,828	−5,272,137	−5,025,108	−4,778,078	−4,535,002	−4,063,599	−3,715,818	−3,337,498	−2,965,852	−2,596,595
Net Cash Flows in the Period before Dividend		7,300,612	8,163,647	2,912,844	4,757,471	5,313,529	7,081,770	7,354,569	9,526,866	10,677,803	13,089,839	13,011,741	15,261,992	16,316,846	19,404,798	19,636,529	23,254,319
Dividend Payout		5,840,490	6,530,918	2,330,275	3,805,977	4,250,824	5,665,416	5,883,655	7,621,493	8,542,242	10,471,871	10,409,393	12,209,593	13,053,477	15,523,838	15,709,223	18,603,455
Net Cash Flows in the Period after Dividend		1,460,122	1,632,729	582,569	951,494	1,062,706	1,416,354	1,470,914	1,905,373	2,135,561	2,617,968	2,602,348	3,052,398	3,263,369	3,880,960	3,927,306	4,650,864
Opening Cash Balance		5,645,253	7,105,376	8,738,105	9,320,674	10,272,168	11,334,874	12,751,228	14,222,142	16,127,515	18,263,076	20,881,044	23,483,392	26,535,790	29,799,160	33,680,119	37,607,425
Closing Cash Balance (exclude Repair Cost Reserve Account)		7,105,376	8,738,105	9,320,674	10,272,168	11,334,874	12,751,228	14,222,142	16,127,515	18,263,076	20,881,044	23,483,392	26,535,790	29,799,160	33,680,119	37,607,425	42,258,289
Balance of Repair Cost Reserve Account		3,008,177	4,251,462	8,543,834	12,107,355	14,481,915	17,520,878	21,166,090	23,991,747	22,940,690	21,379,692	22,593,156	26,512,506	27,880,092	28,462,680	30,251,896	31,252,730
Cashflow available for Debt Service		11,705,363	12,683,643	9,429,498	11,017,728	11,326,756	12,847,968	12,880,398	14,799,003	15,702,911	17,867,917	17,546,743	19,325,591	20,032,664	22,742,296	22,602,381	25,850,914
Debt Service		4,404,751	4,519,996	6,516,655	6,260,257	6,013,227	5,766,197	5,525,828	5,272,137	5,025,108	4,778,078	4,535,002	4,063,599	3,715,818	3,337,498	2,965,852	2,596,595
<<DSCR>>		2,657	2,806	1,447	1,760	1,884	2,228	2,331	2,807	3,125	3,740	3,869	4,756	5,391	6,814	7,621	9,956
<<LLCR>>		5,969,735	5,961,312	4,054,684	4,296,914	4,077,632	4,239,829	3,864,119	3,995,731	3,925,728	4,109,621	3,684,816	3,671,862	3,405,553	3,411,344	2,938,310	3,102,110
discountrate		0,51	0,47	0,43	0,39	0,36	0,33	0,30	0,27	0,25	0,23	0,21	0,19	0,17	0,15	0,13	0,12

		26	27	28	29	30	31	32	33	34	35	36	37
Period		2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
End of Period		31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47	31-Dec-48	31-Dec-49	31-Dec-50	31-Dec-51	31-Dec-52	31-Dec-53
Beginning of Period		1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47	1-Jan-48	1-Jan-49	1-Jan-50	1-Jan-51	1-Jan-52	1-Jan-53
FINANCING AND DEBT SERVICE													
Loan & Capital		0	0	0	0	0	0	0	0	0	0	0	0
Capital													
Senior Loan		0	0	0	0	0	0	0	0	0	0	0	0
Senior LoanA(The 1 tarm)													
Senior LoanB(The 2 tarm)													
Senior LoanC(The 3 tarm)													
Senior LoanD(The 4 tarm)													
Senior LoanE(The 5 tarm)													
Senior LoanF(The 6 tarm)													
Senior LoanG(The 7 tarm)													
Net Cash Flows in the Period before Debt Service(①)		25,906,139	29,275,190	29,797,761	33,401,374	36,073,915	35,003,769	35,786,701	35,706,397	33,950,175	34,338,825	31,394,049	1,597,549
Debt Service		2,234,320	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanA		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanA		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanB		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanB		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanC		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanC		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanD		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanD		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanE		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanE		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanF		0	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanF		0	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanG		2,068,815	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanG		165,505	0	0	0	0	0	0	0	0	0	0	0
Forex appreciation rate		1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Debt Service- Forex Adjustment		2,234,320	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Financing Activities		−2,234,320	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flows in the Period before Dividend		23,671,819	29,275,190	29,797,761	33,401,374	36,073,915	35,003,769	35,786,701	35,706,397	33,950,175	34,338,825	31,394,049	1,597,549
Dividend Payout		18,937,456	23,420,152	23,838,209	26,721,099	28,859,132	28,003,015	28,629,361	28,565,118	27,160,140	27,471,060	25,115,239	115,535,833
Net Cash Flows in the Period after Dividend		4,734,364	5,855,038	5,959,552	6,680,275	7,214,783	7,000,754	7,157,340	7,141,279	6,790,035	6,867,765	6,278,810	−113,938,284
Opening Cash Balance		42,258,289	46,992,653	52,847,691	58,807,243	65,487,518	72,702,301	79,703,054	86,860,395	94,001,674	100,791,709	107,659,474	113,938,284
Closing Cash Balance (exclude Repair Cost Reserve Account)		46,992,653	52,847,691	58,807,243	65,487,518	72,702,301	79,703,054	86,860,395	94,001,674	100,791,709	107,659,474	113,938,284	0
Balance of Repair Cost Reserve Account		34,004,627	35,870,872	36,980,431	39,178,987	28,795,841	30,030,089	21,012,009	20,438,786	16,194,433	18,117,665	19,657,258	0
Cashflow available for Debt Service		25,906,139	29,275,190	29,797,761	33,401,374	36,073,915	35,003,769	35,786,701	35,706,397	33,950,175	34,338,825	31,394,049	1,597,549
Debt Service		2,234,320	0	0	0	0	0	0	0	0	0	0	0
<<DSCR>>		11,595											
<<LLCR>>		2,849,675	2,927,519	2,681,799	2,672,110	2,525,174	2,100,226	1,789,335	1,428,256	1,018,505	686,777	313,940	0
discountrate		0,11	0,10	0,09	0,08	0,07	0,06	0,05	0,04	0,03	0,02	0,01	0,00

Profit and Loss Statement
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			1	2	3	4	5	6	7	8	9
Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25
Gross Profit	1,036,621,909	0	859,164	1,140,168	1,716,290	2,419,993	3,337,112	4,249,300	10,397,030	12,512,562	16,236,516
Rental Income	788,704,013	0	655,908	872,154	1,316,954	1,855,333	2,559,590	3,260,601	7,928,254	9,532,502	12,358,244
Common Service Income	143,400,730	0	119,256	158,574	239,446	337,333	465,380	592,837	1,441,501	1,733,182	2,246,953
Rental Income(The 1 tarm)	50,344,560	0	655,908	655,908	736,978	736,978	828,069	828,069	930,418	930,418	1,045,418
Common Service Income(The 1 tarm)	9,153,556	0	119,256	119,256	133,996	133,996	150,558	150,558	169,167	169,167	190,076
Rental Income(The 2 tarm)	27,978,902	0	0	216,246	281,120	413,056	413,056	464,110	464,110	521,474	521,474
Common Service Income(The 2 tarm)	5,087,073	0	0	39,318	51,113	75,101	75,101	84,384	84,384	94,814	94,814
Rental Income(The 3 tarm)	38,667,187	0	0	0	298,855	388,512	570,849	570,849	641,406	641,406	720,684
Common Service Income(The 3 tarm)	7,030,398	0	0	0	54,337	70,638	103,791	103,791	116,619	116,619	131,033
Rental Income(The 4 tarm)	40,987,218	0	0	0	0	316,786	411,822	605,100	605,100	679,890	679,890
Common Service Income(The 4 tarm)	7,452,221	0	0	0	0	57,598	74,877	110,018	110,018	123,616	123,616
Rental Income(The 5 tarm)	43,446,451	0	0	0	0	0	335,794	436,532	641,406	641,406	720,684
Common Service Income(The 5 tarm)	7,899,355	0	0	0	0	0	61,053	79,369	116,619	116,619	131,033
Rental Income(The 6 tarm)	46,053,238	0	0	0	0	0	0	355,941	462,724	679,890	679,890
Common Service Income(The 6 tarm)	8,373,316	0	0	0	0	0	0	64,717	84,132	123,616	123,616
Rental Income(The 7 tarm)	541,226,456	0	0	0	0	0	0	0	4,183,089	5,438,016	7,990,203
Common Service Income(The 7 tarm)	98,404,810	0	0	0	0	0	0	0	760,562	988,730	1,452,764
Additional Fee	104,517,167	0	84,000	109,440	159,890	227,327	312,141	395,862	1,027,275	1,246,878	1,631,319
Additional Fee(The 1 tarm)	6,447,464	0	84,000	84,000	94,382	94,382	106,048	106,048	119,156	119,156	133,883
Additional Fee(The 2 tarm)	3,385,356	0	0	25,440	31,800	50,023	50,023	56,205	56,205	63,152	63,152
Additional Fee(The 3 tarm)	4,616,646	0	0	0	33,708	47,191	68,174	68,174	76,600	76,600	86,068
Additional Fee(The 4 tarm)	4,893,644	0	0	0	0	35,730	50,023	72,264	72,264	81,196	81,196
Additional Fee(The 5 tarm)	5,187,263	0	0	0	0	0	37,874	53,024	76,600	76,600	86,068
Additional Fee(The 6 tarm)	5,498,499	0	0	0	0	0	0	40,147	56,205	81,196	81,196
Additional Fee(The 7 tarm)	74,488,296	0	0	0	0	0	0	0	570,245	748,978	1,099,755
Expenses	349,874,987	600,000	853,347	1,131,365	1,514,944	1,910,769	2,340,570	3,209,844	7,274,372	7,499,295	7,565,152
Commencement Cost	2,504,323	600,000	212,000	224,720	238,203	252,495	267,645	709,260	0	0	0
Operation Cost	89,797,846	0	96,575	136,378	204,504	266,593	349,941	426,914	1,215,578	1,288,513	1,365,823
Common Cost	18,983,151	0	148,292	157,189	166,621	176,618	187,215	198,448	236,302	250,480	265,509
Repair Cost	130,017,106	0	4,980	7,913	12,029	16,610	21,698	27,336	122,410	277,295	300,617
Interest paid	48,204,481	0	264,503	406,565	596,638	797,863	1,004,236	1,222,869	3,687,813	3,670,738	3,620,933
Depreciation exepenses	60,368,080		126,998	198,600	296,949	400,590	509,835	625,017	2,012,269	2,012,269	2,012,269
Profit before tax	686,746,922	−600,000	5,817	8,803	201,346	509,224	996,542	1,039,457	3,122,658	5,013,267	8,671,364
Income Tax	141,362,309	0	0	0	0	25,038	199,308	207,891	624,532	1,002,653	1,734,273
Profit after tax	545,384,614	−600,000	5,817	8,803	201,346	484,186	797,234	831,565	2,498,126	4,010,614	6,937,091
<<Dividend>>	545,384,614	0	0	0	0	909,817	1,259,771	1,341,825	3,009,118	3,986,617	6,020,118
Net Operating Income	656,461,498	0	609,317	838,688	1,333,137	1,935,134	2,578,950	3,388,711	8,198,209	9,693,622	12,570,293
Initial Investment	−66,168,695	−4,723,260	−2,536,828	−3,394,168	−3,554,362	−3,724,168	−3,904,162	−44,331,746	0	0	0
<<NPV>>	76,917,629	−4,723,260	−1,927,511	−2,555,480	−2,221,225	−1,789,034	−1,325,212	−40,943,036	8,198,209	9,693,622	12,570,293
<<PIRR>>	18,88%	−4,723,260	−1,927,511	−2,555,480	−2,221,225	−1,789,034	−1,325,212	−40,943,036	8,198,209	9,693,622	12,570,293
<<EIRR>>	23,36%	−1,416,978	−761,049	−1,018,250	−1,066,309	−207,433	88,523	−11,957,699	3,009,118	3,986,617	6,020,118

		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Period		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
End of Period		31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41
Beginning of Period		1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41
Gross Profit		16,539,193	18,243,349	18,583,437	20,498,227	20,880,350	23,031,808	23,461,161	25,878,539	26,360,961	29,077,126	29,619,176	32,671,059	33,280,106	36,709,202	37,393,527	41,246,460
Rental Income		12,590,767	13,885,723	14,146,986	15,601,998	15,895,553	17,530,405	17,860,243	19,697,163	20,067,769	22,131,732	22,548,146	24,867,214	25,335,096	27,940,802	28,466,514	31,394,285
Common Service Income		2,289,230	2,524,677	2,572,179	2,836,727	2,890,101	3,187,346	3,247,317	3,581,302	3,648,685	4,023,951	4,099,663	4,521,312	4,606,381	5,080,146	5,175,730	5,708,052
Rental Income(The 1 tarm)		1,045,418	1,174,631	1,174,631	1,319,816	1,319,816	1,482,945	1,482,945	1,666,237	1,666,237	1,872,184	1,872,184	2,103,586	2,103,586	2,363,589	2,363,589	2,655,729
Common Service Income(The 1 tarm)		190,076	213,569	213,569	239,967	239,967	269,626	269,626	302,952	302,952	340,397	340,397	382,470	382,470	429,743	429,743	482,860
Rental Income(The 2 tarm)		585,929	585,929	658,349	658,349	739,721	739,721	831,151	831,151	933,881	933,881	1,049,309	1,049,309	1,179,003	1,179,003	1,324,728	1,324,728
Common Service Income(The 2 tarm)		106,532	106,532	119,700	119,700	134,495	134,495	151,118	151,118	169,797	169,797	190,783	190,783	214,364	214,364	240,860	240,860
Rental Income(The 3 tarm)		720,684	809,760	809,760	909,847	909,847	1,022,304	1,022,304	1,148,661	1,148,661	1,290,635	1,290,635	1,450,158	1,450,158	1,629,397	1,629,397	1,830,791
Common Service Income(The 3 tarm)		131,033	147,229	147,229	165,427	165,427	185,873	185,873	208,847	208,847	234,661	234,661	263,665	263,665	296,254	296,254	332,871
Rental Income(The 4 tarm)		763,925	763,925	858,346	858,346	964,438	964,438	1,083,642	1,083,642	1,217,580	1,217,580	1,368,073	1,368,073	1,537,167	1,537,167	1,727,161	1,727,161
Common Service Income(The 4 tarm)		138,895	138,895	156,063	156,063	175,352	175,352	197,026	197,026	221,378	221,378	248,741	248,741	279,485	279,485	314,029	314,029
Rental Income(The 5 tarm)		720,684	809,760	809,760	909,847	909,847	1,022,304	1,022,304	1,148,661	1,148,661	1,290,635	1,290,635	1,450,158	1,450,158	1,629,397	1,629,397	1,830,791
Common Service Income(The 5 tarm)		131,033	147,229	147,229	165,427	165,427	185,873	185,873	208,847	208,847	234,661	234,661	263,665	263,665	296,254	296,254	332,871
Rental Income(The 6 tarm)		763,925	763,925	858,346	858,346	964,438	964,438	1,083,642	1,083,642	1,217,580	1,217,580	1,368,073	1,368,073	1,537,167	1,537,167	1,727,161	1,727,161
Common Service Income(The 6 tarm)		138,895	138,895	156,063	156,063	175,352	175,352	197,026	197,026	221,378	221,378	248,741	248,741	279,485	279,485	314,029	314,029
Rental Income(The 7 tarm)		7,990,203	8,977,792	8,977,792	10,087,447	10,087,447	11,334,255	11,334,255	12,735,169	12,735,169	14,309,236	14,309,236	16,077,858	16,077,858	18,065,081	18,065,081	20,297,925
Common Service Income(The 7 tarm)		1,452,764	1,632,326	1,632,326	1,834,081	1,834,081	2,060,774	2,060,774	2,315,485	2,315,485	2,601,679	2,601,679	2,923,247	2,923,247	3,284,560	3,284,560	3,690,532
Additional Fee		1,659,196	1,832,950	1,864,272	2,059,502	2,094,697	2,314,057	2,353,601	2,600,074	2,644,506	2,921,443	2,971,367	3,282,533	3,338,628	3,688,255	3,751,282	4,144,123
Additional Fee(The 1 tarm)		133,883	150,431	150,431	169,025	169,025	189,916	189,916	213,390	213,390	239,764	239,764	269,399	269,399	302,697	302,697	340,111
Additional Fee(The 2 tarm)		70,958	70,958	79,729	79,729	89,583	89,583	100,655	100,655	113,096	113,096	127,075	127,075	142,782	142,782	160,429	160,429
Additional Fee(The 3 tarm)		86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134	154,134	173,185	173,185	194,591	194,591	218,642
Additional Fee(The 4 tarm)		91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410	163,382	163,382	183,576	183,576	206,266	206,266
Additional Fee(The 5 tarm)		86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134	154,134	173,185	173,185	194,591	194,591	218,642
Additional Fee(The 6 tarm)		91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410	163,382	163,382	183,576	183,576	206,266	206,266
Additional Fee(The 7 tarm)		1,099,755	1,235,685	1,235,685	1,388,416	1,388,416	1,560,024	1,560,024	1,752,843	1,752,843	1,969,494	1,969,494	2,212,923	2,212,923	2,486,441	2,486,441	2,793,765
Expenses		7,599,828	7,726,199	8,232,413	8,752,483	9,925,735	9,036,386	8,366,931	9,093,382	12,983,025	13,321,571	10,493,165	7,625,401	10,253,567	11,001,965	10,095,678	10,629,094
Commencement Cost		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation Cost		1,447,773	1,534,639	1,626,717	1,724,320	1,827,780	1,937,446	2,053,693	2,176,915	2,307,530	2,445,981	2,592,740	2,748,305	2,913,203	3,087,995	3,273,275	3,469,671
Common Cost		281,439	298,325	316,225	335,198	355,310	376,629	399,227	423,180	448,571	475,485	504,015	534,255	566,311	600,289	636,307	674,485
Repair Cost		290,459	380,027	848,419	1,508,310	2,805,021	2,031,717	1,463,786	2,296,752	6,277,419	6,697,629	3,937,012	1,134,426	3,795,034	4,554,587	3,632,778	4,127,082
Interest paid		3,567,888	3,500,939	3,428,782	3,172,384	2,925,354	2,678,325	2,437,956	2,184,265	1,937,235	1,690,205	1,447,130	1,196,146	966,750	746,824	541,048	345,586
Depreciation exepenses		2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	2,012,269
Profit before tax		8,939,365	10,517,149	10,351,024	11,745,744	10,954,615	13,995,422	15,094,230	16,785,157	13,377,936	15,755,556	19,126,010	25,045,658	23,026,539	25,707,237	27,297,849	30,617,366
Income Tax		1,787,873	2,103,430	2,070,205	2,349,149	2,190,923	2,799,084	3,018,846	3,357,031	2,675,587	3,151,111	3,825,202	5,009,132	4,605,308	5,141,447	5,459,570	6,123,473
Profit after tax		7,151,492	8,413,720	8,280,819	9,396,595	8,763,692	11,196,337	12,075,384	13,428,126	10,702,349	12,604,444	15,300,808	20,036,526	18,421,231	20,565,790	21,838,279	24,493,893
<<Dividend>>		5,840,490	6,530,918	2,330,275	3,805,977	4,250,824	5,665,416	5,883,655	7,621,493	8,542,242	10,471,871	10,409,393	12,209,593	13,053,477	15,523,838	15,709,223	18,603,455
Net Operating Income		12,731,649	13,926,927	13,721,871	14,581,249	13,701,316	15,886,931	16,525,610	17,624,660	14,651,853	16,306,919	18,760,207	23,244,941	21,400,250	23,324,883	24,391,597	26,851,748
Initial Investment		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<<NPV>>		12,731,649	13,926,927	13,721,871	14,581,249	13,701,316	15,886,931	16,525,610	17,624,660	14,651,853	16,306,919	18,760,207	23,244,941	21,400,250	23,324,883	24,391,597	26,851,748
<<PIRR>>		12,731,649	13,926,927	13,721,871	14,581,249	13,701,316	15,886,931	16,525,610	17,624,660	14,651,853	16,306,919	18,760,207	23,244,941	21,400,250	23,324,883	24,391,597	26,851,748
<<EIRR>>		5,840,490	6,530,918	2,330,275	3,805,977	4,250,824	5,665,416	5,883,655	7,621,493	8,542,242	10,471,871	10,409,393	12,209,593	13,053,477	15,523,838	15,709,223	18,603,455

		26	27	28	29	30	31	32	33	34	35	36	37
Period		2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
End of Period		31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47	31-Dec-48	31-Dec-49	31-Dec-50	31-Dec-51	31-Dec-52	31-Dec-53
Beginning of Period		1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47	1-Jan-48	1-Jan-49	1-Jan-50	1-Jan-51	1-Jan-52	1-Jan-53
Gross Profit		42,015,367	46,344,522	47,208,466	52,072,705	53,043,432	53,574,290	51,913,990	53,648,033	50,508,676	51,987,733	47,962,880	0
Rental Income		31,984,976	35,274,619	35,938,319	39,634,561	40,380,295	40,766,191	39,492,682	40,775,475	38,362,893	39,443,575	36,350,493	0
Common Service Income		5,815,450	6,413,567	6,534,240	7,206,284	7,341,872	7,412,035	7,180,488	7,413,723	6,975,071	7,171,559	6,609,180	0
Rental Income(The 1 tarm)		2,655,729	2,983,977	2,983,977	3,352,796	3,352,796	0	0	0	0	0	0	0
Common Service Income(The 1 tarm)		482,860	542,541	542,541	609,599	609,599	0	0	0	0	0	0	0
Rental Income(The 2 tarm)		1,488,465	1,488,465	1,672,439	1,672,439	1,879,152	1,879,152	0	0	0	0	0	0
Common Service Income(The 2 tarm)		270,630	270,630	304,080	304,080	341,664	341,664	0	0	0	0	0	0
Rental Income(The 3 tarm)		1,830,791	2,057,076	2,057,076	2,311,331	2,311,331	2,597,011	2,597,011	0	0	0	0	0
Common Service Income(The 3 tarm)		332,871	374,014	374,014	420,242	420,242	472,184	472,184	0	0	0	0	0
Rental Income(The 4 tarm)		1,940,638	1,940,638	2,180,501	2,180,501	2,450,011	2,450,011	2,752,832	2,752,832	0	0	0	0
Common Service Income(The 4 tarm)		352,843	352,843	396,455	396,455	445,457	445,457	500,515	500,515	0	0	0	0
Rental Income(The 5 tarm)		1,830,791	2,057,076	2,057,076	2,311,331	2,311,331	2,597,011	2,597,011	2,918,002	2,918,002	0	0	0
Common Service Income(The 5 tarm)		332,871	374,014	374,014	420,242	420,242	472,184	472,184	530,546	530,546	0	0	0
Rental Income(The 6 tarm)		1,940,638	1,940,638	2,180,501	2,180,501	2,450,011	2,450,011	2,752,832	2,752,832	3,093,082	3,093,082	0	0
Common Service Income(The 6 tarm)		352,843	352,843	396,455	396,455	445,457	445,457	500,515	500,515	562,379	562,379	0	0
Rental Income(The 7 tarm)		20,297,925	22,806,749	22,806,749	25,625,663	25,625,663	28,792,995	28,792,995	32,351,809	32,351,809	36,350,493	36,350,493	0
Common Service Income(The 7 tarm)		3,690,532	4,146,682	4,146,682	4,659,211	4,659,211	5,235,090	5,235,090	5,882,147	5,882,147	6,609,180	6,609,180	0
Additional Fee		4,214,941	4,656,336	4,735,908	5,231,860	5,321,266	5,396,064	5,240,821	5,458,835	5,170,712	5,372,599	5,003,207	0
Additional Fee(The 1 tarm)		340,111	382,148	382,148	429,382	429,382	0	0	0	0	0	0	0
Additional Fee(The 2 tarm)		180,259	180,259	202,539	202,539	227,572	227,572	0	0	0	0	0	0
Additional Fee(The 3 tarm)		218,642	245,667	245,667	276,031	276,031	310,149	310,149	0	0	0	0	0
Additional Fee(The 4 tarm)		231,761	231,761	260,407	260,407	292,593	292,593	328,757	328,757	0	0	0	0
Additional Fee(The 5 tarm)		218,642	245,667	245,667	276,031	276,031	310,149	310,149	348,483	348,483	0	0	0
Additional Fee(The 6 tarm)		231,761	231,761	260,407	260,407	292,593	292,593	328,757	328,757	369,392	369,392	0	0
Additional Fee(The 7 tarm)		2,793,765	3,139,074	3,139,074	3,527,064	3,527,064	3,963,009	3,963,009	4,452,837	4,452,837	5,003,207	5,003,207	0
Expenses		8,915,039	9,933,065	11,089,652	10,088,129	23,445,308	11,025,026	20,941,255	12,149,422	15,649,665	8,781,100	8,756,228	20,064,620
Commencement Cost		0	0	0	0	0	0	0	0	0	0	0	0
Operation Cost		3,677,852	3,898,523	4,132,434	4,380,380	4,643,203	4,470,499	4,543,403	4,471,725	4,453,892	4,334,289	4,272,843	0
Common Cost		714,954	757,852	803,323	851,522	902,613	851,712	902,815	956,984	1,014,403	1,075,267	1,139,783	0
Repair Cost		2,344,458	3,264,421	4,141,626	2,843,957	15,887,222	3,817,543	13,681,367	5,005,394	8,569,691	1,869,110	1,956,350	20,064,620
Interest paid		165,505	0	0	0	0	0	0	0	0	0	0	0
Depreciation exepenses		2,012,269	2,012,269	2,012,269	2,012,269	2,012,269	1,885,272	1,813,670	1,715,320	1,611,679	1,502,434	1,387,253	0
Profit before tax		33,100,328	36,411,457	36,118,814	41,984,576	29,598,124	42,549,265	30,972,735	41,498,611	34,859,011	43,206,633	39,206,652	−20,064,620
Income Tax		6,620,066	7,282,291	7,223,763	8,396,915	5,919,625	8,509,853	6,194,547	8,299,722	6,971,802	8,641,327	7,841,330	0
Profit after tax		26,480,262	29,129,166	28,895,051	33,587,661	23,678,500	34,039,412	24,778,188	33,198,888	27,887,209	34,565,307	31,365,322	−20,064,620
<<Dividend>>		18,937,456	23,420,152	23,838,209	26,721,099	28,859,132	28,003,015	28,629,361	28,565,118	27,160,140	27,471,060	25,115,239	95,685,224
Net Operating Income		28,658,037	31,141,435	30,907,320	35,599,930	25,690,769	35,924,684	26,591,858	34,914,209	29,498,888	36,067,741	32,752,574	−20,064,620
Initial Investment		0	0	0	0	0	0	0	0	0	0	0	0
<<NPV>>		28,658,037	31,141,435	30,907,320	35,599,930	25,690,769	35,924,684	26,591,858	34,914,209	29,498,888	36,067,741	32,752,574	−20,064,620
<<PIRR>>		28,658,037	31,141,435	30,907,320	35,599,930	25,690,769	35,924,684	26,591,858	34,914,209	29,498,888	36,067,741	32,752,574	−20,064,620
<<EIRR>>		18,937,456	23,420,152	23,838,209	26,721,099	28,859,132	28,003,015	28,629,361	28,565,118	27,160,140	27,471,060	25,115,239	115,535,833

APPENDIX E

Financial Analysis for the "Medium-term Development Case"

Statement of Cash Flow
【US＄】

			1	2	3	4	5	6	7	8	9	10
Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25	1-Jan-26
RECEIPTS FROM OPERATIONS												
Rental Income	187,985,983	0	426,340	642,587	1,169,558	1,683,640	2,336,100	2,998,513	3,420,726	3,722,280	3,963,509	4,182,354
Rental Income(The 1 tarm)	40,078,876		426,340	426,340	589,583	589,583	662,455	662,455	744,334	744,334	836,334	836,334
Rental Income(The 2 tarm)	24,593,728		0	216,246	281,120	388,759	388,759	436,810	436,810	490,799	490,799	551,462
Rental Income(The 3 tarm)	31,544,588		0	0	298,855	388,512	537,270	537,270	603,676	603,676	678,291	678,291
Rental Income(The 4 tarm)	31,131,371		0	0	0	316,786	411,822	569,506	569,506	639,897	639,897	718,988
Rental Income(The 5 tarm)	30,555,007		0	0	0	0	335,794	436,532	603,676	603,676	678,291	678,291
Rental Income(The 6 tarm)	30,082,415		0	0	0	0	0	355,941	462,724	639,897	639,897	718,988
Common Service Income	34,179,270	0	77,516	116,834	212,647	306,116	424,745	545,184	621,950	676,778	720,638	760,428
Common Service Income(The 1 tarm)	7,287,068		77,516	77,516	107,197	107,197	120,446	120,446	135,334	135,334	152,061	152,061
Common Service Income(The 2 tarm)	4,471,587		0	39,318	51,113	70,683	70,683	79,420	79,420	89,236	89,236	100,266
Common Service Income(The 3 tarm)	5,735,380		0	0	54,337	70,638	97,685	97,685	109,759	109,759	123,326	123,326
Common Service Income(The 4 tarm)	5,660,249		0	0	0	57,598	74,877	103,547	103,547	116,345	116,345	130,725
Common Service Income(The 5 tarm)	5,555,456		0	0	0	0	61,053	79,369	109,759	109,759	123,326	123,326
Common Service Income(The 6 tarm)	5,469,530		0	0	0	0	0	64,717	84,132	116,345	116,345	130,725
Additional Fee	23,376,205	0	54,000	79,440	139,666	199,956	282,271	365,108	423,468	463,345	493,852	520,615
Sale of Land	1,550,620	0	0	0	0	0	0	0	0	0	0	0
Sale of Land(The 1 tarm)	313,333											
Sale of Land(The 2 tarm)	189,389											
Sale of Land(The 3 tarm)	252,652											
Sale of Land(The 4 tarm)	258,668											
Sale of Land(The 5 tarm)	264,977											
Sale of Land(The 6 tarm)	271,601											
Sale of Land(The 7 tarm)	0											
Sale of Land(The 8 tarm)	0											
Sale of Land(The 9 tarm)	0											
Sale of Land(The 10 tarm)	0											
Sale of Land(The 11 tarm)	0											
Sale of Land(The 12 tarm)	0											
Sale of Land(The 13 tarm)	0											
Sale of Land(The 14 tarm)	0											
Sale of Land(The 15 tarm)	0											
Sale of Land(The 16 tarm)	0											
Sale of Land(The 17 tarm)	0											
Sale of Land(The 18 tarm)	0											
Sale of Land(The 19 tarm)	0											
Cash Inflow from Operations		0	557,857	838,860	1,521,870	2,189,712	3,043,116	3,908,806	4,466,145	4,862,404	5,177,999	5,463,397
PAYMENTS FOR OPERATIONS												
Operation Cost	24,476,439	0	96,575	136,378	204,504	266,593	349,941	426,914	452,529	479,681	508,462	538,970
Operation Cost(The 1 tarm)	7,635,069	0	96,575	102,370	108,512	115,023	121,924	129,240	136,994	145,214	153,926	163,162
Operation Cost(The 2 tarm)	2,504,349	0	0	34,008	36,049	38,211	40,504	42,934	45,510	48,241	51,136	54,204
Operation Cost(The 3 tarm)	4,107,792	0	0	0	59,943	63,540	67,352	71,393	75,677	80,217	85,031	90,132
Operation Cost(The 4 tarm)	3,173,774	0	0	0	0	49,819	52,808	55,977	59,336	62,896	66,669	70,670
Operation Cost(The 5 tarm)	3,984,309	0	0	0	0	0	67,352	71,393	75,677	80,217	85,031	90,132
Operation Cost(The 6 tarm)	3,071,146	0	0	0	0	0	0	55,977	59,336	62,896	66,669	70,670
Common Cost	11,723,671	0	148,292	157,189	166,621	176,618	187,215	198,448	210,355	222,976	236,354	250,536
Office & Others Cost(The 1 tarm)	1,446,107	0	18,292	19,389	20,553	21,786	23,093	24,478	25,947	27,504	29,154	30,903
Marketing Cost	7,905,819	0	100,000	106,000	112,360	119,102	126,248	133,823	141,852	150,363	159,385	168,948
Introduction Fee	2,371,746	0	30,000	31,800	33,708	35,730	37,874	40,147	42,556	45,109	47,815	50,684
Repair Cost	38,768,553	0	5,426	8,680	13,249	18,335	23,983	30,243	76,943	241,279	265,606	253,113
Repair Cost(The 1 tarm)	7,449,704		4,442	4,708	4,991	5,290	5,608	5,944	44,547	143,693	87,658	7,504
Repair Cost(The 2 tarm)	4,838,797		0	2,929	3,105	3,291	3,488	3,698	3,920	29,374	94,748	57,800
Repair Cost(The 3 tarm)	6,591,592		0	0	4,048	4,291	4,548	4,821	5,110	5,417	40,595	130,943
Repair Cost(The 4 tarm)	6,341,929		0	0	0	4,291	4,548	4,821	5,110	5,417	5,742	43,030
Repair Cost(The 5 tarm)	6,390,691		0	0	0	0	4,548	4,821	5,110	5,417	5,742	6,086
Repair Cost(The 6 tarm)	5,588,223		0	0	0	0	0	4,821	5,110	5,417	5,742	6,086
Repair Cost of Office(The 1 tarm)	1,567,616		984	1,043	1,106	1,172	1,242	1,317	8,035	46,545	25,380	1,662
Repair Cost Reserve	-0	0	0	0	0	0	0	291,042	449,448	605,031	841,942	1,128,418
Repair Cost Reserve (The 1 tarm)	0							291,042	252,439	153,294	209,329	289,482
Repair Cost Reserve (The 2 tarm)	0								197,009	171,555	106,180	143,129
Repair Cost Reserve (The 3 tarm)	0									280,182	245,004	154,656
Repair Cost Reserve (The 4 tarm)	0										281,428	244,140
Repair Cost Reserve (The 5 tarm)	0											297,011
Repair Cost Reserve (The 6 tarm)	0											
(Total Repair Cost Reserve)		*0*	*0*	*0*	*0*	*0*	*0*	*291,042*	*740,491*	*1,345,522*	*2,187,463*	*3,315,881*
Income Tax	28,699,612	0	0	0	0	0	0	239,859	379,213	422,418	480,841	542,090
Cash Outflow from Operations		0	250,293	302,247	384,373	461,546	561,138	1,186,506	1,568,488	1,971,385	2,333,205	2,713,126
Cash flow from Operations		0	307,564	536,613	1,137,497	1,728,166	2,481,978	2,722,300	2,897,657	2,891,019	2,844,794	2,750,270
INVESTING ACTIVITIES												
Factory Construction Cost	15,649,265	3,183,260	1,769,288	2,445,178	2,591,889	2,747,402	2,912,247	0	0	0	0	0
Factory Construction Cost (The 1 tarm)	3,183,260	3,183,260	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	1,769,288	0	1,769,288	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	2,445,178	0	0	2,445,178	0	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	2,591,889	0	0	0	2,591,889	0	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	2,747,402	0	0	0	0	2,747,402	0	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	2,912,247	0	0	0	0	0	2,912,247	0	0	0	0	0
Rebuilding Reserve	0	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 1 tarm)	0							0	0	0	0	0
Rebuilding Reserve (The 2 tarm)	0								0	0	0	0
Rebuilding Reserve (The 3 tarm)	0									0	0	0
Rebuilding Reserve (The 4 tarm)	0										0	0
Rebuilding Reserve (The 5 tarm)	0											0
Rebuilding Reserve (The 6 tarm)	0											
Land Cost	4,392,620	940,000	555,540	724,270	724,270	724,270	724,270	0	0	0	0	0
Land Cost(The 1 tarm)	940,000	940,000										
Land Cost(The 2 tarm)	555,540		555,540									
Land Cost(The 3 tarm)	724,270			724,270								
Land Cost(The 4 tarm)	724,270				724,270							
Land Cost(The 5 tarm)	724,270					724,270						
Land Cost(The 6 tarm)	724,270						724,270					
Commencement Cost	1,795,064	600,000	212,000	224,720	238,203	252,495	267,645	0	0	0	0	0
Commencement Cost(The 1 tarm)	600,000	600,000	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	212,000	0	212,000	0	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	224,720	0	0	224,720	0	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	238,203	0	0	0	238,203	0	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	252,495	0	0	0	0	252,495	0	0	0	0	0	0
Commencement Cost(The 6 tarm)	267,645	0	0	0	0	0	267,645	0	0	0	0	0
Cash flow from Investing		4,723,260	2,536,828	3,394,168	3,554,362	3,724,168	3,904,162	0	0	0	0	0
Cash flow from Operations and Investing		-4,723,260	-2,229,265	-2,857,555	-2,416,865	-1,996,001	-1,422,184	2,722,300	2,897,657	2,891,019	2,844,794	2,750,270

	11	12	13	14	15	16	17	18	19	20	21
Period	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
End of Period	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37
Beginning of Period	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37
RECEIPTS FROM OPERATIONS											
Rental Income	4,453,399	4,699,293	5,003,839	5,280,126	5,622,313	5,932,749	6,317,231	6,666,037	7,098,041	7,489,959	7,975,358
Rental Income(The 1 tarm)	939,705	939,705	1,055,853	1,055,853	1,186,356	1,186,356	1,332,990	1,332,990	1,497,747	1,497,747	1,682,869
Rental Income(The 2 tarm)	551,462	619,623	619,623	696,208	696,208	782,260	782,260	878,947	878,947	987,585	987,585
Rental Income(The 3 tarm)	762,127	762,127	856,326	856,326	962,168	962,168	1,081,092	1,081,092	1,214,715	1,214,715	1,364,854
Rental Income(The 4 tarm)	718,988	807,855	807,855	907,706	907,706	1,019,898	1,019,898	1,145,958	1,145,958	1,287,598	1,287,598
Rental Income(The 5 tarm)	762,127	762,127	856,326	856,326	962,168	962,168	1,081,092	1,081,092	1,214,715	1,214,715	1,364,854
Rental Income(The 6 tarm)	718,988	807,855	807,855	907,706	907,706	1,019,898	1,019,898	1,145,958	1,145,958	1,287,598	1,287,598
Common Service Income	809,709	854,417	909,789	960,023	1,022,239	1,078,682	1,148,587	1,212,007	1,290,553	1,361,811	1,450,065
Common Service Income(The 1 tarm)	170,855	170,855	191,973	191,973	215,701	215,701	242,362	242,362	272,318	272,318	305,976
Common Service Income(The 2 tarm)	100,266	112,659	112,659	126,583	126,583	142,229	142,229	159,809	159,809	179,561	179,561
Common Service Income(The 3 tarm)	138,569	138,569	155,696	155,696	174,940	174,940	196,562	196,562	220,857	220,857	248,155
Common Service Income(The 4 tarm)	130,725	146,883	146,883	165,037	165,037	185,436	185,436	208,356	208,356	234,109	234,109
Common Service Income(The 5 tarm)	138,569	138,569	155,696	155,696	174,940	174,940	196,562	196,562	220,857	220,857	248,155
Common Service Income(The 6 tarm)	130,725	146,883	146,883	165,037	165,037	185,436	185,436	208,356	208,356	234,109	234,109
Additional Fee	554,892	584,962	623,477	657,264	700,539	738,502	787,126	829,780	884,414	932,341	993,728
Sale of Land	0	0	0	0	0	0	0	0	0	0	0
Cash Inflow from Operations	5,818,000	6,138,673	6,537,105	6,897,412	7,345,091	7,749,933	8,252,944	8,707,824	9,273,008	9,784,111	10,419,152
PAYMENTS FOR OPERATIONS											
Operation Cost	571,308	605,586	641,921	680,437	721,263	764,539	810,411	859,036	910,578	965,212	1,023,125
Operation Cost(The 1 tarm)	172,952	183,329	194,328	205,988	218,348	231,448	245,335	260,055	275,659	292,198	309,730
Operation Cost(The 2 tarm)	57,456	60,903	64,558	68,431	72,537	76,889	81,502	86,393	91,576	97,071	102,895
Operation Cost(The 3 tarm)	95,540	101,273	107,349	113,790	120,617	127,854	135,526	143,657	152,277	161,413	171,098
Operation Cost(The 4 tarm)	74,910	79,404	84,169	89,219	94,572	100,246	106,261	112,637	119,395	126,558	134,152
Operation Cost(The 5 tarm)	95,540	101,273	107,349	113,790	120,617	127,854	135,526	143,657	152,277	161,413	171,098
Operation Cost(The 6 tarm)	74,910	79,404	84,169	89,219	94,572	100,246	106,261	112,637	119,395	126,558	134,152
Common Cost	265,568	281,502	298,392	316,296	335,273	355,390	376,713	399,316	423,275	448,671	475,592
Office & Others Cost(The 1 tarm)	32,758	34,723	36,806	39,015	41,356	43,837	46,467	49,255	52,211	55,343	58,664
Marketing Cost	179,085	189,830	201,220	213,293	226,090	239,656	254,035	269,277	285,434	302,560	320,714
Introduction Fee	53,725	56,949	60,366	63,988	67,827	71,897	76,211	80,783	85,630	90,768	96,214
Repair Cost	347,078	852,662	1,091,371	1,201,153	1,095,977	1,519,724	1,779,420	1,433,964	1,268,507	915,986	1,126,896
Repair Cost(The 1 tarm)	58,252	420,794	479,887	261,074	10,043	243,385	338,214	148,428	269,210	13,439	100,717
Repair Cost(The 2 tarm)	4,948	38,410	277,463	316,428	172,147	6,622	160,483	223,012	97,871	177,512	8,862
Repair Cost(The 3 tarm)	79,880	6,839	53,084	383,457	437,307	237,910	9,152	221,789	308,205	135,258	245,323
Repair Cost(The 4 tarm)	138,800	84,673	7,249	56,269	406,465	463,546	252,184	9,701	235,097	326,697	143,374
Repair Cost(The 5 tarm)	45,612	147,128	89,753	7,684	59,645	430,853	491,359	267,315	10,283	249,203	346,299
Repair Cost(The 6 tarm)	6,452	48,349	155,955	95,138	8,145	63,223	456,704	520,840	283,354	10,900	264,155
Repair Cost of Office(The 1 tarm)	13,134	106,470	27,980	81,102	2,225	74,185	71,324	42,879	64,488	2,977	18,166
Repair Cost Reserve	1,317,890	905,642	588,443	531,784	558,082	206,296	-56,261	260,749	447,815	738,825	543,105
Repair Cost Reserve (The 1 tarm)	238,734	-123,807	-182,901	35,912	286,944	53,602	-41,227	148,558	27,777	283,547	196,269
Repair Cost Reserve (The 2 tarm)	195,980	162,518	-76,535	-115,499	28,781	194,307	40,446	-22,083	103,058	23,417	192,067
Repair Cost Reserve (The 3 tarm)	205,719	278,760	232,515	-97,859	-151,709	47,689	276,447	63,810	-22,606	150,341	40,275
Repair Cost Reserve (The 4 tarm)	148,370	202,497	279,921	230,902	-119,295	-176,376	34,986	277,469	52,073	-39,527	143,796
Repair Cost Reserve (The 5 tarm)	257,486	155,970	213,344	295,414	243,453	-127,755	-188,261	35,782	292,815	53,895	-43,201
Repair Cost Reserve (The 6 tarm)	271,601	229,703	122,097	182,914	269,907	214,829	-178,652	-242,788	-5,302	267,153	13,898
(Total Repair Cost Reserve)	*4,633,771*	*5,539,413*	*6,127,856*	*6,659,640*	*7,217,722*	*7,424,018*	*7,367,757*	*7,628,506*	*8,076,322*	*8,815,147*	*9,358,252*
Income Tax	598,134	566,901	605,018	660,145	775,060	774,571	826,434	988,561	1,135,893	1,308,761	1,393,081
Cash Outflow from Operations	3,099,978	3,212,293	3,225,146	3,389,813	3,485,655	3,620,519	3,736,717	3,941,625	4,186,068	4,377,456	4,561,799
Cash flow from Operations	2,718,022	2,926,380	3,311,959	3,507,599	3,859,436	4,129,414	4,516,227	4,766,199	5,086,939	5,406,655	5,857,353
INVESTING ACTIVITIES											
Factory Construction Cost	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0
Land Cost	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 1 tarm)	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 6 tarm)	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Investing	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Operations and Investing	2,718,022	2,926,380	3,311,959	3,507,599	3,859,436	4,129,414	4,516,227	4,766,199	5,086,939	5,406,655	5,857,353

	22	23	24	25	26	27	28	29	30	31
Period	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
End of Period	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47
Beginning of Period	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47
RECEIPTS FROM OPERATIONS										
Rental Income	8,415,718	8,961,113	9,455,901	10,068,706	10,624,650	11,313,198	11,937,857	12,711,510	13,413,376	0
Rental Income(The 1 tarm)	1,682,869	1,890,871	1,890,871	2,124,583	2,124,583	2,387,181	2,387,181	2,682,237	2,682,237	0
Rental Income(The 2 tarm)	1,109,650	1,109,650	1,246,803	1,246,803	1,400,908	1,400,908	1,574,060	1,574,060	1,768,614	0
Rental Income(The 3 tarm)	1,364,854	1,533,550	1,533,550	1,723,097	1,723,097	1,936,072	1,936,072	2,175,370	2,175,370	0
Rental Income(The 4 tarm)	1,446,745	1,446,745	1,625,563	1,625,563	1,826,483	1,826,483	2,052,236	2,052,236	2,305,893	0
Rental Income(The 5 tarm)	1,364,854	1,533,550	1,533,550	1,723,097	1,723,097	1,936,072	1,936,072	2,175,370	2,175,370	0
Rental Income(The 6 tarm)	1,446,745	1,446,745	1,625,563	1,625,563	1,826,483	1,826,483	2,052,236	2,052,236	2,305,893	0
Common Service Income	1,530,131	1,629,293	1,719,255	1,830,674	1,931,755	2,056,945	2,170,519	2,311,184	2,438,796	0
Common Service Income(The 1 tarm)	305,976	343,795	343,795	386,288	386,288	434,033	434,033	487,679	487,679	0
Common Service Income(The 2 tarm)	201,755	201,755	226,691	226,691	254,711	254,711	286,193	286,193	321,566	0
Common Service Income(The 3 tarm)	248,155	278,827	278,827	313,290	313,290	352,013	352,013	395,522	395,522	0
Common Service Income(The 4 tarm)	263,045	263,045	295,557	295,557	332,088	332,088	373,134	373,134	419,253	0
Common Service Income(The 5 tarm)	248,155	278,827	278,827	313,290	313,290	352,013	352,013	395,522	395,522	0
Common Service Income(The 6 tarm)	263,045	263,045	295,557	295,557	332,088	332,088	373,134	373,134	419,253	0
Additional Fee	1,047,579	1,116,553	1,177,059	1,254,559	1,322,544	1,409,622	1,486,010	1,583,851	1,669,681	0
Sale of Land	0	0	0	0	0	0	0	0	0	1,550,620
Sale of Land(The 1 tarm)										313,333
Sale of Land(The 2 tarm)										189,389
Sale of Land(The 3 tarm)										252,652
Sale of Land(The 4 tarm)										258,668
Sale of Land(The 5 tarm)										264,977
Sale of Land(The 6 tarm)										271,601
Sale of Land(The 7 tarm)										0
Sale of Land(The 8 tarm)										0
Sale of Land(The 9 tarm)										0
Sale of Land(The 10 tarm)										0
Sale of Land(The 11 tarm)										0
Sale of Land(The 12 tarm)										0
Sale of Land(The 13 tarm)										0
Sale of Land(The 14 tarm)										0
Sale of Land(The 15 tarm)										0
Sale of Land(The 16 tarm)										0
Sale of Land(The 17 tarm)										0
Sale of Land(The 18 tarm)										0
Sale of Land(The 19 tarm)										0
Cash Inflow from Operations	10,993,428	11,706,959	12,352,215	13,153,939	13,878,949	14,779,766	15,594,387	16,606,545	17,521,853	1,550,620
PAYMENTS FOR OPERATIONS										
Operation Cost	1,084,513	1,149,583	1,218,558	1,291,672	1,369,172	1,451,322	1,538,402	1,630,706	1,728,548	0
Operation Cost(The 1 tarm)	328,314	348,013	368,894	391,027	414,489	439,358	465,720	493,663	523,282	0
Operation Cost(The 2 tarm)	109,069	115,613	122,549	129,902	137,697	145,958	154,716	163,999	173,839	0
Operation Cost(The 3 tarm)	181,364	192,246	203,781	216,007	228,968	242,706	257,268	272,704	289,067	0
Operation Cost(The 4 tarm)	142,201	150,733	159,777	169,364	179,526	190,297	201,715	213,818	226,647	0
Operation Cost(The 5 tarm)	181,364	192,246	203,781	216,007	228,968	242,706	257,268	272,704	289,067	0
Operation Cost(The 6 tarm)	142,201	150,733	159,777	169,364	179,526	190,297	201,715	213,818	226,647	0
Common Cost	504,127	534,375	566,437	600,423	636,449	674,636	715,114	758,021	803,502	0
Office & Others Cost(The 1 tarm)	62,184	65,915	69,870	74,062	78,506	83,216	88,209	93,501	99,111	0
Marketing Cost	339,956	360,354	381,975	404,893	429,187	454,938	482,235	511,169	541,839	0
Introduction Fee	101,987	108,106	114,592	121,468	128,756	136,481	144,670	153,351	162,552	0
Repair Cost	993,287	633,983	2,038,076	1,048,919	2,421,895	2,305,045	3,129,815	2,949,332	1,892,042	7,786,566
Repair Cost(The 1 tarm)	110,601	16,007	1,194,786	17,985	1,023,565	250,766	590,264	22,706	24,068	1,541,128
Repair Cost(The 2 tarm)	66,411	72,928	10,554	787,818	11,859	674,918	165,350	389,208	14,972	958,669
Repair Cost(The 3 tarm)	12,247	91,781	100,787	14,586	1,088,774	16,389	932,745	228,516	537,891	1,249,899
Repair Cost(The 4 tarm)	260,043	12,982	97,288	106,835	15,461	1,154,100	17,373	988,710	242,227	1,249,899
Repair Cost(The 5 tarm)	151,976	275,645	13,761	103,125	113,245	16,389	1,223,346	18,415	1,048,033	1,249,899
Repair Cost(The 6 tarm)	367,077	161,095	292,184	14,586	109,312	120,039	17,373	1,296,747	19,520	1,249,899
Repair Cost of Office(The 1 tarm)	24,932	3,546	328,716	3,984	59,678	72,443	183,364	5,030	5,332	287,175
Repair Cost Reserve	683,480	1,021,397	-57,525	606,899	-710,382	-580,768	-1,294,617	-1,292,468	-234,876	-7,499,391
Repair Cost Reserve (The 1 tarm)	186,386	280,980	-897,799	279,002	-726,578	46,220	-293,278	274,281	272,919	-1,541,128
Repair Cost Reserve (The 2 tarm)	134,518	128,001	190,374	-586,889	189,070	-473,990	35,578	-188,280	185,957	-958,669
Repair Cost Reserve (The 3 tarm)	273,352	193,818	184,811	271,013	-803,175	269,210	-647,146	57,083	-252,292	-1,249,899
Repair Cost Reserve (The 4 tarm)	27,127	274,188	189,883	180,335	271,709	-866,930	269,798	-701,540	44,943	-1,249,899
Repair Cost Reserve (The 5 tarm)	151,121	27,452	289,337	199,973	189,853	286,709	-920,249	284,683	-744,935	-1,249,899
Repair Cost Reserve (The 6 tarm)	-89,024	116,958	-14,132	263,466	168,740	158,013	260,680	-1,018,695	258,533	-1,249,899
(Total Repair Cost Reserve)	*10,041,731*	*11,063,128*	*11,005,603*	*11,612,502*	*10,902,120*	*10,321,352*	*9,026,735*	*7,734,267*	*7,499,391*	*0*
Income Tax	1,529,452	1,735,839	1,572,191	1,914,666	1,765,283	1,944,749	1,917,208	2,128,694	2,494,549	0
Cash Outflow from Operations	4,794,858	5,075,178	5,337,737	5,462,580	5,482,417	5,794,984	6,005,922	6,174,285	6,683,765	287,175
Cash flow from Operations	6,198,569	6,631,781	7,014,478	7,691,359	8,396,532	8,984,782	9,588,465	10,432,260	10,838,088	1,263,446
INVESTING ACTIVITIES										
Factory Construction Cost	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 1 tarm)	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 2 tarm)	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 3 tarm)	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 4 tarm)	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 5 tarm)	0	0	0	0	0	0	0	0	0	0
Factory Construction Cost (The 6 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 1 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 2 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 3 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 4 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 5 tarm)	0	0	0	0	0	0	0	0	0	0
Rebuilding Reserve (The 6 tarm)	0	0	0	0	0	0	0	0	0	0
Land Cost	0	0	0	0	0	0	0	0	0	0
Commencement Cost	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 1 tarm)	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 2 tarm)	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 3 tarm)	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 4 tarm)	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 5 tarm)	0	0	0	0	0	0	0	0	0	0
Commencement Cost(The 6 tarm)	0	0	0	0	0	0	0	0	0	0
Cash flow from Investing	0	0	0	0	0	0	0	0	0	0
Cash flow from Operations and Investing	6,198,569	6,631,781	7,014,478	7,691,359	8,396,532	8,984,782	9,588,465	10,432,260	10,838,088	1,263,446

Statement of Cash Flow

【US$】

	total	2016	2017	2018	2019	2020	2021	2022	2023
			1	2	3	4	5	6	7
Period	total	2016	2017	2018	2019	2020	2021	2022	2023
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23
FINANCING AND DEBT SERVICE									
Loan & Capital	21,836,948	4,723,260	2,536,828	3,394,168	3,554,362	3,724,168	3,904,162	0	0
Capital	6,551,084	1,416,978	761,049	1,018,250	1,066,309	1,117,250	1,171,248	0	0
Senior Loan	15,285,864	3,306,282	1,775,780	2,375,918	2,488,054	2,606,917	2,732,913	0	0
Senior LoanA(The 1 tarm)	3,306,282	3,306,282							
Senior LoanB(The 2 tarm)	1,775,780		1,775,780						
Senior LoanC(The 3 tarm)	2,375,918			2,375,918					
Senior LoanD(The 4 tarm)	2,488,054				2,488,054				
Senior LoanE(The 5 tarm)	2,606,917					2,606,917			
Senior LoanF(The 6 tarm)	2,732,913						2,732,913		
Net Cash Flows in the Period before Debt Service(①)		0	307,564	536,613	1,137,497	1,728,166	2,481,978	2,722,300	2,897,657
Debt Service	31,193,708	0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	1,544,040
Principal Repayment-Senior LoanA	3,306,282	0	0	0	0	0	0	220,419	220,419
Interest Payment-Senior LoanA	3,440,611	0	264,503	264,503	264,503	265,227	264,503	264,503	246,869
Principal Repayment-Senior LoanB	1,775,780	0	0	0	0	0	0	0	118,385
Interest Payment-Senior LoanB	1,848,031	0	0	142,062	142,062	142,452	142,062	142,062	142,062
Principal Repayment-Senior LoanC	2,375,918	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanC	2,472,725	0	0	0	190,073	190,594	190,073	190,073	190,073
Principal Repayment-Senior LoanD	2,488,054	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanD	2,589,539	0	0	0	0	199,590	199,044	199,044	199,044
Principal Repayment-Senior LoanE	2,606,917	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanE	2,712,832	0	0	0	0	0	208,553	208,553	208,553
Principal Repayment-Senior LoanF	2,732,913	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanF	2,844,107	0	0	0	0	0	0	218,633	218,633
Forex appreciation rate		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Debt Service- Forex Adjustment	31,193,708	0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	1,544,040
Cash flow from Financing Activities		4,723,260	2,272,326	2,987,603	2,957,724	2,926,305	2,899,926	-1,443,288	-1,544,040
Net Cash Flows in the Period before Dividend		0	43,061	130,048	540,859	930,304	1,477,742	1,279,012	1,353,617
Dividend Payout								1,023,210	1,082,894
Net Cash Flows in the Period after Dividend		0	43,061	130,048	540,859	930,304	1,477,742	255,802	270,723
Opening Cash Balance		0	0	43,061	173,109	713,968	1,644,272	3,122,013	3,377,816
Closing Cash Balance (exclude Repair Cost Reserve Account)		0	43,061	173,109	713,968	1,644,272	3,122,013	3,377,816	3,648,539
Balance of Repair Cost Reserve Account		0	0	0	0	0	0	291,042	740,491
Cashflow available for Debt Service		0	307,564	536,613	1,137,497	1,728,166	2,481,978	2,722,300	2,897,657
Debt Service		0	264,503	406,565	596,638	797,863	1,004,236	1,443,288	1,544,040
<<DSCR>>	4.954	-	1.163	1.320	1.907	2.166	2.472	1.886	1.877
<<LLCR>>	2.309	-	-	536,613	1,046,497	1,468,941	1,935,943	1,960,056	1,912,453
discountrate	8.0%			1.00	0.92	0.85	0.78	0.72	0.66

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	8	9	10	11	12	13	14	15	16	17	18	19
Period	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
End of Period	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35
Beginning of Period	1-Jan-24	1-Jan-25	1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35
FINANCING AND DEBT SERVICE												
Loan & Capital	0	0	0	0	0	0	0	0	0	0	0	0
Capital	0	0	0	0	0	0	0	0	0	0	0	
Senior Loan	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flows in the Period before Debt Service(①)	2,891,019	2,844,794	2,750,270	2,718,022	2,926,380	3,311,959	3,507,599	3,859,436	4,129,414	4,516,227	4,766,199	5,086,939
Debt Service	1,678,558	1,801,424	1,922,173	2,037,418	1,958,460	1,874,369	1,792,845	1,711,320	1,631,469	1,548,271	1,466,746	1,385,222
Principal Repayment-Senior LoanA	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419
Interest Payment-Senior LoanA	229,864	211,602	193,969	176,335	159,136	141,068	123,435	105,801	88,409	70,534	52,901	35,267
Principal Repayment-Senior LoanB	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385	118,385
Interest Payment-Senior LoanB	132,955	123,121	113,650	104,179	94,968	85,237	75,767	66,296	56,981	47,354	37,883	28,412
Principal Repayment-Senior LoanC	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395	158,395
Interest Payment-Senior LoanC	190,594	177,402	164,730	152,059	139,769	126,716	114,044	101,372	88,944	76,029	63,358	50,686
Principal Repayment-Senior LoanD	0	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870	165,870
Interest Payment-Senior LoanD	199,590	199,044	185,775	172,505	159,672	145,966	132,696	119,427	106,448	92,887	79,618	66,348
Principal Repayment-Senior LoanE	0	0	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794	173,794
Interest Payment-Senior LoanE	209,125	208,553	208,553	194,650	181,241	166,843	152,939	139,036	125,475	111,228	97,325	83,421
Principal Repayment-Senior LoanF	0	0	0	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194	182,194
Interest Payment-Senior LoanF	219,232	218,633	218,633	218,633	204,617	189,482	174,906	160,331	146,155	131,180	116,604	102,029
Forex appreciation rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Debt Service- Forex Adjustment	1,678,558	1,801,424	1,922,173	2,037,418	1,958,460	1,874,369	1,792,845	1,711,320	1,631,469	1,548,271	1,466,746	1,385,222
Cash flow from Financing Activities	-1,678,558	-1,801,424	-1,922,173	-2,037,418	-1,958,460	-1,874,369	-1,792,845	-1,711,320	-1,631,469	-1,548,271	-1,466,746	-1,385,222
Net Cash Flows in the Period before Dividend	1,212,461	1,043,370	828,097	680,604	967,919	1,437,590	1,714,755	2,148,116	2,497,945	2,967,957	3,299,453	3,701,718
Dividend Payout	969,969	834,696	662,478	544,483	774,335	1,150,072	1,371,804	1,718,493	1,998,356	2,374,365	2,639,563	2,961,374
Net Cash Flows in the Period after Dividend	242,492	208,674	165,619	136,121	193,584	287,518	342,951	429,623	499,589	593,591	659,891	740,344
Opening Cash Balance	3,648,539	3,891,032	4,099,706	4,265,325	4,401,446	4,595,030	4,882,548	5,225,499	5,655,122	6,154,711	6,748,302	7,408,193
Closing Cash Balance (exclude Repair Cost Reserve Account)	3,891,032	4,099,706	4,265,325	4,401,446	4,595,030	4,882,548	5,225,499	5,655,122	6,154,711	6,748,302	7,408,193	8,148,536
Balance of Repair Cost Reserve Account	1,345,522	2,187,463	3,315,881	4,633,771	5,539,413	6,127,856	6,659,640	7,217,722	7,424,018	7,367,757	7,628,506	8,076,322
Cashflow available for Debt Service	2,891,019	2,844,794	2,750,270	2,718,022	2,926,380	3,311,959	3,507,599	3,859,436	4,129,414	4,516,227	4,766,199	5,086,939
Debt Service	1,678,558	1,801,424	1,922,173	2,037,418	1,958,460	1,874,369	1,792,845	1,711,320	1,631,469	1,548,271	1,466,746	1,385,222
<<DSCR>>	1.722	1.579	1.431	1.334	1.494	1.767	1.956	2.255	2.531	2.917	3.250	3.672
<<LLCR>>	1,763,522	1,593,085	1,402,638	1,277,470	1,258,343	1,291,664	1,262,736	1,273,614	1,238,824	1,219,381	1,191,550	1,169,996
discountrate	0.61	0.56	0.51	0.47	0.43	0.39	0.36	0.33	0.30	0.27	0.25	0.23

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
	20	21	22	23	24	25	26	27	28	29	30	31
Period	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
End of Period	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47
Beginning of Period	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47
FINANCING AND DEBT SERVICE												
Loan & Capital	0	0	0	0	0	0	0	0	0	0	0	0
Capital												
Senior Loan	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flows in the Period before Debt Service(①)	5,406,655	5,857,353	6,198,569	6,631,781	7,014,478	7,691,359	8,396,532	8,984,782	9,588,465	10,432,260	10,838,088	1,263,446
Debt Service	1,304,477	1,001,754	819,477	606,662	399,161	196,770	0	0	0	0	0	0
Principal Repayment-Senior LoanA	220,419	0	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanA	17,682	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanB	118,385	118,385	0	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanB	18,994	9,471	0	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanC	158,395	158,395	158,395	0	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanC	38,119	25,343	12,672	0	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanD	165,870	165,870	165,870	165,870	0	0	0	0	0	0	0	0
Interest Payment-Senior LoanD	53,224	39,809	26,539	13,270	0	0	0	0	0	0	0	0
Principal Repayment-Senior LoanE	173,794	173,794	173,794	173,794	173,794	0	0	0	0	0	0	0
Interest Payment-Senior LoanE	69,708	55,614	41,711	27,807	13,942	0	0	0	0	0	0	0
Principal Repayment-Senior LoanF	182,194	182,194	182,194	182,194	182,194	182,194	0	0	0	0	0	0
Interest Payment-Senior LoanF	87,693	72,878	58,302	43,727	29,231	14,576	0	0	0	0	0	0
Forex appreciation rate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Debt Service- Forex Adjustment	1,304,477	1,001,754	819,477	606,662	399,161	196,770	0	0	0	0	0	0
Cash flow from Financing Activities	-1,304,477	-1,001,754	-819,477	-606,662	-399,161	-196,770	0	0	0	0	0	0
Net Cash Flows in the Period before Dividend	4,102,178	4,855,599	5,379,092	6,025,119	6,615,317	7,494,589	8,396,532	8,984,782	9,588,465	10,432,260	10,838,088	1,263,446
Dividend Payout	3,281,743	3,884,479	4,303,274	4,820,095	5,292,254	5,995,671	6,717,226	7,187,825	7,670,772	8,345,808	8,670,471	25,954,386
Net Cash Flows in the Period after Dividend	820,436	971,120	1,075,818	1,205,024	1,323,063	1,498,918	1,679,306	1,796,956	1,917,693	2,086,452	2,167,618	-24,690,941
Opening Cash Balance	8,148,536	8,968,972	9,940,092	11,015,910	12,220,934	13,543,997	15,042,915	16,722,222	18,519,178	20,436,871	22,523,323	24,690,941
Closing Cash Balance (exclude Repair Cost Reserve Account)	8,968,972	9,940,092	11,015,910	12,220,934	13,543,997	15,042,915	16,722,222	18,519,178	20,436,871	22,523,323	24,690,941	0
Balance of Repair Cost Reserve Account	8,815,147	9,358,252	10,041,731	11,063,128	11,005,603	11,612,502	10,902,120	10,321,352	9,026,735	7,734,267	7,499,391	0
Cashflow available for Debt Service	5,406,655	5,857,353	6,198,569	6,631,781	7,014,478	7,691,359	8,396,532	8,984,782	9,588,465	10,432,260	10,838,088	1,263,446
Debt Service	1,304,477	1,001,754	819,477	606,662	399,161	196,770	0	0	0	0	0	0
<<DSCR>>	4.145	5.847	7.564	10.932	17.573	39.088						
<<LLCR>>	1,135,398	1,112,897	1,053,757	994,767	911,882	922,963	923,619	898,478	862,962	834,581	758,666	75,807
discountrate	0.21	0.19	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06

x

Profit and Loss Statement

【US$】

	total	2016	2017	2018	2019	2020	2021	2022	2023
			1	2	3	4	5	6	7
Period	total	2016	2017	2018	2019	2020	2021	2022	2023
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23
Gross Profit	245,541,458	0	557,857	838,860	1,521,870	2,189,712	3,043,116	3,908,806	4,466,145
Rental Income	187,985,983	0	426,340	642,587	1,169,558	1,683,640	2,336,100	2,998,513	3,420,726
Common Service Income	34,179,270	0	77,516	116,834	212,647	306,116	424,745	545,184	621,950
Rental Income(The 1 tarm)	40,078,876	0	426,340	426,340	589,583	589,583	662,455	662,455	744,334
Common Service Income(The 1 tarm)	7,287,068	0	77,516	77,516	107,197	107,197	120,446	120,446	135,334
Rental Income(The 2 tarm)	24,593,728	0	0	216,246	281,120	388,759	388,759	436,810	436,810
Common Service Income(The 2 tarm)	4,471,587	0	0	39,318	51,113	70,683	70,683	79,420	79,420
Rental Income(The 3 tarm)	31,544,588	0	0	0	298,855	388,512	537,270	537,270	603,676
Common Service Income(The 3 tarm)	5,735,380	0	0	0	54,337	70,638	97,685	97,685	109,759
Rental Income(The 4 tarm)	31,131,371	0	0	0	0	316,786	411,822	569,506	569,506
Common Service Income(The 4 tarm)	5,660,249	0	0	0	0	57,598	74,877	103,547	103,547
Rental Income(The 5 tarm)	30,555,007	0	0	0	0	0	335,794	436,532	603,676
Common Service Income(The 5 tarm)	5,555,456	0	0	0	0	0	61,053	79,369	109,759
Rental Income(The 6 tarm)	30,082,415	0	0	0	0	0	0	355,941	462,724
Common Service Income(The 6 tarm)	5,469,530	0	0	0	0	0	0	64,717	84,132
Additional Fee	23,376,205	0	54,000	79,440	139,666	199,956	282,271	365,108	423,468
Additional Fee(The 1 tarm)	5,041,864	0	54,000	54,000	74,158	74,158	83,323	83,323	93,622
Additional Fee(The 2 tarm)	2,714,849	0	0	25,440	31,800	42,877	42,877	48,176	48,176
Additional Fee(The 3 tarm)	3,996,349	0	0	0	33,708	47,191	68,174	68,174	76,600
Additional Fee(The 4 tarm)	3,943,536	0	0	0	0	35,730	50,023	72,264	72,264
Additional Fee(The 5 tarm)	3,870,000	0	0	0	0	0	37,874	53,024	76,600
Additional Fee(The 6 tarm)	3,809,607	0	0	0	0	0	0	40,147	56,205
Expenses	111,162,835	600,000	853,793	1,132,132	1,516,164	1,912,494	2,342,855	2,503,491	2,570,079
Commencement Cost	1,795,064	600,000	212,000	224,720	238,203	252,495	267,645	0	0
Operation Cost	24,476,439	0	96,575	136,378	204,504	266,593	349,941	426,914	452,529
Common Cost	11,723,671	0	148,292	157,189	166,621	176,618	187,215	198,448	210,355
Repair Cost	38,768,553	0	5,426	8,680	13,249	18,335	23,983	30,243	76,943
Interest paid	15,907,844	0	264,503	406,565	596,638	797,863	1,004,236	1,222,869	1,205,236
Depreciation exepenses	18,491,264		126,998	198,600	296,949	400,590	509,835	625,017	625,017
Forex Adjustment	0	0	0	0	0	0	0	0	0
Profit before tax	134,378,623	-600,000	-295,936	-293,272	5,707	277,218	700,261	1,405,315	1,896,066
Income Tax	28,699,612	0	0	0	0	0	0	239,859	379,213
Profit after tax	105,679,011	-600,000	-295,936	-293,272	5,707	277,218	700,261	1,165,457	1,516,853
<<Dividend>>	105,679,011	0	0	0	0	0	0	1,023,210	1,082,894
Net Operating Income	141,873,183	0	307,564	536,613	1,137,497	1,728,166	2,481,978	3,013,343	3,347,105
Initial Investment	-6,551,084	-1,416,978	-761,049	-1,018,250	-1,066,309	-1,117,250	-1,171,248	0	0
<<NPV>>	135,322,098	-1,416,978	-453,485	-481,637	71,189	610,916	1,310,729	3,013,343	3,347,105
<<PIRR>>	15.82%	-4,723,260	-2,229,265	-2,857,555	-2,416,865	-1,996,001	-1,422,184	3,013,343	3,347,105
<<EIRR>>	16.17%	-1,416,978	-761,049	-1,018,250	-1,066,309	-1,117,250	-1,171,248	1,023,210	1,082,894

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	8	9	10	11	12	13	14	15	16	17	18	19
Period	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
End of Period	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35
Beginning of Period	1-Jan-24	1-Jan-25	1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35
Gross Profit	4,862,404	5,177,999	5,463,397	5,818,000	6,138,673	6,537,105	6,897,412	7,345,091	7,749,933	8,252,944	8,707,824	9,273,008
Rental Income	3,722,280	3,963,509	4,182,354	4,453,399	4,699,293	5,003,839	5,280,126	5,622,313	5,932,749	6,317,231	6,666,037	7,098,041
Common Service Income	676,778	720,638	760,428	809,709	854,417	909,789	960,023	1,022,239	1,078,682	1,148,587	1,212,007	1,290,553
Rental Income(The 1 tarm)	744,334	836,334	836,334	939,705	939,705	1,055,853	1,055,853	1,186,356	1,186,356	1,332,990	1,332,990	1,497,747
Common Service Income(The 1 tarm)	135,334	152,061	152,061	170,855	170,855	191,973	191,973	215,701	215,701	242,362	242,362	272,318
Rental Income(The 2 tarm)	490,799	490,799	551,462	551,462	619,623	619,623	696,208	696,208	782,260	782,260	878,947	878,947
Common Service Income(The 2 tarm)	89,236	89,236	100,266	100,266	112,659	112,659	126,583	126,583	142,229	142,229	159,809	159,809
Rental Income(The 3 tarm)	603,676	678,291	678,291	762,127	762,127	856,326	856,326	962,168	962,168	1,081,092	1,081,092	1,214,715
Common Service Income(The 3 tarm)	109,759	123,326	123,326	138,569	138,569	155,696	155,696	174,940	174,940	196,562	196,562	220,857
Rental Income(The 4 tarm)	639,897	639,897	718,988	718,988	807,855	807,855	907,706	907,706	1,019,898	1,019,898	1,145,958	1,145,958
Common Service Income(The 4 tarm)	116,345	116,345	130,725	130,725	146,883	146,883	165,037	165,037	185,436	185,436	208,356	208,356
Rental Income(The 5 tarm)	603,676	678,291	678,291	762,127	762,127	856,326	856,326	962,168	962,168	1,081,092	1,081,092	1,214,715
Common Service Income(The 5 tarm)	109,759	123,326	123,326	138,569	138,569	155,696	155,696	174,940	174,940	196,562	196,562	220,857
Rental Income(The 6 tarm)	639,897	639,897	718,988	718,988	807,855	807,855	907,706	907,706	1,019,898	1,019,898	1,145,958	1,145,958
Common Service Income(The 6 tarm)	116,345	116,345	130,725	130,725	146,883	146,883	165,037	165,037	185,436	185,436	208,356	208,356
Additional Fee	463,345	493,852	520,615	554,892	584,962	623,477	657,264	700,539	738,502	787,126	829,780	884,414
Additional Fee(The 1 tarm)	93,622	105,194	105,194	118,196	118,196	132,805	132,805	149,220	149,220	167,663	167,663	188,386
Additional Fee(The 2 tarm)	54,131	54,131	60,821	60,821	68,339	68,339	76,785	76,785	86,276	86,276	96,940	96,940
Additional Fee(The 3 tarm)	76,600	86,068	86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134
Additional Fee(The 4 tarm)	81,196	81,196	91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410
Additional Fee(The 5 tarm)	76,600	86,068	86,068	96,706	96,706	108,659	108,659	122,089	122,089	137,179	137,179	154,134
Additional Fee(The 6 tarm)	81,196	81,196	91,232	91,232	102,508	102,508	115,178	115,178	129,414	129,414	145,410	145,410
Expenses	2,750,311	2,773,794	2,752,945	2,827,331	3,304,170	3,512,013	3,596,689	3,469,792	3,877,080	4,120,773	3,765,021	3,593,540
Commencement Cost	0	0	0	0	0	0	0	0	0	0	0	0
Operation Cost	479,681	508,462	538,970	571,308	605,586	641,921	680,437	721,263	764,539	810,411	859,036	910,578
Common Cost	222,976	236,354	250,536	265,568	281,502	298,392	316,296	335,273	355,390	376,713	399,316	423,275
Repair Cost	241,279	265,606	253,113	347,078	852,662	1,091,371	1,201,153	1,095,977	1,519,724	1,779,420	1,433,964	1,268,507
Interest paid	1,181,359	1,138,355	1,085,310	1,018,361	939,403	855,312	773,787	692,262	612,411	529,213	447,689	366,164
Depreciation exepenses	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017
Forex Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Profit before tax	2,112,092	2,404,205	2,710,452	2,990,669	2,834,503	3,025,092	3,300,724	3,875,299	3,872,853	4,132,170	4,942,804	5,679,467
Income Tax	422,418	480,841	542,090	598,134	566,901	605,018	660,145	775,060	774,571	826,434	988,561	1,135,893
Profit after tax	1,689,674	1,923,364	2,168,361	2,392,535	2,267,602	2,420,074	2,640,579	3,100,239	3,098,282	3,305,736	3,954,243	4,543,574
<<Dividend>>	969,969	834,696	662,478	544,483	774,335	1,150,072	1,371,804	1,718,493	1,998,356	2,374,365	2,639,563	2,961,374
Net Operating Income	3,496,050	3,686,736	3,878,688	4,035,913	3,832,022	3,900,402	4,039,383	4,417,518	4,335,710	4,459,966	5,026,948	5,534,755
Initial Investment	0	0	0	0	0	0	0	0	0	0	0	0
<<NPV>>	3,496,050	3,686,736	3,878,688	4,035,913	3,832,022	3,900,402	4,039,383	4,417,518	4,335,710	4,459,966	5,026,948	5,534,755
<<PIRR>>	3,496,050	3,686,736	3,878,688	4,035,913	3,832,022	3,900,402	4,039,383	4,417,518	4,335,710	4,459,966	5,026,948	5,534,755
<<EIRR>>	969,969	834,696	662,478	544,483	774,335	1,150,072	1,371,804	1,718,493	1,998,356	2,374,365	2,639,563	2,961,374

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
	20	21	22	23	24	25	26	27	28	29	30	31
Period	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
End of Period	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47
Beginning of Period	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47
Gross Profit	9,784,111	10,419,152	10,993,428	11,706,959	12,352,215	13,153,939	13,878,949	14,779,766	15,594,387	16,606,545	17,521,853	0
Rental Income	7,489,959	7,975,358	8,415,718	8,961,113	9,455,901	10,068,706	10,624,650	11,313,198	11,937,857	12,711,510	13,413,376	0
Common Service Income	1,361,811	1,450,065	1,530,131	1,629,293	1,719,255	1,830,674	1,931,755	2,056,945	2,170,519	2,311,184	2,438,796	0
Rental Income(The 1 tarm)	1,497,747	1,682,869	1,682,869	1,890,871	1,890,871	2,124,583	2,124,583	2,387,181	2,387,181	2,682,237	2,682,237	0
Common Service Income(The 1 tarm)	272,318	305,976	305,976	343,795	343,795	386,288	386,288	434,033	434,033	487,679	487,679	0
Rental Income(The 2 tarm)	987,585	987,585	1,109,650	1,109,650	1,246,803	1,246,803	1,400,908	1,400,908	1,574,060	1,574,060	1,768,614	0
Common Service Income(The 2 tarm)	179,561	179,561	201,755	201,755	226,691	226,691	254,711	254,711	286,193	286,193	321,566	0
Rental Income(The 3 tarm)	1,214,715	1,364,854	1,364,854	1,533,550	1,533,550	1,723,097	1,723,097	1,936,072	1,936,072	2,175,370	2,175,370	0
Common Service Income(The 3 tarm)	220,857	248,155	248,155	278,827	278,827	313,290	313,290	352,013	352,013	395,522	395,522	0
Rental Income(The 4 tarm)	1,287,598	1,287,598	1,446,745	1,446,745	1,625,563	1,625,563	1,826,483	1,826,483	2,052,236	2,052,236	2,305,893	0
Common Service Income(The 4 tarm)	234,109	234,109	263,045	263,045	295,557	295,557	332,088	332,088	373,134	373,134	419,253	0
Rental Income(The 5 tarm)	1,214,715	1,364,854	1,364,854	1,533,550	1,533,550	1,723,097	1,723,097	1,936,072	1,936,072	2,175,370	2,175,370	0
Common Service Income(The 5 tarm)	220,857	248,155	248,155	278,827	278,827	313,290	313,290	352,013	352,013	395,522	395,522	0
Rental Income(The 6 tarm)	1,287,598	1,287,598	1,446,745	1,446,745	1,625,563	1,625,563	1,826,483	1,826,483	2,052,236	2,052,236	2,305,893	0
Common Service Income(The 6 tarm)	234,109	234,109	263,045	263,045	295,557	295,557	332,088	332,088	373,134	373,134	419,253	0
Additional Fee	932,341	993,728	1,047,579	1,116,553	1,177,059	1,254,559	1,322,544	1,409,622	1,486,010	1,583,851	1,669,681	0
Additional Fee(The 1 tarm)	188,386	211,671	211,671	237,833	237,833	267,230	267,230	300,259	300,259	337,371	337,371	0
Additional Fee(The 2 tarm)	108,922	108,922	122,384	122,384	137,511	137,511	154,507	154,507	173,604	173,604	195,062	0
Additional Fee(The 3 tarm)	154,134	173,185	173,185	194,591	194,591	218,642	218,642	245,667	245,667	276,031	276,031	0
Additional Fee(The 4 tarm)	163,382	163,382	183,576	183,576	206,266	206,266	231,761	231,761	260,407	260,407	292,593	0
Additional Fee(The 5 tarm)	154,134	173,185	173,185	194,591	194,591	218,642	218,642	245,667	245,667	276,031	276,031	0
Additional Fee(The 6 tarm)	163,382	163,382	183,576	183,576	206,266	206,266	231,761	231,761	260,407	260,407	292,593	0
Expenses	3,240,306	3,453,744	3,346,167	3,027,761	4,491,261	3,580,607	5,052,532	5,056,020	6,008,348	5,963,076	5,049,109	9,119,438
Commencement Cost	0	0	0	0	0	0	0	0	0	0	0	0
Operation Cost	965,212	1,023,125	1,084,513	1,149,583	1,218,558	1,291,672	1,369,172	1,451,322	1,538,402	1,630,706	1,728,548	0
Common Cost	448,671	475,592	504,127	534,375	566,437	600,423	636,449	674,636	715,114	758,021	803,502	0
Repair Cost	915,986	1,126,896	993,287	633,983	2,038,076	1,048,919	2,421,895	2,305,045	3,129,815	2,949,332	1,892,042	7,786,566
Interest paid	285,419	203,115	139,224	84,803	43,173	14,576	0	0	0	0	0	0
Depreciation exepenses	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	625,017	1,332,872
Forex Adjustment	0	0	0	0	0	0	0	0	0	0	0	0
Profit before tax	6,543,806	6,965,407	7,647,260	8,679,197	7,860,954	9,573,332	8,826,417	9,723,745	9,586,039	10,643,469	12,472,745	-9,119,438
Income Tax	1,308,761	1,393,081	1,529,452	1,735,839	1,572,191	1,914,666	1,765,283	1,944,749	1,917,208	2,128,694	2,494,549	0
Profit after tax	5,235,045	5,572,326	6,117,808	6,943,358	6,288,764	7,658,666	7,061,133	7,778,996	7,668,832	8,514,775	9,978,196	-9,119,438
<<Dividend>>	3,281,743	3,884,479	4,303,274	4,820,095	5,292,254	5,995,671	6,717,226	7,187,825	7,670,772	8,345,808	8,670,471	25,954,386
Net Operating Income	6,145,481	6,400,457	6,882,049	7,653,178	6,956,953	8,298,258	7,686,150	8,404,013	8,293,848	9,139,792	10,603,213	-7,786,566
Initial Investment	0	0	0	0	0	0	0	0	0	0	0	0
<<NPV>>	6,145,481	6,400,457	6,882,049	7,653,178	6,956,953	8,298,258	7,686,150	8,404,013	8,293,848	9,139,792	10,603,213	-7,786,566
<<PIRR>>	6,145,481	6,400,457	6,882,049	7,653,178	6,956,953	8,298,258	7,686,150	8,404,013	8,293,848	9,139,792	10,603,213	-7,786,566
<<EIRR>>	3,281,743	3,884,479	4,303,274	4,820,095	5,292,254	5,995,671	6,717,226	7,187,825	7,670,772	8,345,808	8,670,471	25,954,386

APPENDIX F

Financial Analysis for the "Start-up Case"

Statement of Cash Flow
【US$】

Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25	1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47
RECEIPTS FROM OPERATIONS																																	
Rental Income	50,344,560	0	655,908	655,908	736,978	736,978	828,069	828,069	930,418	930,418	1,045,418	1,045,418	1,174,631	1,174,631	1,319,816	1,319,816	1,482,945	1,482,945	1,666,237	1,666,237	1,872,184	1,872,184	2,103,586	2,103,586	2,363,589	2,363,589	2,655,729	2,655,729	2,983,977	2,983,977	3,352,796	3,352,796	0
Common Service Income	9,153,556	0	119,256	119,256	133,996	133,996	150,558	150,558	169,167	169,167	190,076	190,076	213,569	213,569	239,967	239,967	269,626	269,626	302,952	302,952	340,397	340,397	382,470	382,470	429,743	429,743	482,860	482,860	542,541	542,541	609,599	609,599	0
Additional Fee	6,447,464	0	84,000	84,000	94,382	94,382	106,048	106,048	119,156	119,156	133,883	133,883	150,431	150,431	169,025	169,025	189,916	189,916	213,390	213,390	239,764	239,764	269,399	269,399	302,697	302,697	340,111	340,111	382,148	382,148	429,382	429,382	0
Sale of Land	313,333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313,333
Cash Inflow from Operations		0	859,164	859,164	965,357	965,357	1,084,675	1,084,675	1,218,741	1,218,741	1,369,377	1,369,377	1,538,632	1,538,632	1,728,807	1,728,807	1,942,487	1,942,487	2,182,579	2,182,579	2,452,345	2,452,345	2,755,455	2,755,455	3,096,030	3,096,030	3,478,699	3,478,699	3,908,666	3,908,666	4,391,777	4,391,777	313,333
PAYMENTS FOR OPERATIONS																																	
Operation Cost	7,635,069	0	96,575	102,370	108,512	115,023	121,924	129,240	136,994	145,214	153,926	163,162	172,952	183,329	194,328	205,988	218,348	231,448	245,335	260,055	275,659	292,198	309,730	328,314	348,013	368,894	391,027	414,489	439,358	465,720	493,663	523,282	0
Common Cost	11,216,385	0	141,875	150,388	159,411	168,975	179,114	189,861	201,252	213,328	226,127	239,695	254,077	269,321	285,480	302,609	320,766	340,012	360,413	382,037	404,960	429,257	455,013	482,313	511,252	541,927	574,443	608,909	645,444	684,171	725,221	768,734	0
Office & Others Cost(The 1 term)	938,821	0	11,875	12,588	13,343	14,143	14,992	15,892	16,845	17,856	18,927	20,063	21,266	22,542	23,895	25,329	26,848	28,459	30,167	31,977	33,895	35,929	38,085	40,370	42,792	45,360	48,081	50,966	54,024	57,266	60,702	64,344	0
Marketing Cost	7,905,819	0	100,000	106,000	112,360	119,102	126,248	133,823	141,852	150,363	159,385	168,948	179,085	189,830	201,220	213,293	226,090	239,656	254,035	269,277	285,434	302,560	320,714	339,956	360,354	381,975	404,893	429,187	454,938	482,235	511,169	541,839	0
Introduction Fee	2,371,746	0	30,000	31,800	33,708	35,730	37,874	40,147	42,556	45,109	47,815	50,684	53,725	56,949	60,366	63,988	67,827	71,897	76,211	80,783	85,630	90,768	96,214	101,987	108,106	114,592	121,468	128,756	136,481	144,670	153,351	162,552	0
Repair Cost	8,427,358	0	4,980	5,278	5,595	5,931	6,287	6,664	48,138	175,861	104,479	8,413	65,615	485,256	459,949	316,090	11,258	293,171	375,697	176,515	306,823	15,066	108,834	124,558	17,944	1,404,152	20,162	981,038	298,219	714,649	25,454	26,981	1,828,303
Repair Cost(The 1 term)	6,859,742		3,996	4,235	4,489	4,759	5,044	5,347	40,103	129,316	79,099	6,750	52,481	378,786	431,969	234,988	9,034	218,985	304,373	133,636	242,335	12,089	90,668	99,625	14,398	1,075,436	16,178	921,359	225,776	531,285	20,424	21,649	1,541,128
Repair Cost of Office(The 1 term)	1,567,616		984	1,043	1,106	1,172	1,242	1,317	8,035	46,545	25,380	1,662	13,134	106,470	27,980	81,102	2,225	74,185	71,324	42,879	64,488	2,977	18,166	24,932	3,546	328,716	3,984	59,678	72,443	183,364	5,030	5,332	287,175
Repair Cost Reserve	0	0	0	0	0	0	0	0	244,559	155,345	205,562	277,911	232,180	−94,125	−147,308	49,673	275,628	65,676	−19,711	151,025	42,326	272,572	193,993	185,036	270,263	−790,775	268,484	−636,698	58,885	−246,624	264,237	263,012	−1,541,128
(Total Repair Cost Reserve)		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*244,559*	*399,904*	*605,466*	*883,377*	*1,115,557*	*1,021,432*	*874,124*	*923,798*	*1,199,426*	*1,265,102*	*1,245,390*	*1,396,415*	*1,438,741*	*1,711,314*	*1,905,307*	*2,090,343*	*2,360,606*	*1,569,832*	*1,838,315*	*1,201,617*	*1,260,503*	*1,013,879*	*1,278,116*	*1,541,128*	*0*
Income Tax	6,528,907	0	0	0	26,840	56,641	77,170	73,482	91,698	65,495	109,249	127,428	148,531	62,918	104,197	130,737	231,863	172,490	200,720	236,815	260,528	314,229	350,976	338,655	418,365	130,812	473,214	269,453	479,730	383,426	604,088	569,156	0
Cash Outflow from Operations		0	243,430	258,036	300,358	346,570	384,495	399,246	722,641	755,243	799,344	816,609	873,355	906,700	896,647	1,005,098	1,057,863	1,102,797	1,162,454	1,206,447	1,290,296	1,323,323	1,418,547	1,458,876	1,565,837	1,655,010	1,727,329	1,637,191	1,921,636	2,001,341	2,112,663	2,171,166	287,175
Cash flow from Operations		0	615,734	601,128	664,999	618,787	700,180	685,429	496,100	463,498	570,033	552,768	665,277	631,932	832,160	723,708	884,624	839,690	1,020,125	976,131	1,162,050	1,129,023	1,336,909	1,296,580	1,530,193	1,441,020	1,751,370	1,841,508	1,987,031	1,907,325	2,279,114	2,220,611	26,159
INVESTING ACTIVITIES																																	
Factory Construction Cost	3,183,260	3,183,260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Cost	940,000	940,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commencement Cost	600,000	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Investing		4,723,260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Operations and Investing		−4,723,260	615,734	601,128	664,999	618,787	700,180	685,429	496,100	463,498	570,033	552,768	665,277	631,932	832,160	723,708	884,624	839,690	1,020,125	976,131	1,162,050	1,129,023	1,336,909	1,296,580	1,530,193	1,441,020	1,751,370	1,841,508	1,987,031	1,907,325	2,279,114	2,220,611	26,159
FINANCING AND DEBT SERVICE																																	
Loan & Capital	4,723,260	4,723,260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital	1,416,978	1,416,978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
Senior Loan	3,306,282	3,306,282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flows in the Period before Debt Service(①)		0	615,734	601,128	664,999	618,787	700,180	685,429	496,100	463,498	570,033	552,768	665,277	631,932	832,160	723,708	884,624	839,690	1,020,125	976,131	1,162,050	1,129,023	1,336,909	1,296,580	1,530,193	1,441,020	1,751,370	1,841,508	1,987,031	1,907,325	2,279,114	2,220,611	26,159
Debt Service	6,746,893	0	264,503	264,503	264,503	265,227	264,503	484,921	467,288	450,282	432,021	414,387	396,754	379,555	361,487	343,853	326,220	308,828	290,953	273,319	255,686	238,101	0	0	0	0	0	0	0	0	0	0	0
Principal Repayment−Senior LoanA	3,306,282	0	0	0	0	0	0	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	220,419	0	0	0	0	0	0	0	0	0	0	0
Interest Payment−Senior LoanA	3,440,611	0	264,503	264,503	264,503	265,227	264,503	264,503	246,869	229,864	211,602	193,969	176,335	159,136	141,068	123,435	105,801	88,409	70,534	52,901	35,267	17,682	0	0	0	0	0	0	0	0	0	0	0
Forex appreciation rate		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Debt Service− Forex Adjustment	6,746,893	0	264,503	264,503	264,503	265,227	264,503	484,921	467,288	450,282	432,021	414,387	396,754	379,555	361,487	343,853	326,220	308,828	290,953	273,319	255,686	238,101	0	0	0	0	0	0	0	0	0	0	0
Cash flow from Financing Activities		4,723,260	−264,503	−264,503	−264,503	−265,227	−264,503	−484,921	−467,288	−450,282	−432,021	−414,387	−396,754	−379,555	−361,487	−343,853	−326,220	−308,828	−290,953	−273,319	−255,686	−238,101	0	0	0	0	0	0	0	0	0	0	0
Net Cash Flows in the Period before Dividend		0	351,232	336,626	400,496	353,560	435,678	200,507	28,812	13,215	138,012	138,381	268,523	252,377	470,673	379,855	558,405	530,862	729,172	702,812	906,364	890,922	1,336,909	1,296,580	1,530,193	1,441,020	1,751,370	1,841,508	1,987,031	1,907,325	2,279,114	2,220,611	26,159
Dividend Payout	25,704,302					282,848	348,542	160,406	23,050	10,572	110,410	110,705	214,819	201,902	376,539	303,884	446,724	424,690	583,338	562,250	725,091	712,738	1,069,527	1,037,264	1,224,154	1,152,816	1,401,096	1,473,206	1,589,624	1,525,860	1,823,291	1,776,489	6,032,470
Net Cash Flows in the Period after Dividend		0	351,232	336,626	400,496	70,712	87,136	40,101	5,762	2,643	27,602	27,676	53,705	50,475	94,135	75,971	111,681	106,172	145,834	140,562	181,273	178,184	267,382	259,316	306,039	288,204	350,274	368,302	397,406	381,465	455,823	444,122	−6,006,311
Opening Cash Balance		0	0	351,232	687,857	1,088,353	1,159,065	1,246,201	1,286,302	1,292,065	1,294,708	1,322,310	1,349,986	1,403,691	1,454,166	1,548,301	1,624,272	1,735,953	1,842,125	1,987,960	2,128,522	2,309,795	2,487,980	2,755,361	3,014,677	3,320,716	3,608,920	3,959,194	4,327,495	4,724,901	5,106,366	5,562,189	6,006,311
Closing Cash Balance (exclude Repair Cost Reserve Account)		0	351,232	687,857	1,088,353	1,159,065	1,246,201	1,286,302	1,292,065	1,294,708	1,322,310	1,349,986	1,403,691	1,454,166	1,548,301	1,624,272	1,735,953	1,842,125	1,987,960	2,128,522	2,309,795	2,487,980	2,755,361	3,014,677	3,320,716	3,608,920	3,959,194	4,327,495	4,724,901	5,106,366	5,562,189	6,006,311	0
Balance of Repair Cost Reserve Account		0	0	0	0	0	0	0	244,559	399,904	605,466	883,377	1,115,557	1,021,432	874,124	923,798	1,199,426	1,265,102	1,245,390	1,396,415	1,438,741	1,711,314	1,905,307	2,090,343	2,360,606	1,569,832	1,838,315	1,201,617	1,260,503	1,013,879	1,278,116	1,541,128	0
Cashflow available for Debt Service		0	615,734	601,128	664,999	618,787	700,180	685,429	496,100	463,498	570,033	552,768	665,277	631,932	832,160	723,708	884,624	839,690	1,020,125	976,131	1,162,050	1,129,023	1,336,909	1,296,580	1,530,193	1,441,020	1,751,370	1,841,508	1,987,031	1,907,325	2,279,114	2,220,611	26,159
Debt Service		0	264,503	264,503	264,503	265,227	264,503	484,921	467,288	450,282	432,021	414,387	396,754	379,555	361,487	343,853	326,220	308,828	290,953	273,319	255,686	238,101	0	0	0	0	0	0	0	0	0	0	0
<<DSCR>>	2.390	−	2.328	2.273	2.514	2.333	2.647	1.413	1.062	1.029	1.319	1.334	1.677	1.665	2.302	2.105	2.712	2.719	3.506	3.571	4.545	4.742											
<<LLCR>>	2.644	−	−	601,128	611,799	525,969	546,140	493,509	327,426	282,734	319,219	281,912	312,680	271,731	324,542	260,535	291,926	251,907	275,434	244,033	267,271	237,095	254,013	220,419	229,529	187,333	210,164	202,566	196,703	171,659	182,329	155,443	1,570
discountrate	8.0%			1.00	0.92	0.85	0.78	0.72	0.66	0.61	0.56	0.51	0.47	0.43	0.39	0.36	0.33	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06

Profit and Loss Statement
【US$】

Period	total	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
End of Period		31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33	31-Dec-34	31-Dec-35	31-Dec-36	31-Dec-37	31-Dec-38	31-Dec-39	31-Dec-40	31-Dec-41	31-Dec-42	31-Dec-43	31-Dec-44	31-Dec-45	31-Dec-46	31-Dec-47
Beginning of Period		1-Jan-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20	1-Jan-21	1-Jan-22	1-Jan-23	1-Jan-24	1-Jan-25	1-Jan-26	1-Jan-27	1-Jan-28	1-Jan-29	1-Jan-30	1-Jan-31	1-Jan-32	1-Jan-33	1-Jan-34	1-Jan-35	1-Jan-36	1-Jan-37	1-Jan-38	1-Jan-39	1-Jan-40	1-Jan-41	1-Jan-42	1-Jan-43	1-Jan-44	1-Jan-45	1-Jan-46	1-Jan-47
Gross Profit	65,945,580	0	859,164	859,164	965,357	965,357	1,084,675	1,084,675	1,218,741	1,218,741	1,369,377	1,369,377	1,538,632	1,538,632	1,728,807	1,728,807	1,942,487	1,942,487	2,182,579	2,182,579	2,452,345	2,452,345	2,755,455	2,755,455	3,096,030	3,096,030	3,478,699	3,478,699	3,908,666	3,908,666	4,391,777	4,391,777	0
Rental Income	50,344,560	0	655,908	655,908	736,978	736,978	828,069	828,069	930,418	930,418	1,045,418	1,045,418	1,174,631	1,174,631	1,319,816	1,319,816	1,482,945	1,482,945	1,666,237	1,666,237	1,872,184	1,872,184	2,103,586	2,103,586	2,363,589	2,363,589	2,655,729	2,655,729	2,983,977	2,983,977	3,352,796	3,352,796	0
Common Service Income	9,153,556	0	119,256	119,256	133,996	133,996	150,558	150,558	169,167	169,167	190,076	190,076	213,569	213,569	239,967	239,967	269,626	269,626	302,952	302,952	340,397	340,397	382,470	382,470	429,743	429,743	482,860	482,860	542,541	542,541	609,599	609,599	0
Rental Income(The 1 term)	50,344,560	0	655,908	655,908	736,978	736,978	828,069	828,069	930,418	930,418	1,045,418	1,045,418	1,174,631	1,174,631	1,319,816	1,319,816	1,482,945	1,482,945	1,666,237	1,666,237	1,872,184	1,872,184	2,103,586	2,103,586	2,363,589	2,363,589	2,655,729	2,655,729	2,983,977	2,983,977	3,352,796	3,352,796	0
Common Service Income(The 1 term)	9,153,556	0	119,256	119,256	133,996	133,996	150,558	150,558	169,167	169,167	190,076	190,076	213,569	213,569	239,967	239,967	269,626	269,626	302,952	302,952	340,397	340,397	382,470	382,470	429,743	429,743	482,860	482,860	542,541	542,541	609,599	609,599	0
Additional Fee	6,447,464	0	84,000	84,000	94,382	94,382	106,048	106,048	119,156	119,156	133,883	133,883	150,431	150,431	169,025	169,025	189,916	189,916	213,390	213,390	239,764	239,764	269,399	269,399	302,697	302,697	340,111	340,111	382,148	382,148	429,382	429,382	0
Expenses	35,129,350	600,000	634,930	649,536	665,018	682,154	698,825	717,264	760,251	891,263	823,132	732,236	795,976	1,224,040	1,207,823	1,075,120	783,170	1,080,037	1,178,976	998,506	1,149,706	881,201	1,000,575	1,062,182	1,004,206	2,441,971	1,112,629	2,131,433	1,510,018	1,991,537	1,371,335	1,445,995	1,828,303
Commencement Cost	600,000	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation Cost	7,635,069	0	96,575	102,370	108,512	115,023	121,924	129,240	136,994	145,214	153,926	163,162	172,952	183,329	194,328	205,988	218,348	231,448	245,335	260,055	275,659	292,198	309,730	328,314	348,013	368,894	391,027	414,489	439,358	465,720	493,663	523,282	0
Common Cost	11,216,385	0	141,875	150,388	159,411	168,975	179,114	189,861	201,252	213,328	226,127	239,695	254,077	269,321	285,480	302,609	320,766	340,012	360,413	382,037	404,960	429,257	455,013	482,313	511,252	541,927	574,443	608,909	645,444	684,171	725,221	768,734	0
Repair Cost	8,427,358	0	4,980	5,278	5,595	5,931	6,287	6,664	48,138	175,861	104,479	8,413	65,615	485,256	459,949	316,090	11,258	293,171	375,697	176,515	306,823	15,066	108,834	124,558	17,944	1,404,152	20,162	981,038	298,219	714,649	25,454	26,981	1,828,303
Interest paid	3,440,611	0	264,503	264,503	264,503	265,227	264,503	264,503	246,869	229,864	211,602	193,969	176,335	159,136	141,068	123,435	105,801	88,409	70,534	52,901	35,267	17,682	0	0	0	0	0	0	0	0	0	0	0
Depreciation expenses	3,809,927		126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	126,998	0
Profit before tax	30,816,231	−600,000	224,234	209,628	300,339	283,203	386,850	367,410	458,490	327,477	546,245	637,141	742,656	314,592	520,983	653,687	1,159,317	862,450	1,003,602	1,184,073	1,302,639	1,571,145	1,754,881	1,693,273	2,091,823	654,059	2,366,070	1,347,266	2,398,648	1,917,129	3,020,442	2,945,782	−1,828,303
Income Tax	6,528,907	0	0	0	26,840	56,641	77,170	73,482	91,698	65,495	109,249	127,428	148,531	62,918	104,197	130,737	231,863	172,490	200,720	236,815	260,528	314,229	350,976	338,655	418,365	130,812	473,214	269,453	479,730	383,426	604,088	569,156	0
Profit after tax	24,287,324	−600,000	224,234	209,628	273,499	226,562	309,680	293,928	366,792	261,982	436,996	509,713	594,124	251,674	416,787	522,950	927,454	689,960	802,882	947,258	1,042,112	1,256,916	1,403,905	1,354,618	1,673,459	523,247	1,892,856	1,077,812	1,918,918	1,533,703	2,416,354	2,356,626	−1,828,303
<<Dividend>>	24,287,324	0	0	0	282,848	348,542	160,406	23,050	10,572	110,410	110,705	214,819	201,902	376,539	303,884	446,724	424,690	583,338	562,250	725,091	712,738	1,069,527	1,037,264	1,224,154	1,152,816	1,401,096	1,473,206	1,589,624	1,525,860	1,823,291	1,776,489	4,615,492	
Net Operating Income	32,137,861	0	615,734	601,128	664,999	618,787	700,180	685,429	740,659	618,843	775,595	830,679	897,457	537,808	684,852	773,382	1,160,252	905,366	1,000,414	1,127,156	1,204,376	1,401,595	1,530,902	1,481,616	1,800,456	650,245	2,019,853	1,204,810	2,045,916	1,660,701	2,543,351	2,483,623	−1,828,303
Initial Investment	−4,723,260	−4,723,260	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<<NPV>>	4,548,508	−4,723,260	615,734	601,128	664,999	618,787	700,180	685,429	740,659	618,843	775,595	830,679	897,457	537,808	684,852	773,382	1,160,252	905,366	1,000,414	1,127,156	1,204,376	1,401,595	1,530,902	1,481,616	1,800,456	650,245	2,019,853	1,204,810	2,045,916	1,660,701	2,543,351	2,483,623	−1,828,303
<<PIRR>>	15.5%	−4,723,260	615,734	601,128	664,999	618,787	700,180	685,429	740,659	618,843	775,595	830,679	897,457	537,808	684,852	773,382	1,160,252	905,366	1,000,414	1,127,156	1,204,376	1,401,595	1,530,902	1,481,616	1,800,456	650,245	2,019,853	1,204,810	2,045,916	1,660,701	2,543,351	2,483,623	−1,828,303
<<EIRR>>	15.10%	−1,416,978	0	0	0	282,848	348,542	160,406	23,050	10,572	110,410	110,705	214,819	201,902	376,539	303,884	446,724	424,690	583,338	562,250	725,091	712,738	1,069,527	1,037,264	1,224,154	1,152,816	1,401,096	1,473,206	1,589,624	1,525,860	1,823,291	1,776,489	6,032,470