

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country : Socialist Republic of Viet Nam

Project : Hoa Lac Science and Technology City Development Project (I)

Loan Agreement : March 30, 2012

Loan Amount : 15.218 Billion Yen

Borrower : The Government of the Socialist Republic of Viet Nam

2. Background and Necessity of the Project

(1) Current State and Issues of the Science and Technology Sector and High-Technology Industry in Viet Nam

Since the introduction of Doi Moi Policy in 1986, Viet Nam has aggressively transformed its economy to a market economic system integrated into the international economy, which brought about enormous development to the country. “Ten-Year Socio Economic Development Strategy (2011-2020)” has set a goal to make a modern industrialized country before 2020, raising some indicators including the coverage ratio of high-technological products sharing for 45% in GDP in 2020. “5-Year Socio Economic Development Plan (2011-2015), formulated based on the Strategy, also raises the accumulation of high scientific technologies as one of the development goals.

As such, the expectation of the Government of Viet Nam toward scientific technology is implied in budgetary increase relating to science and technology. The indicators regarding the scientific technology announced by international organizations and so forth, however, yet show significant disparities with other advanced ASEAN members. Delays especially in updated technological development of high-tech products, export volume, business-academia collaboration, and so forth. In the coming period, it is vital, in addition to strengthen the financial and human resources aspects, to establish the collaboration system among research institutes, educational organization and the industrial sector in order to proceed advanced and practical technological development. In this sense, urgent tasks to be dealt with include constructing an aggregated base for scientific technology, exploring new enterprises, and consolidating appropriate environment to create technological innovation.

(2) Development Policies for the Scientific Technology and High Tech Industry in Viet Nam and the Priority of the Project

“10-Year Science and Technology Development Strategy (2011-2020)” considers scientific technology to be a basis for sustainable development leading to a modern industrial country, with concrete goals of human resources development, related infrastructure reinforcement, the promotion of constructing high-tech parks, etc. In

addition, “5-Year Science and Technology Development Plan (2011-2015)” sets concrete goals including the establishment of research institutes at an international level, the increase in the number of corporations conducting collaborative research with universities, the establishment of more than 500 high-tech companies, the establishment of more than 40 high-tech enterprises support centers, and so on.

In Hoa Lac High Tech Park (HHTTP) supported by the Project, not only a high-tech industrial zone, there are plans and implementation going on for constructing facilities for research/development and education/training affiliated to the Hanoi Science and Technology University, FPT University, Viet Nam Science and Technology Academy, etc. It is expected to be a core city as a basis of scientific technology representing the country. The Project, consolidating the basic infrastructure within HHTTP (roads, clean and drainage pipes, telecommunication facilities, electricity, etc), is a promising project to attract research educational organizations as well as private companies, to raise the national level of science and technology, and accordingly, to contribute to social and economic development of the country. Furthermore, the Project is considered one of the most important projects at a diplomatic level between the two countries, taken into account that it was mentioned in a joint statement as one of the three projects requested by the Prime Minister Mr. Nguyen Tan Dung to the Japanese Government in 2006.

(3) Japan and JICA’s Policy and Operations in High Tech Industry in Viet Nam

“Country Assistance Policy for Viet Nam” (July 2009) has regarded “economic growth promotion and international competitiveness reinforcement” as one of 4 pillars for its cooperation policy, articulating the direction to focus on consolidating business environment and developing private sector. The construction of basic infrastructure of High Tech Park is to contribute to attracting the investment from both foreign and local companies as well as enabling stable corporation management, in line with the aforementioned direction. As to HHTTP, a study for the Master Plan and the Feasibility Study were conducted in 1996, and revised Feasibility Study was conducted in 2008, based on the requests from the Government of Viet Nam. Following the results, the loan was provided to an engineering service of the Project in JFY2009 (Amount: 1.005 Billion Yen). In addition, the 1st loan “Project for Disaster and Climate Change Countermeasures Using Earth. Observation Satellite (I) “ was provided to “Vietnam National Satellite Center” which is planned to be constructed within HHTTP (Amount: 7.227 Billion Yen).

(4) Other Donor’s Activities

Swedish International Cooperation Agency (SIDA) and Korea International Cooperation Agency (KOICA) have provided technical cooperation for the promotion of scientific technology (mainly agriculture, biotechnology, and health) through

academic exchange activities by researchers in both countries.

Asia Development Bank (ADB) decided to finance to the construction project of “Hanoi Science and Technology University” to be newly established within HHTP. In addition, the Government of France is to provide overseas education for students in the University, technical assistance for the teachers and curriculum enhancement support.

(5) Necessity of the Project

The Project is in line with policies of the Government of Viet Nam aiming at the promotion of science, technology and high tech industry, as well as with prioritized areas in the aid policy of the Government of Japan and JICA, which renders the necessity and relevance of implementing the Project considered to be high.

3. Project Description

(1) Project Objectives

The Project aims at contributing to the formation of the first core city for science and technology in the country, the promotion of economic growth and the strengthening of international competitiveness, through expanding the participation of research and educational organizations as well as attracting more private investment, which is to be underpinned by the construction of basic infrastructure of Hoa Lac High Tech Park located in the Hoa Lac District of the suburb of Hanoi.

(2) Project Site/Target Area

Hoa Lac District, Hanoi City (approximately 1.036 hectare within Hoa Lac High Tech Park)

(3) Project Components

- 1) Basic infrastructure construction work (road consolidation, water and sewerage, electricity, telecommunication facilities, etc)
- 2) Consulting services: Construction management, etc

(4) Estimated Project Cost (Loan Amount)

55.592 Billion Yen (including Yen Loan Amount: 15.218 Billion Yen)

(5) Schedule

It is planned from March 2010 to April 2016 (74 months in total). The date of handing the facilities over is considered to be the Project completion (April 2016).

(6) Project Implementation Structure

- 1) Borrower: The Government of the Socialist Republic of Viet Nam

- 2) Executing Agency: Hoa Lac High Tech Park Management Board
- 3) Operation and Maintenance System: O & M Center to be established under HHTP-MB. Electricity and telecommunication facilities are to be transferred to the state owned enterprises (respectively to EVN, VNPT) to be managed.

(7) Environmental and Social Consideration/Poverty Reduction/Social Development

- 1) Environmental and Social Consideration
 - (1) Category: A
 - (2) Reason for Categorization: The Project is considered to have characteristics with possible adverse impacts on the environment (large-scale land reclamation and large-scale involuntary resettlement) mentioned in “Japan Bank of International Cooperation Guideline for the Confirmation of Environmental and Social Consideration”, issued in April 2002.
 - (3) Environmental Permit: Environmental Impact Assessment (EIA) Report on the Project was approved by the Ministry of Natural Resources and Environment in January 2010.
 - (4) Anti-Pollution Measures: As measures taken for the noise and air pollution at the time of handover, laying the green belt over the roads as well as planting plants and trees within the Park are planned. In addition, as for land contamination, water quality and other kinds of contamination, HHTP-MB is expected to take relevant measures to mitigate those impacts when they are confirmed in a process of environmental management.
 - (5) Natural Environment: The target area of the Project is not located in a sensitive area or its neighborhood such as national parks, and undesirable impacts on natural environment are estimated at a minimum level.
 - (6) Social Environment: The Project is to acquire the land of approximately 476 hectare and 561 households are expected to resettle in the coming period. The land acquisition and residents resettlement will take place in accordance with due domestic procedures and Resettlement Action Plan (RAP).
 - (7) Other / Monitoring: Monitoring activities within HHTP will be conducted by consultants assigned by HHTP-MB during the construction and at the time of handover. In addition, a construction contractor will conduct the monitoring in each construction district during the construction work, which will be supervised by PMU.
- 2) Promotion of Poverty Reduction: No information to be specifically mentioned
- 3) Promotion of Social Development (e.g. gender perspective, measure for infectious diseases including HIV/AIDS, participatory development, consideration for the person with disability, etc): Taken into account that the Project is a large-scale project mobilizing a certain number of construction workers in one

construction site for a long term, anti-measures to HIV/AIDS will be conducted to the construction workers.

(8) Collaboration with Other Donors:

“Hanoi Science and Technology University” , with a scope of 5,000 students, is to be established within HHTP, for the purpose of the provision of opportunities for research activities on scientific technology practically useful for the industrial sector as well as technology innovation development. The commencement of the University is scheduled in 2015. ADB has committed to support the construction work, while the Government of France is to support the human resources development.

(9) Other Important Issues:

The Project expects to provide opportunities to Japanese corporations participating in the High Tech Industrial Park and Research Development District in the Park.

4. Target Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Indicators	Baseline (2010)	Target (2018) 【Expected values 2 years after project completion】
Number of laboratories (room)	20	180
Number of researchers (person)	250	5,000
Number of educational/research organizations (organization)	3	9
Number of trainees/students (person)	3,300	15,000
Number of workers (person)	4,839	25,000
Number of engineers (person)	2,824	10,000
Number of participating corporations (corporation)	36	150
Sales amount of the participating corporations (1 Billion Dong)	1,672.6	11,000

2) Internal Rate of Return

Based on the conditions indicated below, the economic internal rate of return (EIRR) of the Project is estimated to 14.5%.

Cost: Project cost (excluding tax), land reclamation cost within the Project target area, operation/maintenance costs for basic infrastructure

Benefit: Employment generation and enhanced income of workers in the
Project target area

Project life: 30 years

(2) Qualitative Effects

The formation of a core city of science and technology, the promotion of economic growth, the strengthening of international competitiveness

5. External Factors and Risk Control

No information to be specifically mentioned

6. Lessons Learned from Past Projects

(1) Evaluation results from similar projects:

Regarding previous similar projects on the development of industrial parks and economic special zone, some cases were reported; an executing agency was not authorized as to the land acquisition and so forth, which caused a delay in occupancy procedures; a project targeting sewerage facilities did not envisage the consolidation work of sewerage pipes as part of the project components, which caused a delay in the preparation of own budget resulting in a low operation rate of the constructed sewerage treatment facilities.

(2) Lessons for the Project:

HHTTP-MB, an executing agency of the Project, has been fully authorized as to the land acquisition by the Prime Minister Decision No.98/2009/QD-TTg (as of July 29, 2009), causing no any concerns about the matter. In addition, based on the aforementioned lessons, the Project assumes to include the construction of drainage pipes and sewerage pipes, in addition to the sewerage treatment facilities, as part of the project components. High occupancy rate is to be ensured, when the investment to HHTTP increases together with higher occupancy by research organizations and high-tech corporations

7. Plan for Future Evaluation

(1) Indicators to be Used

- 1) Number of laboratories (room)
- 2) Number of researchers (person)
- 3) Number of educational/research organizations (organization)
- 4) Number of trainees/students (person)
- 5) Number of workers (person)
- 6) Number of engineers (person)
- 7) Number of participating corporations (corporation)

8) Sales amount of the participating corporations (1 Billion Dong)

9) Economic Internal Rate of Return (EIRR) (%)

(2) Timing

Two years after the Project completion

END