

## VIII. R&D PROMOTION PROGRAM

### 8.1 Issues and Target Field of R&D

#### (1) Issues

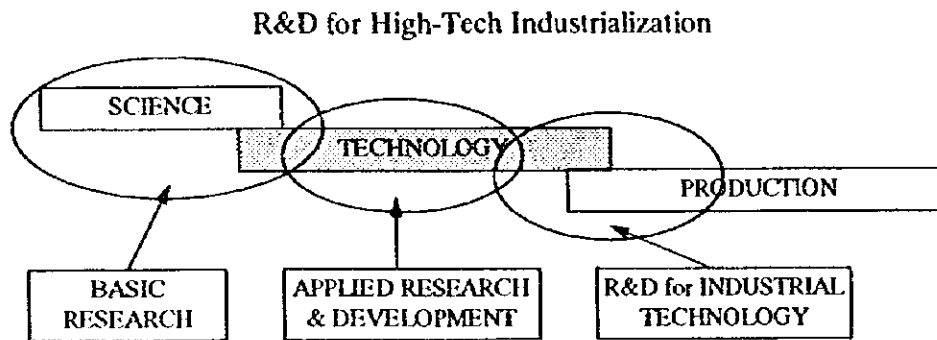
There are several issues to be solved for promotion of R&D in the high-tech fields.

- Although there are many state research institutes in Vietnam, their functions are sometime overlapped. Therefore, it is almost inevitable that state budget and human resource, which are limited in Vietnam, are scattered. This is not considered an efficient way.
- Vietnamese enterprises have a weak capability for R&D. Due to this weakness, Vietnamese enterprises cannot develop new products, nor improve product quality sufficiently.
- High-tech R&D institutes which belong to universities are focusing on education. They are rather small-scale and their R&D capability is inferior to capacity of institutes under NCST or Ministries.
- Expenditure for R&D is limited in Vietnam ( Refer to Appendix V.1.1). It is very difficult to mobilize other sources of investment than the state budget to promote S&T.
- Most of state research institutes in the high-tech field need to increase the number of their staff and further education and training of their staff.
- In many research institutes, equipment for R&D works is not sufficient in terms of modernity and the number of it.
- Many research institutes are not satisfied with their R&D environment including building facilities, floor space and telecommunication facilities. In some cases, staff of research institutes does not have a good access of both foreign and domestic information.
- Activities of R&D institutes are not only R&D, but also education for master and doctor degree and contract jobs such as consignment R&D, development of software, consultancy, education of enterprise's employees, manufacturing and selling of instruments and equipment, and engineering services. Income from such contract jobs covers a large portion of total expenditure of each institute, although the ratio of income from contract jobs to that from the state budget largely depends on the character of the

institutes. Accordingly, the staff do not devote all their energy and effort for their research and study.

(2) Target Field of R&D

The R&D activities for S&T and production are necessary for the high-tech industrialization. The basic research is made for science and fundamental parts of technology to set up hypotheses and theories, or to acquire new knowledge of facts. The applied R&D includes research activities for looking for possibilities that knowledge is fit for practical use, searching for new applications of existing methods, and development of new products. The third stage, that is R&D for industrial technology. The achievements of the applied R&D become applicable for production through this stage. This stage includes the design of production facilities and process, and manufacturing prototype of them.



The target fields of high-tech R&D activities are aforementioned 5 categories: IT, Mechatronics, Biotechnology, New Material, and New Energy. The former three fields should be focused. The activities of such fields should begin Industrial technology followed by the applied R&D.

8.2 Frame of R&D Strategy

Desirable R&D strategies for high-tech promotion are proposed as follows.

(1) Strategy R-1: "To reinforce national basis of R&D"

The basis of R&D in Vietnam presents some problems such as overlapped functions among state R&D institutes, weak R&D capability of industry and universities, less researchers and R&D budget than advanced countries, and R&D environment that needs improvement. Reinforcement of the R&D basis is necessary, as a strategy, to solve these problems for promotion of R&D of the high-tech field. The following programs are

proposed for this strategy: rearrangement of state R&D institutes with a review of the present national organization of R&D from view points of high-tech promotion, promotion of international cooperative research works, increase in R&D budget, increase in number of researchers, education of researchers, and construction of high-tech parks suitable for high-tech R&D. As a priority project for this strategy, establishment of National High-Tech R&D Center is proposed.

(2) Strategy R-2: "To accelerate technology transfer from overseas countries"

Technology transfer from overseas countries is appropriate, in the short-term period, to catch up advanced countries in terms of high-tech industries, being capable of saving time and capital for R&D. However, it is not necessarily active. It is proposed as the second strategy for high-tech R&D promotion that technology transfer from overseas countries be accelerated. The proposed definite program are: relaxation of restriction on technology transfer, permission of the royalty calculation method on the basis of sales value, establishment of clear procedure for obtaining approvals of technology transfer, and provision of incentives for technology transfer.

(3) Strategy R-3: "To bring up the R&D capability of industry"

Vietnamese enterprises have weak R&D capability, from the state own enterprises up to the private enterprises. Due to this weakness, Vietnamese enterprises cannot develop new products nor improve product quality sufficiently. It is essential for high-tech industry promotion that enterprises' capability for R&D be brought up. The following are proposed as concrete programs for this strategy: strengthening the relation between R&D institutes and enterprises, and provision of tax incentives for enterprises' R&D activity.

(4) Strategy R-4: "To promote the protection of the intellectual property right"

The protection of the intellectual property right is effective measure for the R&D promotion, since it is good incentive for researchers to carry out R&D activities and for facilitation technology transfer from overseas countries. Legal system has already been prepared to some extent for the protection of the intellectual property right, however, its application should be improved. The proposed definite programs are: provision of information service, reinforcement of execution power of the National Office of Industrial Property (NOIP) and the Copy Right Office, strict execution of regulation against illegal copies and goods, and amendment of the Civil Code stipulating protection of copy right to avoid unnecessary confusion and misunderstanding.

(5) Strategy R-5: "To accelerate the spread of foreign /domestic technologies over Vietnam"

It is important for industrialization to spread technology that was transferred from foreign countries or obtained by R&D in Vietnam. It should be accelerated. As a practical program for this strategy, establishment of a techno-market that is an organization to mediate technology is proposed.

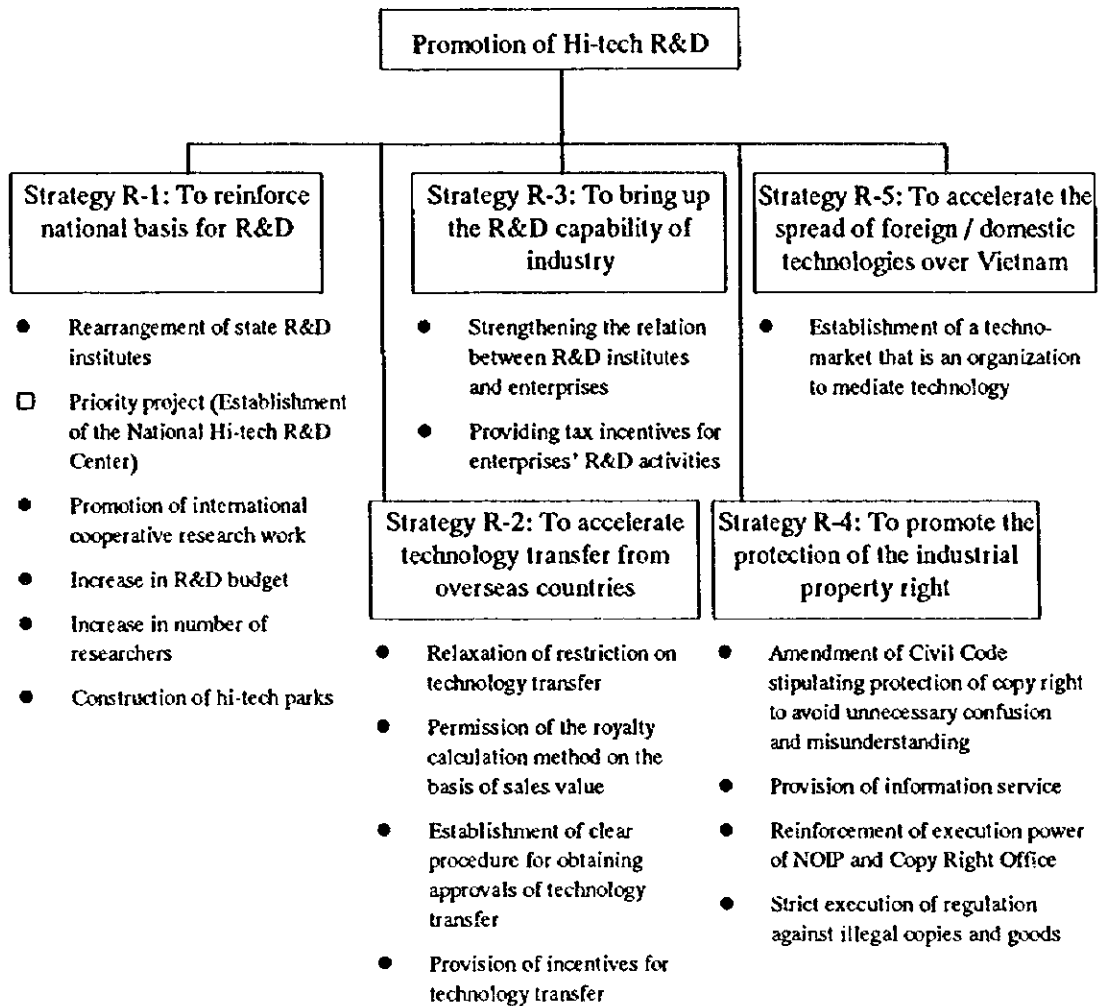
The figure on the next page illustrates the frame that consists of five strategies, programs and priority projects to promote R&D for high-tech. The strategies are divided into the short/medium-term strategies and long-term strategies in terms of implementation period.

Short/medium- term strategies

Vietnamese enterprises do not have much accumulation of technology and capital, therefore, they cannot afford to assign human resources and to invest for technology development. However, they are obliged to catch up ASEAN countries urgently. Under such circumstances, the path that Vietnam should pursue in the short and medium term periods is proposed below.

- 1) In the short-term frame (up to the year 2005), Vietnam should acquire technology from foreign countries, followed by promoting R&D for industrial technology based on the acquired technology.
- 2) In the medium-term frame (from the year 2006 to 2010), Vietnam should promote the applied R&D aiming at acquisition of own technology, continuing the technology transfer from foreign countries.

## Frame of R&D Promotion Strategies



In the short and medium term frame, the following four strategies should be applied for promotion of R&D.

- 1) Strategy R-1: "To reinforce national basis of R&D"
- 2) Strategy R-2: "To accelerate technology transfer from overseas countries"
- 3) Strategy R-3: "To bring up the R&D capability of industry"
- 4) Strategy R-4: "To promote the protection of the intellectual property right"

### Long-term strategy

During the period from the year 2011 to 2020, Vietnam should enhance the applied R&D aiming at becoming a center for R&D in ASEAN countries, based on the achievements of the short and medium term frame. For this purpose, it is recommended to

continue the strategy R-1: "to reinforce national basis of R&D", and the strategy R-3: "to bring up the R&D capability of industry".

Further, it is recommended to begin the strategy R-5 "to accelerate the spread of foreign /domestic technologies over Vietnam".

### 8.3 Concrete Program

#### (1) Rearrangement of State R&D Institutes

Figure 8-2-1 illustrates the present organization of R&D for high-tech promotion in Vietnam. The organization is divided into mainly three categories: state R&D institutes belong to National Center for Science and Technology (NCST), those under Ministries, and those belong to universities. Besides above categories, there are research units which belong to general corporations and enterprises.

NCST, to which state R&D institutes of the first category belong, is a state R&D organization for natural science and priority technology like high-tech, under direct control of Government. There are 17 institutes in total under NCST. Among them, institutes for natural science are conducting basic research, applied R&D, and post graduate education for scientists, while those for high-tech are conducting mainly applied R&D and post graduate education for scientists or engineers.

State R&D institutes of the second category which belong to Ministries could be classified into those of national level, and those of specific subsector or specific enterprise level. Their main function is R&D for industrial technology, some of them has functions like applied R&D, introduction and spread of foreign technology into Vietnam, etc.

State R&D institutes which belong to universities are focusing their activities on education and training, besides them their function includes applied R&D, basic research, and R&D for industrial technology.

The present R&D organization has the following problems that should be solved.

- 1) Some state R&D institutes have overlapped functions with each other. It is almost inevitable that state budget and human resource, which are limited in Vietnam, are scattered. This is not considered an efficient way.
- 2) Vietnamese enterprises have a weak capability for R&D. Due to this weakness, Vietnamese enterprises cannot develop new products, nor improve product quality sufficiently.

- 3) High-tech R&D institutes which belong to universities are focusing on education for researchers. They are rather small-scale and their R&D capability are inferior to that for institutes under NCST or Ministries.

The following measures are necessary to solve the above problems:

- 1) to establish a base of high-tech R&D to which state budget and resource should be concentrated,
- 2) to form institutional system to bring up R&D capability of enterprises, and
- 3) to make institutional system to raise universities' R&D capability, especially of basic research capacity

Five options, option-1 through 5, which have the following characters, are proposed as a restructuring plan of Vietnamese R&D organizational system.

- 1) Option-1: High-Tech R&D activities will be conducted by R&D institutes under NCST and Ministries in the same way as the present time without establishment of a specific base of high-tech R&D. For bringing up R&D capability of enterprises, state R&D institutes which have strong connections with the industrial sector will be moved to the industrial sector. A measure to raise universities' R&D capability is to strengthen the connection between NCST's R&D institutes related to natural science and R&D institutes under universities.
- 2) Option-2: High-tech R&D institutes under Ministries will be merged into NCST to make a base of high-tech R&D. For bringing up R&D capability of enterprises and universities, the same measures as the option-1 will be adopted.
- 3) Option-3: The National High-Tech R&D Center will be established as a base of high-tech R&D. For bringing up R&D capability of enterprises and universities, the same measures as the option-1 will be adopted.
- 4) Option-4: The National High-Tech R&D Center will be established in the same way as the option-3. It is a measure for raising universities' R&D capability that NCST's R&D institutes related to natural science and non-high-tech will be integrated into universities' R&D institutes. The same measure as the option-1 will be adopted to bring up R&D capability of enterprises.
- 5) Option-5: The same measures will be adopted for establishment of the National High-Tech R&D Center as well as integration of NCST's R&D institutes related to natural science and non-high-tech field into universities'

R&D institutes. For raising R&D capability of enterprises, not only R&D institutes strongly connected with the industrial sector but also all R&D institutes of non-high-tech field will move to the industrial sector. Finally only policy related research institutes will be left under Ministries.

Further discussion on selection of the best option may be needed among the concerned Ministries of Vietnam, since there are many different opinions. The Study Team recommends the option-4 or 5 described below, which are the same in terms of high-tech R&D promotion. Those two options are better than other three options from view points of "to establish a base of high-tech R&D to which state budget and resource should be concentrated" and "to make institutional system to raise universities' R&D capability, especially of basic research capacity". Difference between the option-4 and 5 is that non-high-tech field and policy related research institutes are left under Ministries in the case of the option-4, while only policy related research institutes are left under Ministries in the case of the option-5.

Contents of organizational rearrangement of the option-4 and 5 are shown below.

- 1) Option-4: The National High-Tech R&D Center should be found, being composed of high-tech institutes to be established by integration of institutes currently belonging to NCST and Ministries. The center should be located in HHTP. It is anticipated to be a base of high-tech R&D, by making an intensive investment in its facilities and equipment. Institutes under NCST in natural science and non-high-tech fields should be integrated into institutes of universities, forming a base of basic research. Consequently, NCST will be dissolved and absorbed into the new National High-Tech R&D Center and institutes of universities. In addition, state R&D institutes which have strong connections with specific subsectors and enterprises should be moved to the concerned general corporations and enterprises, respectively, from Ministries' jurisdiction in the course of on-going restructuring scheme, for the purpose of strengthening R&D capability of industry (refer to Figure 8-2-2).
- 2) Option-5: The National High-Tech R&D Center should be found, being composed of high-tech institutes to be established by integration of institutes currently belonging to NCST and Ministries. The center should be located in HHTP. It is anticipated to be a base of high-tech R&D, by making an intensive investment in its facilities and equipment. Institutes of NCST in natural science and non-high-tech fields should be integrated into institutes of universities, forming a base of basic research. Consequently, NCST will be dissolved and absorbed into the new National High-Tech R&D Center and institutes of



universities. In addition, state R&D institutes which have strong connections with specific subsectors and enterprises should be moved to the concerned general corporations and enterprises, respectively, from Ministries' jurisdiction in the course of on-going restructuring scheme. All of state R&D institutes currently belong to Ministries should be moved to the National High-Tech R&D Center, general corporation or enterprises, with the exception that policy research institutes will be kept under Ministries (refer to Figure 8-2-3).

**(2) Promotion of International Cooperative Research Works**

International cooperation in the R&D field has been done mainly in the form of sending Vietnamese researchers to foreign universities and research organizations, and inviting researchers from advanced countries. It is important to promote international cooperation in the form of the international cooperative research works, in addition to the above forms, to bring up human resource for R&D, enhance R&D capability and apply its achievement to Vietnam effectively.

A committee for the international cooperative research, which will investigate potential foreign partners' system and find out research subjects easy to be accepted by the partners, should be formed at first. The committee should apply suitable subjects to the foreign organizations after consideration of necessity of the subject as well as its acceptability.

**(3) Increase in R&D Budget**

It is proposed that R&D budget be increased gradually to promote high-tech R&D in Vietnam. Targets of the budget should be high-ranking countries among ASEAN in the short-term, Newly Industrialization Economies (NIES) in the medium-term, and advanced countries in the long-term. To put it concretely, R&D expenses against GDP, which was estimated at about 0.4% in 1995, should be increased to the following targets:

- Short term (up to 2005) : 1.5% (equivalent to Malaysia's target in 2000)
- Medium term (from 2006 to 2010): 2.0% (equivalent to 1994 level in South Korea)
- Long term (from 2011 to 2020) : 3.0% (equivalent to current level in advanced countries)

**(4) Increase in Number of Researchers**

It is proposed that number of researchers be increased, for promotion of R&D, from the current level of 5 to 10 in 10,000 total labors to the following targets:

- Short term (up to 2005) : 20 (equivalent to 1994 level in South Korea)
- Medium term (from 2006 to 2010): 30 (equivalent to half of 1993 level in Germany)
- Long term (from 2011 to 2020) : 50 (equivalent to current level in advanced countries)

(5) Construction of High-Tech Parks

Inviting foreign high-tech enterprises and R&D should be enhanced to promote high-tech industry in Vietnam. However, there is no candidate site where required incentives have been provided for locating high-tech enterprises and good atmosphere has been provided for establishment of research institutes.

Hanoi high-tech park should be constructed as well as Ho Chi Minh high-tech park to solve the problems and supply space of cooperation for high-tech promotion among the industrial sector, universities, and state R&D institutes.

(6) Reform of Legal Framework for Technology Transfer

Current legal framework should be changed as follows to create an atmosphere that transferor can transfer their technology easily.

1) Minimization of governmental interference in technology transfer

Technology transfer is basically a business conduct of enterprises to seek for profit, therefore interference by the Government should be kept in a minimum level. However, the current regulations are too much interfering technology transfer.

An example of Article 6 of the Ordinance on the Transfer of Foreign Technology (Ordinance), which specify items such as objective of technology transfer, royalty calculation and payment method, technology transfer schedule and training related to the transferred technology which should be included in a technology transfer contract.

Another example is Article 7 of the Ordinance, which prohibit to include the following restrictive clauses in a technology transfer contract.

- (a) Obligations on technology transferee to purchase raw materials, equipment, intermediate goods and parts or to use permanently manpower from sources stipulated by the transferor.

- (b) Restrictions concerning quality of production prices and terms for sale of products of the transferee, including the appointment of sales agents or commercial representatives.
- (c) Restrictions on the markets to which transferees may export their products, other than those markets in which the transferor already manufactures or sells similar products, or has granted a franchise license to a third party.
- (d) Restriction on R&D of transferred technology by transferees or on the acquisition of similar technology from other sources.

If all of these business arrangement are prohibited by regulations, enterprises having technologies would not be motivated to transfer their technologies to Vietnam. Therefore, relaxation of the above regulations should be investigated to follow the international practice.

## 2) Method for calculation of royalty

For installment payment of royalty, the Vietnamese Government is specifying that the royalty should be calculated either on after-tax profit or on net value. However, it is common practice in the world to calculate royalty amount simply on sales value. Therefore, sales value method that is the world standard for royalty calculation should be allowed in Vietnam, if Vietnam really wishes to promote technical transfer from overseas.

## 3) Procedures for obtaining approval for technology transfer

A government approval is needed to make a technology transfer agreement legally effective in Vietnam. However, detailed procedures for this process is not clearly specified in the regulations. Procedures for obtaining approval for a technology transfer should be clearly established to secure transparency of the procedures for technology transfer.

Appraisal period of 3 months, which is prescribed by the Circular No. 28 / TT-QLKH dated 22 January 1994 of MOSTE, should be shortened, in consideration of rapid progress of high-tech, to promote technology transfer to Vietnam.

## 4) Incentive measures

Incentive measures for technology transfer are currently not provided specially for technology transfer, though 7 industrial sectors are specified, by Decree No. 29 (Article 15) dated May 12, 1995, as priority sectors and incentives by exemption and reduction of Profit Tax and Turnover Tax are given to those priority sectors.

However, it should be noted that they may promote technology transfer through investment, but they are not direct incentives for transfer of technology. Furthermore, tax incentive are effective only for limited period as these taxes are going to be replaced by Corporate Income Tax and VAT.

MOF is in the process of preparing a new Decree, in place of Decree No. 29, for provision of incentives to priority sectors, and various information and data are now being collected.

It should be recognized that reduction of income tax at source on royalty is a direct incentive measure for promotion of technology transfer from foreign countries. Tax incentive measures including reduction or exemption of income tax at source on royalty to be paid to overseas, should be provided for promotion of technology transfer from overseas.

#### (7) Strengthening the Relation between R&D Institutes and Enterprises

The current R&D department of enterprises is too weak for development of products and manufacturing processes, which is necessary for producing competitive products. Accordingly it is essential to strengthen R&D capability of Vietnamese enterprises.

State is currently changing the institutional framework of state R&D institutes. State R&D institutes under Ministries which have strong connections with specific enterprise will be merged by the concerned enterprise, and those which have strong connections with specific industrial subsector will be merged by general corporations of the concerned subsector.

The Study Team recommends to execute this on-going restructuring to reinforce R&D capability. It should be noted that state R&D institutes should still have a way to provide their service to non-state enterprises, even after this restructuring, to avoid disturbance of technological innovation by this restructuring.

#### (8) Tax incentives for Enterprises' R&D Activity

The following three tax incentives are proposed for R&D expenses so that enterprises can enlarge their investment to R&D to modernize themselves by high-tech and to enhance product quality:

- 1) to deduct a part of the incremental high-tech R&D expenses from the amount of corporate tax,
- 2) to deduct a part of the acquisition cost of high-tech R&D property from the amount of corporate tax, and

3) to exempt from the custom duty on imported property for high-tech R&D

The first incentive of the above is institution that a certain percentage, e.g. 20%, of an increment in R&D expenses from the past highest amount can be deducted from the amount of corporate tax, provided that an amount of deduction should not exceed a certain percentage, e.g. 10%, on the corporate tax.

The second incentive of the above will provide deduction of a certain percentage, e.g. 10%, of acquisition cost for the high-tech R&D property from the amount of corporate tax in addition to the deduction by the first incentive. The upper limit of the corporate tax deduction should be set at a certain percentage of the amount of corporate tax before deductions, e.g. 15% for a total of the first and second incentives.

The third incentive is an exemption of the custom duty to be imposed on imported properties for the high-tech R&D.

(9) Promotion of the Intellectual Property Right Protection

The following programs are proposed for protection of the intellectual property right:

1) Amendment of the Civil Code

The Civil Code stipulating protection of copy right is very much complicated and not covering all aspects of the protection of copy right. The stipulation of this part of the Civil Code should be reviewed and amended so that the content of the protection of copy right in Vietnam may be clearly understood and unnecessary confusion and misunderstanding may be avoided.

2) Information service

A brochure briefing the outline of the protection of intellectual property in Vietnam should be prepared by the Government initiative. The brochure should cover all intellectual property including industrial property and copy right.

A public information system, to announce decision made by NOIP and the Copy Right Office, should be established. At this moment, decision made by NOIP is informed only at application and sometime such applications are not accepted by NOIP. An automatic disclosure system should be established in place of the current system. Same type of disclosure system should be established also to judicial decisions by courts concerning intellectual property. In future, it should be investigated to change the intellectual property data to the form of electronic data.

### 3) Reinforcement of execution power

Number of staff of NOIP was 104 according to the annual report of NOIP for 1996, and that of the Copy Right Office is currently less than 20. NOIP and the Copy Right Office are suffering chronic shortage of staff. The facility of these offices should be reinforced by increase of number of staff and provision of education and training to the staff. Training and education center should be established in the organization.

Unification of administration of intellectual property including industrial property and copy right, namely a merger of NOIP and the Copy Right Office, should be considered to strengthen the execution of the regulations for protection of the intellectual property. It should also be considered that execution of copy right for computer software be transferred from the current Copy Right Office to NOIP as another option for strengthening the execution power.

### 4) Strict execution of regulation

It is observed that illegal copies and goods are flooding in Vietnam's market. The investigation and prosecution of producers of illegal copies and goods is very limited at this moment. The regulations for protection of intellectual property should be strictly executed by the responsible Governmental offices with the reinforcement of the administrative bodies for the protection of intellectual property.

Cooperation between Government offices and agencies, such as NOIP, the Copy Right Office, MOSTE, Ministry of Justice, Police, General Department of Custom and Market Control Department of Ministry of Trade, should be also further reinforced.

## (10) Establishment of Organization for Technology Mediation

It is proposed that technology exchange markets that is mediating organization for exchanging high-tech and related information should be established, for the purpose of smooth technology exchange and technology transfer. The organization would be effective, under the circumstances that transferred technologies are localized and practical "home-made" technologies are developed in Vietnam.

A membership system should be applied for technology exchange market organization, being composed of regular members and qualified members. Regular members will exchange technology, while qualified members will work as mediator or technical consultants. Exchanged information will include information on buying and

selling of industrial properties, partners for joint research works, product distribution channel, buying and selling of computer software, human resources, subcontracting, and industrial location.

#### (11) Industrial Standardization

Industrial standardization is an important program for promoting high-tech industry, although it does not have direct relation to promotion of high-tech R&D.

Quality management is backward and it is limited to only the stage of quality testing in Vietnam. Therefore, Vietnamese producers have a high percent defective, which leads to low competitiveness of their products. Modern concept of quality management should be diffused through the education of management followed by the spread of quality management to leading enterprises. Vietnam should prepare equipment for quality testing, metrology, and calibration in public institutes and laboratories, and also should support leading enterprises to prepare such equipment.

Test system for certification and accreditation is backward in Vietnam, therefore, it should be prepared.

Accuracy of national standard cannot be kept at the moment due to lack of equipment precision and unsatisfactory facilities. Requirement of calibration for oil industry, electric / electronic industries cannot be satisfied in terms of accuracy and capacity. It is necessary to prepare balances for mass calibration, general electric standard, and high capacity flow standard for petroleum for the time being. It is difficult to bring up engineers for metrology and calibration at the moment. Therefore, it should be considered to establish an organization for training these engineers.

#### 8.4 Priority Projects for the Research and Development

Aiming at the acceleration of the high-tech development in the country, organization for the high-tech R&D should be reinforced by establishing "National High-Tech R&D Center". The existing state R&D institutes in the high-tech related fields, which are currently either under NCST or the Ministries, should be integrated to form the Center.

It is also recommended that techno-partnership centers be set up to:

- (1) Provide the basic services of measurement, testing, certification of industrial standards and others,

- (2) Provide interfaces among the industries, universities and state R&D institutes as well as foreign investors, for the development of high-technologies and high-tech products as well as for the high-tech human resources, and
- (3) Collect, accumulate and disseminate the information needed for the high-tech development and high-tech industries.

Proposed National High-Tech R&D Center as well as the first techno-partnership center should be established in HHTP. Details of National High-Tech R&D Center is given in the following page. Details of the first techno-partnership center to be established in HHTP is given in Volume II.

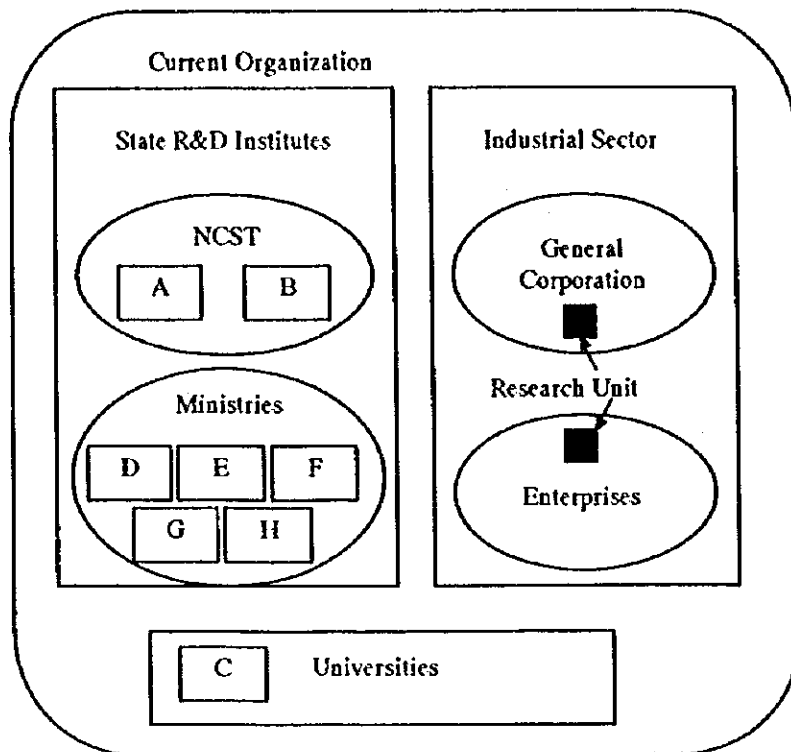
It is necessary to found a committee on investigating the establishment of the National High-Tech R&D Center in the first place to promote the project with a completion target of the year 2005. The committee should start investigation on significance of the establishment, organization, functions, scale, original R&D institutes to be integrated, and legal framework.

The committee should be made up of members who represent Ministries and Governmental organizations which currently control the state R&D institutes of high-tech fields such as electronics and information technology, machine and mechatronics, biotechnology, new materials and environmental technology and new energy, i.e., Ministry of Science, Technology and Environment (MOSTE), Ministry of Industry, Ministry of Agriculture, Ministry of Energy, Ministry of Education and Training, Ministry of Health, Department General of Posts and Telecommunications and NCST. Besides those members, a representative of Ministry of Planning and Investment should participate in the committee. It is suggested as an idea that Vice Prime Minister in charge of science, technology and education be assigned to a chairman of the committee and MOSTE be assigned for secretariat.

The committee should be reorganized to a committee on preparation of the National High-Tech R&D Center to proceed the project, subject to decision that Vietnam would establish the center.



<b>Project Name:</b> Establishment of the National High-Tech R&D Center (tentative name)
<b>Target:</b> To promote high-tech R&D by the effective use of Vietnamese resources of human and fund
<b>Duration:</b> The center should be established by the year 2005.
<b>Project Outcome:</b> Vietnamese high-tech R&D institutes, which are mainly under NCST and Ministries, have sometime overlapped functions mutually. It is necessary to unify state R&D institutes for high-tech which will solve the problems and promote R&D by enabling to concentrate human and fund resources, make effective modernization of R&D, diffuse the R&D achievements, have information in common, make close interface and interaction mutually. This project is to establish the National High-Tech R&D Center (tentative name) as unified R&D organization for high-tech, which will be the base of high-tech R&D of Vietnam.
<p><b>Activities:</b> Major activities of the National High-Tech R&amp;D Center are as follows:</p> <ol style="list-style-type: none"> <li>1. <b>Function:</b> R&amp;D of high-tech field, including applied research, R&amp;D for industrial technology, localization of transferred technologies; technology transfer; diffusion of technology; education of researchers; international cooperative research; cooperative research with domestic and foreign enterprises; entrusted research; cooperative research with universities; sending Vietnamese researchers to overseas for research and training; inviting foreign researchers to Vietnam; sending and receiving information related to high-tech. The center should have authority on the subjects of research, evaluation of the results, budget and personnel management.</li> <li>2. <b>Fields of R&amp;D:</b> Information technology / electronics, machine / mechatronics, new material, biotechnology, environmental technology / new energy</li> <li>3. <b>Organization:</b> This center should be the same level as Ministries under direct control of the Government. The organizational structure consists of research institutes of various high-tech fields, and some departments such as administration, personnel, international cooperation and planning.</li> <li>4. <b>Employee:</b> Number of employee who will engage in R&amp;D works directly and indirectly is assumed to be approximately from 3,000 to 4,000.</li> <li>5. <b>Location:</b> The center should be located in the R&amp;D zone of HHTP.</li> </ol>
<b>Implementing Agency:</b> MOSTE and NCST
<b>Estimated Cost:</b> Investment cost is estimated at the order of USD 500 million to USD 700 million, for the investment for buildings with 210,000 to 280,000 m <sup>2</sup> of total floor area assuming 70 m <sup>2</sup> of floor area per researcher and for the investment of equipment assumed double to that of building.
<b>Remarks on Implementing the Project:</b> This project is proposed, assuming the HHTP project should be realized.

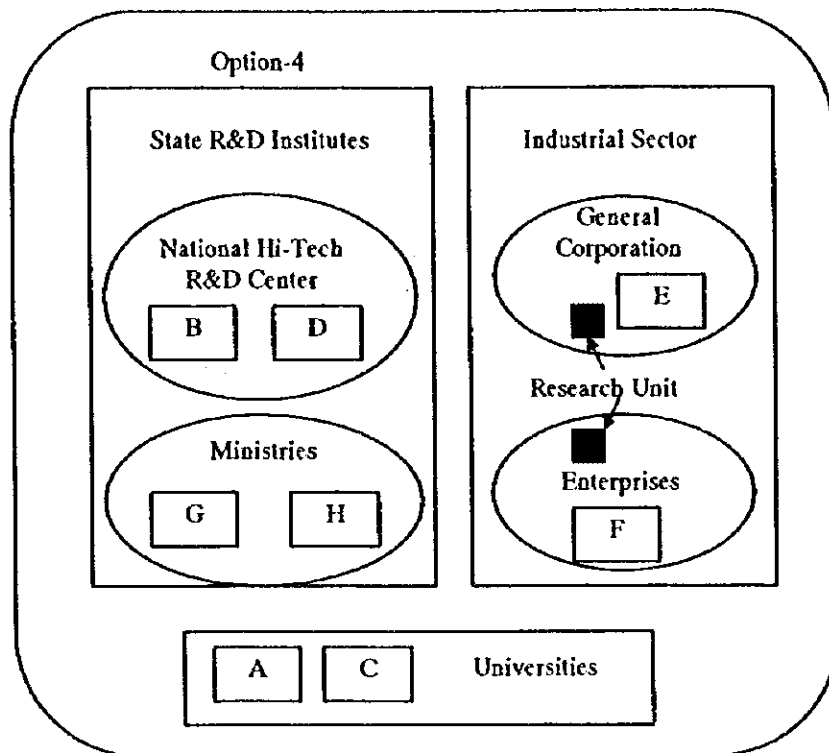


Characteristics and Function of R&D institutes

	Managing Body	Level	Field	Basic Research	Applied Research & Development	R&D for Industrial Technology	Tech. Transfer	Training/Education
A	NCST	National	Natural Science	○	○			○
B	NCST	National	Hi-Tech		⊙			○
C	University	National	Hi-Tech	○	⊙	○		⊙
D	Ministries	National	Hi-Tech		○	⊙	(⊙)	(○)
E	Ministries	Subsector	Non Hi-Tech		○	⊙		(○)
F	Ministries	Enterprises	Non Hi-Tech		○	⊙		(○)
G	Ministries	National	Non Hi-Tech		○	⊙		
H	Ministries	National	Policy Research					

Note: ⊙ Main activities for R&D institutes      National: R&D for the whole Vietnam  
 ○ Activities of R&D institutes              Subsector: R&D for the specific subsectors  
 (○) Activities of some R&D institutes      Enterprises: R&D for the specific enterprises

Figure 8-2-1 R&D Organization for High-Tech Promotion (Current Organization)

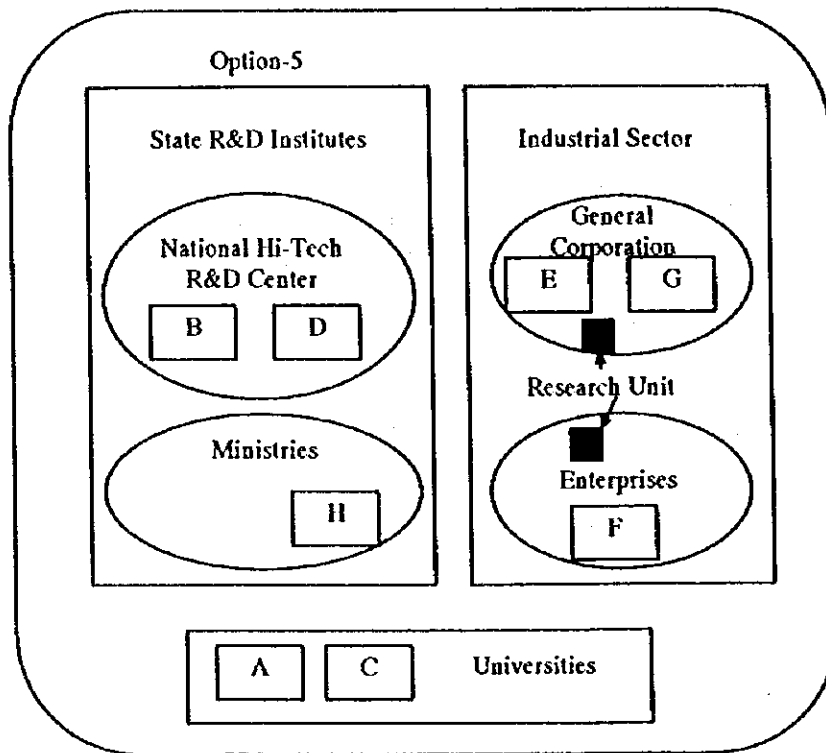


Characteristics and Function of R&D institutes

	Original Managing Body	New Managing Body	Level	Field	Basic Research	Applied Research & Development	R&D for Industrial Technology	Tech. Transfer	Training / Education
B	NCST	National Hi-Tech R&D Center	National	Hi-Tech		⊙			○
D	Ministries	National Hi-Tech R&D Center	National	Hi-Tech		○	⊙	(⊙)	(○)
A	NCST	University	National	Natural Science	○	○			○
C	University	University	National	Hi-Tech	○	⊙	○		⊙
G	Ministries	Ministries	National	Non Hi-Tech		○	⊙		
H	Ministries	Ministries	National	Policy-Research					
E	Ministries	General Corporation	Subsector	Non Hi-Tech					(○)
F	Ministries	Enterprises	Enterprises	Non Hi-Tech		○	⊙		(○)

Note: ⊙ Main activities for R&D institutes      National: R&D for the whole Vietnam  
 ○ Activities of R&D institutes      Subsector: R&D for the specific subsectors  
 (○) Activities of some R&D institutes      Enterprises: R&D for the specific enterprises

Figure 8-2-2 R&D Organization for High-Tech Promotion (Restructuring Option-4)



Characteristics and Function of R&D institutes

	Original Managing Body	New Managing Body	Level	Field	Basic Research	Applied Research & Development	R&D for Industrial Technology	Tech. Transfer	Training / Education
B	NCST	National Hi-Tech R&D Center	National	Hi-Tech		⊙			○
D	Ministries	National Hi-Tech R&D Center	National	Hi-Tech		○	⊙	(⊙)	(○)
A	NCST	University	National	Natural Science	○	○			○
C	University	University	National	Hi-Tech	○	⊙	○		⊙
H	Ministries	Ministries	National	Policy Research					
G	Ministries	General Corporation	National	Non Hi-Tech		○	⊙		
E	Ministries	General Corporation	Subsector	Non Hi-Tech		○	⊙		(○)
F	Ministries	Enterprises	Enterprises	Non Hi-Tech		○	⊙		(○)

Note: ⊙ Main activities for R&D institutes      National: R&D for the whole Vietnam  
 ○ Activities of R&D institutes      Subsector: R&D for the specific subsectors  
 (○) Activities of some R&D institutes      Enterprises: R&D for the specific enterprises

Figure 8-2-3 R&D Organization for High-Tech Promotion (Restructuring Option-5)

## **IX. PROGRAM FOR REARING AND INCUBATION OF HIGH-TECH ENTERPRISES**

### **9.1 Framework of Rearing and Incubation of High-Tech Enterprises**

There are two measures for the rearing and incubation of high-tech enterprises in Vietnam, namely measures for the State Owned Enterprises (SOEs) and those for the private companies. With regard to SOEs, the Government has been aggressively tackling their modernization through equitization, for example. The modernization of SOEs shall be an urgent issue since SOEs should be the main players in joint ventures with foreign high-tech companies. Many private companies have been set up after the adoption of 'Doi Moi' (renewal) policy, however they remain in small scale and weak. The major reasons for this situation are i) absence of long term financing means, and ii) shortage of both operation and investment fund. Many high-tech industries are capital intensive and have to invest perpetually for R&D. It is almost impossible for existing private companies to enter the high-tech competition since they face financial difficulties. On the other hand the governmental financial support should be limited, therefore the measures to support and foster high-tech companies are recommended to be selective. The creation of high-tech ventures in the manufacturing sector is said to be difficult in USA which is the most advanced country for incubation. In Japan also successful cases are rare. Tackling incubation is important to secure industrial development, however policy priority should be given to the fostering of supporting industries of the introduced foreign high-tech companies.

One of the selected industries is the information & technology (IT) industry. The software industry included in IT requires smaller initial investment than ordinary manufacturing industries. The incubation targeting the software industry should be effective in view of small investment and future market expansion.

The strategies to foster and support high-tech companies are proposed as follows:

#### **(1) F-1: Fostering the Venture Business and Venture Capital**

Under the current development situation in Vietnam, it is essential to discuss all details carefully and reach a consensus to set up the nurturing system for venture business and venture capital. But in the case of software industry, for example, the above system would work effectively since the needs and seeds for software industry already exist in Vietnam. Most of the existing software companies require institutional and financial support such as fund, market information, protection of copyright, and

management knowhow. The incubation targeting the software is recommended to be adapted.

The role of the Government in the creation of new business is rather small in general. Experiences in advanced countries suggest that direct support of venture business by the Government is rare since the measures for such support are required to cover every eventuality. The Government rather supports venture business indirectly, such as through the venture capital support applying ordinary measures such as tax reduction or exemption. The strategies, therefore, should be divided into two aspects: one is to assist venture business and the other to support the venture capital.

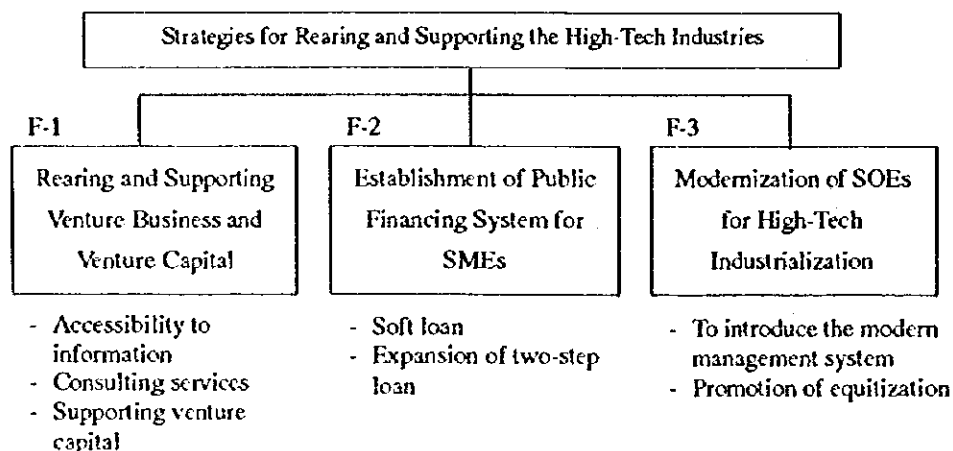
(2) F-2: Public Financing System for Strengthening Small and Medium Scaled Enterprises (SMEs)

Shortage of funds, especially long-term funds, is one of the most serious constraints for the development of the industrial sectors in Vietnam.

A policy-based finance scheme would significantly contribute to improving the financial difficulties of the industrial sector in Vietnam. In forming a policy-based finance scheme, the first priority would be to satisfy the "quantitative necessity" for fund. However, a consideration should be given to satisfy the "qualitative necessity", such as relatively low interest rate, and longer lending term.

(3) F-3: Modernization of SOEs

In Vietnam, SOEs are dominating industrial activities, particularly in the Northern region including Hanoi. In the foreseeable future, it is expected that SOEs will be the principal players in the era of high-tech industry, in particular in the manufacturing industry. As partners of joint ventures with foreign investors, SOEs should also play the key role. In order to rear high-tech industries, the modernization of SOEs should be promoted strongly.



## 9.2. Concrete Programs

### (1) Program of Supporting Venture Capital and Venture Business

Venture business in USA today is mainly observed in the computer and communication industries, and related industries. The incubation of high-tech manufacturers faces difficulties even in USA which is the most advanced and experienced country to create new business. It is much challenging to incubate venture business and to foster venture capital in a short term since Vietnam is facing fund shortage. However it is important to prepare the policy measures for fostering venture business and capital since the market will expand and the existing suppliers are insufficient to meet expanding demand. The proposed measures are as follows:

#### 1) Access to information

It is essential for business creation to have easy access to the market and technological information. Private companies are not discriminated against in their activities, but they often face difficulty of access to various information. Therefore, it is crucial to promote the distribution of market information and technological information. It is a fact that the resource of modern technologies depends on foreign companies. In the early stage of establishment it is almost impossible for Vietnamese private companies to contact foreign companies for getting technologies. An organization for matchmaking services is proposed to be established.

Since the software is information itself, the most crucial issue is to have access to various sources of information. It is essential for the software industries to ensure easy access to information not only in the domestic network but also in the global network.

#### 2) Consulting services

The consulting services necessary for the creation of business shall cover a wide range: Management, financing, accounting, business law, training, marketing, quality control, technology, patent, etc. These services should be provided by specialists in each respective field. The contents of each service are different according to the stages such as inauguration stage, cradle stage, and growth stage. In Vietnam there is a limited number of consulting establishments since the consulting services should be focused on the stage of installation of the enterprises.

The common services among various types of industries such as management, accounting, and business law should be provided by a public organization. For example, the institutions concerned hold seminars inviting specialists including foreigners as lecturers at the beginning.

The consulting service on technology is mainly focused on the upgrading of the technology possessed by the entrepreneurs. The technologies required in each sub-sector are much different from each other. The usage of suitable public institutions for the desired technologies is recommended. Direct instruction and holding of technical seminars by engineers of foreign investors are effective ways. The entrepreneurs will have a chance to know the level of technologies required by the foreign investor as a subcontractor.

### 3) Measures for fostering venture capital

#### (a) Tax credit for investment in a venture capital company

By this concessive tax treatment, an individual or a company investing in a venture capital company is entitled to a tax credit up to a certain portion (say, 10%) of the acquisition cost of those stocks against income tax or corporate income tax liability.

#### (b) Tax incentive on dividend income

This tax incentive allows certain portion or whole of dividend, distributed from a venture capital company to its investors, to be excluded from the investors' taxable income. Since stock dividend has the same nature as cash dividend, income from profit distribution in the form of stock dividend should be deferred or tax-exempted until these stocks are subsequently sold.

#### (c) Exemption of capital gain from corporate income tax

Profits derived by a venture capital company, from disposal of stocks in venture companies, are to be exempted from corporate income tax under this incentive. However, it would be advisable to set a time limit for disposal of shares in a venture company if they are listed in a stock exchange.

A further incentive to enhance attractiveness of investment in a venture capital company, is to allow a venture capital company to distribute the above-mentioned tax-exempt profit as tax-exempt dividends.



(d) Deduction of investment loss

A loss arising from the disposal of shares in a venture company or upon liquidation of a venture company should be deductible against other income of the venture capital company. Any unutilized loss is to be carried forward to subsequent years without any time limitation. At the same time, the same tax treatment should be given to investors in a venture capital company.

(2) Program of Policy-Based Financing Scheme for SME

1) Establishment of purposes and criteria

As the policy-based finance scheme involves allocation of fund, which is being the most scarce resource in Vietnam, under a government policy to particular end-users, the purposes of such a scheme should be clearly identified in line with the overall industrial policy of Vietnam.

Criteria or eligibility for loan, derived from the purposes, should be clarified and publicly announced so that fairness and transparency of the scheme may not be impaired.

2) Purposes of the loans

Purposes of a policy-based finance scheme may include:

- Assistance for the development of industrial sector including private companies and equitized ex-SOEs,
- Modernization of management of enterprises,
- Modernization of production process,
- Introduction of technology from overseas,
- Relocation of plants to industrial estates, and
- Prevention of pollution.

3) Lending conditions

(a) Lending term

The economic useful life of machinery and equipment is usually 5 to 7 years. Therefore, the lending term of long-term loans should be 5 to 7 years with a grace period of, say, one year.

(b) Interest rates

Interest rates of the loans should be much lower than the market interest rates to assist projects financially.

#### 4) Selection of an executing bank

This lending scheme may be conducted by a governmental financial institution specially established for this scheme, or by an appropriate bank with a countrywide branch network.

In the latter case, the Industrial and Development Bank of Vietnam ("Incombank") may be the most appropriate bank for the loans for the following reasons.

- Incombank was established to provide credits to industrial, trade and service sectors and is experienced in these areas.
- Incombank is already conducting two-step loans funded by Taiwan and Germany, and is already having experience in this loan system.

### (3) Program of Modernization of SOEs for the Rearing of High-Tech Industries

#### 1) Current situation and problems to be overcome

SOE are currently suffering from various problems to be overcome, including the following:

- (a) Low labor productivity,
- (b) Low operating rates of the production facilities,
- (c) Old and obsolete facilities and equipment,
- (d) Inadequate transparency of corporate information, including financial status, and
- (e) Inadequate information about needs of the market and marketing.

#### 2) Policy measures to be adopted

In order to reinforce the constitutional strength of SOEs, the following measures might be advisable:

- (a) Evaluation and clearance of non-performing assets and debts through the National Debt Resolution Committee,
- (b) Reinforcement of the "General Department for Management of State Capital and Assets of State Enterprises",
- (c) Separation of ownership and management of state enterprises, and limitation of the degree of state involvement,

- (d) Adoption of modern accounting standards, and provision of adequate and clear information on the companies, in particular financial status, and
- (e) Establishment of an employment promotion system, including early retirement allowance, establishment of a job offer/hunting information network and job placing offices.

To make SOEs more attractive to foreign investors, the following measures are recommendable:

- (a) Strengthening of autonomy of SOEs

To give more autonomy or initiative to the management body of SOEs independent from the Government.

- (b) Majority rule for the board of management

To strictly apply the basic rule of majority for the board decision rather than the decision with one consent.

- (c) Adopting modern accounting system and keeping transparency of corporate information

To keep the transparency of corporate information including the financial position of the enterprise, which are the prerequisite information for the investors.

- (d) Adaptation to market economy system

To adapt more strongly to the market economy system, by planning production and procurement based on the market demands and cost minimization and practicing division of works as well as carrying out market survey for finding out the market needs and marketing activities.

Equitization could be another option for generating enterprises which could adapt themselves to the market-oriented economy that also would attract foreign investors as joint venture partners. Possible measures might include the following:

- (a) Clear determination of the Government on the equitization policy, including enactment of the "Equitization Law", and

- (b) Establishment of an Equitization Fund and transfer of the revenue accrued from the equitization process into the fund, either partly or totally.

### 9.3 Priority Projects for the Incubation of High-Tech Enterprises

Besides the above-mentioned measures and programs, it is recommended that "National Software Center" be established to give full support to the small-to-medium-sized software enterprises and incubation of new ones. Center will provide the necessary office space and facilities including highly efficient and big capacity computer machine and accessories as well as common business and secretarial services. Center will also provide the opportunities for the training of the manpower required for the production of the computer software. Center is recommended to be established in the software park in HHTP where the software enterprises will be located. Center will have the good access to the necessary high-tech information through the proposed Technopartnership Center.

## **X. NECESSITY OF THE ESTABLISHMENT OF HIGH-TECH PARKS**

The proposed policies and policy measures for the development of the high-tech industry should be practiced to assess their effectiveness and feedback should be sent to the policy-makers. The foregoing policy recommendations including these for investment promotion, human resources development, R&D and business incubation as well as other basic policy recommendations should be checked and improved.

With under-developed high-tech industries at present, Vietnam is required to quickly develop high-tech industries and catch up with the other ASEAN countries considering the expected severer competition as well as division-of-works among the countries. To meet these requirements, Vietnam should concentrate its resources including the financial and human resources, in limited number of sites for high-tech production and R&D activities as well as inviting the foreign high-tech enterprises.

Securing interface among the varied high-tech industries as well as among the research institutes, universities and the enterprises are pre-condition for the fast growth of the competitive high-tech industries.

Namely, Vietnam is required to quickly establish high-tech parks to provide the places to satisfy all these requirements. More specifically, high-tech parks are recommended to be established because of the following reasons.

- ① Feedback and improvement of high-tech promotion policies and policy measures,
- ② Introduction, accumulation and utilization, dissemination of high-tech information and data,
- ③ Interface for technology development and product development,
- ④ Cooperative production and division-of-labor among the enterprises and sharing of common facilities and infrastructures,
- ⑤ Field of incubation through the interaction between the technology seeds and product needs,
- ⑥ Special zone for the accelerated deregulation for information, investment, labor employment and other industrial activities and for the preferential treatment, and

- ⑦ Well-facilitated site for inviting the competent foreign investors who possess high technologies, know-hows for production and quality control, business administration and marketing.

It is recommended that the first high-tech park should be established in Hanoi and where the capital city is located because of the following reasons.

- ① The Government administrative function can fully be utilized and the feedback of the trials of policy measures are easier.
- ② 3/4 of the state research institutes being located with abundant and the biggest number of scientists and researchers in the country, R&D capacity is presumed to be the biggest in the country. Also biggest number of universities are located which will provide high quality human resources including these in the science and engineering field for the high-tech industries.
- ③ Though located inland, the area possesses good access to the international airport. If adequate infrastructure should be developed including for the information and telecommunications, competitive environment would be provided.

In addition, the following benefits are expected.

- ① High-tech park development could be a trigger for the development of the northern region which is lagging behind the growth of the south.
- ② High-tech park development would generate sizable number of employments and would form a satellite city of Hanoi and thereby contribute to the alleviation of the over-concentration in the capital city.

Subsequently, another high-tech park should be constructed in Ho Chi Minh City due to the following reasons.

- ① Ho Chi Minh City is the biggest center for industrial and trading activities with the biggest number of the foreign direct investment.
- ② The city population has the experience and know-how of market economy and biggest domestic saving.

Considering the peculiar configuration of the country, extending long to the north-south direction for more than 2,000 km, it may be reasonable to construct another high-tech park(s) in the central region.

All the high-tech parks share similar functions. By comparison, Hoa Lac High-Tech Park should be characterized as R&D oriented and foreign investment oriented for production at least at the initial period, while Ho Chi Minh High-Tech Park should be production and export oriented with relatively stronger participation of the domestic investors. High-tech park in the central region should be characterized as regional-development oriented one.

**THE MASTER PLAN AND FEASIBILITY STUDY  
ON  
THE HOA LAC HIGH-TECH PARK PROJECT  
IN  
THE SOCIALIST REPUBLIC OF VIETNAM**

**(FINAL REPORT)**

**APPENDICES**

**(VOLUME I)**

**MASTER PLAN FOR HIGH-TECH INDUSTRY  
PROMOTION POLICY**



## APPENDIX I REVIEW OF SOCIO-ECONOMIC CONDITIONS

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## APPENDIX I REVIEW OF SOCIO-ECONOMIC CONDITIONS

### I.1 Review of Socio-economic Conditions

#### I.1.1 Current Macro-economic Situation in Vietnam

##### (1) Gross Domestic Product (GDP)

GDP of Vietnam, being analyzed by industry, of last 6 years from 1991 to 1996 ("the review period" hereafter) is shown in the following table. As shown in the table, the Vietnam economy is growing steadily, and its average growth rate of GDP of Vietnam of last four years from 1992 to 1996 was 8.9%.

Gross Domestic Product by Kind of Economic Activity  
(At constant price of 1989)

	1991	1992	1993	1994	1995	1996 (EST.)	Average
<b>TOTAL</b>	<b>31,286</b>	<b>33,991</b>	<b>36,735</b>	<b>39,982</b>	<b>43,797</b>	<b>47,888</b>	
(Growth rate)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	(8.9%)
Agriculture and Forestry	12,264	13,132	13,634	14,169	14,892	15,551	
(Growth rate)	39.2%	8.6%	3.8%	3.9%	5.1%	4.4%	(4.9%)
Industry and construction	7,228	8,242	9,324	10,631	12,113	13,861	
(Growth rate)	23.1%	14.0%	13.1%	14.0%	13.9%	14.4%	(13.9%)
Industry	6,042	6,925	7,766	8,771	9,998	11,448	
Construction	1,186	1,317	1,558	1,860	2,115	2,413	
	19.3%	20.4%	21.1%	21.9%	22.8%	23.9%	
Services	11,794	12,617	13,777	15,182	16,792	18,476	
(Growth rate)	37.7%	7.0%	9.2%	10.2%	10.6%	10.0%	(9.4%)
Transport telecommunication	792	842	897	960	1,066	1,183	
Trade material supply	3,654	3,877	4,109	4,478	4,981	5,559	
Finance, banking, insurance	448	496	578	710	906	961	
State management, science, education, health, sport	2,841	3,040	3,322	3,760	4,144	4,537	
Housing, tourism, hotel, repairs of personal consumer goods	4,059	4,362	4,871	5,274	5,695	6,236	
	13.0%	12.8%	13.3%	13.2%	13.0%	13.0%	

Source: Statistical Yearbook 1996

High growth of the economy is continuing from 1995 to 1996. The growth rates of these 2 years were 9.5% and 9.3%, respectively. These high growth rates were mainly contributed by the following factors:

- Continuation of high capital investment, especially investment in property and construction, supported by the increase of foreign investment and domestic saving, and
- Increase of spending, especially for durable goods, by individuals

A construction boom is still continuing in Vietnam, and investment in property, office buildings and residence for foreign expatriates is significantly increasing. The industry and construction sector is the most rapidly growing sector as seen in the table, and its average growth rate of GDP in the review period was 13.9%.

The agriculture and forestry sector is rather stagnant. In 1992, the growth rate of this sector was 7.1%, which was still slightly higher than the growth rate of 7% of the Services sector. However, the growth rate of the agriculture and forestry sector significantly reduced from 1993, and its average growth rate of the review period was 4.9%. The services sector recorded an average growth of 9.4% in the same period.

As a result of the gap of the growth rate of these two industries, the share of the agriculture and forestry sector in GDP was reversed by the services sector from 1993, and the shares of the agriculture and forestry sector and the services sector in 1996 were 32.5% and 38.6%, respectively.

For 1996, it was targeted to attain a growth rate of GDP around 9% to 10%. This overall GDP growth target was broken down to specific target of the sectors, namely the industry and construction sector 14.5%, the agriculture and forestry sector 4.5% and the services sector 12.0%. These target was nearly attained though the GDP of 1996 is still estimated numbers.

## (2) Inflation Rate

To control the inflation rate is the most significant economic issue of Vietnam for recent years. The trend of the inflation rate of Vietnam from 1989 to 1996 is shown below.

	1989	1990	1991	1992	1993	1994	1995	1996
Inflation Rate	34.7%	67.5%	67.6%	17.5%	5.2%	14.4%	12.7%	4.5%

The inflation rate had decreased drastically from 67.6% in 1991 to 5.2% in 1993, though the inflation rate jumped to 14.4% in 1994 and relatively high inflation rate continued to 1995 in which inflation rate was 12.7% which were fairly higher than the targeted inflation rate of 10%. Vietnamese authorities cited a number of special factors behind the price rises, such as the upturn in international commodity prices and the jump in food prices as a result of severe floods in recent years.

In 1996, inflation was reduced to only 4.5%, again. It would be appropriate to summarize that inflation has been fairly well controlled by the Government in the recent years.

## (3) Exchange Rate

Unification and devaluation of the exchange rate, since 1986, had a positive impact on the availability of foreign currency and subsequently on exports. Since 1990, the Government has managed to keep the official rate closely in line with the parallel

exchange rate. This Government exchange rate policy brought the stability of exchange rate of Dong in recent years as seen in the movement of the exchange rate of Dong against USD shown below.

	1989	1990	1991	1992	1993	1994	1995	1996
Exchange rate (Dong/USD)	4,000	5,000	8,790	9,040	11,000	11,060	11,010	11,190

Throughout 1996 the nominal Dong/US dollar rate remained stable around 11,000. The stability of the nominal exchange rate combined with high domestic inflation led to a real appreciation of Dong against the US dollar, and it is concerned that the appreciation of Dong may hinder the export of Vietnamese products.

The authorities recognize the need to continue to monitor closely movements in the real effective exchange rate to make it sure that Vietnam's exports remain competitive and that foreign exchange reserve targets are attained.

#### (4) Balance of Payment

As import growth outpaced that of export, the trade account deficit is continuously growing from USD 0.54 billion in 1993 to USD 3.4 billion in 1996 as shown below. Consequently, ratios of current account deficit against GDP increased from 7.5% to 11.9% in the same period.

#### Balance of Payment

	(USD million)						
	1990	1991	1992	1993	1994	1995	1996
<b>Current Account</b>							
Export (fob)	1,731	2,042	2,475	2,985	4,054	5,198	6,780
Import (fob)	1,772	2,105	2,535	3,532	5,245	7,543	10,194
Trade Balance	-41	-63	-60	-547	-1,191	-2,345	-3,414
Non-Factor Services (Net)	55	179	312	78	19	159	132
Factor Services (Net)	-412	-339	-384	-560	-337	-310	-506
Transfer (Net)	138	91	123	264	305	627	1,082
Current Account balance	-260	-132	-9	-765	-1,204	-1,869	-2,706
<b>Capital Account</b>							
Medium and Long Term Loans	-46	-192	52	-597	-275	-284	304
Short-term	48	-88	-41	-117	124	310	386
Direct Foreign Investment	120	220	260	832	1,048	1,781	2,300
Capital Account balance	122	-60	271	118	897	1,807	2,990
Errors and Omissions	-4	142	6	-409	-102	-115	6
Overall Balance	-142	-50	268	-1,056	-409	-177	290
<b>Financing</b>							
Change in Foreign Reserve	-159	-276	-464	477	-292	-449	-445
IMF (Net)		-6		-39	175	92	175
Arrears	301	332	386	-265	526	534	-3,793
Rescheduling			-190	883			3,773
Financing total	142	50	-268	1,056	409	177	-290

Source:

Vietnam Fiscal Decentralization and the Delivery of Rural Services  
- An Economic Report, October 31, 1996 the World Bank

The main cause of the increase of the current account deficit was a surge in imports to meet investment demand. Though exports grew strongly, imports grew even more rapidly. For example, while export increased 28% (from USD 4.1 billion to USD 5.2 billion) and 30% (from USD 5.2 billion to USD 6.8 billion) in 1995 and 1996 respectively, import increased 43% (from USD 5.2 billion to USD 7.5 billion) and 35% (from USD 7.5 billion to USD 10.2 billion) in the same period.

Disbursements of funds from foreign investment increased as a result of large amount of FDI commitments made in the earlier years, and the increased current account deficit was financed by mostly by FDI 1993 to 1996. For example, 85% of the current account deficit was financed by foreign investment inflows in 1996.

The remaining deficit was financed by ODA grants and loans disbursements, which also recorded some increases following the implementation of projects committed in earlier years.

Available financing allowed an increase on official foreign exchange reserves to USD 76 million. However, it is forecasted that export growth is slowing while imports of capital and consumption goods continue to grow rapidly, the Government has begun to take steps to limit further increases in the current account deficit. If these measures prove unsuccessful, it will be necessary to tighten macroeconomic policies further.

#### I.1.2 ASEAN-AFTA and its Impact on the Vietnamese Economy

##### (1) Development of International Trading Conditions

###### 1) ASEAN-AFTA

###### (a) Accession to ASEAN

Vietnam became a member of ASEAN in July 1995, and subsequently participated in ASEAN Free Trade Area (AFTA) in January 1996. Vietnam has now an obligation to liberalize the trade and investment policy, especially, to the ASEAN countries.

The principal objective of AFTA is to boost ASEAN's attractiveness to foreign investors, particularly as a base for production for global markets. The key element of AFTA is the commitment to reduce tariffs under the Common Effective Preferential Tariff (CEPT).

It was originally agreed, among the AFTA member countries, to lift the trade barrier by the custom duties and to reduce rates of the custom duties to 0% to 5% by the year of 2008. However, it was subsequently agreed to fasten the reduction process, and it is going to be attained by 2003. For Vietnam, this

target year is extended another 3 years and, therefore, Vietnam has an obligation to reduce its rates of the custom duties to 0% to 5% by 2006.

**(b) General concept of tariff reduction under CEPT**

Under the CEPT, the member countries set out timetables for reduction of tariffs to be applied to imports from the ASEAN member countries. Goods are classified into the following categories:

- Goods in the Immediate Inclusion
- Rapid Tax Reduction Program,
- Ordinary Tax Reduction Program,
- Goods temporarily excluded from tax reduction, and
- Goods absolutely excluded from tax reduction

The outline of the tariff reduction program of Vietnam is summarized in the diagram "Tariff Reduction Program Required by AFTA". Goods in the "Immediate Inclusion" are further classified into two category, namely, "Goods under the Rapid Tax Reduction Program" and "Goods under the Ordinary Tax Reduction Program". Goods under the Rapid Tax Reduction Program, which have duties of less than 20%, are to be reduced to less than 5% by January 1998, while goods with duties of more than 20% should be reduced to less than 5 % by January 2000 (in Vietnam's case three years later).

Goods under the Ordinary Tax Reduction Program, with an existing tax rate of less than 20%, is to be reduced to less than 5% by January 2000, while commodities with an existing rate of more than 20% shall be reduced to 20% by January 1998 and further reduced to less than 5% by January 2003 (in Vietnam's case three years later).

Goods temporarily excluded are to be gradually transferred into the Tax Reduction Program so that the duty applying on them will be less than 5% by January 2003(in Vietnam's case three years later).

Certain agricultural products and services are excluded from the CEPT scheme. The member countries have some discretion over the pace of reductions and the time at which sensitive goods are included in the process. But the objective is that by 2003 ASEAN trade in the goods being subject to the CEPT will be free.

The members of AFTA also agree to eliminate quantitative restriction and to explore cooperation in areas such as harmonization of standards, reciprocal recognition of tests and certification of products, and removal of barriers to foreign investment.

## 2) WTO

Vietnam is seeking membership of the WTO. WTO will require greater transparency about Vietnam's policies toward trade in goods, services and investment. Requirements for joining WTO are quite extensive, and Vietnam will become subject to the Trade Policy Review Mechanism, a process under which the WTO scrutinizes each member's trade policies. This process would assist Vietnam's efforts to be an attractive destination for foreign investment and technology transfer.

## (2) Impact on the Industrial Policy of Vietnam

It should be noted that an accession to AFTA provides benefits as well as reverse impacts on Vietnam. The former is, 1) an expansion of international trade and 2) enhancement of attractiveness of Vietnam as foreign investment destination. The latter is, 1) reduction of the Government revenue from custom duties and 2) increase of competition with ASEAN material and products.

### 1) Integration with the regional economy

The positive aspect of AFTA accession for Vietnam's producers and consumers is an integration with the regional preferential free-trade area having 400-500 million people.

Vietnamese manufacturer will have chances to improve their production efficiency through economies of scale, and the integration with the regional economy will lower costs of Vietnamese products by using material and intermediates from other ASEAN countries with lower costs. Thus, competitiveness of Vietnamese products will be strengthened in the world market. Especially, Vietnamese products will have price advantage to non-ASEAN products in the ASEAN market by application of the preferential tariff. Removal of import tariffs will also benefit the Vietnamese consumer through lowering prices of consumer goods.

### 2) Foreign investment

It is expected that foreign investment, including from ASEAN member countries and non ASEAN countries, will increase after the accession to ASEAN



and AFTA, because of general cost reduction and preferential access to the ASEAN market.

Foreign investment from within ASEAN will be encouraged due to the ASEAN Free Investment Area (AIA) aiming at to harmonize investment procedures for domestic and ASEAN-based investors. For foreign investment outside of ASEAN, the CEPT principle, that only goods originating within ASEAN will be able to enjoy preferential tariff, will be attractiveness of investment in Vietnam.

However, it should be noted that some negative outcome may arise from the accession to ASEAN / AFTA for foreign investment in Vietnam. Profitability of some foreign investment, which are enjoying the current industry protection policy, may be impaired by lift of such protection policy and increased competition as a result of AFTA accession.

### 3) Reduction of government revenue

Vietnam should make some preparation to fulfill its obligation of reduction of the custom duties by the target year, though there is an argument among the member countries of ASEAN and it is not finally decided whether exception to CEPT should be allowed.

The Vietnam Government had actually started a task force to reduce the current tariff maximum rate of 200% to 60% as a first step, and the Government announced a list of 857 product items - 209 lines at the rate of 0%, and 546 lines in the 1-5% tariff category - for reduction of the custom duties in December 1995. This list covered one fourth of the all items being subject to the custom duties in Vietnam. The Government also announced to reduce the custom duty rate of certain products, such as alcoholic beverage, tobacco, motor vehicle etc., being taxed at the maximum tax rate of 200% to less than 60%.

The first step of the AFTA tariff reduction schedule is a relatively easy process for Vietnam. Trade barriers could be reduced only on products which already have low tariffs or have little economic significance. No actual tariff reduction took place since the tariff rates for these products already existed at the targeted levels.

When the phasing-in of tariff reductions on "Temporary excluded" manufactured products begins, form 1999, the pace of trade liberalization in Vietnam will have to increase. The Government will have to make some difficult policy decisions concerning the tariff reductions.

The revenue from import and export taxes accounts for 23-25% of the total Government revenue, which is second largest revenue item next to transfer from SOEs. According to an estimation by the Vietnam Investment Review, revenue from custom duties from the trade with ASEAN countries would be reduced by 85 million dollar in 2006 in comparison to the revenue in 1995.

A reform of the taxation system, to recoup the loss of the tax revenue, is now going on. The Vietnam Government has introduced Value Added Tax and Special Consumption Tax to make up for the loss of revenue caused from the reduction of tariff.

#### 4) Competition with ASEAN material and products

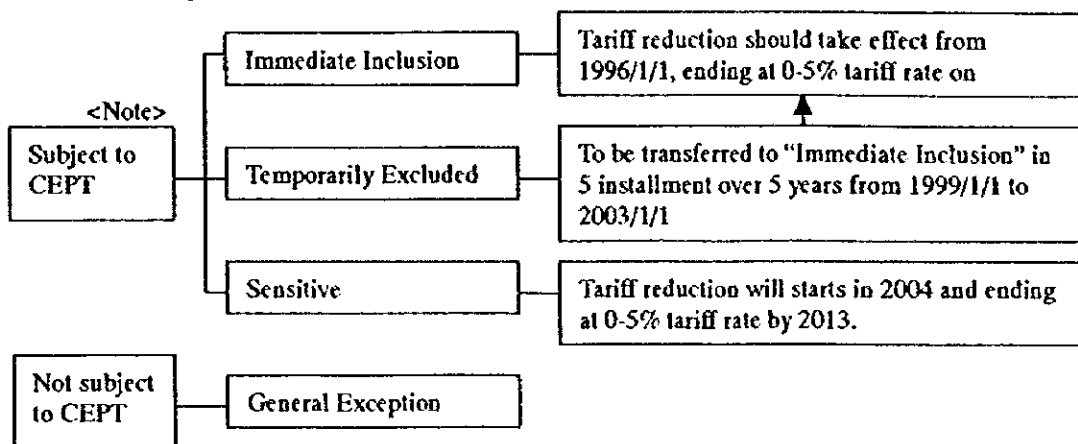
Competition with ASEAN material and products will increase due to the reduction of tariff, and manufacturing industries in Vietnam are concerning about the competition with the ASEAN countries, since their resources for production, namely machinery and equipment, technology and know-how and management skill, etc., are significantly behind their competitors.

It is observed that smuggling is prevalent in Vietnam, and some industries in Vietnam have already been carrying out their business in "free-trade conditions". Therefore, industries that will be the most vulnerable in the more competitive AFTA environment are industries currently benefiting from the protection through high tariff or non-tariff barriers. In Vietnam, these industries are mostly belonging to SOEs producing basic products such as steel, cement, etc.

Reinforcement of competitiveness of the domestic manufacturing industries is very crucial and essential issue for Vietnam to overcome the reverse impact of accession to AFTA. The Government should take an appropriate industrial policy to attain these goals. However, on the other hand, it should be noted that the Vietnamese Government can not take restrictive industrial policy measures, such as import quota, prohibitive high tariff, export grants, etc., due to the accession to AFTA.

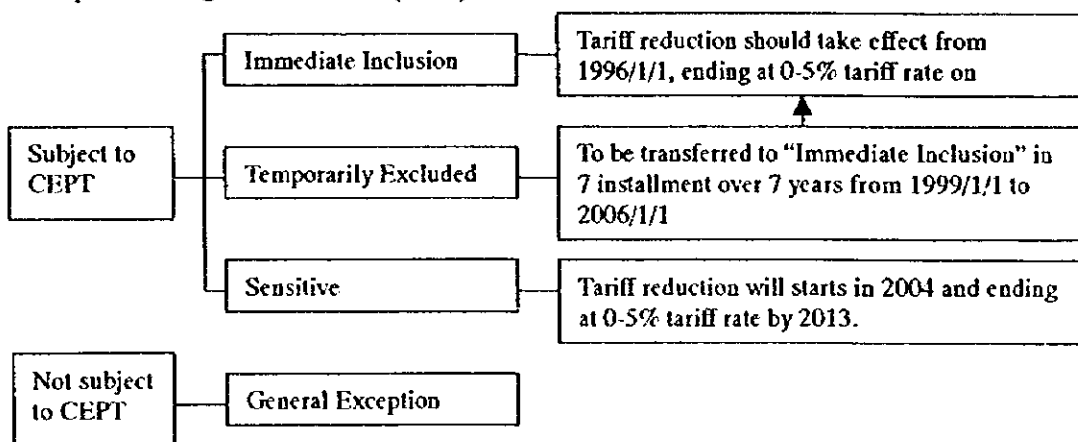
## Tariff Reduction Program Required by AFTA

### Manufacture goods



<Note>  
2,200 line out of Vietnam's 3,211 import-export product lines are, to some degree, in the CEPT framework.

### Unprocessed Agricultural Goods (UPAs)



## 1.1.3 Foreign Trade and Foreign Direct Investment

### (1) Foreign Trade

Export and import decreased in 1991 and 1992 as a result of the downturn of the Vietnamese economy. However, both export and import of Vietnam are expanding rapidly from 1993. In 1995, export and import were 2.3 times and 3.0 times of those of 1990, respectively as shown tables below.

### Export by Commodity Group

	(USD Million)											
	1990		1991		1992		1993		1994		1995	
<b>By type of management</b>												
Central	1,700.4	70.7%	1,326.8	63.6%	1,574.9	61.0%	1,716.2	57.5%	1,945.8	48.0%	2,531.2	46.5%
Local	703.6	29.3%	760.3	36.4%	1,005.8	39.0%	1,269.0	42.5%	1,947.4	48.0%	2,477.6	45.5%
FDI									161.1	4.0%	440.1	8.1%
Total	2,404.0	100.0%	2,087.1	100.0%	2,580.7	100.0%	2,985.2	100.0%	4,054.3	100.0%	5,448.9	100.0%
<b>By commodity group</b>												
Heavy industrial and mineral	616.9	25.7%	697.1	33.4%	954.8	37.0%	1,014.0	34.0%	1,167.6	28.8%	1,377.7	25.3%
Light manufactured products	635.8	26.4%	300.1	14.4%	349.5	13.5%	526.5	17.6%	938.2	23.1%	1,549.8	28.4%
Agricultural products	783.3	32.6%	628.0	30.1%	827.6	32.1%	919.8	30.8%	1,250.3	31.6%	1,745.8	32.0%
Forest products	126.5	5.3%	175.5	8.4%	140.8	5.5%	97.5	3.3%	111.6	2.8%	153.9	2.8%
Aquatic products	239.1	9.9%	285.4	13.7%	307.7	11.9%	427.2	14.3%	556.3	13.7%	621.4	11.4%
Others	2.4	0.1%	1.0	0.0%	0.3	0.0%	0.2	0.0%	0.3	0.0%	0.3	0.0%
Total	2,404.0	100.0%	2,087.1	100.0%	2,580.7	100.0%	2,985.2	100.0%	4,054.3	100.0%	5,448.9	100.0%
Increase ratio (1990=100%)	100.0%		86.8%		107.4%		124.2%		168.6%		226.7%	
Increase ratio over previous year			-13.2%		23.7%		15.7%		35.8%		34.4%	

Source: Statistical Year Book 1996

### Import by Commodity Group

	(USD Million)											
	1990		1991		1992		1993		1994		1995	
<b>By type of management</b>												
Central	2,194.6	79.7%	1,639.5	70.1%	1,515.8	59.7%	2,316.7	59.0%	3,111.0	53.4%	3,475.4	42.6%
Local	557.8	20.3%	698.6	29.9%	1,025.0	40.3%	1,607.3	41.0%	2,114.3	36.3%	3,211.9	39.4%
FDI									600.5	10.3%	1,468.1	18.0%
Total	2,752.4	100.0%	2,338.1	100.0%	2,540.8	100.0%	3,924.0	100.0%	5,825.8	100.0%	8,155.4	100.0%
<b>By commodity group</b>												
Mean of production	2,342.6	85.1%	2,012.8	86.1%	2,119.8	83.4%	3,311.2	84.4%	4,788.6	82.2%	6,807.2	83.5%
Complete and petrolic	439.0	15.9%	318.5	13.6%	175.0	6.9%	287.7	7.3%	261.8	4.5%	2,096.9	25.7%
Machinery instrument, accessories	313.9	11.4%	190.6	8.2%	372.1	14.6%	634.6	16.2%	1,458.9	25.0%		0.0%
Fuel, raw material	1,589.7	57.8%	1,503.7	64.3%	1,572.7	61.9%	2,388.9	60.9%	3,067.9	52.7%	4,710.3	57.8%
Consumer goods	409.8	14.9%	325.2	13.9%	420.9	16.6%	612.8	15.6%	1,037.2	17.8%	1,348.2	16.5%
Food	46.1	1.7%	62.2	2.7%	53.9	2.1%	53.5	1.4%	69.3	1.2%	110.4	1.4%
Foodstuff	68.2	2.5%	75.8	3.2%	86.2	3.4%	152.3	3.9%	170.4	2.9%	289.1	3.5%
Medical goods	41.0	1.5%	42.1	1.8%	61.4	2.4%	86.0	2.2%	121.8	2.1%	69.4	0.9%
Others	254.5	9.2%	145.1	6.2%	219.4	8.6%	321.0	8.2%	675.7	11.6%	879.3	10.8%
Total	2,752.4	100.0%	2,338.0	100.0%	2,540.7	100.0%	3,924.0	100.0%	5,825.8	100.0%	8,155.4	100.0%
Increase ratio (1990=100%)	100.0%		84.9%		92.3%		142.6%		211.7%		296.3%	
Increase ratio over previous year			-15.1%		8.7%		54.4%		48.5%		40.0%	

Source: Statistical Year Book 1996

## 1) Analysis of foreign trade by commodity

### (a) Export

In 1995, exports continued to increase by 34.4% to USD 5.4 billion from USD 4.1 billion in 1994. The strong growth of Vietnamese exports has a broad base, including Vietnamese traditional exports products such as crude oil and agricultural products as well as light manufactured products including craft goods.

Crude oil remained the most important commodity, reaching 76 million tons amounting to more than USD 1 billion. Among agricultural crops, rice and coffee accounted for another USD 1 billion. Light manufactured products were the second largest export group, reaching USD 1.6 billion among light manufactured products, garments (USD 800 million) and marine products (USD 620 million) remained to be the most important items.

Some new light manufactured exports emerged since 1995, such as footwear, the exports of these products reached more than USD 200 million. The emergence and expansion of light manufactured products export indicate that the rapid growth of foreign investment is now contributing to the increase of the export capacity of the Vietnamese economy. As seen in the table, export by enterprises with foreign direct investment amounted to USD 161 million and USD 440 million in 1994 and 1995, respectively.

(b) Import

Import is also continuously increasing in Vietnam. In 1995, import increased by 40% from USD 5.8 billion of 1994 to USD 8.2 billion. Import of capital goods, including raw material and intermediate inputs, has been driven by the increase of foreign investments. In 1995, import of capital goods amounted to USD 6.8 billion, including fuel and raw material amounting to USD 4.7 billion. This accounted for 83.5% of the total import of this year.

On the other hand, import of consumer goods is also increasing. Import of consumer goods in 1995 amounted to USD 1.3 billion, which was 16.5% of the total import. One of causes of the increase of import of consumer goods is increase of import of motorcycle and automobile kits to meet the strong expansion in domestic demand for these products.

2) Analysis of foreign trade by area and country

(a) Trade with South East Asia

Prior to 1989, Vietnam's trade was restricted by the embargo against Vietnam. Since the ASEAN countries were among the most active supporters of the embargo against Vietnam, the trade of Vietnam with these countries was very limited. During 1979 -83, Vietnam-ASEAN total trade was only around USD 70-100 million per year. The trade gradually increased to around USD 140-225 million during 1981-88, however, it was still at a relatively low level.

Following the withdrawal of Vietnamese forces from Cambodia, Vietnam-the South East Asian countries relations improved remarkably, which is reflected by a significant increase of in the trade as shown in the following tables. Following Vietnam's attainment of full ASEAN membership in I 995, its trade with the other ASEAN members is likely to rise further.

### Export Value by Destination Country

	(USD Million)						
	1990	1991	1992	1993	1994	1995	
<b>South East Asia</b>							
Singapore	194.5	425.0	401.7	380.3	593.5	689.8	12.7%
Malaysia	5.0	14.5	68.4	55.8	64.8	110.5	2.0%
Thailand	52.3	57.7	71.5	71.8	97.6	101.3	1.9%
Cambodia	9.1	6.3	6.4	96.2	77.3	94.6	1.7%
Other	87.7	20.9	28.0	38.7	59.7	115.9	2.1%
<b>Total</b>	<b>348.6</b>	<b>524.4</b>	<b>576.0</b>	<b>642.8</b>	<b>892.9</b>	<b>1,112.1</b>	<b>20.4%</b>
	100.0%	150.4%	165.2%	184.4%	256.1%	319.0%	
<b>Other Asian countries</b>							
Japan	340.3	719.3	833.9	936.9	1,179.3	1,461.0	26.8%
Taiwan	28.7	58.3	67.3	141.9	220.0	439.4	8.1%
Hong Kong	243.2	223.3	201.7	169.0	196.8	256.7	4.7%
Korea	26.7	51.3	93.5	99.4	86.4	235.3	4.3%
Other	53.2	29.0	130.3	177.5	344.1	440.2	8.1%
<b>Total</b>	<b>692.1</b>	<b>1,081.2</b>	<b>1,326.7</b>	<b>1,524.7</b>	<b>2,026.6</b>	<b>2,832.6</b>	<b>52.0%</b>
	100.0%	156.2%	191.7%	220.3%	292.8%	409.3%	
<b>Asia total</b>	<b>1,040.7</b>	<b>1,605.6</b>	<b>1,902.7</b>	<b>2,167.5</b>	<b>2,919.5</b>	<b>3,944.7</b>	<b>72.4%</b>
	100.0%	154.3%	182.8%	208.3%	280.5%	379.0%	
<b>Europe</b>							
America	1,215.1	355.9	374.6	409.1	562.2	983.0	18.0%
Australia and Oceania	15.7	5.3	26.2	41.7	139.8	238.3	4.4%
Africa	7.7	5.2	21.5	54.9	49.8	56.9	1.0%
Other	4.2	13.3	24.4	11.3	19.9	38.1	0.7%
<b>Total</b>	<b>119.6</b>	<b>100.3</b>	<b>229.5</b>	<b>298.6</b>	<b>360.3</b>	<b>184.1</b>	<b>3.4%</b>
	2,404.0	2,087.1	2,580.7	2,985.2	4,054.3	5,448.9	100.0%
<b>% : Increase ratio (1990=100%)</b>	<b>100.0%</b>	<b>86.8%</b>	<b>107.4%</b>	<b>124.2%</b>	<b>168.6%</b>	<b>226.7%</b>	

Source: Statistical Year Book 1996

### Import Value by Destination Country

	(USD Million)						
	1990	1991	1992	1993	1994	1995	
<b>South East Asia</b>							
Singapore	497.0	722.2	821.6	1,058.3	1,145.9	1,425.2	17.5%
Thailand	17.0	14.2	41.2	99.5	225.7	439.7	5.4%
Malaysia	0.8	6.2	35.9	24.8	66.1	190.5	2.3%
Cambodia	7.7	5.2	6.7	7.6	17.7	23.5	0.3%
Other	17.3	63.3	48.0	128.3	234.2	298.8	3.7%
<b>Total</b>	<b>539.8</b>	<b>811.1</b>	<b>953.4</b>	<b>1,318.5</b>	<b>1,689.6</b>	<b>2,377.7</b>	<b>29.2%</b>
	100.0%	150.3%	176.6%	244.3%	313.0%	440.5%	
<b>Other Asian countries</b>							
Korea	53.1	152.1	211.2	481.5	720.5	1,253.5	15.4%
Japan	169.0	157.7	239.4	452.3	585.7	915.7	11.2%
Taiwan	41.0	59.3	72.7	217.9	396.1	901.3	11.1%
Hong Kong	196.9	194.8	142.9	145.4	318.6	418.9	5.1%
Other	9.6	43.7	43.1	103.9	200.4	451.1	5.5%
<b>Total</b>	<b>469.6</b>	<b>607.6</b>	<b>709.3</b>	<b>1,401.0</b>	<b>2,221.3</b>	<b>3,940.5</b>	<b>48.3%</b>
	100.0%	129.4%	151.0%	298.3%	473.0%	839.1%	
<b>Asia total</b>	<b>1,009.4</b>	<b>1,418.7</b>	<b>1,662.7</b>	<b>2,719.5</b>	<b>3,910.9</b>	<b>6,318.2</b>	<b>77.5%</b>
	100.0%	140.5%	164.7%	269.4%	387.4%	625.9%	
<b>Europe</b>							
America	1,604.4	714.2	420.1	690.9	1,019.6	1,088.8	13.4%
Australia and Oceania	11.8	10.7	24.8	29.7	73.1	169.7	2.1%
Africa	10.7	11.0	19.8	32.9	69.3	103.9	1.3%
Other	2.4	2.2	5.2	0.0	2.8	22.6	0.3%
<b>Total</b>	<b>112.7</b>	<b>179.9</b>	<b>406.6</b>	<b>448.3</b>	<b>746.2</b>	<b>445.9</b>	<b>5.5%</b>
	2,752.4	2,338.1	2,540.8	3,924.0	5,825.8	8,155.4	100.0%
<b>% : Increase ratio (1990=100%)</b>	<b>100.0%</b>	<b>84.9%</b>	<b>92.3%</b>	<b>142.6%</b>	<b>211.7%</b>	<b>296.3%</b>	

Source: Statistical Year Book 1996

Vietnam's annual exports to the South East Asian countries was more than tripled in the period from 1990 to 1995, and annual imports from these countries increased to more than four times of that of 1990. As Vietnam's overall export and import in the same period increased by 2.3 times and 3.0 times, respectively, the increases of the trade with the South East Asian countries are faster than the growth of Vietnam's overall trade. The South East Asian countries now is playing a key role in Vietnam's trade, accounting for around 20% of its exports and 30% of its imports in 1995.

The sharp rise of the foreign trade of Vietnam with the South East Asian countries has been contributed by the remarkable growth of trade between Vietnam and Singapore. Singapore has consistently been one of the most significant trading partner of Vietnam. In 1995 export to and import from Singapore accounted for 17.5% and 12.7% of total export and import of Vietnam, respectively.

#### (b) Trade with other Asia-Pacific countries

The trade between Vietnam and other Asia-Pacific economies also benefited from improvements in diplomatic relations. These include the establishment of

full diplomatic relations with the Republic of Korea (South Korea), the normalization of relations with China, the partial resolution of the "boat people" issue with Hong Kong, the establishment of unofficial diplomatic relations with Taiwan, the lifting of the economic embargo by the United States and the subsequent establishment of full diplomatic relations with the United States .

As a result of the disintegration of the CMEA countries, Vietnam had to reorient its trade to the convertible area, and in the first instance to its neighboring countries in the Asia-Pacific region. The foreign trade with the other Asian countries increased remarkably as well as that with the South East Asian countries. Export to the other Asian countries in 1995 was 3.8 time of the export of 1990, and import from the other Asian countries was even 8.4 time of the import of 1990. In 1995, Japan was the largest exporting country of Vietnam accounting for 26.8% of the total export, and Korea was the second largest importing country of Vietnam, next to Singapore, accounting for 15.4 % of the total import.

## (2) Foreign Direct Investment

FDI to Vietnam increased remarkably in recent years. Increase ratios of the amount of registered capital of the approved FDI projects were 42.3%, 78.0% and 28.3% in the three years from 1994 to 1996, respectively as shown in Table I-1-1. The investment amount of FDI approved in 1996 was USD 8.5 billion, which is larger than any other years in the past.

### 1) Foreign Investment by Economic Activity

Total number of the FDI projects approved from 1988 to 1996 is 1,868 and the total amount of the registered capital of these projects in the same period is amounting to USD 27.0 billion. The number and the total amount of registered capital of FDI projects of this period are analyzed by industry as shown in the table below.



## FDI Projects

	(USD Million)	
	1988 - 1996 Total	
	No. of Project	Registered capital
Light industry	492	3,801.6
Heavy industry	344	4,202.3
Agriculture, forestry	214	1,086.8
Construction	183	2,982.0
Hotel, tourism	181	3,692.1
Services	164	6,940.3
Communication	106	2,006.0
Fishery	74	307.8
Culture, education	53	276.5
Oil, gas industry	33	1,504.6
Finance, Bank	24	174.3
	<b>1,868</b>	<b>26,974.3</b>

The number of FDI projects in the light industry in the period from 1988 to 1996 is 492 accounting for 26.3% of the total number of the FDI project of 1,868. In the recent years from 1993 to 1996, the light industry is also receiving more investment projects than any other industry, except for 1995 where the number of FDI projects in the heavy industry was 82 and that in the light industry was 70 (refer to Table I-1-1).

However, in terms of the amount of registered capital, the service industry including hotel and tourism is playing the most important role. The total amount of the registered capital from 1988 to 1996 is USD 10.6 billion accounting for 39.4% of the total registered capital amount. The second and third significant industry receiving FDI in the same period are the heavy industry and the light industry, and the registered capital of these industries are USD 4.2 billion (15.6% of the total registered capital) and USD 3.8 billion, (14.1%) respectively.

Increase of demand for office buildings and houses for foreign expatriates contributed to the increase of FDI. For example, FDI in the construction industry was USD 2.4 billion in 1995, which was far larger than FDI in the heavy industry which received USD 1.5 billion. FDI in the service industry fluctuate very significantly. FDI industry was USD 3.7 billion in 1996, which is largest in 1996, after the sharp decrease in 1995 where FDI in this sector was only USD 0.06 billion.

## 2) Foreign Investment by Country

The number and the total amount of registered capital of FDI projects approved in the period from 1988 to 1996 are analyzed by country in the table below and in Table I-1-2.

	1988 -- 1996 Total	
	No. of Project	Registered capital
Taiwan	286	3,917.3
Hong Kong	247	3,116.8
Korea	192	2,261.3
Japan	177	2,400.1
Singapore	151	4,322.3
France	98	979.2
Australia	67	1,074.3
United States	62	849.0
Malaysia	56	773.8
Netherland	31	560.5
United Kingdom	22	524.4
Other	479	6,195.0
Total	1,868	26,974.0

As seen in the table, Taiwan and Hong Kong are the first and second investing countries in Vietnam in terms of number of project. The number of projects of these two countries are 286 and 247 respectively, which are far more than that of Japan (177 projects) and Singapore (151 projects).

Singapore is the largest country investing into Vietnam in terms of registered capital. Singapore's investment amount is USD 4.3 billion. Taiwan (USD 3.9 billion) and Hong Kong (USD 3.1 billion) are the second and third largest countries investing in Vietnam.

The increase of investment from Hong Kong and especially from Singapore in 1996 are remarkable. The investment from Singapore and Hong Kong amounted to USD 2.8 billion and USD 1.3 billion in this year respectively which were significantly larger than the investments from Korea (USD 0.83 billion) and Taiwan (USD 0.78 billion).

Top five investment countries into Vietnam, both in the period from 1988 to 1996 and in the individual year of 1996, are Singapore, Taiwan, Hong Kong, Japan and Korea. Their total investment amount in the period and in 1996 were USD 16.0 billion (59.% of the total investment in this period) ) and USD 6.2 billion (73% of the total investment in the year), respectively.

### 3) Foreign Investment by Province

FDI in Vietnam by province is shown in the table below.

	Number of Project		Registered Capital	
Ho Chi Minh	610	33.2%	7,792.5	30.6%
Hanoi	299	16.3%	6,089.2	23.9%
Dong Nai	198	10.8%	2,761.5	10.8%
Vung Tau	74	4.0%	1,780.7	7.0%
Hai Phong	68	3.7%	1,126.0	4.4%
Danang	55	3.0%	799.8	3.1%
Other	531	29.0%	5,115.0	20.2%
Total	1,835	100.0%	25,464.7	100.0%

Ho Chi Minh is the most significant FDI destination in both number of project and investment amount. The number of FDI projects and the investment amount in Ho Chi Minh are 610 (33.2%) and USD 7.8 billion (30.6%), respectively. Hanoi is the second largest FDI destination, and the number of FDI projects and the investment amount in Hanoi are 299 (16.3%) and US 6.1 billion (23.9%), respectively. Hanoi and Ho Chi Minh are attracting approximately 50% of FDI in Vietnam in both number of project and investment amount.

#### I.1.4 Finance

##### (1) Transition of Banking System

The transition from the "mono-bank system" to the "two-tier banking system", started with the separation of Development Bank of Vietnam ("BIDV") from the State Bank of Vietnam ("SBVN") in 1957, was completed by the separation of the Industrial and Commercial Bank of Vietnam ("Incombank"), being fourth and the last State Owned Commercial Bank ("SOCB"), in 1990.

In 1991, SBVN ceased direct lending to the productive sectors, and terminated direct financing of the State budget in 1992. However, SBVN is still involved in refinancing loans made by the SOCBs to support credit needs. SOCBs are still providing term lending through direct credit programs through SBVN.

SBVN conducts the monetary control by setting interest rates and setting reserve requirements stipulated in the Prudential Regulations. However, SBVN has very limited money market instruments to perform indirect monetary measures, yet.

## (2) Banking Law

In Vietnam, there is no law, but only decrees, for regulation of banks at this moment. However, the banking laws, namely Law on the State Bank of Vietnam and the Law on Banks and Financial Institutions are now in the legislation process, and it is targeted to be enacted in 1997 by the National Assembly.

According to the draft of the Law on Banks and Financial Institutions, the Prudential Regulations of banks and financial institutions ("banks" hereafter) prescribe that:

- Ceiling for investment in shares in other company is stipulated:
  - Total investment in shares should not exceed 25% of the adequacy capital of a bank,
  - Investment in shares in a specific company should not exceed 5% of the adequacy capital, and
  - Investment in shares in a specific company should not exceed 10% of the total shares of that company,
- Ceiling for credit is specified:
  - Total loan and credit extended to a specific customer should not exceed 15% of the adequacy capital of a bank,
  - Total loan and credit extended to 10 largest customers of the bank should not exceed 65% of the adequacy capital of the bank
- Risk provision for banking operation shall be charged to operation expenses not exceeding 2% of loan outstanding,
- SBVN's approval is needed for banks to conduct real estate business,

However, Capital Adequacy Ratio is not prescribed in the Regulations. The Regulations are not prescribing specific guideline concerning the loan classification and methods for provisioning for possible losses from overdue accounts.

## (3) Banks in Vietnam

Since 1990, a series of regulations for establishment of share holding joint stock banks, joint venture banks, branches and representative offices of foreign banks have been issued. Restrictions on the entry to the banking sector have been greatly liberalized, and the number of banks operating in Vietnam increased significantly.

Banks, operating in Vietnam, are classified into various types, which are listed below:

- (a) SOCB (Specialized banks)
  - a) Investment and development bank
    - The Bank for Investment and Development of Vietnam
  - b) Commercial banks
    - The Industrial and Commercial Bank of Vietnam
    - The Agricultural Bank of Vietnam
    - The Bank for Foreign Trade in Vietnam
- (b) Commercial banks
  - Joint stock banks
  - Joint venture banks
  - Foreign bank branches
- (c) Other
  - Credit cooperative
  - People's Credit Funds
  - Finance companies

In addition to these operating financial institutions, there are representative offices of foreign banks in Vietnam.

Among the four SOCBs, the roles in the banking activities are specified as follows:

- Incombank - Banking operation in industrial, trade, service sectors
- Agribank - Banking operation in agriculture, forestry and fishery sectors
- Vietcombank - Banking operation in foreign exchange and foreign trade
- IDBV - Financing medium- /long-term credits and investments for development of infrastructure and technological projects

#### (4) Interest Rate

The movement of interest rates of Vietnam from 1989 to 1996 is shown in the following table. In the current interest policy, interest rates are regulated by setting up of maximum interest rates for type of loans (namely working capital loan and fixed capital

loan). However, interest rate was used to be regulated by sector up to 1992 as seen in the table.

### Selected Interest Rates

Interest rate (per month)	1989	1990	1991	1992	1993	1994	1995	1996 (Oct.)
Demand Deposit- Households	5.0%	2.4%	2.1%	1.0%	0.7%	0.7%	0.7%	0.4%
-Economic units	1.8%	0.9%	1.0%	0.3%	0.1%	0.1%	0.7%	0.4%
Three-month Savings- Households	7.0%	4.0%	3.5%	2.0%	1.4%	1.4%	1.4%	0.55%
-Economic units	3.0%	1.8%	2.1%	1.5%	0.8%	0.8%	1.0%	0.55%
One-Year Savings	-	-	-	-	2.0%	2.0%	1.6%	N.A.
<b>Lending Rates</b>								
Agriculture	3.7%	2.4%	3.3%	2.5%	-	-	-	-
Industry and Transport	3.8%	2.7%	3.0%	2.0%	-	-	-	-
Commerce and Tourism	3.9%	2.9%	3.7%	2.7%	-	-	-	-
Fixed Capital	-	0.8%	0.8%	1.8%	1.2%	1.2%	1.7%	1.35%
Working Capital	-	-	-	2.7%	2.1%	2.1%	2.1%	1.25%
<b>SBVN</b>								
Transaction Balances	-	-	1.0%	0.3%	0.1%	0.1%	N.A.	N.A.
Refinancing Agriculture	-	-	-	0.9%	*1	*2	N.A.	N.A.
Refinancing Other Users	-	-	-	1.2%	*1	*2	N.A.	N.A.
<b>Inflation rate (per month)</b>	<b>2.5%</b>	<b>4.4%</b>	<b>4.4%</b>	<b>1.4%</b>	<b>0.4%</b>	<b>1.1%</b>	<b>1.0%</b>	<b>0.4%</b>

\*1 Refinancing rates were set at 60% and 80% of lending rate for agriculture and other sectors, respectively.

\*2 Refinancing rates increased to 100%

N.A. : Information not available

Source: Vietnam Fiscal Decentralization and the delivery of Rural Services, An Economic report  
World Bank October 31, 1996

In comparison to inflation rate, bank deposit interest rates were positive, in real terms, in 1989 except for demand deposit interest rate for economic units. However, interest rates turned to be negative in 1990 and 1991. Due to the drop of the inflation rate, the interest rates of time deposit were normalized and came back to positive again since 1992.

As seen in the table, the interest rate structure had been distorted up to 1995 in the following two respect:

- Deposits interest rates for economic units were lower than those for households
- Lending interest rates for fixed capital loans were lower than those for working capital loans.

However, these distortion was corrected and the interest rate structure has been normalized in 1996.

#### (5) Bank Credit

The most serious problem of the financial system of Vietnam is the shortage of funds. One of the reasons for the shortage of funds is that the bank savings mobilization is still inadequate and below its potential. Significant amount of private savings is not circulated in the official financial market. The size of the informal financial market considered to be very large in Vietnam.

According to the research conducted jointly by SPC (currently Ministry of Planning and investment) and UNIDO in 1994, for example, the most significant financial asset held by Vietnamese people is "Gold and U.S. Dollar currency", whose share in the total financial assets held by people is reported to be 47.5%, whereas shares of "Domestic currency" and "Bank deposit, shares and bond" are only 10.1% and 12.2%, respectively.

Long-term funds are especially very in short in the financial market partly because of the distorted interest rate structure as mentioned above, and 80% to 90% of funds in the financial market are short-term funds being 6 months to 9 months. Privileged loans to SOEs are still existing though it is denied by government officials. SOEs have more chances to obtain bank credits than private companies, though credit to private sector is gradually increasing.

This difficulty is even enhanced because lending conditions for bank loan is very tough for the most of the private companies due to lack of competent and experienced staff and limited facility for appropriate credit appraisal in the banking sector.

Under these circumstances, it is difficult for the private sector to obtain credit from banks. Especially, enterprises are virtually not be able to borrow long-term money from banks. Leases should be considered as an alternative measure for funding investment in equipment and other assets. It should be considered to provide assistance by the Government, for example tax and non-tax concessional treatment to promote leasing business in Vietnam.

#### (6) Securities Market

Vietnam needs a stock exchange. A stock exchange will contribute to ease the current financial difficulty which enterprises are facing by diversifying funding method of enterprises. State Securities Committee was formed in October 96. The head of the Committee is the Deputy Governor of SBVN. However, it is considered that it will take considerable time to open a securities exchange, at earliest after 1999. As companies for eligible for being listing in the exchange is still very limited. Privatization of SOEs is very slow, and the number of privatized SOEs are very limited. The background of the

slow privatization process is that both of management and workers of SOEs are concerned about losing their positions and jobs by privatization.

## (7) Mortgage

In Vietnam, borrowings from banks are sometimes not possible for enterprises due to insufficient collaterals available to them. The most significant cause of this issue is that use of land use right for bank loan is very limited, as value of land use right for mortgage is regulated by the current legal framework concerning land use right. Maximum value of land use right is limited to prepaid rent or prepaid land use fee.

## 1.2 Review of Development Policy and Plan

### 1.2.1 Review of National Development Plan

During the period of 1980's, the Vietnamese economy had been faced with the serious phenomena such as the hyper inflation of three digit. Since 1986, the new paradigm, to shift from the central planning economy to market oriented economy; namely 'Doi Moi', was adopted. In 1996, at the 8th National Congress, the review of the past 10-year progress of social and economic aspect was conducted. The review indicated that there remained the weakness and shortcoming society and economy, however, the basic direction of the renewal has been correct. In regard to the 5th Development plan, almost of all targets have achieved or surpassed, especially in the economic fields.

The 8th National Congress announced the long term plan targeting the year 2020 (It should be called as the Vision). The goal of the vision is to be a industrialized country with the modern material - technical basis, rational economic structure, and advanced production relations. In order to achieve the goal, during next 25 years, the average annual growth rate of the economy will be expected as around 8% and as a result the average per capita GDP be the 8 to 10 times to the level of the year 1990. The key word to achieve the target are 'industrialization and modernization'. The period of next 5 years, from 1996 to 2000, is placed one of the most important period to step up the industrialization in order to achieve the long term target. During the period, the State initiate industrialization and modernization shall be implemented with the key words of 'open economy', 'integrated into the region and world', and 'strongly export oriented and effectively import supplemented'.

The 6th five-year Plan consists of three parts; 1) Assessment of the implementation of the previous 5-year plan (Part I), 2) main subject or tasks and programs (Part II), and 3) main solutions and policies (Part III).



In Part I, the assessment of the implementation is conducted; achievement and weakness. With regard to the achievement, the evaluation is conducted by the view point of the following 6 categories and resulted that the targets are surpassed:

- To overcome the economic stagnation and recession and to be surpassed the most of the targets,
- To start to shift towards industrialization and to take shape of the multi-sectoral economy,
- To develop of the external economic relations,
- To improve the science and technology,
- To be changed in the socio-cultural fields and improve the living condition of the people, and
- To maintain the national defense and security.

On the other hand, the report mentioned that the weakness and shortcomings are still remained in the following 4 subjects:

- Quality and efficiency of the economy,
- Confusion and laxity of the formation of new production relations,
- Unstablensness of the financial and monetary situation, and
- Existence of the solvable cultural and social problems.

With regard to the achievement of the said objectives, the direction of the renewal process has been correct and the renewal should be strengthened and continued to the next stage.

The Part II consists of the tasks and objectives and the 11 programs. The major indicators of the targets in the Plan are summarized as following table.

### Major Targets in the 6th Development Plan

	1991-1995 Plan	Actual 91-95	1996-2000 Plan
<b>GDP Growth Rate</b>	5.5 - 6.5 %	8.2%	9 - 10 %
Agriculture	3.7 - 4.5 %	4.5%	4.5 - 5 %
Industry	7.5 - 8.5 %	13.3%	14 - 15 %
Service*	6.0 - 7.2 %	9.1%	12 - 13 %
<b>GDP Structure*</b>			
Agriculture	36%	33.9%	19 - 20 %
Industry	26%	27.7%	34 - 35 %
Service	38%	38.4%	45 - 46 %
<b>State Budget Revenue**</b>		23.6%	21 - 22 %
<b>Budget Deficit**</b>		5.0%	4.5%
<b>Inflation Rate***</b>		31.4%	10%
<b>Exports****</b>	12-15 billion USD	17 billion USD	28%
<b>Imports****</b>		21 billion USD	24%
<b>Percapita GDP*****</b>		274 USD	Double of 1990
<b>Percapita Export</b>		70 USD	200 USD
<b>Population Growth</b>		2.2%	1.8%
<b>Job Creation per year</b>		1 - 1.2 million	6.5 - 7 million
<b>Unemployment (Urban)</b>		7%	5%

Source: 8th National Congress Documents 1996, Statistical Year Book 1995 (General Statistical Office)

Note: The blanked columns at the previous 5-year Plan are not available.

- \*: The growth rate of service sector in previous 5-year Plan is expected by the Team. The GDP share by sectors in previous 5-year Plan is calculated by the Team.
- \*\* : The share to the GDP.
- \*\*\*: The inflation rate of the 1991-95 actual is the average of during the period of 1991-95. The rate of the 1996-2000 Plan is also the annual average rate of the period.
- \*\*\*\*: Target of export in the previous 5-year Plan and the export and import of actual value are the accumulation of the 5 years. The target of 96-2000 Plan is the growth rate from 96 to 2000.
- \*\*\*\*\*: The percapita GDP in the year 2000 are the double of the year 1990. That of the actual(274 USD) is the value at the end of 1995, and exchange rate between Vietnamese Dong and the USD is 11,000 VD = 1 USD.

Regarding to the per capita GDP, the Plan estimated the double of the year 1990. The target of the Plan is rather low, since based on the GDP growth rate, inflation rate, and population growth, the per capita GDP in 2000 are expected as the double of the year 1995, namely around 550 USD.

The 11 programs, from economic development to the social and cultural development, are summarized as follows:

- Agricultural and rural economic development,
- Industrial development,
- Infrastructure development,
- Science and technology development including ecological protection,

- Service economy development,
- Foreign economic relations,
- Education and training development,
- Solutions to social and cultural issues,
- Territorial regions development,
- Socio-economic development for minorities, and
- Hunger elimination and poverty alleviation.

Underlined development programs such as industrial development program, etc. shall be assessed minutely in following sections.

In Part III, main solution and policies are proposed; major balance and policies to the economic sectors and economic management mechanics.

The major balances are composed of three subject; financial, state budget, and investment capital balances.

The policies to the economic sectors and economic management mechanism consist of four policy measures; the policy for the development of a multisectoral economy, the policy for the completion of the socialist-oriented mechanism and renewal of the state's macro-management instruments, continuity of the renewing external economic relations and acceleration of the integration into the region and world economy, and administrative reform.

## 1.2.2 Basic Policy for Development

### (1) Industrial Development

The objectives of the industrial development in the 6th Plan are 1) to renew the technology of existing factories, 2) to develop and/or build up the leading industries, 3) to set up industrial estates including high-tech zone, and 4) to develop the rural and suburban industries. The government also tends to relocate industries from the urban centers and to restrict the location in the residential area (Industrial Location Policy).

The leading industries are considered as food and foodstuff processing, oil and gas, electronic-informatic and information industries, mechanical engineering, and material products.

In order to achieve the objectives, the targets are put on sector by sector summarized in following table. The targets of the light and heavy industries such as food, textile, and rubber, cement, steel, and fertilizer are indicated as the production

volume. The electronics, information technology, and mechanical engineering industries, on the other hand, are suggested as direction of the development. The former are considered mainly to the products by the State enterprises and the latter by the joint venture with foreign investors.

The total amount of investment is estimated as 41 to 42 billion US dollar during the period of 5-year Plan. The investment to the industrial sector including the construction are expected 43% to the total or 17 - 18 billion US dollar. The detail allocation of investment by sub-sectors are not identified. The investment controlled by the State is allocated to the fields except the industries. This indicates that the investment to the industries will be carried by the domestic enterprises and foreign direct investment (FDI). With regard to the FDI, it is accounted the total of 13 - 15 billion USD. In 1995, the FDI to the industries counted 46% of total. Assuming this trend, the investment to the industry sector by FDI is expected 6 - 7 billion USD. Under this assumption, therefore, more than half of the investment to the industry sector will be carried out by the domestic enterprises.

Regarding the industrialization, basic policy is to continue and expand the renewal process. This might imply the practical usage of market mechanism. Most industries except national projects, for example the steel complex which requires the huge initial investment, might be liberalized. In other words, the fields of the investment shall be decided by the enterprises themselves using the feedback systems with market both in domestic and foreign. The source and allocation of the economic sectors are summarized as following table.

Source and Allocation of Investment

Source of Investment	% Share	Allocation of Investment	% Share
State Budget	21	Agriculture, Forestry, Fishery, Water	20
State Credit Capital	7	Industry	43
State Enterprises	24	Communication, post	18
Population	17	Social Infrastructure	14
Foreign Direct Investment	31	Others	5

Source: 8th National Congress Documents

As for the industrial location policy, the target areas to introduce the investment will be the place that have a good potential but are still in a difficult position. The concrete areas are not identified but, considering the present situation of spatial location, the northern and central regions might be the targets. If so, one of the industrial location policy or programs are the non-uniformity-incentive system; Designation of the special

incentive zone (This kind of program / policy are adopted by several countries such as Japan, Thailand).

(2) Trade, Finance and Custom Duties

1) Trade

(a) License to import and export goods

The foreign trade of Vietnam was virtually monopolized by specified state-designated trading enterprises for long time. The foreign trade was recently opened to manufacturers of export products.

However, a company is required to seek approval from the Prime Minister in order to engage directly in import or export, and are hard to obtain. Local private companies applying for such a license must prove they have a minimum of USD200,000 in working capital. Even if the financial requirement can be met, the Prime Ministers office has broad discretionary powers over applications. If a company does not have a license, it is obliged to import or export through a licensed firm. Most of the licensed firms are state-owned, and charge about 2% of the value of the shipment. This fee is negotiable between the two parties, as being stipulated by Decree 1172 of the Ministry of Trade issued on the September 22, 1994. But, according to Vietnamese entrepreneurs, it is difficult to negotiate a fair fee and there is little option but to pay.

(b) Import permits

Only import permit, issued by the local department of the Ministry of Trade located in 6 major cities, is needed when products are imported into Vietnam except for 7 products being subject to an import quota listed below. This permit is mainly for the trade statistic purpose and will be issued rather automatically.

The following 7 products are subject to import quota. The import quota quantity is reviewed and changed from time to time to reflect the movement of demand and supply of these products.

Petroleum	4.8 million tons
Fertilizer	1.3 million tons
Ordinary steel	600,000 tons
Sugar	70,000 tons
Black cement	2.2 million tons
Vehicles under twelve seats	6,500 vehicles
Motorcycles	350,000 vehicles

For these products, an import permit issued by the main office of Ministry of Trade in Hanoi, as well as an import permit issued by the local department, is required for import.

Quota are granted by the administration authority principally to SOEs. The allocation procedures for import Quota are unclear and these are difficult to obtain by private businesses. Information about the process by which the Government issues the quotas is not made available.

#### (c) Export permits

Prior to June 30, 1994, all products were subject to export permit. However, since July 1, 1994 export permit was abolished, except for "crude oil", "rice" and "wood products". The export permit system has been subsequently relaxed in 1995, and only one product, rice, is subject to the export quota.

Export taxes are imposed on 64 products, all of which are raw materials (rubber, crude oil, hides and skins, logs, sawn wood, simple article of wood, metal ores and scraps), Export tax rates were increased in 1995 on 11 products, including unprocessed rattan, unfinished parquet boards and various simple metal shapes and forms.

## 2) Finance

In 1994, inflation rate had jumped to 14.4% from 5.2% in 1993. A loosening of monetary policy was the cause of this high inflation rate. The tightened monetary policy subsequently adopted by the Government played a key role for the recent success in reduction of inflation to 12.7% in 1995 and further reduction to 4.5% in 1996.

Money markets are still under the process of development, and credit ceilings set for by bank are the principal measure for implementation of the monetary policy. After the rise in inflation caused by the ineffective control of the credit ceilings in 1994, the SBVN has enforced the ceilings more tightly and the growth of domestic

credit continuously declined steadily in 1994 and 1995. Domestic credit control still continued to be tight in 1996.

Fiscal policy has supplemented the monetary policy by reducing the Government's demand on domestic credit and providing more credit to the business sector. Consequently, the share of credit to the private sector, including domestic private enterprises and foreign joint ventures, continued to increase gradually. State enterprises are increasingly relying on their own sources or joint ventures with foreign investors to finance their operations. However, it should be noted that approximately 50 percent of credit still goes to state enterprises. Further reform of the fiscal policy is needed to direct more financial resources to the private sector.

The composition of funds in the official financial system indicates a gradual increase of confidence in the macroeconomic policy and the financial system in Vietnam. The share of Dong in M2 reached about 80 percent in 1995 as a result of gradual shift from dollars into Dong. At the same time, the share of the four SOCBs is declining and domestic joint stock banks are expanding its activities, even though SOCBs still accounting for the majority of credit and banking sector assets.

As new private banks are growing, the supervisory function of the SBVN has become even more crucial to enhance the confidence in and development of the financial system in Vietnam. Frauds and irregular funding recently found in some commercial banks again causing a damage on the confidence in the financial market of the people. Law on the State Bank of Vietnam and the Law on Banks and Financial Institutions are now in the legislation process to provide a basis for confidence in the financial market by establishing more detailed rules of banks business and by stipulating the responsibility of SBVN for supervision of the banking sector.

### 3) Custom Duty

#### (a) Custom duties in Vietnam

Regulations on imports and exports are stipulated by the Law on Export and Import Duties, which was issued on December 26, 1991, and amended on January 16, 1992, and July 5, 1993. Goods crossing the border of Vietnam are subject to import and export tax which is normally paid through agencies with import and export licenses.

The import-export tax policies are managed by MOF. Being based on proposals from the line-ministries and the economic development policy of the

State, MOF prepares drafts of amendment of the tax laws and ordinances including the import-export law to submit to the Standing Committee of National Assembly. However, export and import taxes imposed on enterprises with foreign investment is assigned to the Ministry of Trade in order to realize "One-stop-service" for foreign investors.

The Standing Committee of the National Assembly stipulates the rates of duty applicable to each category of commodity. The import duty system allows for quarterly changes of tariff rates, and adjustments are frequently made. Import duties are charged on a wide range of products, and the current import duty schedule is characterized by many rates and large dispersion. However most rates are low, with raw material and investment goods subject to rates lower than 10%, essential consumer goods subject to rates up to 22%, and standard consumer goods subject to rates lower than 60%.

There are two types of custom duty rates, a preferential rate and a standard rate. The preferential rate is applicable to goods exported to and from countries with trade agreements with Vietnam, and the standard rate applies to goods traded with the other countries. The preferential rate of duty is applied at a uniform rate of 70% of the standard rate.

**(b) Duty drawback and exemption system**

In Vietnam, duty drawback and exemption system is actually working well and contributing export promotion. In this system, a processing time of 90 days is allowed to importers. Namely, importers need not to pay import duties for import of inputs, if these inputs are processed and exported within 90 days.

In case where it takes more than 90 days for processing and exporting, the importer have to pay custom duties. However, he can claim drawback of the custom duties when these inputs are exported. It is now being requested by the business community to extend the allowance of 90 days for processing and exporting.

**(c) Revenue from "Import and Export Duties" (Import and Export Tax)**

Import and Export Duties is a significant revenue source in the Government revenue. Import and Export Duties is second largest revenue source next to "Revenue from state enterprises". For example, a share of revenue from external trade in the total revenue of the Government was 28% in 1995.



Significance of Import and Export Duties will be increased after the introduction of VAT in 1999, because it will take some time to recover the loss of revenue from Turnover tax by the revenue from VAT.

### (3) Human Resource Development

The Human Resources Development Policy in 8th National Congress set five targets for the year 2000 to become an industrialised nation and to make eight to tenfold the GDP of 1990 by the year 2020.

- To double the per capita GDP of 1990
- To keep a GDP annual average growth rate of 9 - 10%
- To keep 14 - 15% growth rate in industry and construction

The share of industry and construction becomes 35% from 23% in 1990, while the share of agriculture becomes 20% from 38%.

And to achieve these targets, twelve targets in the human resources development toward 2000 were stated:

- The overwhelming majority of five-year-old children will have access to pre-school education
- All those aged between 15 and 35 will be literate.
- To ensure schooling to children of poor households
- To encourage and support talented and promising students
- To emphasize teaching of foreign languages and informatics
- To open more boarding schools in difficulty-stricken areas and areas of ethnic minorities
- To combine training with research
- To encourage on-the-job training
- To increase training overseas and at locally-based international training centres
- To increase the ratio of trained labour from 10% at present to around 22%-25%
- To raise the educational and professional standards of women
- To formulate a strategy on education and training development in the period of national industrialization and modernization, and etc.

As the result, the ratio of graduates of basic general education (the 9th grade) among labour age population is expected to be 55 - 60% and the ratio of trained labour in the labour force to be 22 - 25% by the year 2000.

#### (4) R&D Promotion

The 1996-2000 five-year plan for socio-economic development describes the basic policy for science and technology promotion as summarized below. In the five-year plan, development of science and technology is depicted to enhance the endogenous capacity as an important factor to drive the process of industrialization and modernization.

##### 1) Objectives

The objectives of the five-year plan are:

- To work out scientific grounds to be capable of absorbing world achievements in science and technology,
- To carry out initial development of a number of high-tech field such as electronics, information, biotechnology, new materials and automation,
- To set up technology renewal by at least 10% per year in various branches of production, paying special attention to quality of technologies,
- To focus on application of advanced technologies, gradually bringing Vietnamese technology to the standard of the region, and
- To bring about visible progress in the protection of ecological environment.

In order to achieve the above objectives, the following program have been worked out.

##### 2) Renewal of technology

The level of technology should be moved directly to modern technology in key production sectors with impact on many branches, in export production sectors and in new field of investment. Technology should be improved continuously for a number of traditional trades. Technical means should be renewed for inspection, measurement, and control. Automation is necessary for enhancing product quality.

##### 3) Development of high-tech

The program to develop information technology should include:

- (a) to strive to build infrastructure for information technology by the year 2000,

- (b) to apply information technology to all sectors of national economy so as to achieve tangible progress in terms of productivity, quality and efficiency, and
- (c) to set up a nation-wide information web connected with a number of international webs.

For biotechnology, the following actions should be taken.

- (a) to develop biotechnology with a view to securing fast generation and multiplication of new variety of plants and animals,
- (b) to produce various types of vaccine and antiserum, and agents for rapid and accurate disease diagnosis, and
- (c) to develop technologies to address environmental pollution.

It is necessary to develop new materials which are highly effective and durable under the severe tropical condition. Automation should be introduced to a number of key factories so that it could form the production chain which determine the quality of products.

Two high-tech zones which serve as a venue for scientific institutions and domestic and foreign business to secure high technology and high-tech industries should be build in Hanoi and Ho Chi Minh City.

#### 4) Development of natural science

It is essential to develop the various disciplines of natural science and research into a number of promising fundamental present and future issues of science to keep abreast with the world standards in the fields of mathematics, cybernetics and calculation, physics, mechanics, chemistry, biology and earth sciences.

#### 5) Enhancement of the quality and competitiveness of products

The quality and competitiveness of Vietnamese products should be enhanced to reach the international standards by applying science and technology measures and renewal of institutions and management policies, focusing on a number of staples such as rice, coffee, rubber, aquatic products, garment, oil and gas and assembled products. Institutional network should be placed to control and certify product quality.

#### 6) Protection of industrial property right

It is necessary to set up protection of industrial property right in order to ensure wholesome competition within the market system and to stimulate the

creativity of scientists and working people. The details will be discussed as following section.

7) Incentives

The State is to adopt policies that provide incentives for the application of technical advances through preferential treatment in tax, credit, import-export tariffs, etc. It is necessary to extend support to the economic sectors which show a need for scientific research and technological innovation.

8) Rearrangement of institutes

Rearrangement of science and technology institutions should continue towards greater concentration on strategic areas of science and technology, closely linking scientific research with education and training, and placing a number of existing specialized research institutes under the direct jurisdiction of various corporation.

9) Founding sources

It is indispensable to look for diverse funding sources for rapid increase in investment for science and technology. Besides budget allocation, policy measures have to be devised to tap additional sources for investment in science and technology from business, the various economic sectors, international assistance, and from socio-economic program and capital construction projects.

10) Protection of the ecological environment

It is essential to ensure rational utilization of natural resources and protection of the ecological environment. The following measures are listed for the protection of the ecological environment.

Surveys of environmental pollution should be undertaken urgently to investigate and evaluate irrational exploitation of natural resources that is detrimental to the environment, and to devise effective remedial measures.

- Project for environmental rehabilitation and protection should be carried out.
- National park and forest reserves should be created.
- Tree planting should be implemented in cities and industrial estates.
- Advanced techniques should be applied for toxic and waste treatment.

All plans and projects of socio-economic development, foreign investment, and capital construction must be examined and weighed with regard to their environment impact and their suggested remedial measures.

Environmental degradation caused by production facilities should be terminated. It is needed to stop at its original source of pollutant, at first and foremost, of water and air.

It is necessary to extend the green coverage to requisite level of ecological safety.

It is needed to ensure sound working and living environmental conditions in industrial estates and urban centers, as well as environmental hygiene in rural area.

#### (5) Environmental Conservation

##### Environmental administration

There are number of government and academic institutions in Vietnam with mandates for particular aspects of environmental management. In October 1992 the Ministry of Science, Technology, and Environment (MOSTE) was established based on restructure of former State Committee for Sciences. The MOSTE is Vietnam's central environmental authority, and has an overall mandate for environmental legislation and policy formation, environmental institution building, environmental impact assessment and review, environmental research, environmental quality standards, and data collection and management. Within MOSTE, the National Environmental Agency (NEA) is the implementing agency on behalf of MOSTE for all aspects of environmental management and protection at the national level, and is responsible for formulating policies, strategies, and regulations for environmental protection and sustainable development. The NEA has also responsible for approval of Environmental Impact Assessment (EIA) reports, environmental monitoring and solution of environmental risks at national levels.

At the provincial level, Department of Science, Technology and Environment (DOSTE) were set up based on reorganization of former Departments for Science and Technology under the people's committee. The DOSTE is official agency responsible for environmental management in provincial territory.

In addition to MOSTE and DOSTE in local governments, there are a number of other ministries and institutions with responsibilities pertinent to the environmental sector. The main ministries and institutions with environmental responsibilities are :

- Ministry of Industry,
- Ministry of Agriculture and Rural Development,

- Ministry of Health,
- Ministry of Fisheries and Aquatic Products,
- Ministry of Labor Invalids and Social Affairs,
- Ministry of Construction,
- Hanoi University,
- National Center of Scientific Research of Vietnam,
- General Department of Hydrology and Meteorology,
- Others.

All above mentioned ministries and bodies may implement their own action programs/projects or associated with other ministries, agencies to implement cooperation programs for solving environmental problems and/or implement the Law on Environment Protection in the ministry's level.

#### Legal framework for environmental protection

In relation with environmental protection in Vietnam there are several laws and regulations supervised by the central and provincial governments. The main laws and regulations relevant to environmental issues are:

- Law on Environmental Protection,
- Land Law,
- Law on Mineral Resource Exploitation,
- Maritime Law,
- Gas and Oil Law
- Law on Labor Protection,
- Provincial Regulations for Environmental Protection or Pollution Control.

In laws and regulations mentioned above, Law on Environmental Protection is the principal law for environmental management in Vietnam. This law includes 55 articles of 7 chapters and was promulgated on 10 January 1994. In order to enforce the Law on Environmental Protection, the Government of Vietnam has issued the Decree No. 175/CP on guidelines for the implementation of the Law. The Decree includes 7 chapters, 40 articles.

### Basic policy and strategy for environmental conservation

With economic growth in recent years, Vietnam faces a number of environmental issues such as urban and industrial pollution, loss of biodiversity, forest loss etc. Government of Vietnam has recognized the need to protect it's environment and prepared "the National Plan for Environment and Sustainable Development (NPSED)" with assistance of UNDP, SIDA and IUCN in 1990. NPSED has been approved by the Prime Minister in August 1991. NPSED outlined a national framework for action in the area of Environment and Sustainable Development and provides the basis for developing the required inputs that will enable Vietnam to address its environmental challenges. The targets of this plan are:

- Stable development of environmental planning and management at the national level and the lower levels.
- Urgent implementation of detail actions to solve the priority programs.

The overall framework is one which the Vietnam should strive to develop from year of 1991 to 2000. This framework ultimately includes a wide variety of components, including appropriate organizations structures, well-integrated environmental policies at the sectoral level, environmental legislation, priority projects and programs, improved methods of data collection and management, environmental impact assessment procedures and monitoring systems and so on. Priorities and an agenda have been identified for two five-year periods: 1990-1995, and 1996-2000.

For 1990-95, the highest priority was given to the establishment of a single environmental authority, the development of programs in population control, watershed management programs, which include reforestation, control of soil erosion, management of problem soils, and stabilization of shifting agriculture, agricultural pollution control and estuary protection. From 1996 to 2000, population control and watershed management should continue to be top priorities, along with the protection of reefs, wetlands, and inland waters.

In order to pursue the targets mentioned above, strategies and recommendations which form the basis of this action plan were determined at the Conference on Environment and Sustainable Development, held in Hanoi on December 1990. These include sectoral, industrial, human resource development, and industrial/legal strategies which should be promoted more actively and effectively in all regions of Vietnam. A summary of these strategies and recommendations in connection with some important sectors and environmental issues are shown in Table I-2-1 to Table I-2-6.

### National Environmental Standards

A set of national environmental standards has been prepared by a group of institutes including Hanoi University, Environmental Protection Center (EPC) in Ho Chi Minh City, Institute of Standardization and others. From March 1995 the MOSTE has approved the national Environmental Standards including various air quality, air emission, water quality, water effluent, soil quality standards. This set of standards are officially used in Vietnam for environmental management. Surface water quality standards, ambient air quality standards, industrial waste water discharge standards and industrial emission standards are shown in Table I-2-7 and Table I-2-10.

### Environmental Impact Assessment

For development projects, e.g. industrial or energy development projects, it is required to carry out Environmental Impact Assessment (EIA) prior to project start in accordance with the Government Decree No. 175/CP which defines the detail of the EIA. Therefore the management entity of the HHTP project have to conduct EIA in accordance with the above mentioned Government Decree. The formation of EIA shall be conducted in two stages: preliminary and detailed. The contents of a preliminary EIA report and a detailed EIA report are stipulated in Table I-2-11 to Table I-2-13.

According to the Governmental regulation for appraisal of investment projects, managers of proposed projects should apply two kind of documents to the Ministry of Planning and Investment (MPI), which is responsible for reviewing and providing investment licenses. One is a detailed feasibility study report which describes the technical and the economic aspects on the project, the other is an ordinary EIA report prepared in accordance with the governmental Decree. EIA reports should be reviewed and approved by MOSTE if projects having high investment cost or special problems such as the HHTP project. EIA reports of remaining projects are reviewed by DOSTE.

#### (6) Intellectual Property and Technology Transfer

Protection of intellectual property in Vietnam is stipulated by the Civil Code effective from July 1996. The Civil Code classifies intellectual property into two categories, namely Industrial Property and Copy Right.

Industrial Property and Copy Right are administered by the National Office of Industrial Property ("NOIP") and the Copy Right Office, respectively.



1) Intellectual property

(a) Industrial property

a) Legal framework

Protection of the industrial property is stipulated by the following regulations:

- The Civil Code
- Decree No. 63/CP of the Government of October 24, 1996 of the regulations on detailing the regulations on Industrial property
- Circular No.3055-TT/SHCN of December 31, 1996 of MOSTE guiding the implementation of Decree No. 63/CP

b) Objects of the industrial property

The objects of the industrial property protected by the State include: Inventions, Utility Solutions, Industrial Designs, Trade Marks, and Appellation of Origin.

(i) Invention

An Invention is a technical solution that is distinguished with World-Wide novelty in terms of the present technical development, inventive step and is applicable to different social and economic fields

ii) Utility solution

A technical solution that is new in terms of the present technical development in the world and is applicable to different social and economic fields.

iii) Industrial design

An industrial design is a product's shape which is formed by lines, three-dimensional form, and colors or the combination thereof, and that has World-Wide novelty and is used as the pattern of industrial or handicraft products.

iv) Trademarks

A trademark consists of the signs that are used to distinguish goods or services of the same kind from different producers. A trademark can be expressed by words, images or combination thereof in one or different colors.

v) Appellation of origin

An appellation of origin is a country's or a locality's geographical name that is used to indicate the origin of the goods from that country or locality provided that the goods have the characteristics or quality reflecting the specific geographical condition, including natural and human characteristics or the combination thereof.

c) Institutional framework

NOIP is the Government authority, belonging to the Ministry of Science, Technology and Environment ("MOSTE"), responsible for the administration of Industrial Property, in cooperation with Government and social organizations concerned, for the promotion and development of Industrial Property field throughout the country. However, the regulations, concerning industrial property, are actually executed by the Department of Science, Technology and Environment in the provincial office of each province which is belonging to the Peoples' Committee of that province.

According to the annual report of NOIP for 1996, NOIP has 104 staff, which comprises 81 professional staff and 23 support staff. The number of the professional staff engaging in appraisal and assessment of applications of industrial property and the number of application are shown below:

Staff		Application (1996)
Inventions and Utility Solutions	12	1087
Industrial Designs	4	1647
Trade Marks	11	5441
Appellation of Origin	8	Data not available

(Information source: Industrial Property Activities, Annual Report 1996 of NOIP)

As seen in the above comparison, NOIP is suffering from a serious shortage of staff. The shortage of staff will be far more serious, since it is anticipated that the number of application of Industrial Property would increase significantly as the economy of Vietnam develops.

#### d) Protection of industrial property

Protection period of industrial property is not stipulated by the Civil Code itself but stipulated by Decree No. 63/CP, and they are summarized in the table below. The protection period of Industrial property is comparable to those of other countries, because Vietnam is a party of the following international conventions and treaties and protection period internationally adopted is also adopted in Vietnam. This is also one of conditions for joining WTO and other international agreements.

- Convention Establishing the World Intellectual Property Organization (WIPO),
- Paris Convention for the Protection of Industrial property,
- Madrid Agreement Concerning the International Registration of Marks, and
- Patent Cooperation Treaty (PCT)

Type	Protection title	Maximum term of validity		Starting date of term
• Invention	Patent	20 years		Officially accepted filing date
• Utility solution	Patent for utility solution	10 years		Officially accepted filing date
• Industrial design	Patent for industrial design	5 years	Extendable for 2 consecutive 5 year periods	Officially accepted filing date
• Trademark	Trademark registration certificate	10 years	Extendable for consecutive 10 year period	
• Appellation of origin	Certificates of the right to use an appellation of origin	10 years	Extendable for consecutive 10 year period	

#### (b) Copy right

##### a) Legal framework

Protection of copy right is stipulated by the following regulations:

- The Civil Code (Part Six, Chapter I)
- Decree No. 76/CP dated November 29, 1996 of the Government providing guidance for the implementation of a number of provisions on copy right in the Civil Code

#### **b) Objects of copy right**

Literary, artistic, scientific works protected under copy right include the following work:

- Written works,
- Lectures and speeches,
- Dramatic works and other works of stage art,
- Motion pictures; video films,
- Articles in periodicals and newspapers,
- Musical works,
- Architect works,
- Sculptures and works of fine art and applied art,
- Photographic works,
- Scientific works and textbooks,
- Geological maps, drawings, charts, and sketches relating to sites, architectural or scientific projects,
- Translations, adaptations, compilation, transformations, commenting, and
- Computer software;

#### **c) Institutional framework**

The Copy Right Office is the Government authority, belonging to the Ministry of Culture and Information, responsible for the administration of Copy Right. The number of staff of the Copyright Office is currently less than 20. There are 3 departments in the Copyright Office:

- General Administration Department
- Management of Copyright Department
- Information and Collective Association Department

The Copy Right Office has only local office in Ho Chi Minh City. However, the implementation of the regulations concerning copy right is, same as the execution of the regulations of industrial property, actually

executed by the provincial office of each province. For difficult cases, the Copyright Office assist the local department in executing the regulations.

The local departments also consult with the Copyright Office for interpretation and questions of the regulations of copyright. In preparation of draft legislation, the Copyright Office asks the local departments' opinions.

Maintenance of a register of copyright, which is not still computerized due to relatively small number of the registered copyrights and due to the limitation of the facilities of the Copy Right Office, is done by the Management of Copyright Department. On the other hand, assistance for establishment of collective associations for music, author, film, audio, etc. is conducted by the Information and Collective Association Department

#### d) Protection of copy right

Protection period of copy right in Vietnam is stipulated by the Civil Code, and it is summarized in the Table I-2-14. However, the stipulation of protection of copy right by the Civil Code is very complicated, confusing, and clear stipulation for some aspects of the protection of copy right is missing in the Civil Code and the regulation.

##### <Example 1>

- A "right to use and to authorize other persons to use his work" is categorized as one of the moral rights in the Civil Code. However, this right is one of the most significant property right.

##### <Example 2>

- The Code stipulates, for "Owner but not author" (Table I-2-14) case, that an owner has a right to authorize other persons to use his work unless the author and the owner agreed otherwise (Article 753 Item 1 b.). This stipulation is very important because this allows the author, upon agreement with the owner, to have a right to use his work, which will create very strong incentives for the author for doing a good work.
- However, in other cases than "owner but not the author", the Code just stipulates that the owner has a right to authorize other persons to use his work, and the part of "unless the author and the owner agreed otherwise" is missing.