

**JAPAN INTERNATIONAL COOPERATION AGENCY
HOA LAC HIGH-TECH PARK MANAGEMENT BOARD**

**THE STUDY FOR
UPDATE OF HOA LAC HIGH-TECH PARK
MASTER PLAN
IN
THE SOCIALIST REPUBLIC OF VIETNAM**

**FINAL REPORT
MAIN REPORT**

November 2007

NIPPON KOEI CO., LTD.

PACIFIC CONSULTANTS INTERNATIONAL

ALMEC CORPORATION

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PREFACE

In response to the request from the Government of the Socialist Republic of Vietnam, the Japan International Corporation Agency (JICA) decided to conduct the Study for Update of Hoa Lack High-Tech Park (HHTTP) Master Plan.

JICA dispatched a team to Vietnam from April 2007 to October 2007, which was headed by Mr. Yukinobu Hayashi of Nippon Koei Co., Ltd. and consisted of Pacific Consultants International and ALMEC Corporation.

In collaboration with the Vietnamese Counterpart Team, the JICA Study Team conducted the study including survey on the present status of HHTTP, analyses of socio-economic conditions, formulation of development concept and strategies, land use plan, preliminary infrastructure development plan, selection of projects required for HHTTP development, road map for project implementation and pre-feasibility study on the selected priority projects. It also held a series of discussions with the relevant officials of the Government of Vietnam. Upon returning to Japan, the Team duly finalized the study and delivered this report.

I hope that this report will contribute to the development of Hoa Lack High-Tech Park and to enhancement of friendly relations between the two countries.

Finally, I wish to express my sincere appreciation to the officials of the Government of Vietnam for their close cooperation.

November 2007

HASHIMOTO Eiji
Vice President
Japan International Corporation
Agency

November 2007

HASHIMOTO Eiji

Vice President

Japan International Corporation Agency

Tokyo

Letter of Transmittal

Dear Sir,

We are pleased to formally submit herewith the final report of the Study for Update of Hoa Lack High-Tech Park Master Plan in the Socialist Republic of Vietnam.

This report compiles the results of the study which was undertaken both in Vietnam and Japan from April 2007 to November 2007 by the Team comprising Nippon Koei Co., Ltd., Pacific Consultants International and ALMEC Corporation.

We owe a lot to many people for the accomplishment of this report. First, we would like to express our sincere appreciation and deep gratitude to all those who extended their extensive assistance and cooperation to the Team, in particular the Hoa Lack High-Tech Park Management Board.

We also acknowledge the officials of your agency and the Japanese ministries and organizations related for their support and valuable advice in the course of the study.

We hope the report would contribute to the development of Hoa Lack High-Tech Park and advancement of science and technology in Vietnam.

Very truly yours,

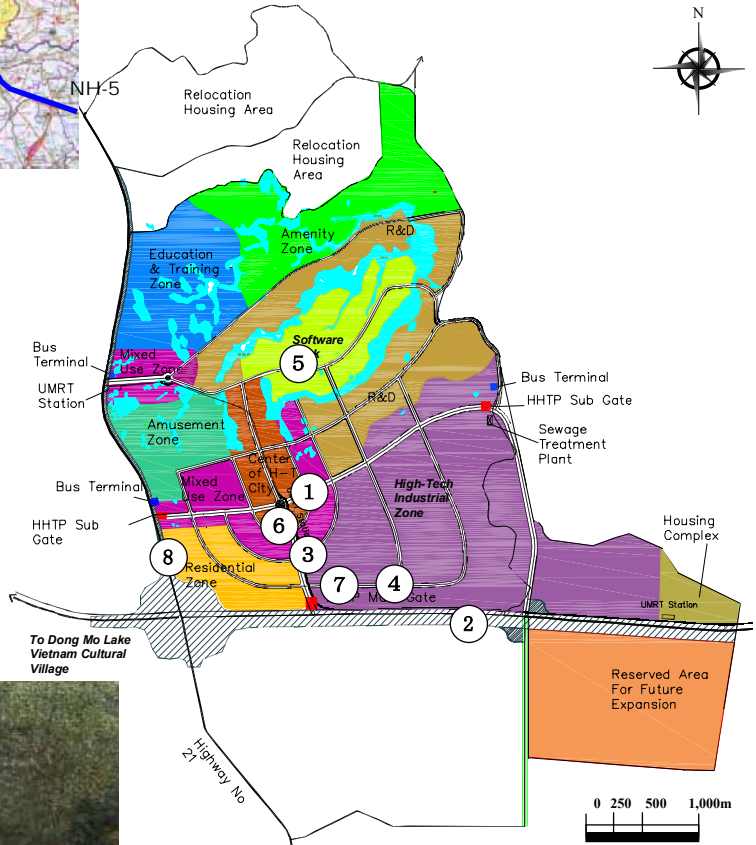
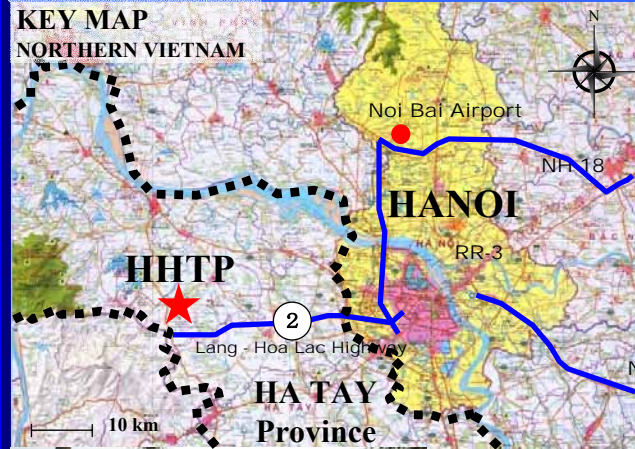
HAYASHI Yukinobu

Team Leader

The Study Team for the Study for

Update of Hoa Lack High-Tech Park Master Plan

PROJECT LOCATION MAP



HOA LAC High-Tech Park
Overall Development (1610 ha)



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LIST OF ABBREVIATIONS

| | |
|---------|---|
| BOT | Build Operate and Transfer |
| BLT | Build Lease and Transfer |
| BOO | Build Own and Operate |
| DONRE | Department of Natural Resources and Environment |
| EIA | Environmental Impact Assessment |
| EN | Exchange of Notes |
| EVN | Electricity of Vietnam |
| FDI | Foreign Direct Investment |
| FPT | Financing and Promoting Technology Corporation |
| FS | Feasibility Study |
| GDP | Gross Domestic Product |
| HAIDEP | The Comprehensive Urban Development Programme in Hanoi Capital City |
| HBI | Hoa Lac Business Incubator |
| HHTP | Hoa Lac High-Tech Park |
| HHTP-MB | Hoa Lac High-Tech Park Management Board |
| HHTP-DC | Hoa Lac High-Tech Park Development Company |
| JBIC | Japan Bank for International Cooperation |
| JETRO | Japan External Trade Organization |
| JICA | Japan International Cooperation Agency |
| L/A | Loan Agreement |
| LACB | Land Acquisition and Compensation Board |
| LARAP | Land Acquisition and Resettlement Action Plan |
| MARD | Ministry of Agriculture and Rural Development |
| MOC | Ministry of Construction |
| MOF | Ministry of Finance |
| MOI | Ministry of Industry |
| MONRE | Ministry of Natural Resources and Environment |
| MPT | Ministry of Post and Telecommunication |
| MOST | Ministry of Science and Technology |
| MOT | Ministry of Trade |
| MOU | Memorandum of Understanding |
| M/P | Master Plan |
| MPI | Ministry of Planning and Investment |
| NCST | National Center for Science and Technology |
| OECD | Organization for Economic Cooperation and Development |
| RAP | Resettlement Action Plan |

| | |
|-----------|--|
| R&D | Research & Development |
| SAPROF | Special Assistance for Project Formation |
| S&T | Science and Technology |
| SWOT | Strength -Weakness-Opportunity-Threat |
| TCVN | Tieu Chuan Vietnam |
| VAST | Vietnamese Academy of Science and Technology |
| VINASHIN | Vietnam Shipbuilding Industry Corporation |
| VINACONEX | Vietnam Construction and Import Export Corporation |
| VITEC | Vietnam Information Technology Examination & Training Support Center |
| VNUH | Vietnam National University in Hanoi |

The Study for Update of Hoa Lac High-Tech Park Master Plan

SUMMARY

Introduction

1. Hoa Lac High-Tech Park (hereinafter referred to as “HHTP”) is a high technology oriented park development project located in Thach That District, Ha Tay Province with a total development area of about 1,600 ha. The original Master Plan (M/P) was prepared in 1998 under JICA’s technical cooperation scheme. This M/P was approved by the Prime Minister in 1998 together with Stage-1 development plan of 200 ha. However, the actual progress of the Project has been lagging behind the planned schedule and an official request to update the M/P for acceleration of the development was made by the Vietnamese Government to the Japanese Government in 2006. The study to update the M/P has been conducted in consideration of the current status of HHTP and changes of external conditions, including the socio-economic situation in Vietnam.

This study has two objectives as follows:

- 1) To revise the existing Master Plan formulated in 1998 in order to accelerate the implementation of the HHTP development.
- 2) To select priority project(s) to support the development of HHTP and prepare an implementation plan and roadmap for realizing the revised Master Plan.

HHTP Development Context

2. The National Socio-Economic Strategy (2001-2010) identifies science and technology (S&T) as having an essential role in enhancing economic potential and driving national development. The strategies to realize these objectives are identified as follows:
 - 1) Modernize managerial technologies,
 - 2) Construct two hi-tech centers, namely Hoa Lac High-Tech Park and Saigon High-Tech Park, and
 - 3) Set up a number of key laboratories of the region’s advanced standard
3. The government decree “Promulgating of High-Tech Park in Vietnam” (Decree No. 99/2003/ND-CP) defines the objectives of high-tech parks as follows:
 - 1) To contribute to the accumulation of research and development capabilities,
 - 2) To create the necessary environment to attract investment capital, high-tech manpower at home and abroad, and to contribute to building high-tech industries,
 - 3) To create favorable conditions for links between high-tech training, research and development, advanced technological innovation, incubation of high-tech enterprises

- and commercialization of high technologies, and
- 4) To contribute to the acceleration of economic growth by raising the technological level of production facilities.
4. The Study on the Hoa Lac and Xuan Mai Areas Urban Development Project (March 1999, MPI) defines the development of HHTP as a key development project in the region. Furthermore, the Master Plan for Socio-Economic Development of Ha Tay Province up to 2020 (June 2005, Ha Tay People's Committee) states that HHTP will play an important role in the promotion of high-tech industries in the region.

Economic Background of HHTP Development

5. In 1994, when the USA removed its economic embargo, FDI (foreign direct investment) from Korea, Japan, and other countries poured into Vietnam's manufacturing sector resulting in more than USD 9.4 billion worth of investments in projects. However, FDI decreased sharply after the Asian currency crisis in 1997 and had dropped to only USD 2.2 billion in 1999. Since then, the amount of FDI has recovered steadily and was 2.5 times greater in 2006 (USD 10.2 billion) than in 2004 (USD 4.2 billion). The economic situation in Vietnam was generally not favorable for the development of HHTP until 2003. However, it is expected that the increasing trend in FDI since 2004 will continue and the present economic situation is now very favorable for implementation of HHTP.
6. The regional distribution of FDI has been concentrated in the southern Vietnam and limited in the north. This situation changed after 2001 when Canon Inc., Japanese manufacturing company, opened a factory in Thang Long industrial estate, and since then FDI in the north has been increasing rapidly. However, investment is concentrated to the east of Hanoi, especially along National Highway No. 1, 2, 3, 5 and 18.

Progress of the HHTP Development

7. The HHTP-Management Board (HHTP-MB) was established under the Ministry of Science and Technology and Environment (MOSTE) in 2000 as the executing agency for HHTP development. Based on the guiding comments issued by the Prime Minister in 2006, HHTP-MB is undergoing organizational reformation to strengthen its organization and personnel. At present, the HHTP-MB is composed of eight departments with about 80 staff.
8. The HHTP-Development Company (HHTP-DC) is also important player in the execution of HHTP development. HHTP-MB provides business licenses and land use rights to HHTP-DC. HHTP-MB is responsible for construction and maintenance of common infrastructure, while the HHTP-DC is responsible for construction and maintenance of infrastructure inside the functional zones other than the Research and Development Zone. The HHTP-DC subleases

land use rights to tenants and charge infrastructure development fees and infrastructure maintenance fees to the tenants. There are two HHTP-DC, one is VINACONEX, engaged in 2003 to develop the 34.5 ha of the High-tech Industrial Zone of Phase-1. The other is FPT HHTP-DC established in 2007.

9. The land acquisition and resettlement has been carried out by the Ha Tay Province under the instruction of the Prime Minister and 270 ha of land had been acquired by the end of July 2007. The remaining land acquisition for Phase-1 being about 540 ha is scheduled to be completed by June 2008. The land leveling work has been conducted for 31.5 ha of the land in Phase-1. Three factories have been located in HHTP at present (total land use: 7 ha, total number of employee: 460). In addition, there are three facilities i.e., start-up center, Incombank data center (under construction) and telecom building (not in use now) in HHTP. No State research institutes have been located in HHTP at present.
10. The internal roads for Stage-1 are almost completed; however, some roads and bridges are still under construction. Widening of the Lang-Hoa Lac highway from 2 lanes to 6 lanes is scheduled to be completed in 2009. Studies for construction of the unconnected section of RR-3, are underway. This project will bring considerable benefit to HHTP because it will greatly improve accessibility to sea ports.
11. Electric power is supplied from 110 kV transmission line through a substation (110kV/35kV/22kV, 25MVA) installed in HHTP compound. An optical fiber cable (max. speed 2.5 Gbps) has been laid between Hanoi and the HHTP start-up center. The actual data transmission speed will be about 2 Mbps. Reinforcement of the country's international communication line is essential to improve the performance of telecommunications in Vietnam.
12. Regarding the water supply system, groundwater from three wells (4,500 m³/day) is used at present. In future, water will be supplied from the Da River water supply project scheduled to be commissioned in 2007. This water supply project will supply 12,000 m³/day of water to Phu Cat industrial zone and HHTP in total. A sewerage treatment plant with a 6,000m³/day capacity and two pump stations are under construction in HHTP.
13. The Vietnam National University in Hanoi (VNUH) has a plan to relocate its campuses to Hoa Lac by 2015. Due to the strong synergistic effects that will accrue to both HHTP and VNUH through enhancement of linkages between the university, R&D activities, and high-tech industries, it is highly desirable that the development of VNUH keeps pace with the development of HHTP. The North Phu Cat Industrial Zone, with a total development area of 1,507 ha (1st phase: 307 ha, 2nd phase: 1,207 ha) is located in the south of HHTP across the Lang- Hoa Lac highway. It is expected that supporting industries for HHTP

High-Tech industries would be located in this Industrial Zone.

14. There are about 20 major industrial estates available in the vicinity of Hanoi with a total land area of some 3,200 ha. In addition, several new industrial estates are planned to be developed in the near future. Intensive sales promotion will be required to achieve full occupancy of the 340 ha High-tech industrial zone of HHTP in view of the rapid growth in industrial estates in the Northern Vietnam.

HHTP Development Issues

15. Land acquisition and resettlement have been the most critical impediments to progress and have caused a delay in overall project implementation. The construction of common infrastructure was commenced in 2003; however, some roads and bridges are still under construction and land grading work has not yet been carried out in some areas of Stage 1. The present infrastructure development status is considered to be insufficient to attract such tenants as state research institutes and high-tech industries to HHTP.
16. Relocation or establishment of state research institutes has not yet been realized. The assumed causes of the slow progress are 1) the heavy financial burden that will accrue from the costs of relocation, 2) difficulties in commuting and 3) the lack of living accommodation in HHTP.
17. At present, only three high-tech companies are located in HHTP. The assumed causes of the limited location of high-tech industries are: 1) incomplete infrastructure, 2) uncertainty with future infrastructure development, 3) lack of strategic marketing, 5) distant location from sea ports, and 4) insufficient supporting services for tenants.
18. There are two HHTP-DCs at present; however, their development area is limited to a part of the Stage-1 area. Establishment of a HHTP-DC to undertake development of the whole of the Phase-1 area is desirable to minimize interface conflicts among multiple developers and to avoid confusion of tenants.
19. The Vietnamese government has preferred investment incentives for high-tech industries (Decision No. 53-2004-QD-TTg); however, there is no specific incentive only for HHTP. A lot of FDIs have already moved into industrial parks in the northern Vietnam. Having no geographical advantage over such industrial parks, HHTP needs to provide a strong incentive to investors to compensate for its general lack of competitiveness.

Opinion Survey and Good Practice Survey

20. Opinions about the development of HHTP were obtained by conducting a questionnaire survey of Japanese and Vietnamese companies. An investment incentive workshop was also

held in Tokyo to obtain opinions on the types of incentives that might be found attractive if offered by HHTP. The following features were raised as potentially attractive incentives:

- 1) Tax incentives exclusively applicable to investors in HHTP
 - 2) Availability of capable workers on site
 - 3) Hi-grade infrastructure (uninterruptible power supply and hi-speed telecommunication network)
 - 4) Availability of services for measurement of environmental parameters and factory products
 - 5) Availability of HRD organization in HHTP
21. The present status of other high-tech parks has been analyzed to learn from their good practices. The parks observed were Saigon Hi-Tech Park (HCMC), Quang Trung Software City (HCMC), Kulim Hi-Tech Park (Malaysia), Hsinchu Science Park (Taiwan), and Tsukuba Science City (Japan). The key success factors varied from project to project; however, strong government leadership and support were common factors in successful implementation of the projects.

Key factors for acceleration of HHTP development

22. Based on the present conditions of HHTP, a questionnaire survey to industries, bench mark-analysis of other high-tech parks, and SWOT analysis, the following 10 key requirements for the successful implementation of HHTP were identified:
- 1) Timely achievement of land acquisition and resettlement
 - 2) Strong initiative and support of the central government
 - 3) HHTP-MB with a high level of authority and capabilities
 - 4) Completion of internal infrastructure
 - 5) High-grade power supply and telecommunication systems
 - 6) Human resource development
 - 7) Strategic marketing
 - 8) Provision of attractive investment incentives and one-stop service
 - 9) Generation of synergistic effects among R&D institutes, education & training establishments, and hi-tech industries
 - 10) Development of urban function

Missions and Strategy

23. The targets of HHTP development are defined as 1) advancement of S&T development in Vietnam, 2) innovation of technology, 3) socio-economic development by stimulation of hi-tech industries. In order to achieve these targets, HHTP is required to realize the

following 6 missions;

- 1) Generation of synergistic effects among research institutes, education & training establishments, and high-tech industries.
- 2) Attraction of R&D institutes and vitalization of R&D
- 3) Attraction of international high-tech industries
- 4) Human resources development
- 5) Popularization of S&T to citizens
- 6) Development of hi-grade living environment

24. Ten strategies are proposed for accomplishing the above six missions of HHTP and 10 key success factors. There are four common strategies and six individual strategies as illustrated in the figure below:

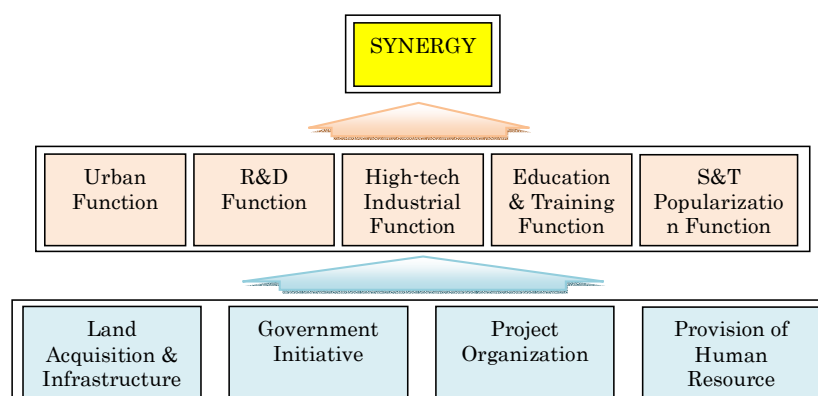


Figure S-1 Structure of the Strategies

Common Strategies (four strategies common to all missions)

1) Land Acquisition and Infrastructure

It is required to perform land acquisition and infrastructure development in line with a carefully worked-out plan so that HHTP can be developed without further delay and recover the trust of potential investors. Infrastructure should be developed to a superior level so as to ensure HHTP's role as the country's premier industrial gateway.

2) Government Initiatives

In order to develop the HHTP into an internationally competitive high-tech park, the government initiatives and the leadership of the Prime Minister himself are required.

3) Project Organization

It is required to finalize the organizations for operation and maintenance as well as

infrastructure construction as early as possible.

4) Provision of Human Resources

HHTP is required to provide investors with employment service and to establish an appropriate place where young talents wish to work.

Individual Strategies (five functions and generation of synergistic effects)

5) Provision of Urban Function

It is recommended that high-grade urban amenities and living environment be developed to ensure the quality of life of residents and to provide a superb environment for visitors.

6) Attraction of R&D Function

The state government is required to take a strong initiative in making arrangements to put appropriate state research institutes into HHTP as early as possible. As part of such arrangements, international financial support may be necessary for research funds in cases where state financial resources will be insufficient.

7) Attraction of High-Tech Industrial Function

To attract high-tech industries to HHTP, it is important to thoroughly understand the markets and needs and desires of customers and to provide effective incentives and services to the investors.

8) Attraction of Education and Training Function

Nurturing of highly capable human resources is to be a crucial function of HHTP as innovation will be created through linkages among the high-tech industries, universities, and research institutes, and this can differentiate HHTP from other industrial parks in Vietnam. It is necessary to attract education and training institutes in and around HHTP for nurturing various kinds of occupation.

9) Popularization Function of Science and Technology

It is recommended that researchers and parties concerned with HHTP disseminate easy-to-understand information regarding S&T and hold events for citizens to observe, listen, and touch the activities and outputs of S&T. Citizens can create their own dreams and imagine the progress in S&T by enhancing their understanding and interest in S&T through such information and experiences. Meanwhile, the Hoa Lac “brand” will be born through these activities of the researchers and parties concerned with HHTP. Once the brand is built, many young people will wish to come to Hoa Lac to learn and work there. They will contribute to the progress in S&T in the next generation.

10) Generation of Synergistic Effects

The synergies that will arise from a comprehensive development are expected to further enhance HHTP's importance and attraction to investors. However, it will not be sufficient just to locate all physical functions in one area. Of equal importance will be the establishment of an efficient mechanism for the exchange of information as well as the manpower component, mutual dependence relationships, and cooperative ventures.

Projects

25. In each strategy, multiple projects which will materialize strategy are identified. In total, 39 projects are identified and these projects are classified into 3 categories, namely 1) Prerequisite Project, 2) Essential Project, and 3) other Project. The Prerequisite Project is the project which is indispensable for the implementation of the HHTP and the Essential Project is the project which is important and necessary to be carried out for the successful implementation of the HHTP. Other Project is the Project which heightens the value of HHTP.

26. The followings seven projects are categorized as Prerequisite Project;

A. Land Acquisition and Infrastructure

- A1 Land acquisition and resettlement
- A2 Development of common infrastructure and R&D zone
- A4 Development of power supply system without power failure
- A5 Development of High-speed Telecommunication / internet system

B. Government Initiatives

- B1 Strengthening of the HHTP-MB by positioning directly under the Prime Minister
- B2 Attraction of State Research Institutes at the government initiative

C. Project Organization

- C1 Completion of the organizational structure

Road Map

27. The road map of the implementation of each project is set out as indicated below;

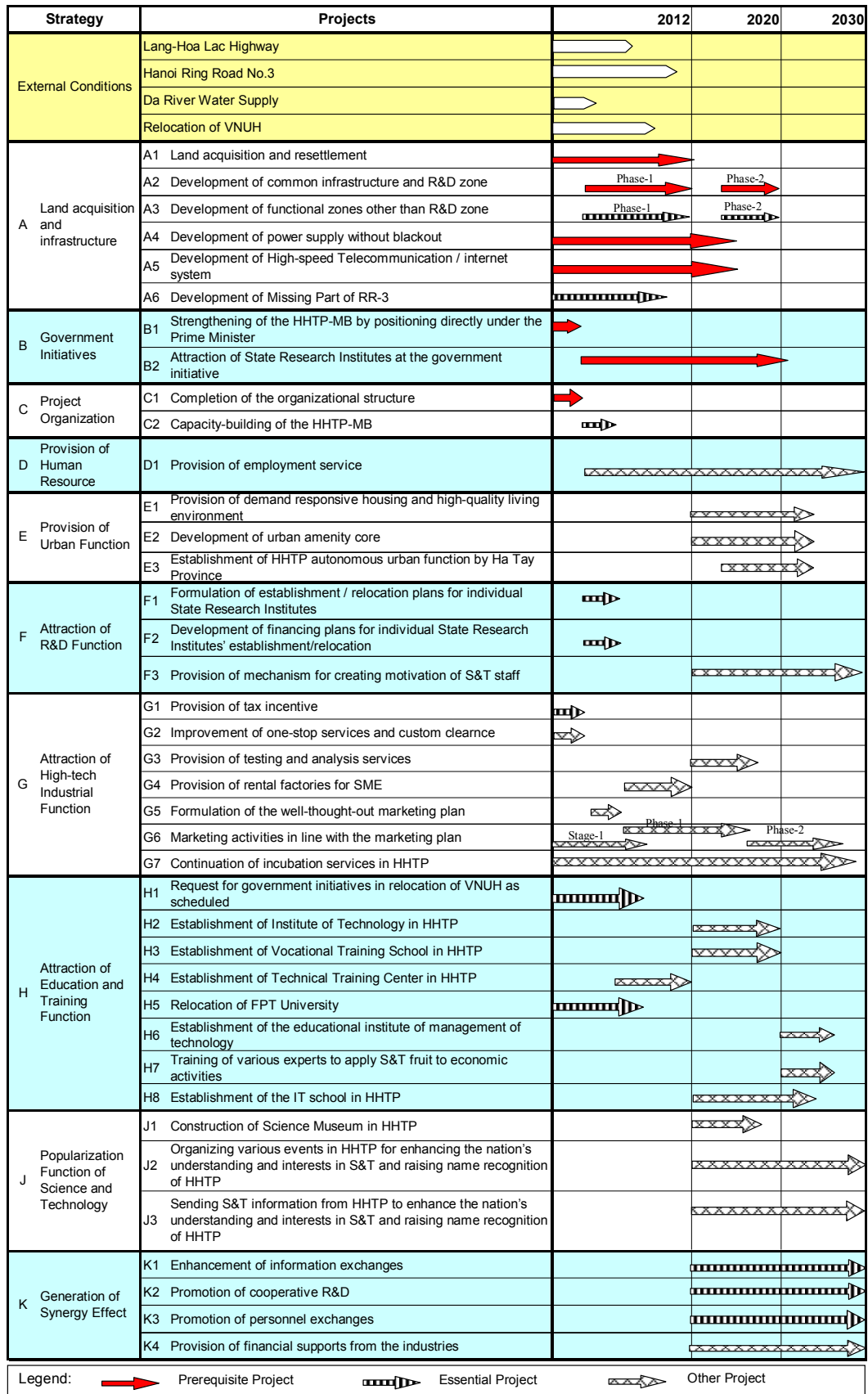


Figure S-2 Road Map

Land Use Plan

28. The land use plan has been elaborated in due consideration of site topography, area requirement of each functional zones, optimum linkage between each zone, location of existing facilities, and landscaping. The northern area in the original M/P which has become heavily populated is now excluded from the development area of HHTP and the land in the southeast of HHTP along Lang-Hoa Lac Highway is now planned to be utilized as an alternative site. The HHTP development is to be executed in two phases, with completion of Phase-1 targeted for 2012 and Phase-2 for 2020. The land use area is summarized in the table below;

Table S-1 Land Use Area

(Unit: ha)

| Land Use | Original M/P | Updated M/P | | |
|---------------------------------|--------------|----------------|----------------|-------|
| | | Phase-1 (2012) | Phase-2 (2020) | Total |
| 1 Software Park | 165 | 45 | 30 | 75 |
| 2 Research and Development Zone | | 70 | 75 | 145 |
| 3 High-tech Industrial Zone | 210 | 140 | 200 | 340 |
| 4 Education and Training Zone | 0 | 55 | 40 | 95 |
| 5 Center of High-tech City | 47 | 40 | 10 | 50 |
| 6 Mixed Use Zone | 81 | 75 | 25 | 100 |
| 7 Residential Zone | 132 | 15 | 35 | 50 |
| 8 Housing Complex | 247 | 0 | 20 | 20 |
| 9 Reserved Area | 0 | 0 | 180 | 180 |
| 10 Amenity Zone | 0 | 100 | 10 | 110 |
| 11 Amusement Zone | 199 | 20 | 40 | 60 |
| 12 Infrastructure | 268 | 110 | 135 | 245 |
| 13 Lake and Buffer Zone | 300 | 140 | 0 | 140 |
| Total | 1,650 | 810 | 800 | 1,610 |

Infrastructure Projects

29. The development of high quality infrastructure is essential for proper operation of the research and development institutes, education and training organizations, and high-tech industries to be located in HHTP. The following infrastructures are required.

Table S-2 Infrastructure Projects

| Description |
|--|
| 1. Internal Common Infrastructure |
| <ul style="list-style-type: none"> 1) Interchange and Intersection on the Lang- Hoa Lac highway 2) Partial zonal land preparation 3) Arterial Roads and accompanied infrastructure development 4) Water supply facilities 5) Power supply facilities 6) Wastewater treatment plant |
| 2. Hi-grade External Infrastructure |
| <ul style="list-style-type: none"> 1) Stable electric power supply sysytem 2) International telecommunication line |
| 3. Research Institute and Technical Training Center |
| <ul style="list-style-type: none"> 1) Research and Development Institute 2) Technical Training Center |

30. Among the above projects, construction of internal common infrastructure is a priority infrastructure development project to be undertaken by HHTTP-MB.

Conclusions

31. The six important keys to success of the Hoa Lac High-Tech Park Development Project are summarized as follows:

- 1) Strong commitment of the central government and relevant ministries to implementation of HHTTP as a national project
- 2) Development of hi-grade infrastructure including external infrastructure necessary for promotion of S&T and operation of high-tech industries
- 3) Attraction of excellent scientists and engineers
- 4) Fostering young people who will be leaders in the advancement of science and technology in Vietnam
- 5) Attraction of anchor tenants to HHTTP with strategic marketing
- 6) Popularization of S&T to citizens

Chapter 1 INTRODUCTION

1.1 Background of the Study

In order to realize high-tech industrialization in Vietnam, the Seventh Conference of the Central Committee of the Communist Party held in 1991 adopted a resolution to develop high-tech parks in both Hanoi and Ho Chi Minh City.

In January 1996, the Ministry of Science, Technology and Environment (MOSTE) was entrusted with the task of planning and developing high-tech parks by Decree 123/KTN and the Prime Minister approved a plan to establish the Hoa Lac High-Tech Park (HHTP) with an area of around 1,600 ha at Dong Mo-Ngai Son in Thach That district of the Ha Tay province. Acting upon a request from the Vietnamese government, the Japan International Cooperation Agency (JICA) conducted a study titled “Master Plan and Feasibility Study on The Hoa Lac High-Tech Park Project” in 1998 (hereinafter referred to as “original M/P”).

The original M/P envisaged a phased development of HHTP with the following implementation schedule;

Table 1.1-1 HHTP Implementation Schedule in the original M/P(1998)

| Phase | Development Area (ha) | Target Completion Year |
|-------|-----------------------|------------------------|
| 1 | 796 | 2005 |
| 2 | 317 | 2010 |
| 3 | 537 | 2020 |
| Total | 1,650 | - |

After the submission of the original M/P to the Prime Minister, approval of the Master Plan and investment for Stage-1 of Phase-1 development for 200 ha area was given by Decision 198/QD-TTg issued in October 1998. Subsequently, the HHTP-MB was established as an organ of MOSTE to serve as the executing agency of the project by Decision 10-2000/QD-TTg in January 2000.

However, implementation of HHTP development has been lagging behind the schedule planned in the original M/P, and a need to update the original M/P has been clearly recognized to cope with the change of project environment and to accelerate project implementation.

In response to an official request from the Government of Vietnam, the Japan International Cooperation Agency (JICA) to conduct a Study for Update of Hoa Lac High-Tech Park Master Plan and the contents of the study were agreed to between JICA and the Hoa Lac High-Tech Park Management Board under the Ministry of Science and Technology in February 2007.

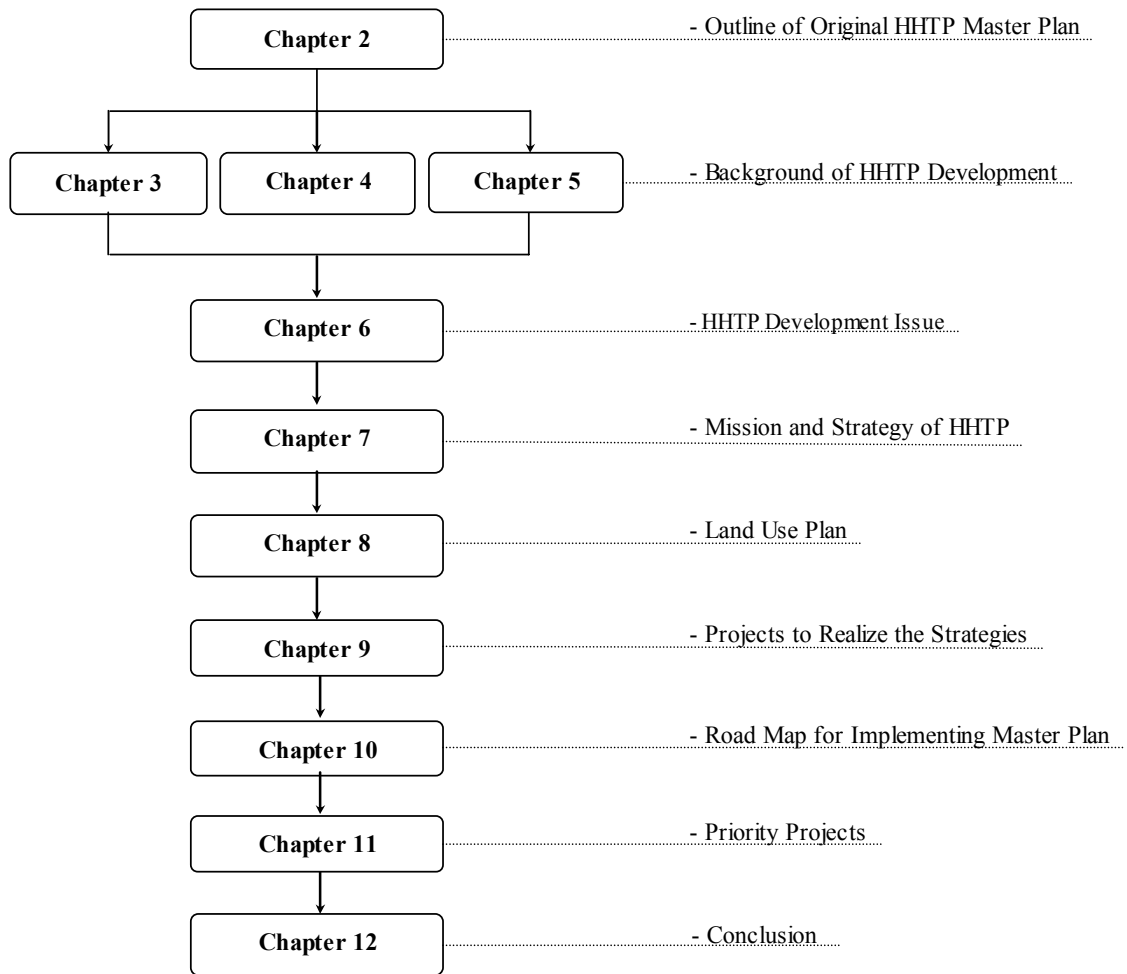
1.2 Objectives of the Study

This study has two objectives as follows:

1. To revise the existing Master Plan formulated in 1998 in order to accelerate the implementation of the HHTP development.
2. To select priority project(s) to support the development of HHTP and prepare the implementation plan and roadmap for realizing the revised Master Plan.

1.3 Structure of the Report

The Final Report consists of three volumes, Main Report and Supporting Report Volume I and II. This Main Report has a document structure as shown in Figure 1.3-1.



Source: JICA Study Team

Figure 1.3-1 Document Structure of the Main Report

Chapter 2 OUTLINE OF ORIGINAL HHTP MASTER PLAN

2.1 Background

The Government of Vietnam made a request for a master plan and feasibility study on the high-tech park to the Government of Japan in March, 1996. In response, the Japan International Cooperation Agency (JICA) sent a mission to Vietnam and the Scope of Work for the Study was agreed between JICA and the Ministry of Science, Technology and Environment in October, 1996. The JICA Study Team submitted the Final Report in March, 1998.

2.2 Necessity of the Establishment of HHTP

It is necessary for Vietnam to establish high-tech parks for the following purposes:

- 1) To quickly develop high-tech industries so that the country could catch up with the other ASEAN countries.
- 2) To concentrate the financial and human resources into limited sites for high-tech production and R&D activities.
- 3) To maintain an interface among the various high-tech industries, and among the research institutes, universities and the manufacturing enterprises for achieving fast growth of competitive high-tech industries.

It was recommended that the first high-tech park should be established near Hanoi, which had the governmental administrative function, three quarters of the state research institutes, and good access to the international airport.

2.3 Target High-Tech Industries

The following fields were selected by the original Master Plan study as priority fields of high-tech industries:

- 1) Information Technology/Telecommunications/Electronics,
- 2) Bio-technology,
- 3) Mechatronics /Machinery,
- 4) New Material, and
- 5) New Energy

In the context of the growing trends in environmental issues, vital importance was given to environmentally-friendly technologies and products. Though it could not be classified into a single field, the following environment/conservation oriented technologies should be included in the high-tech in the foreseeable future: cleaner production technology, resource and energy-efficiency technologies, and pollution control technologies. These technologies should, therefore, be considered as priority fields.

2.4 Original HHTP Master Plan

2.4.1 Development Principles

HHTP should be developed in line with the principles shown in Table 2.4-1.

Table 2.4-1 HHTP Development Principle

| | Principle | Description |
|---|---|--|
| 1 | Center of Excellence of Vietnamese Science and Technology | With spacious land and good access to Hanoi, Hoa Lac city should assume the role of a center of excellence of Vietnamese science and technology, accommodating the universities and research institutes. |
| 2 | Special Zone Meeting Global Standards | In order for Vietnam to quickly catch up with the high-tech advanced countries, it is essential to invite foreign investors to utilize their capacity in technology, capital, management, marketing and others. To achieve this objective, it is requisite to prepare special zones with high grade infrastructures and institutional and legal frameworks meeting global standards. |
| 3 | Heart of Hoa Lac City | HHTP should be the heart of the new Hoa Lac satellite city, possessing both production and research functions and close linkage with the other components, in particular the university and industrial areas. |
| 4 | Recognition as a National Project | Considering the significance of the project, the HHTP project should be officially acknowledged and publicly announced as a national project. Full support should be given by the Government including financing, infrastructure development and the relocation and establishment of the state research institutes. |

2.4.2 Development Concepts

In compliance with the development principles, HHTP should be developed following the concepts given below.

- 1) Deregulation to meet global standards
- 2) Provision of high grade infrastructure
- 3) Locating state research institutes
- 4) Multi-functional town
- 5) Multiple supporting functions
- 6) Determination of priority categories of enterprises and providing them with preferential treatment
- 7) Cooperation with the other components in and around HHTP
- 8) Open and friendly town

2.4.3 Land Use Plan

Land use of HHTP was planned as shown in Table 2.4-2. It should be noted that the

R&D Zone was the area for both research institutes and software industry.

Table 2.4-2 Land Use Plan for HHTP

| | Phase 1 | | Phase 2 | | Phase 3 | | Total | |
|--------------------------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| | Area (ha) | (%) | Area (ha) | (%) | Area (ha) | (%) | Area (ha) | (%) |
| 1. R & D Zone | 118 | 14.8 | 0 | 0.0 | 47 | 8.8 | 165 | 10.0 |
| 2. Center Area | 16 | 2.0 | 0 | 0.0 | 32 | 6.0 | 48 | 2.9 |
| 3. High-Tech Industrial Zone | 71 | 8.9 | 22 | 6.9 | 117 | 21.8 | 210 | 12.7 |
| 4. Urban/Business Zone | 26 | 3.2 | 8 | 2.5 | 47 | 8.8 | 81 | 4.9 |
| 5. High Grade Residential Zone | 76 | 9.5 | 56 | 17.7 | 0 | 0.0 | 132 | 8.0 |
| 6. New Town Zone | 74 | 9.3 | 23 | 7.3 | 150 | 27.9 | 247 | 15.0 |
| 7. Infrastructure | 142 | 17.8 | 18 | 5.7 | 108 | 20.1 | 268 | 16.2 |
| 8. Tan Xa lake | 120 | 15.1 | 180 | 56.8 | 0 | 0.0 | 300 | 18.2 |
| 9. Green, river, reserve area | 153 | 19.2 | 10 | 3.2 | 36 | 6.7 | 199 | 12.1 |
| 10. Total | 796 | 100.0 | 317 | 100.0 | 537 | 100.0 | 1,650 | 100.0 |

2.4.4 Infrastructure Development Plan

By the year 2020, the development of the following infrastructures were scheduled to be completed:

- Regional Trunk Road: 11.8 km
- Water Supply Facility: 100,000 m³/day
- Sewerage Facility: 100,000 m³/day
- Drainage Facility (Drainage channels): 30 km
- Electricity Supply Facility (Substation): 250 MVA
- Telecommunication Facility: 65,000 lines
- Central Park: 46 ha

HHTP is planned to be implemented in three phases in line with the target years set for the national high-tech industry development. Initial development is planned with the fastest possible schedule, considering its urgency. Construction of the second and third phases is planned to start in sequential order so as to:

- Confirm the progress of the occupancy of the lots in the preceding phases in order to avoid over-investment, and
- Enable the use of the revenue obtained during the original phases to finance the construction cost of the following phases.

Development schedule of HHTP is shown in Figure 2.4-1.

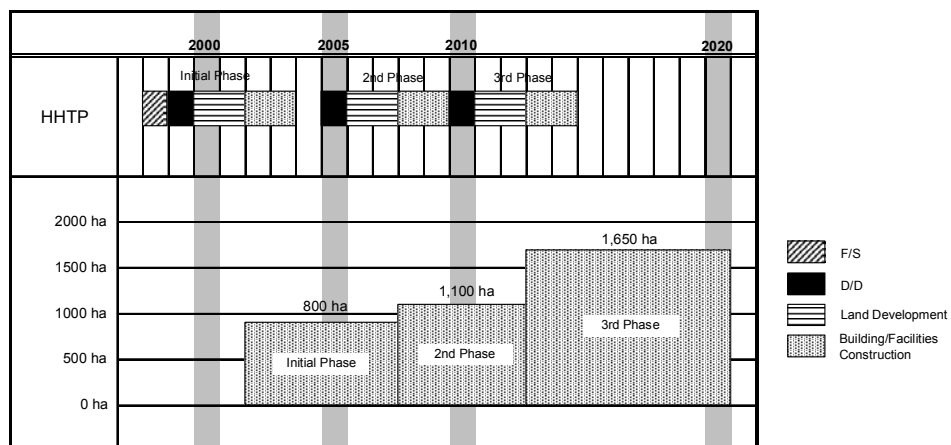


Figure 2.4-1 Development Schedule

2.4.5 Recommendations toward the Realization of HHTP

Various legal and institutional measures, as well as structural ones, were recommended to be taken. The following issues should be carefully conducted for the success of HHTP.

1) Determination and Recognition by the Government of HHTP as a National Project

HHTP project should be given a priority for the allocation of the financial resources for the construction. Strong supporting systems should be set up within the Government organization, involving ministerial level ranking officials.

2) Prior Investment for Infrastructure

In particular, construction of roads which would connect the project site with the capital city of Hanoi should be placed as the top priority as this would drastically shorten the traveling time to about 30 minutes.

3) Establishment and the Relocation of the State Research Institutes

The relocation of state research institutes into HHTP under the initiative of the Government would be a clear signal to the concerned parties and entities, both domestically and overseas of the firm determination of the Government toward the materialization of HHTP.

4) Provision of Good Access to High-Technologies and Promotion of Cooperation among the Participants

As the nucleus of HHTP development, a center, called the “Techno-partnership Center” is recommended to be set up in HHTP. The Center should provide easy access to the high-tech information as well as act as a catalyst for the cooperation and division-of-labor among the participants.

5) Provision of Human Resource Training Centers

It is recommended that a technical institute be set up in HHTP to provide 2 years of technical education and 6-months on-the-job training for high school graduates and a 3-year technical education course and 6-months on-the-job training for junior high school graduates in order to create the qualified technicians. It is also recommended that an OJT Technical Support Center be set up for employees of small and medium scale enterprises.

6) Establishment of a National Software Center

Because HHTP is the first high-tech park in the country, it is recommended that a national software center be established in HHTP under Government initiative, to be located in the proposed software park of the R&D Zone.

7) Realization of an Environmentally and Socially Friendly Park

Environmentally and socially friendly park should be aimed at for the implementation of HHTP.

8) Implementation and Management of the HHTP Project

It is recommended that the responsible ministries, agencies and people’s committees as well as a board of management for the implementation and

management of HHTP should be designated at the earliest opportunity.

9) Enactment of the Law of High-Tech Park

A law should be enacted to extend legal support for the efficient and coordinated implementation of high-tech park projects in Vietnam, including HHTP.

10) Application of Lower Land Rent and Exemption from Customs Duties

Considering the national importance of the HHTP project and land rents prevailing in industrial zone projects in the country, land rent for HHTP should preferably be US\$ 0.10/m²/year or lower. Customs duties and other indirect taxes should be exempted for the equipment and facilities to be used and installed for the implementation of HHTP.

11) Close Coordination with Relevant Projects and Agencies / Organizations

Coordination and cooperation with the relocation of the Vietnam National University in Hanoi is of vital importance for the development of high-technology and their commercialization into products. The enterprises to be located in the planned industrial zone of Phu Cat can assume the role of supporting industries for the high-tech industries in HHTP. Dong Xuan residential zone would accommodate a part of the increase in population to be generated by the HHTP project. Some infrastructures should be planned to serve for the common benefit of all these components of the new city.

12) Seeking International Cooperation

It is advisable that international cooperation be sought from both technical and financial viewpoints, including official development aid for the planning and implementation as well as management of HHTP including the proposed centers. Various financial schemes including BOT, BLT, and BOO seem worth consideration are suggested.

13) Prompt Action Subsequent to the Completion of this Master Plan

Among the ASEAN members, Vietnam is lagging behind the development of high-tech industries. With the limited time allowance until the agreed deadline of lowering customs duties on industrial products, it is desirable that the actions be taken for the implementation of HHTP immediately after the completion of this master plan, i.e., approval of this master plan by the Prime Minister for the official acknowledgment as a national project and preparation of detailed plans for the center projects and feasibility studies for each functional zone.

Chapter 3 HHTP DEVELOPMENT CONTEXT

3.1 National Socio-Economic Development Strategy 2001-2010

The National Strategy confirmed that science and technology has an essential role to enhance the economic potential and to drive national development. Science and technology development should be responding to the demands of raising productivity and quality of products, enhancement of business competitiveness and efficiency, environmental protection issues, and ensuring national defense and security; to attach importance to the development and application of information technology, biotechnology, new materials technology, and automation technology. The strategies to realize these objectives are identified as follows:

- 1) To modernize managerial technologies,
- 2) To accomplish the construction of two hi-tech centers in the neighborhood of Hanoi (Hoa Lac High-Tech Park) and Ho Chi Minh City (Saigon High-Tech Park), and
- 3) To set up a number of key laboratories of the region's advanced standard.

The National Strategy specified that the science and technological development must have linkages among scientific research, training/education, industry and business in order to rapidly utilize the outcome of research activities. The organizations of research institutes are necessary to be reformed to improve performance of the institutes and associations and to provide creative environment for scientific institutions, enterprises and individuals.

3.2 Fundamental Orientations for Socio-Economic Development of the Northern Focal Economic Zone by 2010 and Vision by 2020

This orientation aims to develop the Northern Focal Economic Zone (NFEZ), which will ensure its leading role and position toward the northern Vietnam and also toward the country, and consequently boost and assist neighboring regions. In July 2003, Ha Tay province was added to NFEZ together with Bac Ninh and Vinh Phuc by Prime Minister's approval for expanding borders of the Region.

In this orientation, developing high-tech industries, quality services such as IT, software outsourcing, mechanical engineering, etc. are some of the breakthrough measures to boost socio-economic development of NFEZ and it is proposed that construction and operation of HHTP be boosted immediately. The necessity of developing modernized principal infrastructure such as transportation networks including Lang - Hoa Lac Highway and National Highway 21A, an electricity grid, telecom networks, water supply and drainage systems and environmental protection facilities is emphasized.

3.3 Science and Technology Development Strategy 2010

In March 2006, Decision No: 67/2006/QĐ-TTg was issued to set out directions, objectives and key Science and Technology (S&T) tasks for the 5-year period from 2006 to 2010. This Decision emphasizes that S&T will take an important role in

industrialization, especially in advanced high-tech industry sectors. The roles of S&T set out by this document are;

- 1) To ensure that a scientific foundation is provided to hasten industrialization, socialist-oriented sustainable development and successful integration in the global economy,
- 2) To contribute a decisive role in; (i) improving the quality of the economy growth, (ii) competitiveness of the products and goods, and (iii) ensuring the national defense and security, and
- 3) S&T potentials should be developed at an advanced level in the region.

This Decision identifies the following key technology science areas;

| Social Science and humanities | Natural Science | Socio-Economic Development |
|---|--|--|
| Basic research in social sciences, humanities and management science. | Vietnamese advanced fields, such as mathematics, physics, chemistry, mechanics, life science, and terrestrial science. | a. Information-Communication Technologies (ICT) b. Biology technologies c. Advanced material technologies d. Automation, mechanics and machinery technologies e. Energy field technology f. Agricultural (foods and products) preserving and processing technology g. Cosmology technologies |

3.4 Promulgating of High-Tech Park in Vietnam (Degree No. 99/2003/ND-CP)

“High-Tech” was legally defined by Degree No. 99/2003/ND-CP to be an integrated technology for advanced scientific and technological achievement to create a sharp increase in; (i) industrial productivities, (ii) infrastructures, (iii) quality and value added of commodity products, (iv) formation of new production branches or services of high socio-economic efficiency, and (v) great impact on socio-economic development and security defense.

In addition, “High-Tech Park” was defined as a multi-function area of economic and technical fields with delimited boundaries, established under a decision of the Prime Minister. The park aims to; (i) develop and apply high technologies, (ii) incubate high-tech enterprises, (iii) train high-tech manpower, and (iv) produce and trade in high-tech products.

The objectives of the High-Tech Park are:

- 1) To contribute to build up the research and development capabilities in the county’s high-tech domains,
- 2) To create the necessary environment to attract investment capital, high-tech manpower at home and abroad, and to contribute to building high-tech industries which shall serve as a motive force for economic development, especially in key

economic regions,

- 3) To create favorable conditions for links between: (i) high-tech training, (ii) research and development with production and services, (iii) advanced technological innovation, (iv) incubation of high-tech enterprises and (v) commercialization of high technologies, and
- 4) To contribute to accelerate economic growth, raise the level of production technologies as well as the competitiveness of commercial goods and services.

The areas to which High-Tech Sectors are encouraged to make investments are:

- 1) Information, communication and informatic software technologies,
- 2) Biotechnologies in service of agriculture, aquaculture and health care,
- 3) Microelectronics, precision machinery, mechatronics, opto-electronics and automation technologies,
- 4) New material technologies and nano technology,
- 5) Environmentally friendly and new energy technologies, and
- 6) A number of other special technologies.

Detailed criteria to identify investor/production for high-tech was promulgated in the MOST decision No. 27/2006/QD-BKHCH issued on 18th December 2006.

3.5 Plans and Programs Concerned with HHTP

3.5.1 Hanoi Metropolitan Area Development Plan (July 2007, Ministry of Construction)

This plan was elaborated to realize sustainable development of Hanoi City and the adjoining provinces by making full use of local resources, improvement of the capital city's role, population growth control, land use, and infrastructure development in the region. Hanoi Metropolitan Area (HMA) includes Hanoi and 7 adjoining provinces, which are Ha Tay, Bac Ninh, Vinh Phuc, Ha Nam, Hai Duong, Hung Yen and Hoa Binh.

In this plan, the western area of Hanoi (30-60 km radius), including Ha Tay Province where HHTP is located, is defined as a Satellite Area of Hanoi City and Hoa Lac is identified as one of the provincial cities which help to equitably distribute economic activities in HMA. It shows some priority programs and projects to achieve the sustainable development, which include the program of arranging for universities and vocational schools to relocate out of Hanoi and improving and upgrading expressways such as Lang - Hoa Lac Highway.

3.5.2 Master Plan for Socio-Economic Development of Ha Tay Province up to 2020 (June 2005, Ha Tay People's Committee)

This Master Plan sets out strategies and mechanisms to mobilize local and foreign resources, to identify and utilize competitive advantages, to work out action plans for socio-economic development and spatial structure development of Ha Tay Province by 2020.

In this Master Plan, developing the leading industries including hi-tech industries such

as software, computer component production, new material production, electronics etc. is identified as the top-priority direction toward social-economic development and HHTP is expected to play an important role in encouraging hi-tech industry development. Moreover, in this Master Plan, the importance of paying attention to supporting industries which stick to HHTP is also emphasized in order to increase the value of projects and competitiveness.

3.5.3 The Study on the Hoa Lac and Xuan Mai Areas Urban Development Project [Phase 1] (March 1999, JICA)

Hoa Lac and Xuan Mai area is a strip-shaped zone extended along National Highway 21A covering the areas of Son Tay, Hoa Lac, Xuan Mai, and Mieu Mon. This study is a city plan for the “New Research and Education Town” in this area with 500,000 population and aims to construct a national center for human resource development and promotion of science and technology in this area.

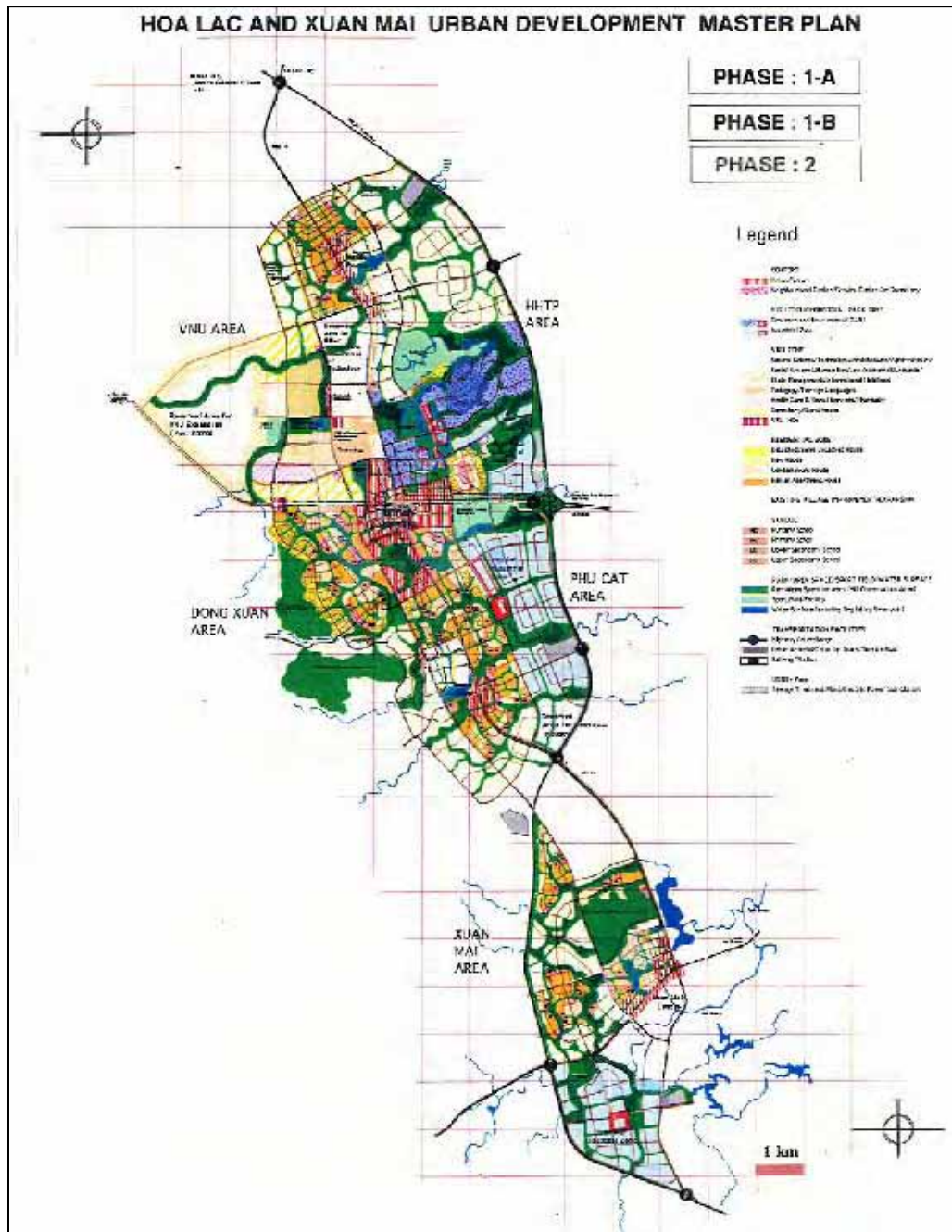
In this Master Plan, HHTP has a role as a major development project together with relocation of Vietnam National University in Hanoi (VNUH). Establishment of a national center of high-tech research and training in HHTP is recommended.

The outline of Hoa Lac and Xuan Mai Urban Development Master Plan is shown in Figure 3.5-1 below.

3.5.4 The Comprehensive Urban Development Programme in Capital City Hanoi [HAIDEP] (March 2007, JICA)

HAIDEP is a project to integrate the master plans which have consisted of various sectors such as transportation, water, drainage and sewerage, and others into a comprehensive master plan on sustainable urban development for Hanoi City and the surrounding region.

In the Master Plan, Hoa Lac is identified as an urban area of Hanoi Metropolitan Area and Urban Mass Rapid Transit (UMRT) connecting Hanoi City and Hoa Lac is proposed. UMRT is a public transportation system with a large passenger capacity at more than 5,000 passengers per direction per day, which may include various types of urban rail and Bus Rapid Transit (BRT).



Source: The Study on the Hoa Lac and Xuan Mai Areas Urban Development Project Final Report
Figure 3.5-1 Hoa Lac and Xuan Mai Urban Development Master Plan

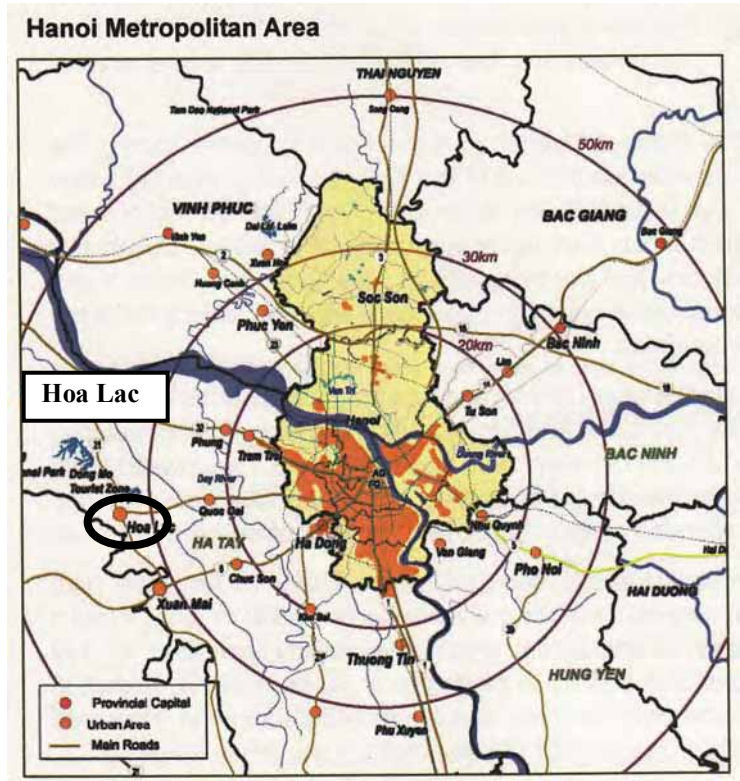
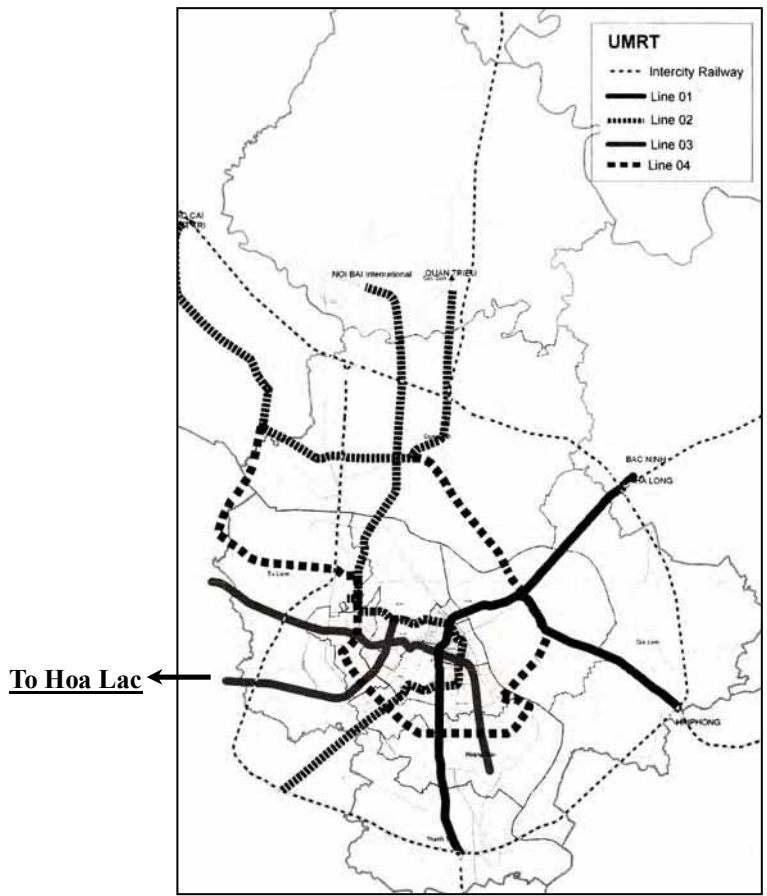


Figure 3.5-2 Hanoi Metropolitan Area



Source: The HAIDEP JICA Study Team
 Figure 3.5-3 UMRT Network Proposed in HAIDEP

Chapter 4 ECONOMIC BACKGROUND OF HHTP DEVELOPMENT

4.1 Economic Trends before the HHTP Master Plan

The Government of Vietnam changed its economic policy to shift from a Planned Economy to a Market-oriented Economy in the late 1980's and started to promote FDI. In 1994, when the USA removed its economic embargo, FDI from Korea, Japan, etc. rushed into Vietnam's manufacturing sector resulting in investments in projects worth a total of more than USD 9.4 billion. The FDI boom peaked in 1996 and came to an end for a short period for the following two major reasons. One was the foreign element, the Asia Currency Crisis in 1997 and the other was an internal element, shortage of potential investments both in hardware and software.

The HHTP project was advanced for implementation in the period of the first FDI boom. The Government of Vietnam, in fact, requested JICA to assist to conduct its Master Plan in 1996 and JICA dispatched a Study Team in 1997.

4.2 Economic Trends after the HHTP Master Plan

As the FDI boom came to an end, the total amount of FDI decreased sharply from USD6.1 billion (1997) to SD 4.9 billion (1998). Industrial estates for attracting FDI had been prepared, however in 1999; the receipt of FDI fell to USD 2.2 billion. This was the third year of decrease. The FDI hit the lowest point in 1999 and then turned around in 2000. In conjunction with the trend of FDI, the economy in Vietnam got back on a recovery track. During the period mentioned above, it is notable that the FDI concentrated into the southern region centered on Ho Chi Minh City while the northern region centered on Hanoi waited for FDI until 2001. Since 2000 the amount of FDI has increased again at 21.5% per year on average.

The HHTP Master Plan was approved in the end of 1998, therefore, from the macroscopic point of view, the implementation of the project started at the downturn in the economy and the bottom of FDI. In addition to these external elements, since the present HHTP-MB was established officially in January 2000, it faced internal difficulties such as the implementation activity carried out by the Project Bureau, which was the provisional organization and limited its power for around one year (the whole of 1999) and delayed financial allocation for the project. In the same time, HHTP had proposed to apply ODA; however this has not come to pass.

In 2001, Canon Inc., Japanese manufacturing company, established its first printer factory in Tang Long Industrial Park located in Hanoi. Following Canon, major manufacturers decided to locate their factories in the northern region of Vietnam; the FDI in the north moved into high gear. A part of the Hi-tech Industries who fall under the Hi-tech category also moved into the north but their locations were limited to the area along the national roads such as No.1, 2, 3, 5, and 18 and excluded the areas west of Hanoi where HHTP is located.

There were some actions related to HHTP. The Lang - Hoa Lac Highway was placed in service so the accessibility between Hanoi and HHTP improved dramatically. The Start-Up Center was constructed in HHTP as a first facility for assisting potential investors. Since the approach road from Lang - Hoa Lac Highway to the HHTP was under construction at that time (2001), the conditions to attract the investors remained at a low level.

In 2002, the HHTP Development Company was established under VINACONEX and was provided 34.5 hectares of land in the Hi-tech Industrial zone. In the following year VINACONEX was appointed as the general infrastructure contractor. It was more than four years after the approval of the HHTP Master Plan and investment project for its Stage 1, Phase 1 before the preparation for the implementation of basic infrastructure for HHTP was ready. During the period from 2003 to 2006, or after the appointment of VINACONEX, the approach road and some internal road were constructed and water, electricity and telecommunication became available.

The above discussion focuses on the past situation surrounding HHTP (from planning to implementation) from the point view of economic growth and FDI, therefore, the issue was related to attracting the Hi-tech industries. HHTP, on the other hand, targeted to promote the R&D functions to be the one of the national centers for Vietnamese Science and Technology development.

In the Master Plan approved in 1998, a Science and Technology Development Plan was studied and proposed the target S&T fields. There was a sufficient number of research institutes covering the proposed fields, mainly under NCST (present VAST), and it was proposed that HHTP should be the place to receive the relevant institutes. Taking a look back on the discussions about the relocation of the institutes, the relocation of the institutes to HHTP was agreed to generally, but the plans of the individual institutes to relocate were unfocused. In addition, there were several opinions regarding to the relocation of institutes, one was complete relocation and the others were for partial relocation or new establishments. During the last decade, HHTP negotiated to relocate the institutes individually. In fact, some Institutes have submitted proposals for relocation to HHTP but to date, no institute has relocated to HHTP.

The trend was summarized in the Figure 4.2-1.

| | | | |
|--|---|---|------|
| Accession to ASEAN. Normalization of diplomatic relations with USA. | | | 1995 |
| Accession to CEPT Scheme of AFTA. | First FDI Boom (US\$9.7 billion Dollar). | | 1996 |
| | ASIA Currency Crisis: Inflow of FDI decreased sharply. Competitiveness of major export goods fell down. | Commencement of HHTP Master Plan Study by JICA. | 1997 |
| Accession to APEC. | Slowdown in GDP growth rate. FDI declined till 4.9 billion USD and marked around two third to previous year. | Submission of HHTP M/P. Approval of HHTP M/P. The Study of Xuangmai-Hoa Lac New Urban area development started. | 1998 |
| | Adoption of conditional float system. FDI continuously declined to a half of that in previous year (2.2 billion USD). CPI fell down sharply. | | 1999 |
| Conclusion of the territory issue with China. | GDP growth rate dip from 5% per annum (back-to-back decline of 4 years). FDI increased to 2.7 billion USD or 13% compared to the previous year. | HHTP-MB was established under MOST. | 2000 |
| XI-th Party Committee: Targeting to become the Industry country till 2020. Coming into force of Bilateral Trade Agreement with USA. | GDP growth rate marked 6.8% per annum. FDI increased continuously to 3.2 billion USD and shifted to the North. | Establishment of VITEC. Establishment of VN-JP e-Learning center. | 2001 |
| | Marking high growth rate of GDP in third straight year. FDI marked 3.0 billion USD (No. of projects increase 50% but amount decline). | HHTP provides the land of 34.5 ha to the HHTP Infrastructure Dev. Company. | 2002 |
| 30 Years anniversary for establishment of VN-JP diplomatic relations. | | Vinaconex appointed general contractor. New decision of regulation for the organization & operation of high-tech park was submitted. | 2003 |
| Coming into force of VN-JP Investment Treaty. | | | 2004 |
| Prime Minister Phan Van Khai visited to USA (First PM visit to USA after American War). | GDP growth rate marked 8.4% per annum. | The adjustment to General Planning on construction of HHTP was approved. 1st JP investor was approved by HHTP. | 2005 |
| Prime Minister Nguyen Tan Dung Official Visit to Japan and Prime Minister Shinzo Abe Official Visit to Vietnam for attending APEC meeting. | General Board of WTO approved Vietnam to access to WTO. FDI exceeded 10 billion USD (Second FDI Boom). | GOV requested study for update of HHTP M/P to Japan. Keidanren Mission visited HHTP. | 2006 |

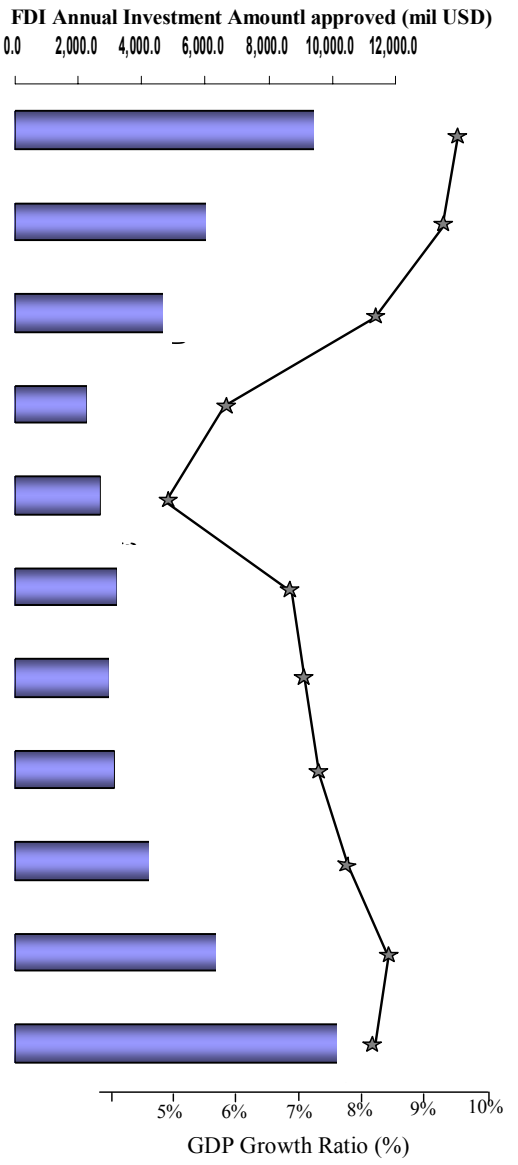


Figure 4.2-1 Economic and HHTP Development Trend