<Example 3>

- As seen in the table (sections mentioned as "Not stipulated by law"), protection period is not specifically stipulated for some cases.

According to the explanation by the Copy Right Office, the amendment of the Code will not be taken place in near future. Therefore, insufficient stipulation of the Code will be mitigated, until an amendment of the Civil Code is made, by interpretation of the Code in line with the general principles of the copyright and contracts between parties until the Code is amended accordingly. Therefore, a written contract is, in this respect, very important to protect authors' and owners' rights properly.

(c) Recommendation point

a) Amendment of the Civil Code

As mentioned in above, the Civil Code stipulating protection of copy right is very much complicated and not covering all aspects of the protection of the 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.

b) Information service

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

A public information system, to announce decisions made by NOIP and the Copy Right Office, should be established. At this moment, decisions 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.

(c) Reinforcement of execution power

NOIP and the Copy Right Office are suffering chronic shortage of staff. The facility of these offices should be reinforced by increase of the

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 also be considered to strengthen the execution of the regulations for protection of the intellectual property.

d) Strict execution of regulations

It is observed that illegal copies and goods are flooding in the 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 as mentioned in the preceding paragraph.

Co-operation between Governmental 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.

2) Legal Framework for Technical Transfer to Vietnam

(a) Outline of the legal framework of technical transfer

The outline of legal framework of technical transfer to Vietnam was used to be prescribed by the following regulations:

- Ordinance on the Transfer of Foreign Technology Transfer ("the Ordinance")
- Decree No.49-HDBT, Dated 4 March 1991 of the Council of Ministers on the Transfer of Foreign Technology into Vietnam ("The Decree")
- Circular No.28/TT-QLKH Dated 22 January 1994 of Ministry of Science, Technology and Environment-Making guidance on the transfer of foreign Technology into Vietnam ("Circular")

However, the above regulations, issued prior to the legislation of the Civil Code, have been abolished when the Civil Code became effective in 1996. The current regulation concerning technology transfer is only the Civil Code. Regulations for implementation of the Civil Code have not been issued yet.

MOSTE is now preparing a Decree to stipulate details of implementation of the Civil Code.

Due to the lack of detailed regulations concerning technology transfer, old regulations are still actually applied until the new regulations are announced.

a) Approval of technology transfer contracts

A technology transfer contract is effective only after it has been officially approved. In order that the contract be approved, the following documents should be submitted to the appropriate State body of Vietnam.

- An application for approval.
- The contract of technology transfer and its annexures.
- A statement justifying the objectives and feasibility of the technology to be transferred.
- Information concerning the legal status of the two parties.

The State body is to notify its approval of the contract within three months of receiving the application. The approval will be given in the form of a technology transfer certificate.

b) Limitation on term of royalty agreement

Duration of the contract should not exceed seven years from the date of its commencement. In certain cases, extension of seven year period may be permitted by the authorized State body. In special circumstances, a contract for longer than seven years may be approved by the authorized State body.

c) Royalty payment

Details of calculation of royalty is prescribed by the Circular.

(i) Payment method of royalty

The following 3 different payment methods are recognized by the Circular. They are "Capital contribution in value of the technology", "Lump sum payment" and "Installment payment". It is also allowed to adopt two or three of these payment methods.

Capital contribution in the value of technology

It is prescribed by the Circular that the capital contribution value of the technology should be within 3% to 8% of the total investment

capital (excluding the capital contribution value in the land use right and compensation for land site clearance). Maximum rate for a specific project would be determined considering the scale of project, nature of technology and contents of the project.

In some specific cases such as high technologies and the project with small investment capital, the Ministry of Science, Technology and Environment ("MOSTE") may consider to accept the technology value for capital contribution at a higher rate.

Lump-sum payment

Lump sum payment is a payment method where royalty is paid by one or several payments at specified point of time in the transferring process of technology. They would be, particularly, when a contract is going into effect, when technical documents are handed-over or when production is commenced, etc.

A sum of royalty payment is limited to 3% to 8% of the total investment capital. In this calculation, value of capital contribution in the land use right and compensation for clearing the land site should be excluded from the total investment capital.

Installment payment

Installment payment is a payment method where a transferee pay by installment to a transferor during the period of the royalty contract. Royalty amount is to be calculated either on "After-tax profit" or on "Net value".

It is mentioned in the Circular that for an foreign investment project a royalty calculation based on after-tax profit is preferred to that based on net value. The Circular further prescribes that if royalty is to be paid on net value, the transferee should be allowed to delay payment of royalty up to a time when the transferee has sufficient profit so that the transferee has not suffered from losses due to the payment of royalty. No interest should be charged to a delayed payment of royalty.

If royalty is to be paid on after-tax profit, royalty rate is limited between 5% to 25%. A higher royalty rate would be permitted by

MOSTE for a technology transfer with greater significance in the economic development.

Restriction on royalty rate for installment payment and the definition of net value are explained in the following section.

(ii) Ceiling of royalty rate for installment method

5% ceiling

5% of royalty payment is allowed for a technology transfer where for all contents of the transferred technology, such as industrial property object, technical know-how and documents, training and all other technical assistance are to be transferred to the transferee. 5% royalty is also allowed to technologies which meet the following conditions:

- Contents of technology transfer have great significance to the economic development,
- Products (on services) have high quality and create large profit, and
- Export ratio of the products is high:,

3% ceiling

3% of royalty payment is allowed for a technology transfer where the contents of the transfer only include the industrial property, technical know-how and documents.

2% ceiling

For the technology transfer to produce products of export standards, 2% (the standard rate) of net value is allowed.

Trade marks

For internationally well-known trade marks, royalty rate should not exceed 1% of the net value of the products. If products are only sold in Vietnam, ceiling of royalty rate is reduced to 0.5% of the net value.

(iii) Net value

Net value is a value of products or services, being created by the transferred technology, being calculated as the sales value minus the following amounts:

- Indirect taxes (turnover tax, special sales tax and value added tax);.
- Commercial discount;
- CIF import price and import duty of intermediate goods, components and material supplied by the technology transferor or by his affiliates.
- CIF import price and import duty of other intermediate goods, components and material produced outside Vietnam's territory, and
- Cost and expenditure for packaging and freight.

d) Tax on royalty

Income tax at source is imposed on royalty income. The tax rates are:

- Individual receiving more than 1.8 million dong 5%
- Company:

Royalty period is less than 5 years	10%
Royalty period is 5years or more	15%

(b) Incentive measures for technology transfer

Incentive measures for technology transfer are currently not provided specifically 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 these priority sectors. However, it should be noted that they may have indirect impact on promotion of technology transfer through investment, but they are not direct incentives for promotion of transfer of technology. Anyway, these tax incentives are effective only for limited period as these two 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, which may provide incentives to priority sectors. MOF is now collecting various information and data for this purpose.

(c) Recommendation

a) Minimization of government interference in technology transfer

Technology transfer is basically a business conduct of enterprises to seek for profit, and 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 the Government interference is Article 6 of the Ordinance, which specify items, such as objective of technology transfer, royalty calculation and payment method, technology transfer schedule, training related to the transferred technology, etc. 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.

- Obligations on the technology transferee to purchase raw materials, equipment, intermediate goods and parts or to use permanently manpower from sources stipulated by the transferor.
- Restrictions concerning quantity of production, prices and terms for sale of products of the transferee, including the appointment of sales agents or commercial representatives.
- 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.
- Restriction on the research and development 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.

b) 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, the world standard, for royalty calculation should be allowed in Vietnam if Vietnam really wishes to promote technical transfer from overseas.

c) 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, being prescribed by the Circular, should be shortened to promote technology transfer to Vietnam.

d) Incentive measures

Incentive measures for technology transfer are currently not provided specifically for technology transfer as mentioned in the preceding paragraph. 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 for this purpose.

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 incentives 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) Land Use Right

Land in Vietnam is the property of the people by the Constitution of Vietnam and is administered by the State. National ownership of land itself is not a issue for development of market economy. This is practice in some advanced countries without causing any adverse consequences on the market economy.

However, in Vietnam, land use rights have become a significant issue. This is not because of State ownership of land use right, but because of ambiguity of the legal regime

regulating land use right which was caused by the process of implementation of the Land Law and other regulations, and because of content of regulation of land use right itself which virtually deprives enterprises of opportunities to utilize land use rights for collateral for bank loans and consequently deprive of the Vietnamese economy of opportunities to utilize land use rights for economic development.

1) Legal Framework of Land Use Right in Vietnam

(a) The new Land Law

The new Land Law was introduced in 1993. The new land Law stipulates two forms of land use rights:

- An allotment of land for use on a stable and long-term basis ("LTLURs" hereafter), and
- An allotment of land for use on a rental basic (RLURs).

These two forms of land use rights are very different in pricing and associated right to transfer.

The Land Law prescribes only a general right to transfer land use rights, and the Law prescribes specific legal details only for certain cases. The Law is not comprehensive in this respect. This is a background of the ambiguity of the legal framework concerning the land use right.

The Law stipulates the right to transfer LTLURs held by households and individuals, but it does not prescribe the right to transfer by domestic and foreign organizations. The Law leaves the establishment of transfer rights for land use rights held by domestic and foreign organizations to separate ordinances and decrees.

(b) Frequent changes of regulations for land use right

a) Confusion caused by Decree 18/CP

Decree 18/PC, approved in February 1995, had widespread impact, among numerous regulations introduced after the new land Law, on transfer of land use right.

The intention of introduction of this Decree was to elaborate on the land use rights of domestic organizations, and in particular to harmonize the treatment of domestic private enterprises and SOEs with regard to land use rights.

However, the Decree made a reverse impact on the legal stability of transfer of land use right, because the Decree allowed for domestic organizations to hold rights on non-agricultural land only in the form of RLURs and existing LTLURs on non-agricultural land, held by domestic organization including the state enterprise sector and the private sector, were converted to RLURs. Transfer of RLURs to other person is subject to specific regulation and such a practice was actually very limited. The Decree prescribed that payments, being already made to the state for obtaining LTLUR, are to be converted to advanced rental payments.

The Decree also limit value of mortgage. Namely, mortgages of farming land are limited to the value of property, and mortgages on other types of land are limited to the value of prepaid rent plus the value of property on the land. It is stipulated by the Decree that state enterprises can use the land use rights as part of their capital contribution to joint ventures.

Decree 18/CP caused widespread concern and confusion in Vietnam, 1) by conversion of LTLURs to RLURs (being subject to more strict regulation for transfer), and 2) by limiting mortgage value. Transactions of land use right were virtually frozen by the announcement of this Decree and confidence of banks in the mortgages was lost.

b) Announcement of Decree 85/CP

A new Decree No.85/CP, providing guidance on the implementation of the Ordinance on rights and obligation of domestic organizations to which the State allocated and leased land, was issued on December 17, 1996, and the controversial Decree No. 18/CP was replaced by this Decree.

The Decree 85/CP classifies types of land use right by form of assignment of land, namely "land being allocated by the State" and "land being lease by the State". The former is further separated into "Without having to pay land use right" case and "Subject to land use fee payment" case.

The content of land use right of domestic organizations are summarized in Table I-2-15. Problematic aspects of the current content of the land use right, being caused by Decree 85/CP, is discussed below.

(i) Limitation of value for mortgage

Value of "land use right of land subject to payment of land use fee" and "land being lease by the State" are still limited to "land use fee already paid" and " land rental already paid" respectively. The same restriction on land use right is succeeded from the former decree in this respect.

This means that land use right has mortgage value only on prepaid fee or prepaid rent if they were prepaid, which further means that land use right has no value for mortgage if fee or rent is paid annually. However, banks may not value land use right by prepaid amount, because prepaid fee or rent will have cash value for mortgage only if such prepaid amount is recovered from other person by free transfer or sublease of the land use right to that person. As discussed in the following section, transfer and sublease of land use right is principally not allowed by the Decree. Therefore, banks may not appreciate any value on land use right even fees or rents were prepaid. It is considered that value of land use right itself is actually very much limited under the current legal framework of land use right.

(ii) Prohibition of transfer and lease of land use right

Transfer and lease of land use right are, as seen in the Table, not allowed by the regulation except for houses, IZ and EPZ. This strict restriction on land use right is the fundamental factor which deteriorate value of land use right for mortgage in Vietnam. Vietnam is losing opportunities to utilize value of their land for development of the economy, because mortgage value of land use right is very much limited.

(c) Rent of land use right

Amount of rents are prescribed by the regulations and not determined by market. Rents for domestic organizations are stipulated by the series of regulations listed below:

- No. 7463/KTN,
- Decision No. 1357TC/QD/TCT by the Ministry of Finance effective from January 1, 1996, and
- Regulation on the land rent frame applicable to domestic organization.

On the other hand, rent for foreign investment projects is stipulated by:

- No.1417TC/TCDN by the Ministry of Finance on December 31, 1994, and
- Regulation on rent of land. water, and sea surfaces for foreign investment projects

A calculation of rent for foreign investment projects is summarized in Table I-2-16.

2) Recommendations

(a) Stable and consistent policy on land use right

Regulations concerning land use right in Vietnam is very confusing. Many regulations were issued and abolished by another regulations. Frequent changes of regulations on land use right caused serious confusion in Vietnam, part of which we saw in the preceding section. Business activities were seriously hampered by this confusion.

The basic policy on land use right should be firmly established. The existing laws and regulations should be reviewed and revised in line with the basic policy to avoid further frequent changes. Completeness and stability of and consistency between laws and regulations should be attained by this review process.

(b) Relaxation of restriction on land use right

It is recommended that the current restrictions on land use right should be relaxed and the following concepts should be incorporated in the basic policy on land use right regardless of type of holder of land use right, such as individual persons, organizations including foreign investors:

- Transfer and sublease of land use right to other person should be allowed even ownership of land itself is still belonging to the State, and
- Interference by the Government on value of mortgage of land use right should be abolished and value of land use right should be determined by market.

These relaxation of restrictions on land use right should be incorporated in the basic policy concerning land use right. After the relaxation of restrictions of land use right, the role of the government should be limited to the

administration of land use right, for example, registration of land use right and issuance of land use right certificates.

When land use right become to be transferable or sub-leasable and limitation of value of land use right for mortgage is abolished, value of land will naturally be formed by market, and enterprises will be able to utilize their land use rights for borrowing money from banks, hence the Vietnamese economy will really become able to utilize potential value of land use rights for the development of economy, which was lost for many years by the inappropriate legal framework.

(c) Prescribed rental payment amount by the Government

A number of negative implications would result from fixing rental charges for land use rights by the Government, rather than being determined by market force. They may include failure in efficient allocation of available land among users, possible creation of corruption in the process of allocation of land in cases where prescribed rental charges are set below market price, and loss of tax revenue from transfer of land in such cases.

(d) High compensation money to be paid by foreign investors

Amount of compensation that an enterprise obtaining land use rights must provide to former users is specified by regulation and is not determined by negotiation among the parties involved. Compensation is frequently larger than prices if they were determined in open negotiation.

In order to reduce the costs associated with obtaining land use rights, most foreign investors take Vietnamese partners (usually a state-owned enterprise) who possesses recognized land use rights. For state enterprise, land use rights are often the only asset that Vietnamese partners can contribute the joint venture projects.

(e) Rezoning

According to explanations provided by the authorities, the rezoning charges are equal to the price difference associated with the change in use as stipulated in the official guidelines issued by the Ministry of Finance.

This method would be efficient and would allow the government to capture rents associated with the change in land use, if the price corresponded to actual market values. However, this is not the case at this moment.

Under current regulations, the transfer of land use rights on agricultural land are stipulated only in specific cases, such as moving or change of job, the

transformation of agricultural land to residential, etc. Commercial and industrial uses requires high-level approval, and is reported to be extremely complicated.

It is well understood that serious debates among policy makers on land allocation due to the increasing pressure on agricultural land for development of urban areas and industrial estates. However, it should be noted that these issues cannot be resolved without comprehensive revisions of the legal and regulatory framework for land allocation and land pricing.

Table I-1-1 Foreign Investment by Economic Activity

(USD Million)

	1993				1994				1995				1996				1988~1996 Total			
	No.of Project		Registered capital		No.of Project		Registered capita		No.of Project		Registered capital		No.of Project		Registered capital		No.of Project		Registered capital	
Light industry	69	26.4%	446.8	17.1%	100	29.4%	610.9	16.4%	70	19.1%	544.6	8.2%	101	31.1%	1,139.4	13.4%	492	26.3%	3,801.6	14.1%
Heavy industry	51	19.5%	769.5	29.4%	59	17.4%	578.0	15.5%	82	22.3%	1,548.3	23.4%	74	22.8%	1,183.5	13.9%	344	18.4%	4,202.3	15.6%
Agriculture, forestry	35	13.4%	73.5	2.8%	34	10.0%	220.2	5.9%	39	10.6%	271.7	4.1%	29	8.9%	128.4	1.5%	214	11.5%	1,086.8	4.0%
Construction	22	8.4%	97.0	3.7%	31	9.1%	425.8	11.4%	74	20.2%	2,378.6	35.9%	51	15.7%	1,044.1	12.3%	183	9.8%	2,982.0	11.1%
Hotel, Tourism	33	12.6%	585.8	22.4%	29	8.5%	583.5	15.7%	23	6.3%	882.4	13.3%	12	3.7%	398.5	4.7%	181	9.7%	3,692.1	13.7%
Services	15	5.7%	187.7	7.2%	41	12.1%	1,023.1	27.5%	12	3.3%	65.2	1.0%	21	6.5%	3,662.8	43.1%	164	8.8%	6,940.3	25.7%
Communication	13	5.0%	294.7	11.3%	22	6.5%	104.5	2.8%	12	3.3%	384.8	5.8%	13	4.0%	749.6	8.8%	106	5.7%	2,006.0	7.4%
Fishery		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	5	1.5%	8.3	0.1%	74	4.0%	307.8	1.1%
Culture, education	5	1.9%	11.7	0.4%	10	2.9%	19.6	0.5%	15	4.1%	123.9	1.9%	13	4.0%	114.2	1.3%	53	2.8%	276.5	1.0%
Oil gas industry		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	4	1.2%	62.0	0.7%	33	1.8%	1,504.6	5.6%
Finace, Bank		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	2	0.6%	6.5	0.1%	24	1.3%	174.3	0.6%
Other	18	6.9%	148.7	5.7%	14	4.1%	156.1	4.2%	40	10.9%	424.7	6.4%		0.0%		0.0%	0	0.0%	0.0	0.0%
	261	100.0%	2,615.4	100.0%	340	100.0%	3,721.7	100.0%	367	100.0%	6,624.2	100.0%	325	100.0%	8,497.3	100.0%	1,868	100.0%	26,974.3	100.0%
Increase ratio (1993=100%)	100.0%		100.0%		130.3%		142.3%		140.6%		253.3%		124.5%		324.9%					
Increase ratio (Over previous year)					30.3%		42.3%		7.9%		78.0%		-11.4%		28.3%					

Source: 1996 and 1988~1996 Statistical Year book 1996
1993, 1994, 1995 1997 JETRO Report 1997- Foreign Direct Investment

Table I-1-2 Foreign Investment by Country

(USD Million)

	1993				1994				1995				1996				1988~1996 Total			
	No.of Project		Registered capital		No.of Project		Registered capital		No.of Project		Registered capital		No.of Project		Registered capital		No.of Project		Registered capital	
Taiwan	44	16.9%	403.6	15.4%	64	18.8%	365.4	9.8%	51	13.9%	1,148.9	17.6%	48	14.8%	783.2	9.2%	286	15.3%	3,917.3	14.5%
HongKong	35	13.4%	402.1	15.4%	48	14.1%	546.8	14.7%	22	6.0%	103.6	1.6%	13	4.0%	1,258.4	14.8%	247	13.2%	3,116.8	11.6%
Korea	37	14.2%	371.1	14.2%	42	12.4%	265.2	7.1%	47	12.8%	565.3	8.7%	46	14.2%	826.2	9.7%	192	10.3%	2,261.3	8.4%
Japan	15	5.7%	76.2	2.9%	27	7.9%	332.5	8.9%	47	12.8%	1,129.9	17.3%	54	16.6%	591.2	7.0%	177	9.5%	2,400.1	8.9%
Singapore	26	10.0%	249.6	9.5%	29	8.5%	597.7	16.1%	37	10.1%	488.1	7.5%	32	9.8%	2,763.6	32.5%	151	8.1%	4,322.3	16.0%
France	18	6.9%	167.8	6.4%	17	5.0%	109.9	3.0%	14	3.8%	123.9	1.9%	15	4.6%	101.7	1.2%	98	5.2%	979.2	3.6%
Australia	14	5.4%	158.4	6.1%	11	3.2%	49.7	1.3%	10	2.7%	222.3	3.4%	5	1.5%	48.1	0.6%	67	3.6%	1,074.3	4.0%
United States	1	0.4%	0.2	0.0%	20	5.9%	219.9	5.9%	22	6.0%	531.3	8.1%	12	3.7%	92.8	1.1%	62	3.3%	849.0	3.1%
Malaysia	12	4.6%	347.3	13.3%	11	3.2%	128.3	3.4%	12	3.3%	93.7	1.4%	7	2.2%	88.5	1.0%	56	3.0%	773.8	2.9%
Netherland	2	0.8%	9.3	0.4%	6	1.8%	45.5	1.2%	9	2.5%	108.3	1.7%	6	1.8%	97.9	1.2%	31	1.7%	560.5	2.1%
United Kingdom	1	0.4%	1.1	0.0%	2	0.6%	0.9	0.0%	33	9.0%	863.9	13.2%	1	0.3%	6.0	0.1%	22	1.2%	524.4	1.9%
Other	56	21.3%	429	16.4%	63	18.6%	1,060	28.6%	63	17.1%	1,145	17.6%	86	26.5%	1,840	21.6%	479	25.6%	6,195	23.0%
Total	261	100.0%	2,615.4	100.0%	340	100.0%	3,721.7	100.0%	367	100.0%	6,524.2	100.0%	325	100.0%	8,497.3	100.0%	1,868	100.0%	26,974.3	100.0%

Source: 1996 and 1988~1996 Statistical Year book 1996
1993, 1994, 1995 1997 JETRO Report 1997- Foreign Direct Investment

Table I-2-1 National Plan for Environment & Sustainable Development
(Summary of Strategies and Recommendations by Sector) (1/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

Industry

- The role of the people of Vietnam in choosing the type of desired Socio-economic development should be emphasized; thus public awareness should be promoted to enhance value judgement capabilities.
- If maximum economic growth is the goal of the Vietnamese people, pricing mechanism should be introduced to tackle environmental problems by making the pollutant pay for the pollution, so that the cost of resources are regulated by the market.
- Integrated urban development strategies should be prepared in order to address waste management and water supply issues, health and social impacts, and ensuring long-term urban sustainability.
- Land use zoning should be developed immediately for new industries with the provision for pollution control, rather than replacing, at great cost, existing polluting plants.
- In planning for sustainable industrial development emphasize the development of light industry. Where possible light industry should be located in areas where it will draw people away from areas where pressure on the land by cultivators is excessive.

Pollution Control

- The development of standards and systems for industrial pollution control and waste management. As Vietnam is only now beginning to rebuild its industrial base it can develop these standards and systems up front, avoiding the large environmental rehabilitation costs that many other countries will have to pay.
- Standards for smokestack emissions and liquid effluent discharges for industry should be established and enforced.
- Priority should be laid on control of pollution from point sources, before tackling non-point source pollution, as it is more difficult to manage.

Table I-2-2 National Plan for Environment & Sustainable Development
(Summary of Strategies and Recommendations by Sector) (2/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

- Emphasize waste reduction, re-use, and recycling in pollution control. However, reduction, re-use, and recycling alone will not solve the pollution problem. Strategies will be required to address the flow of wastes from households, industries and farms.
- The promotion of "waste exchange" or re-use in both formal and informal sectors. Efforts to create industrial waste exchanges should be made between industries and an information center could be created to support this activity.
- The proper treatment of household pollutants, primarily sewage and solid waste. This will require some form of treatment system in the case of sewage, and, in the case of solid waste, incineration and/or disposal in suitably designed and located sanitary landfill.
- Encouragement of the use of organic fertilizer to reduce agricultural pollution, mainly chemical fertilizers and pesticides. Integrated pest management, a system which makes maximum use of intercropping, crop rotation, natural pesticides, and other traditional pest control methods should be promoted. Regulations on the use, handling and disposal of pesticides should also be developed, including restrictions on the types of pesticides that can be used in Vietnam.
- The enforcement of pollution measures to control the discharge of organic and industrial wastes into fresh waters and into the sea. The use of potentially harmful agro-chemicals should be actively discouraged in favour of other pest control systems, particularly in areas where freshwater fisheries are important.
- A ban on the dumping of oil or radioactive wastes in Vietnamese waters. Measures should be taken to prevent oil leaks from marine oil exploration platforms. Furthermore, Vietnam should adhere to international conventions relating to the use of marine resources, for example the Law of the Sea, the International Convention on Dumping of Wastes at Sea and the International Whaling Convention.

Table I-2-3 National Plan for Environment & Sustainable Development (Summary of Strategies and Recommendations by Sector) (3/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

Hazardous Wastes

- Regulations on the use, handling, and disposal of toxic and hazardous substances should be developed and tightly enforced.

- The development and promotion of alternative methods, or the use of non-hazardous materials in industries that presently employ or generated hazardous substances should be emphasized.
- A special body should be formed to address problems relating to hazardous substance and to develop a program for their management and disposal. Regulations should be developed pertaining to the use, storage, handling, transport and disposal of hazardous substances.

Development of a Central Environment Authority

- A single Environmental Authority should be established, on an urgent basis, at a supra-ministerial level. Its mandate should include Policy Planning and Legislation, development of an integrated Process of Implementation, Environmental Standards and Impact Assessment, Pollution Control, Monitoring, Coordination of Disaster Management, Information management, Setting of Research Priorities, and Environmental Awareness Promotion.

Local Environmental Organization

- This Central Environmental Authority should be supported by an integrated institutional network at the provincial, district and commercial level.
- Regional, provincial and district levels should develop appropriate environmental organizations and efficient mechanisms to integrate national objectives on both the conservation and sustainable development of natural resources. Central and grass-roots level planning has to be part of the consultative process that brings the two levels of government together, and which will ensure both a global approach and grass-root implementation and benefit from a more integrated sustainable development approach.

Table I-2-4 National Plan for Environment & Sustainable Development
(Summary of Strategies and Recommendations by Sector) (4/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

Development of Environmental Policy and Legislation

- Development of appropriate environmental policies and legislation including regulation should be given priority. Provisions should be implemented requiring consideration of environmental factors in laws governing the planning of development projects in such sectors as transport, mining, energy, fisheries, development of new settlements, and tourism.
- Legislation and mechanisms which provide for integrated land use zoning should accompany all industrialization. Such zoning should be developed to ensure that industrial, as well as other land uses, are sited in a manner which helps to minimize impacts on sensitive environmental features and on adjecent land uses.
- The legislative framework that is developed should also provide the necessary legislative authority for the implementation of this Action Plan, along with other action plans to be developed by the appropriate national and sub-national authorities. The legislative framework should also make provisions for the establishment of Protection Areas.
- A training program in environmental law for Vietnamese lawyers, such as that being followed in Indonesia, should be developed.
- The Draft Environmental Law should be developed and related to other existing legislation dealing with environmental matters, with provision for periodic updating of regulations. Parallel Socio-economic policies should be developed for economically under-developed areas in order to facilitate the implementation of the Environmental Law. Promulgation of the Law should be proceeded by a comprehensive public awareness campaign.

Environmental Standards and Impact Assessment

- The establishment of Environmental Standards should be initiated immediately.
- A policy and set of procedures, including EIA regulations should then be developed an urgent basis to screen and evaluate all public and private sector investment projects.

Table I-2-5 National Plan for Environment & Sustainable Development
(Summary of Strategies and Recommendations by Sector) (5/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

- EIA should be undertaken during the planning phase.
- EIA should be incorporated into regional development planning.
- EIA center should be established in Universities for the development of national expertise in Vietnam.
- Immediate priority arrea to undergo EIA are water reservoirs and dams, oil refineries, and plantations.
- Given that the development of a workable framework for EIA in Vietnam will likely take some time, the country should immediately institute a requirement that all proposed foreign projects be subject to an environmnetal screening, and if warranted, to an EIA. The EIA would be conducted (or sponsord) by the donor organization, but would require the involvement of local trainees, in order to help develop Vietnam's capabilities in EIA.

Monitoring Frameworks and Strategies

- A requirement should be institute that a national monitoring system be designed and capabilities be developed on the basis of guidelines to be estrablished by the Central Environmental Authority.
- The design of the monitoring system should focus on the end user and stress standardization of data collection.
- Roles of contracting agencies responsible for data analysis, and that of providers of services, or monitored data, should be clearly separated.
- As some types of monitoring will require access to equipment and/or laboratory facilities these should be provided.

Table I-2-6 National Plan for Environment & Sustainable Development
(Summary of Strategies and Recommendations by Sector) (6/6)

(Source: Vietnam National Plan for Environmental & Sustainable Development, 1991 - 2000)

Research

- Research in the field of Environmental Science should be developed as a basis for the establishment of policies, strategies and legislation in the field of environmental protection; scientific and technological support activities for the realization of environmental protection objectives in the various sectors should be simultaneously developed down to the provincial, district and commune level to incorporate the grass roots level.
- Research activities as well as InternationalAssistance & Cooperation must be properly planned and must focus to address the most urgent problems of conservation, environmental protection, enhancement of natural resources, and pollutio control, particularly emphasizing inter-disciplinary problem areas concerning sustainable development.

Table I-2-7 Surface Water Quality Standard

Parameter limits and maximum allowable concentration of pollutants in surface water

No.	Parameter and substance	Unit	Limitation values	
			A	B
1	pH		6 - 8.5	55 -9
2	BOD_5(20°C)	mg/l	< 4	< 25
3	COD	mg/l	< 10	< 35
4	Dissolved oxygen	mg/l	≧ 6	≧ 2
5	Suspended solids	mg/l	20	80
6	Arsenic	mg/l	0.05	0.1
7	Barium	mg/l	1	4
8	Cadmium	mg/l	0.01	0.02
9	Lead	mg/l	0.05	0.1
10	Chromium, Hexavalent	mg/l	0.005	0.05
11	Chromium, Trivalent	mg/l	0.1	1
12	Copper	mg/l	0.1	1
13	Zinc	mg/l	1	2
14	Manganese	mg/l	0.1	0.8
15	Nickel	mg/l	0.1	1
16	Iron	mg/l	1	2
17	Mercury	mg/l	0.001	0.002
18	Tin	mg/l	1	2
19	Ammonia(as N)	mg/l	0.05	1
20	Fluoride	mg/l	1	1.5
21	Nitrate(as N)	mg/l	10	15
22	Nitrite(as N)	mg/l	0.01	0.05
23	Cyanide	mg/l	0.01	0.05
24	Phenol compounds	mg/l	0.001	0.02
25	Oil and grease	mg/l	not detectable	0.3
26	Detergent	mg/l	0.5	0.5
27	Coliform	MPN/100ml	5,000	10,000
28	Total pesticides (except DDT)	mg/l	0.15	0.15
29	DDT	mg/l	0.01	0.01
30	Gross alpha activity	Bq/l	0.1	0.1
31	Gross beta activity	Bq/l	1.0	1.0

(Source: Vietnam Standard TCVN 5942 - 1995)

Note :

- *Values in the column A are applied to the surface water using for source of domestic water with appropriate treatments.*
- *Values in the column B are applied to the surface water using for the purpose other than domestic water supply.*

Quality criteria of water for aquatic life are specified in a separate standard.

Table I-2-8 Ambient Air Quality Standards

(Unit: mg/m^3)

No.	Parameter	1 hr -average time	8 hr -average time	24 hr -average time
1	CO	40	10	5
2	NO_2	0.4	-	0.1
3	SO_2	0.5	-	0.3
4	Pb	-	-	0.005
5	O_3	0.2	-	0.06
6	SPM	0.3	-	0.2

(Source: Vietnam Standard TCVN 5937 - 1995)

Note:
Standard method of analysis of ambient air quality parameters are specified in available current TCVNs.

Table I-2-9 Industrial Emission Standards for Typical Pollutants
(Maximum allowable concentration: MAC)

(Unit: mg/m^3)

Parameter	MAC	
	A	B
Particulate in smoke of:		
- heating of metals	400	200
- asphalt concrete plant	500	200
- cement plant	400	100
- other sources	600	400
Dust:		
- containing silica	100	50
- containing asbestos	none	none
HCl	500	200
SO_2	1,500	500
NO_x (any source)	2,500	1,000
NO_x (acid manufacturing)	4,000	1,000
Ammonia	300	100

(Source: Vietnam Standard, TCVN 5939 - 1995)

Note:
Standard method of analysis of ambient air quality parameters are specified in available current TCVNs.
Values in the column A are applied to the emission gases of existing source, in column B are applied to all sources imposed from the date which stated by environmental authority.

Table I-2-10 Industrial Wastewater Discharge Standards

Limits values of parameters and maximum allowable concentration of pollutants

No.	Parameter and substance	Unit	Limitation values		
			A	B	C
1	Temperature	℃	40	40	45
2	pH	mg/l	6 - 9	5.5 - 9	5 - 9
3	BOD_5 (20℃)	mg/l	20	50	100
4	COD	mg/l	50	100	400
5	Suspended solids	mg/l	50	100	200
6	Arsenic	mg/l	0.05	0.1	0.5
7	Cadmium	mg/l	0.01	0.02	0.5
8	Lead	mg/l	0.1	0.5	1
9	Residual Chlorine	mg/l	1	2	2
10	Chromium, Hexavalent	mg/l	0.05	0.1	0.5
11	Chromium, Trivalent	mg/l	0.2	1	2
12	Mineral oil and fat	mg/l	ND	1	5
13	Animal -vegetable fat and oil	mg/l	5	10	30
14	Copper	mg/l	0.2	1	5
15	Zinc	mg/l	1	2	5
16	Manganese	mg/l	0.2	1	5
17	Nickel	mg/l	0.2	1	2
18	Organic phosphorous	mg/l	0.2	0.5	1
19	Total phosphorous	mg/l	4	6	8
20	Iron	mg/l	1	5	10
21	Tetrachlorethylene	mg/l	0.02	0.1	0.1
22	Tin	mg/l	0.2	1	5
23	Mercury	mg/l	0.005	0.005	0.01
24	Total nitrogen	mg/l	30	60	60
25	Trichlorethylene	mg/l	0.05	0.3	0.3
26	Ammonia(as N)	mg/l	0.1	1	10
27	Fluoride	MPN/100ml	1	2	5
28	Phenol	mg/l	0.001	0.05	1
29	Sulfide	mg/l	0.2	0.5	1
30	Cyanide	mg/l	0.05	0.1	0.2
31	Coliform	MPN/100ml	5,000	10,000	-
32	Gross alpha activity	Bq/l	0.1	0.1	-
33	Gross beta activity	Bq/l	1.0	1.0	-

(Source:Vietnam Standard TCVN 5945 - 1995)

Note :

- *Values in the column A are applied to the water bodies using for source of domestic water supply.*
- *Values in the column B are applied to the water bodies using for navigation, irrigation purpose or for bathing, aquatic breeding and cultivation, etc.*
- *Values in the column C are applied to only water bodies permitted by authority agencies.*

Table I-2-11 Guidelines for Preliminary EIA Report

I. INTRODUCTION

1. Purpose of the Report
2. Background information and data for report preparation
3. Brief description of the project

II. DATA AND INFORMATION ON THE EXISTING ENVIRONMENTAL CONDITIONS:

Assessment of quality and quantity proposal is required; if it is impossible to get quantitative figure, classify the environmental situation according to levels (heavy, medium, light or unclear) of each natural element (soil, water, atmosphere, etc ....).

III. ASSESSMENT OF ENVIRONMENTAL IMPACTS DURING THE PROCESS OF THE PROJECT IMPLEMENTATION:

Brief assessment of the following main objects:

1. Atmosphere
2. Water
3. waste
4. Soil
5. Ecological Systems
6. Solid waste
7. Scenery beauty, historical relies
8. Infrastructure
9. Communication
10. Public health
11. Other relating objects .....

IV. CONCLUSIONS AND RECOMMENDATIONS:

1. Conclusion on the environmental effects by the projects
2. Recommendations on matters which need detail assessment (if available)

Table I-2-12 Guidelines for Detail Environmental Impact Assessment (EIA) Report (1/2)

I. INTRODUCTION
1. Purposes of EIA Report
2. Background information/data used for report preparation
3. Selection of EIA methods
4. Organization, members and process to carry out EIA

II. BRIEF DESCRIPTION OF THE PROJECT
1. Project title
2. Project implementing agencies: ownership, agency preparing F/S or another document equivalent to F/S
3. Socio-economic objectives, political significance of the Project
4. Basic project contents. Socio-economic profits to be obtained by the project
5. Project work plan: The progress of the project operation
6. Project expenditures and schedule of expenditures

III. DESCRIPTION OF THE ENVIRONMENT IN THE PROJECT AREA
1. General description of the natural and socio-economic environment in the project area
2. Forecast on environmental change in case of without project

IV. ASSESSMENT OF IMPACTS OF PROJECT IMPLEMENTATION ON THE NATURAL RESOURCES AND ENVIRONMENT
1. Describe impacts on each aspect of the environment at its location: characteristic, scale, level, change on the each phase of impacts
   A. Physical environment: Hydrosphere, Atmosphere, Lithosphere
   B. Impacts on biological resources and ecosystems
      1) Aquatic organisms
      2) Terrestrial organisms
   C. Impacts on the natural resources and environment used by human beings
      1) Water supply
      2) Transportation
      3) Agriculture
      4) Irrigation
      5) Energy
      6) Industry

Table I-2-13 Guidelines for Detail Environmental Impact Assessment (EIA) Report (2/2)

7) Mining
8) Handicraft
9) Landuse
10) Public health

A. Impacts on economy, culture, sociology
1) Economic and Social Condition
2) Cultural condition
3) Artistic condition

2. Steps of General environment impacts of each alternative of the project implementation
A. Explain flows of impacts.
B. Losses on natural resources on each alternative and countermeasures.
C. Compare again / loss and benefit / harm in social, economic aspects, natural resources, environment in each alternative.
D. It's necessary to clearly explain.
1) Feeding material for operation of the project
2) Waste of the production
3) Products
4) Forecast the impacts of these on environment

3. Countermeasures
Technical explanation, technology, organization-management in order to overcome the negative impacts on environment.
Compare cost of countermeasures and benefit obtained.

4. General assessment
Reliability of forecast of EIA more survey, investigation necessary to be conducted for more reliability and going on readjusting forecast of EIA in future.

V. RECOMMENDATIONS ON THE ALTERNATIVE FOR PROJECT IMPLEMENTATION

1. Selection in favor of environment protection.
2. Recommendation on measures to conserve with recommended alternative.

Table I-2-14 Outline of Protection of Copy Right

<Civil Code>	Author and owner				Author but not owner				Owner but not author		
	Article No.		Protected period	Protected period Article No.	Article No.		Protected period	Protected period Article No.	Article No.	Protected period	Protected period Article No.
1 Personal right (Moral right)											
· To give the name to his work	751-1	a	Forever	766-1	752-1	a	Not stipulated by law				
· To place his name or pseudonym	751-1	b	Forever	766-1	752-1	b	Forever	766-1			
· To publish or authorize other person to publish	751-1	c *1 *2	His life-time and 50 years after his death	766-2					753-a	Not stipulated by law	
· To authorize other persons to use his work	751-1	d *1 *2	His life-time and 50 years after his death	766-2					753-b *3	Not stipulated by law	
· To protect from any alteration	751-1	e			752-1	c	Forever	766-1			
2 Property right											
· To receive royalty when his work is used by others	751-2	a *1 *2	His life-time and 50 years after his death	766-2	752-2	a *1 *2	His life-time and 50 years after his death	766-2			
· To receive other material benefits from other person when his work is published, performed, translated, etc.	751-2	b *1 *2	His life-time and 50 years after his death	766-2			N/A	N/A	753-2	Not stipulated by law	
· To receive other allowance when his work is used.			N/A	N/A	752-2	b *1 *2	His life-time and 50 years after his death	766-2			

*1 For co-author, these rights are protected during his life and for 50 years after the last author's death

*2 For cinematographic works, radio and television programs, video records that are published after the authors's death these rights are protected for 50 years follow the day of the first publication of the work.

*3 On the condition that the author and owner have not agreed otherwise.

<NOTE>

Protection period for other than listed above (Article 14, Decree No.76/CP dated 96/11/29)

- Sound, recording, visual tapes and disks 50 years
- Radio and television broadcasting 50 years

Table I-2-15 Outline of Land Use Right of Domestic Organization in Vietnam

	Land being allocated by the State		Land being leased by the State
	Without having to pay land use right	Subject to land use fee payments	
Eligible activities	Agro-forestry, aquaculture, and salt production (Article 8- Item2)	-Not specifically mentioned in the Decree-	-Not specifically mentioned in the Decree-
Types of eligible domestic organization	a) State agency, political and social organization- for their office b) State agency, political and social organization- for their econnomic and toher purposes c) Enterprises and companies using land for public utilities d) SOEs using land for agrucilture, forestry, etc. ("Ordinance" Article 1, Item1)	a) SOE b) Enterprise of socio-political organizations c) Enterprises of national defence and security d) Economic collectives e) Joint-stock companies f) Limited liability compnaies (Article 10)	a) SOE b) Enterprise of socio-political organizations c) Enterprises of national defence and security d) Economic collectives e) Joint-stock companies f) Limited liability compnaies ("Ordinance" Article 1, Item3)
Payment of consideration	N/A	Land use fee (Article 12- Item1)	Land rental fee (Article 14- Item2)
Availability for capital contribution	○ (J/V with foreign and domestic organization) (Article8- Item2, a))	○ (for J/V with domestic organization) (Article 11- Item5) a), b), c) ○ (for J/V with foreign organization) (Article 11- Item 6)	a), b), c) ○ (for J/V with domestic and foreign organization) (Article 13- Item 2)
	Value of capital contribution is to be agreed between the joint venture party (Article 17)	Value of capital contribution is to be agreed between the joint venture party (Article 17)	Value of LUR is the land rental agreed with the other J/V party (Article 13- Item 2)
Mortgage *1	d) - ○ (Article 8- Item2, b)) a), b), c) - X (Article 9- Item4)	○ (Article 11- Item4)	○ (Article 13- Item1)
	(Not specified by regulation)	Value of LUR is the land use fee paid at the prices determined by municipal or provincial people's committee (Article 18- Item 1).	Mortgage value should not exceed the value of properties on the leased land plus the land rental already paid (Article 20- Item1).
Transfer or assign	X (Article 9- Item 2)	X (Except for IZ and EPZ and houses) (Article 11- Item 1 and 2)	X (Article 14- Item3)
Lease or sublet	X (Article 9- Item 2)	X (Except for IZ and EPZ) (Article 11- Item 3)	X (Except for IZ and EPZ) (Article 14- Item 4)

*1 Allowed only to only to Vietnamese banks
○: Being allowed X: Not being allowed
<Information source>
Decree No. 85/CP December 17, 1996 unless noted "Ordinance", which is "Ordinace of August 27, 1996.

Table I-2-16 Rent for Foreign Investment Projects

Rent applicable to urban areas

Urban land category	(/m2 per year)
Category 1	$1.7 to $13.6
Category 2	$1.5 to $12.0
Category 3	$1.125 to $9.0
Category 4	$0.75 to $6.0
Category 5	$0.375 to $3.0

Method of land rent detarmination

Rate of rent =		Basic rate
	multipied by:	Coefficient of location
	multipied by:	Coefficient of infrastructure
	multipied by:	Coefficient of industry sector

Coefficient of location	2.0	Central urban are + Street frontage +Area in culture, tourism and entertainemnt centrers
	1.7	Central urban area
	1.3	Near central area + Street frontage
	1.0	Near central area

Coefficient of infrastructure	2.0	All of the following conditions satisfied.
	1.7	Failing 1 of the following conditions
	1.5	Failing 2 of the following conditions
	1.2	Failing 3 of the following conditions
	1.0	Failing 4 of the following conditions

Conditions:
- Transportation conditions are favorable.
- Leveling of the site is not required.
- Power supply facilities are adjacent to or near the boundary.
- Water supply facilities are adjacent to or near by the boundary.

Coefficient of industry sector	1.0	Project of construction of infrastructure
	1.2	Mining and other specified manufacturing industries such as metallurgy, machinery manufacturing, etc.
	1.5	Other manufacturing industry including process industry
	2.0	Tourism and other services

<Information source>
No.1417TC/TCDN -Regulations on the rent applicable to foreign investment

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APPENDIX II HIGH-TECH INDUSTRIAL PROMOTION POLICY

II.1 High-Tech Industrial Policy of Other Asian Countries

II.1.1 High-Tech Industrial Policy - Singapore

(1) Review of Industrial Policy

1) Review of the past industrial policy

Annual growth rate of GDP of Singapore from 1960 to 1994 was over 8%. Singapore is ranked one of the most competitive countries in the Report on World Competition". Singapore was officially recognized as the most advanced developing country by OECD.

It would be appropriate to state that the flexible industrial policies adopted by the Singapore Government in the 1970s and 1980s, which are summarized below, are the background and factors behind this industrial dynamism.

(a) Adoption of open market economy policy

Under the Open Market Economy Policy, Direct Foreign Investment (FDI) was strongly encouraged, free foreign trade regime was maintained and export-oriented industries were fostered.

(b) Stability of macro economy

Stability of macro economy was maintained by the sound economic policies of the Government.

(c) Creation of business environment for development of private sectors

Efficient public service and transparency of administrative procedures for private investment were provided by the clean Government. Well-harmonized cooperation was attained between the Government, the labor parties, and leaders of the industrial sectors.

(d) Construction of infrastructure

First class infrastructure including industrial estates, high-tech industrial parks, telecommunications system, public utility services, airports and harbors, was constructed through strategic and intensive capital investment.

(e) Flexible immigration policy

Flexible immigration policy was adopted by the Government in the earlier stage of development, and permanent visas were given to experts and skilled

labors to supplement shortage of domestic technology and skills. Potential bottleneck in technical aspect was eased by this flexible immigration policy.

2) Current industrial policy

(a) Strategic economic plan (SEP)

A Strategic Economic Plan (SEP) was announced by the Government. SEP prescribes various targets of economic development of this country in the 1990s. The most significant targets of SEP are the following 3 principles, which are basically succeeding the above mentioned industrial policies in the 1970s and 1980s.

- Continuation of growth and restructuring of economy through investment in human development and infrastructure.
- Maintenance of cooperation between labor and employer.
- Creation of better business environment and provision of suitable incentives to enhance expansion, innovation of private sector business activities.

(b) M2000 program (Manufacturing industry 2000)

The strategic target of the M2000 Program is to maintain the manufacturing sector's share in GDP and employment at more than 25% and 20%, respectively. Due to increase of production cost such as labor cost and land cost as a result of economic development, this target can only be attained by inducing investment in higher-value-added industry to make up for loss from fading out of lower-value-added industry.

(c) National technology plan (NTP)

The National Technology Plan was targeted at attaining, in the initial 5 years from 1991 to 1995, a 2% share of GDP for R&D and 40 RSEs (researcher, scientist and engineer) in every 10,000 workers.

The focal point of this plan is to reinforce R&D ability of local universities, research institutes, and local companies. Besides, it is emphasized in the plan to attract large high-tech companies by providing various assistances for R&D activities.

(2) Investment Incentives

1) Non-tax incentives

(a) Capital assistance

The capital assistance scheme, administered by EDB, provides long-term fixed rate loans for up to 70% of the costs of productive assets to investors in the manufacturing and service industries. The scheme is normally applicable to projects of technological or economic benefit to Singapore.

(b) Product development

Under the product development assistance scheme (PDAS), administered by EDB, dollar-for-dollar grants are provided to assist local companies to develop new products or to improve existing products. Eligible applicants are local companies having a satisfactory track record and sufficient resources to develop and commercialize their products or processes.

The government and the company bear equally the direct costs of the project under this scheme. Eligible costs include those for manpower, utilities, materials, prototyping, consultancy fees, and a proportion of essential additional equipment.

The scheme is aimed at encouraging local product design and development capability and building up indigenous technological know-how. The scheme includes support for technical and marketing feasibility studies.

(c) Research and development

The National Science and Technology Board has a number of programs to promote R&D activities.

a) R&D assistance

The research and development assistance scheme (RDAS) provides financial grants on a reimbursement basis to organizations conducting R&D for a specific product or process. Each grant covers 30% to 70% of the direct costs of the project, which includes the cost of manpower, equipment, materials, and utilities.

For projects that result in a commercially viable product or process and for which the grant exceeds USD1 million, a token royalty is payable to the Board as well as a portion of the license fees.

b) Research incentive

The research incentive scheme for companies (RISC) provides financial grants to enable companies to develop in-house R&D capabilities and facilities in Singapore in strategic-technology areas. The scheme provides grants that fund up to 50% of the incremental total research costs for up to five years. Research costs include the cost of manpower, equipment, training, and materials.

(d) Manpower development

The manpower development assistance scheme (MDAS) provides various financial-assistance programs to help companies achieve their training needs in R&D. The programs cover academic and on-the-job training in technological areas and the management of technology. Financial assistance is also provided for the recruitment of top international R&D manpower.

a) Software development

The software development assistance scheme (SDAS) is designed to encourage local companies in the business of information technology to initiate and develop innovative and high-quality software products. The scheme provides grants covering 50% of the development costs in soft-ware product design, development and enhancement.

b) Software quality improvement

The software quality improvement program offers Singaporean companies, that are at least 30% owned by Singaporean citizens or permanent residents, financial support for their efforts to enhance quality-assurance practices in the software industry. The financial support is as follows:

- Up to 70% of the cost of engaging an external consultant, subject to a maximum of USD 25,000.
- Up to 50% of a quality-assurance manager's salary, subject to a maximum of USD 30,000.
- There are conditions relating to the external consultant and the quality-assurance manager and procedures to be followed such as gaining prior approval of the consultant from the National Computer Board.

c) Innovation development

Grants are available on a reimbursement basis to businesses (i.e., companies, partnerships, or proprietorships) in the manufacturing and services sectors that are developing innovative products, processes, and services. The grants cover 50% of approved costs such as manpower costs, materials, professional services, and intellectual property rights.

A higher rate of 70% is available for projects that have an industry-wide impact or that introduce substantial capability. Projects should typically be for a period of up to three years. They should be undertaken in the construction, manufacturing, services, or tourism sectors or be related to information technology.

d) Initiatives in new technologies

The initiatives in new technologies (INTECH) scheme, administered by EDB, is designed to encourage investments and manpower development in the application of new technologies, industrial R&D, professional know-how, and design and development of new products so as to establish new capabilities within a company or an industry. INTECH provides assistance through grants to cover 50% to 70% of approved training costs.

For industry-wide projects with substantial economic impact, a higher level of support of up to 90% of the manpower costs and up to 100% of the equipment and building costs may be considered. The level of activity and its use of technology are examined critically to assess the contribution toward increased capability in Singapore in that field of technology, with the extent of support tied to the extent of contribution.

e) Skills development fund

The Skills Development Fund (SDF) provides incentive grants for the training of persons under employment and the re-training of retrenched or redundant workers through the Training Grant Scheme. The grant rates are as follows:

- In-house courses (including technical and vocational training): USD 2 per trainee per hour.

- Overseas training: USD 80 per trainee each day, subject to a maximum of six weeks per trip.
- Public courses (including those by external consultants): 50% or 80%, subject to a maximum of S$ 8 per trainee per hour.

2) Tax incentives

(a) Capital investment

A trade or business can claim accelerated depreciation allowance at a rate of 33.3% per annum using the straight-line basis on machinery and equipment. Expenditure on furniture and fittings and vehicles (other than vehicles designed principally to carry people) can also be depreciated at an accelerated rate.

(b) Pioneer industries

A company manufacturing products, that the government considers to have favorable prospects for development, is eligible to be a pioneer industry. Generally, products with high technological content are favored for this incentive. There is no restriction on foreign ownership for the qualifying pioneer company.

An approved pioneer company is granted a 5- to 10-year tax holiday. Exemption is on the amount of profit after deduction of depreciation allowances except for high capital investment where depreciation allowances need not be deducted.

Losses incurred by a pioneer company before the commencement of the pioneer period are treated as pre-operating expenses, which cannot be carried forward. Losses incurred during the tax relief period can be offset only against income from the pioneer trade, but the unabsorbed amount upon expiration of the pioneer period can be offset against income in the post-pioneer period.

(c) Development and expansion

The development and expansion incentive, being introduced in 1996 in place of the post-pioneer incentive, aims to encourage companies engaged in new high-value-added activities to continue investing in high-technology projects.

The incentive provides for a concessionary tax rate, which could be as low as 10%, for an initial period of up to 10 years, with provision for extension subject to a maximum total period of 20 years.

(d) Investment allowance

An incentive is given to stimulate investment in new production equipment that will result in higher productivity in terms of labor utilization and generate higher value-added activities. The investment allowance is an alternative to the pioneer incentive and export incentives for approved manufacturing and related service companies discussed under sub-section "Export tax incentives" below.

The tax exemption is granted on an amount of income based on a specified percentage (not exceeding 50%) of fixed capital expenditure incurred for certain projects or activities.

The allowances are granted over a period of up to 5 years (10 for the promotion of tourism), and any balance not used up in the period can be carried forward until fully absorbed. Dividends paid out of tax-exempt profits as a result of the investment allowance are tax free in the hands of shareholders. The investment allowance does not interfere with the claim of normal or accelerated depreciation allowances.

(e) Royalties, fees, and contributions to R&D costs

A company that pays royalties, technical assistance fees or contributions to R&D costs can apply to the Trade and Industry Minister for approval of the payments. The granting of approval has the following consequences.

- Withholding tax is payable at a reduced rate.
- Where the Trade and Industry Minister considers that the national interest would be served, the approved payments will be totally or partially exempt from withholding tax.
- Where foreign recipients of such payments convert them into equity in Singapore an manufacturing companies, the payments are also exempt from withholding tax.

(f) Research and development organizations

In an effort to make Singapore a technological center for Asia, various tax incentives are given to research and development organizations, manufacturing companies and selected industries such as financial services, computer software. The incentives include the following items.

- Tax deduction for R&D expenses that are not usually tax deductible

- Double deduction for tax-deductible R&D expenses on approved projects
- Tax depreciation allowances on R&D buildings as "industrial buildings" and investment allowances.

(g) Investment in new technology companies

The incentive to invest in new technology companies takes the form of a limited group loss relief. Any loss incurred and depreciation allowances unutilized by an approved technology company during the first three years may be offset against the taxable income of the holding company to a maximum of 50% of the paid-up capital of the approved technology company. To be eligible, the holding company must be incorporated and resident in Singapore and must be at least 50% owned by Singaporean citizens or permanent residents.

(h) Venture capital and overseas investment

The venture capital and overseas investment incentive permits the deduction of investment losses (i.e., losses incurred on the sale of shares in a company or upon liquidation of the company) against taxable income, if they are incurred in the following circumstances:

- By a Singaporean citizen or permanent resident, or by a holding company in investing in a venture capital company. In the latter case, the holding company should be incorporated and resident in Singapore and at least 50% owned by Singaporean citizens or permanent residents.
- By a holding company in investing in a technology company that in turn holds an investment in an overseas company developing or using new technology for a product, process or service.
- By a holding company in investing in an "overseas investment company," the latter being a Singaporean company that invests in an overseas company to acquire technology from the overseas company or to gain access to an overseas market for its holding company.

There is no loss relief if the shares are held for less than two years or if they are sold after eight years from the date when the venture capital company, technology company or "overseas investment company" is approved for this incentive. The relief is not available to the transferee of such shares.

II.1.2 High-Tech Industrial Policy - Malaysia

(1) Review of Industrial Policy

1) Industrial policy in the past

Realization of fair distribution of income among ethnic groups in the country ("Growth with Equity" has been the fundamental policy target of the economic development of Malaysia in last 25 years.)

The First Outline Perspective Plan (OPP1) was introduced in 1971. The purpose of this plan is to promote unity of the country and realize of social reform through promotion of economic development and fair distribution of income. The Industry Coordination Act (ICA) was introduced at the same time. ICA aims at orderly development of the manufacturing sector and participation of Bumiptra in the development of economy.

Recovery from the economic depression, which lasted from 1982 to 1986, was accelerated by the Investment Promotion Act introduced in 1986. The Act prescribed various investment incentives and deregulation of legal framework of the business activities. The Act aimed at industrial development to reduce dependence on export of commodity products. Foreign investment and domestic investment were increased significantly by this act, and hence it contributed to the economic development of Malaysia.

2) Current industrial policy

The following are the issues of the current economic development plan.

(a) Control of current deficit

Import of capital goods, materials and technology increases, as the Malaysian economy shifts toward labor-saving and capital-intensive industry such as high-tech industries. This is one of the most serious issues of Malaysian economy.

Various policy measures for promotion of innovation of parts makers and promotion of venture business and preference of domestic materials and parts have been taken to solve this issue.

(b) Promotion of private investment

The most significant issues of the government are development of labor-saving and capital-intensive industries and strengthening of the technical level of the private sector to increase local contents of exporting goods. Promotion of

domestic and foreign investments is the key to solve these issues. As discussed above, the introduction of the Investment Promotion Act, which is one of the most competitive investment promotion acts in Southeast Asia, contributed to the increase of investments.

The industrial development of Malaysia after 1987 was actually achieved through the remarkable increase of domestic and foreign investments.

It should be noted that the change of morale of government officials through the establishment of so-called "Malaysia Corporation" concept is a very important incentive for investment. The Malaysia Business Council (MBC) was established to obtain feed back from the private sector.

(c) Promotion of technical development

Malaysia is receiving more than 1.2 million foreign workers due to shortage of domestic labor force. Development of labor-saving and capital-intensive industries needed to solve issues associated with the shortage of labor force, is only attainable through strengthening of the technical level of the private sector and promotion of R&D. Targets of the industrial policy are modernization of plants, promotion of investment in high-tech industries, increase of R&D activities, and fostering of engineers and researchers.

The Action Plan for Industrial Technology Development (APITD), which contains 42 proposals, is targeted at raising up the technical level and competitiveness of the national economy to the same level as those of the advanced countries by 2020.

(d) Human resource development and improvement of productivity

Training of workers, learning of new production process and technology and cultivation of work morale are the basic conditions for development of technology. Improvement of efficiency of management is also needed for this purpose. Policy measures for promotion of education, training were introduced by the government.

An action plan for human resource development was announced and relaxed policy has been implemented to attain the targets of the plan. In the transition period, enterprises are permitted to employ skilled labor and technical staffs from overseas.

(2) Investment Incentives

Malaysia's tax incentives are designed to provide total or partial relief from the payment of income tax. The incentives take the form of tax holidays, allowances based on capital expenditure and double taxation deductions on certain kinds of expenditure.

1) Pioneer status

(a) General incentives

A company planning to participate in a promoted activity or to produce a promoted product is eligible for pioneer status with respect to that activity or product. The manner in which the incentive is granted is based on the type of projects undertaken and the location of the projects.

Companies are taxed, for a period of 5 years, on 30% of their profits after deduction of capital allowances. The remaining 70% of profits is exempt from tax and may be distributed to shareholders as tax-exempt dividends. The rate of abatement for eligible projects located in the eastern corridor of Peninsular Malaysia, Sabah or Sarawak will be increased to 85%.

(b) Projects of national and strategic importance

A company granted pioneer status for undertaking a project of national and strategic importance involving heavy capital investment and high technology with extensive linkages and having a significant impact on the Malaysian economy, will be granted full exemption on its profits after deduction of capital allowances during the tax-relief period of 10 years.

(c) High-tech projects

A high-tech company granted pioneer status for engaging in a promoted activity or the production of a promoted product in areas of new and emerging technologies, will be fully exempt from tax on its profits after deduction of capital allowances for a period of 5 years.

2) Investment tax allowance

A company may be granted an investment tax allowance (ITA) of 60% of the qualifying expenditure incurred within a period of 5 years. The maximum amount that can be abated for each year is 70% of the profits after deduction of capital allowances. Any unabsorbed ITA can be carried forward indefinitely to subsequent years of assessment. The amount of profits equal to the ITA utilized is exempt

from tax and may be distributed to shareholders as tax-exempt dividends. The ITA incentive is enhanced for the following types of project.

- A corporation carrying out a project of national and strategic importance: 100%
- A high-tech company: 60%, but the amount of ITA is made available for setoff against its profit without restriction.
- A company that provides technical and vocational training in Malaysia: 100% of qualifying capital expenditure incurred within a period of 10 years and the maximum amount of ITA is restricted to 70% of profits.

3) Industrial adjustment allowance

A manufacturing company undertaking an approved industrial adjustment program may qualify for an industrial adjustment allowance (IAA) of up to 100% of the qualifying capital expenditure incurred within a period of 5 years.

Industrial adjustment means any activity undertaken in the manufacturing industry to restructure itself by way of reorganization with a view to strengthening industrial self-sufficiency, improving industrial technology, increasing productivity ,etc.

An activity or product that is enjoying pioneer status or ITA will be eligible for IAA only after the end of the pioneer or ITA period.

4) Reinvestment allowance

A manufacturing company that has incurred capital expenditure on a factory or on plant or machinery for the purposes of any qualifying project will be granted a reinvestment allowance of 50% on such expenditure.

A qualifying project is a project for manufacturing or processing undertaken by a company expanding or modernizing its existing business with respect to a product or in diversifying its existing business into any related product within the same industry.

The rate will be increased to 60% of the qualifying expenditure incurred in the year of assessment of 1997, and the reinvestment allowance will be given as a deduction against income after deduction of capital allowances but will be restricted to 70% of such income. The balance 30% will be taxed at the corporate income tax rate of 30%.

5) Venture capital companies / venture companies

A venture capital company is a Malaysian-incorporated company, approved by the Minister of Finance, that invests at least 70% of its funds in shares of a venture company whose shares are not listed on the Kuala Lumpur Stock Exchange (KLSE) at the time of acquisition.

A venture company is a Malaysian-incorporated company involved in high-risk ventures or new technology in relation to a product or activity that would promote the economic or technological development of Malaysia.

Gains accruing to a venture capital company from the disposal of its shares are exempt from income tax. If the venture company is listed on KLSE, the tax exemption will apply only to disposals within 3 years from the date of the first listing. The gains that are exempt from tax are available for distribution to shareholders as tax-exempt dividends.

A loss arising from the disposal of shares of a venture company or upon liquidation of a venture company is deductible against other income of the venture capital company. Any unutilized loss can be carried forward to subsequent years.

II.1.3 High-Tech Industrial Policy - Taiwan

(1) Review of Industrial Policy

1) Industrial policy in the past

Two major targets of the industrial policy of Taiwan after the 1970s were "Export promotion" and "Fostering infant industries". About 150 products were designated as "Strategic industry".

Various incentives were given to these strategic industries including:

- Financial contribution by the government for expenditure associated with programs for financial management, quality control, production control, marketing, etc.;
- Provision of low interest loan;
- 5-year exemption of corporate income taxes for new investment;
- Reduction of import taxes; and
- Tax exemption for retaining earnings up to 2 times of paid-in capital

Taiwan made a great success in economic development as a result of these industrial policies. However, the economic environment of Taiwan was changed at

the same time. The most significant change in the domestic economic environment was shortage of labor and increase of labor cost.

Changes in the external economic environment are emergence of competition with the Southeast countries and China, appreciation of New Taiwan dollar and intensification of economic conflict with the U.S.A. as a result of expansion of export of Taiwan.

2) Current industrial policy

The most important issue of Taiwan, under the changing economic environment, is the introduction of higher value-added production in domestic industries to cope with the inevitable opening of economy to other countries. "Development and transfer of new technologies" and "Fostering new strategic industries" are targets of the current industrial policy of Taiwan.

(a) Introduction of higher value-added production in industries and development and transfer of new technologies

Introduction of higher value-added production in industries is the most significant target of the Taiwanese Government. However this target is not easy to attain, since most of enterprises in Taiwan are small and medium size companies, and they are not eager to make investments in R&D. Small size of business activity is obstacle for "Research and Development" and development of so-called "High-tech Industry", because risks are always associated with them.

The government adopted two strategic approaches for promotion of R&D and higher value-added production in industries. The first one is development of new technologies by non-private research institutes, such as Industrial Technology Research Institute (ITRI), and transfer of these technologies to the private sector. The other is identification and fostering of strategic industries which are considered as having potential international competitiveness.

(b) Scientific technology project (STP)

This project aims at development of new technologies and transfer of these technologies to the private sector. The annual budget of this project is approximately NT$ 10 billion, and about 60% of the budget is allocated to ITRI and the remaining is allocated to non-profit research institutes and universities.

Main targets of SPT are:

- Development of high-tech industries;
- Automation of existing industries;
- Provision of infrastructure for development of industries;
- Improvement of energy consumption; and
- Solution of issues common to all industries such as environment protection, etc.

(c) Identification and fostering of strategic industries

In the latter half of the 1980s, the Committee for Economic Planing and Development (CEPD) prepared the National 6-year Plan (1990-95) and identified 10 potential industries including communication, information, electronics, semi-conductor, and precision machine. In 1995, CEPD added 23 high-tech industries in the strategic industries to strengthen international competitiveness of the Taiwanese economy.

(d) Finance scheme for development of strategic industry

The Matching Fund Program started in 1982 to provide funds covering up to 50% of the R&D expenditure under projects approved by the government. Borrowers are to start repayment of loan one year after launching the new products developed with the funds and to pay royalty of 1% to 4 % of sales proceeds (1% in most cases) of these products for 3 years.

(e) Issues to be resolved

- The fund under the STP program is currently used for development of domestic new technologies. However the speed of technology development would be enhanced if the fund is also used for import of technologies.
- The STP program is oriented to the development of basic technology rather than application technology. The program is to be shifted to development of application technology, which is immediately needed by the private sector.
- Regulation of entry of foreigners to the country should be relaxed so that foreign experts may stay in Taiwan for a sufficiently necessary period.

- Enforcement of the legal framework for protection of intellectual right, prevention of computer-related crimes.

(f) Background of development of the information industry in Taiwan

There would be many reasons for the development of the information industry in Taiwan including:

- Contribution by foreign direct investment (FDI) to development of technology of Taiwan.
- Abundant human resources for R&D - return of good researchers working in the Silicon Valley in the U.S.A., who are originally from Taiwan, to Taiwan contributed to the development of the information industry in Taiwan.
- Contribution of the STP program.
- Contribution of the Hsinchu Industrial Park, which was designed for the establishment and development of new R&D-oriented enterprises.

However, it should be emphasized that the success of creation of favorable conditions for business activities of the private sector made a fundamental contribution rather than specific political measures and incentives.

(2) Investment Incentives

1) Non-tax incentives

(a) Development fund

Major non-tax incentives are the financing available from the development fund. The development fund is used to provide financial facilities to important enterprises or plans relating to industrial upgrading or improvement of industrial structures.

The development fund also provides loans for actions coordinating the furtherance of plans initiated by competent authorities for the transfer of advanced technologies from abroad, promotion of research and development, personnel training, pollution control, accelerated improvement of the industrial structure.

2) Tax concessions for development of high-tech industry

(a) Available to all companies

a) Investment tax credit

A company may credit its profit-seeking enterprise income tax up to an amount of 20% of the price paid for acquisition of the registered stocks subscribed or underwritten by specific enterprises, such as an important technology-based enterprise and a venture capital investment enterprise, upon its incorporation or expansion if the investor holds such stocks for not less than 2 years. However, these specific enterprises can choose a 5-year tax holiday.

Investment tax credits of 5% to 20% of the investment amount is given to certain investment such as automatic production equipment or technology, pollution control equipment or technology, R&D personnel training, etc.

b) Accelerated depreciation

The service life of instruments and equipment for exclusive use for specific purposes, such as R&D, may be accelerated to two years

c) Deferral of specific profit distribution

Where an enterprise capitalizes its retained earnings for use for the following purposes, the registered stocks newly issued to and thereby acquired by its shareholders may not be taxed in the current year. However, if such stocks are thereafter transferred through sale, they will be taxed the year in which the transfer is made.

- To purchase or replace machinery and equipment or transportation facilities for specific purposes, such as R&D, quality inspection, prevention of pollution, conservation of energy, etc.
- To repay the loan or account payable for purchasing or replacing machinery and equipment facilities as referred above.
- To reinvest in important enterprises as specified by the government.

(b) Special-use company incentives

a) Venture capital investment enterprises

The following special incentives are provided to venture capital investment enterprises (VCIEs) approved by the Ministry of Finance:

- In case where a company limited by shares invests in a VCIE, 80% of the income derived from such investment is excluded from the company's taxable income.
- The income tax on registered stock dividends of a venture enterprise is deferred until the stocks are subsequently sold, bestowed, or distributed.
- An individual or profit-seeking enterprise that invests in a VCIE may be entitled to a credit of up to 20% of the value of those stocks against income tax liability or the corporate income tax payable. The unused investment credit can be carried forward for 4 years.

b) Incentives for the science-based industrial park

The following special incentives are provided to companies located in the Science-based Industrial Park at Hsinchu:

- Simplified registration: Nearly all registration matters are handled directly by the Park Administration .
- Tax benefits:
  - 5-year tax holiday for newly established companies
  - Either a 4-year tax holiday on profits from expansion plans financed by capital investments or a tax credit of 15% of the expansion investment in the year of capital increase
  - Maximum income tax rate of 20%.
  - Exemption from import duties, commodity taxes and business taxes on machinery, equipment, raw materials, etc.
  - Exemption from deed tax on purchase of plant and buildings in the Park .
- Other benefits:
  - If the company's technology is considered by the Park Administration to be highly desirable for industrial development in the nation, land rentals in the Park may be reduced or waived for up to 5 years.

- The Park is located close to universities and the industrial Technology Research Institute (ITRI) and benefits from these research facilities

II.2 Lessons from Industrial Promotion Policies of Other Asian Countries

Possible Application to Vietnam

The high-tech industrial policies of certain Asian countries, namely Singapore, Malaysia and Taiwan, were studied in the previous chapter. In this chapter, certain issues to be learned from the experience of these countries, in the process of establishing a high-tech industrial policy of Vietnam, are discussed.

(1) Development of Private Sector and Promotion of Investments including Foreign Investment

The economic development of the Eastern Asia was a result of the development of the domestic manufacturing industry, and the domestic industry of the East Asian countries grew with technologies transferred through foreign investment. In the studied countries, various tax and non-tax incentives were provided to attract foreign direct investment.

It should also be noted that the manufacturing industry activities were fundamentally carried out by the private sectors, rather than by a public sector, in these countries. Therefore, it would be appropriate to comment that promotion of a private sector is an essential element for the development of manufacturing industry and high-tech industry.

A typical example of this scenario of development of high-tech industry is the information industry of Taiwan. The development of the information industry in Taiwan has been significantly contributed by foreign direct investment.

Enterprises in Vietnam are generally in lack of most of the resources, such as modern equipment, products of international standards and quality, market information, new product development capability and funds. Therefore, it should be recognized that one of key issues for development of manufacturing industries and subsequently high-tech industries in Vietnam is promotion of foreign investment. All of these resources, especially for high-tech products, would initially be "imported" into Vietnam through direct foreign investments and then be gradually transferred to the local economy.

(2) Development New Technologies and Transfer by Government Initiative

Research and development involves significant amount of funds and risks of failure. In Taiwan's case, it is not be expected that research and development activities were to be conducted by the private sector, since most of the enterprises of Taiwan were small and medium size and they could not endure the risk of the research and development activities. Under these circumstances, research institutes were established by the Government initiative and with the Government fund. R & D activities were conducted by these institutes, and subsequently new technologies created by them were transferred to the private sector. It should also noted that solution of issues, such as environment protection etc., common to all industries were studied and researched by the non-private research institute in Taiwan.

In Vietnam, most of the enterprises are in small and medium size, and it is not possible and practical to expect these enterprises to conduct substantial R & D activities, which is a similar situation of Taiwan before its industrialization. Therefore, Vietnam could learn from the above-mentioned Taiwan's strategy of development of technology. Vietnam's new technologies, especially those involving significant amount of R & D expenses, should be developed by the Government initiative and subsequently transferred to the private sector.

When learning from Taiwan's experience for establishing Vietnam's industrial policy, a problem or a shortcoming of the R & D, activities conducted by the non-private research institutes of Taiwan, should also be studied so that Vietnam may repeat the same problems. The R &D activities conducted by the Taiwan's non-private research institutes were too much oriented to development of basic technology rather than application technology. The R & D development program should have been shifted to development of application technology, which would be immediately needs for the private sector.

(3) Fostering New Strategic Industries

A key to the Taiwan's success was that the industrial policy of Taiwan targeted very clearly the development of electronics industries, and the resources directed toward the specific activities to attain this goal. In Taiwan's case, criterion for identification of strategic industries was whether an industry has a potentiality to win the international competition.

Resources of Vietnam are also limited and scarce as discussed in the previous section, Vietnam should also identify strategic industries and direct scarce resources for fostering these strategic industries learning from Taiwan's experience.

(4) Industrial Park

In this chapter, we discussed the following three issues, which Vietnam can learn from the East Asian countries:

- Development of private sector and promotion of investments including foreign investment
- Government initiative- Development new technologies and transfer
- Fostering new strategic industries

A solution or an approach to attain these targets is to develop and to operate high-tech industrial parks by the Government initiative. The high-tech industrial parks should be designed to provide infrastructure for development of private sector including foreign investors and promoting R & D activities for development of new technology. Priority should be given to the identified strategic industries and their supporting industries in locating in the high-tech industrial parks.

We could learn from Taiwan in the high-tech park concept. Hsinchu Industrial Park significantly contributed to development of high-tech industries in Taiwan. It was designed to establishment and development of new enterprises oriented to research and development, for the development of the electronics industries in Taiwan.

II.3 Measures for Development of Private Sector and Investment Promotion

It should be recognized that high-tech industries can not be developed without linkage with ordinary manufacturing industries. Therefore, recommendations, being discussed in this section, should be applicable to ordinary manufacturing industries as well as high-tech industries, though degree and extent of incentives to be given to eligible high-tech industries may be greater than those for ordinary manufacturing industries.

(1) Development of Favorable Business Environment

It is necessary to develop a favorable business environment for domestic enterprise and foreign investors. The most fundamental issues for improvement of the business environment will be simplification of various procedures for investment by domestic and foreign investors.

It would be very effective to build some model cases, for example specific industrial zones, where procedures for investment are extremely simplified and transparent. Then, these model cases may be expanded to other places. When a high-tech industrial park, which is referred as one of the lessons from the experience of Taiwan

in the preceding paragraph, is developed, procedures for making investment and starting operation in the park should be extremely simplified and transparency of the procedures should be secured.

It should be emphasized that the creation of favorable fundamental conditions for business activities of the private sector, which is attained by relaxation of various procedures for starting and doing business, is more important than specific tax and non-tax incentive measures.

(2) Admittance of Free Transfer of Land Use Right

Enterprises should be permitted to transfer land use right freely, and the current limitation of value of land use right for mortgage should be abolished so that land use rights held by enterprises may be used as collateral for borrowing money from banks. This land use right reform will make a significant contribution to solution of the financial problem with which enterprises of Vietnam, including the private sector and the public sector, are facing.

On the other hand, in the Vietnam economy point of view, this land use right reform will significantly benefit the country since the economy will able to obtain an opportunity to utilize its land value for the economic development, which have been virtually wasted by the current legal framework concerning land use right.

(3) Flexible Immigration Policy

It should learnt from Taiwan's case for a flexible immigration policy. Abundant human resources for research and development area, including good researchers working in the Silicon Valley in the U.S. A., who were originally from Taiwan, contributed to the development of the information industry in Taiwan.

In Vietnam, enterprises should be permitted, at least in the transition period toward an industrialization, to employ technical persons and skilled labor from overseas including overseas Vietnamese. Regulation of entry of foreigners to the country should be relaxed so that foreign experts may stay in Vietnam for necessary period.

(4) Change of Morale of Government Officials

Vietnam may be able to learn something from a successful change of moral and morale of government officials in Malaysia. This change was attained through establishment of so-called "Malaysia Corporation" under the strong initiative by the Prime Minister.

A kind of feed back system, from the private sector to the Government sector, was built up and needs of the private sector were recognized and taken consideration in

preparation of the industrial policy by the Malaysian Government. This feed back system also contributed to the economic success of Malaysia. Vietnam should have a similar feed back system so that the industrial policy may be able to flexibly reflect needs of the private sector.

(5) Finance

(a) "Institutional finance scheme" for development of manufacturing industries

Vietnam is suffering from chronic shortage of funds. Mobilization of domestic fund through the banking system is very low due to a lack of confidence of general public in the financial system of Vietnam and due to the current strict restriction on utilization of land use right. Furthermore, shortage of long-term fund is especially very serious since supply of long-term fund was very much insufficient due to an long-lasting distorted interest rate structure, namely short-term interest rate is higher than long-term interest rate, which was normalized only in 1996.

Long-term lending is mainly provided by the SOCBs, and significant part of the long-term lending is still directed to SOEs. Therefore, most of loans available in the market are short-term loans, and agriculture and commercial sectors are receiving more loans than the manufacturing sectors.

Under these financial conditions in Vietnam, manufacturing sectors are suffering from serious shortage of funds, both short-term loans and especially medium-/long-term loans. Therefore, "institutional finance scheme" should be founded and organized by the Government initiative for development of manufacturing sector and high tech industries.

To satisfy quantitative necessity for fund of the private sector should be the first priority of this scheme. However, qualitative necessity, such as relatively low interest rate, longer lending term, is also to be considered in the institutional finance scheme. This scheme may be conducted by a governmental financial institution specially established for this scheme, or special lending scheme is designed and implemented through banks with fund provided by the Government.

As the institutional financial scheme involves control and direction of fund, which is being the most scarce resource in Vietnam, toward particular business activities, purposes of the institutional financial schemes should be clearly identified in line with the policy targets. Criteria, derived from the purposes, to

be eligible to borrow loans from the scheme should be clearly established and publicly announced to secure fairness and transparency of the schemes.

(b) Guarantee scheme for private sector

Most of private sector enterprises, especially manufacturing industries, have not sufficient mortgage, due to notorious "Land use right issues", to borrow money from banks. Therefore a "guarantee scheme", being organized by the Government, for private sectors, will be valuable financial help for development of the manufacturing sector.

(c) Issuance of unregistered bond for development of manufacturing industries and high-tech industries

A real issue, for implementing the aforementioned two financial schemes, will be how to raise funds for these schemes. ODA loan fund from foreign governments will be, of course, one of potential and important sources. However, proper foreign debt management is required when obtaining ODA loan, and there would be some limitation in borrowing ODA loan depending on debt service ratio of Vietnam at that time.

Another source of fund will be domestic funds circulating in the unofficial financial system. Such funds should be mobilized in the financial system to provide funds for development of domestic manufacturing industries and high-tech industries. However, People often hesitate to put their money in the official financial market, because his identification may be known and source of fund may be detected by government authorities.

Under these circumstances, it should be studied to issue "unregistered bonds" to raise funds from the domestic source. Unregistered bond is a bond for which a name of holder of the bond is not registered, and holder of a bond certificate is deemed to be the beneficiary of the bond. Unregistered bond will reduce the concern of people and contribute to attract more money to the official financial market. Considering lack of confidence in the financial market among the Vietnamese people, term of unregistered bond should be rather short-term ranging from 3 month to 3 years.

(6) Taxation-Tax Incentive Measures

(a) Corporate income tax

Tax concession measures should be provided to qualified manufacturing industries and high-tech industry meeting specific criteria. Learning from the

tax incentives in the other Asian countries, tax incentive measures will typically include:

- Reduction or exemption of corporate income tax for certain period
- Investment tax credit,
- Accelerated depreciation,
- Double deduction of certain eligible R & D expenses,
- Extension of loss carry forward period, and
- Exemption of tax on capital gain of venture capital companies earned from sale of shares in the venture business

(b) Income tax on royalty

Income tax at 5% / 15% / 10% is currently imposed on royalty income in Vietnam. Tax concession measures of reduction or exemption of income tax on royalty income should be given to eligible technology and manufacturing and R & D activities to promote technology transfer and to develop manufacturing industries and high-tech industries in Vietnam.

Priority sectors and technology should be identified by the Government, to establish a tax concession system for technology transfer, in line with the industrial policy of Vietnam.

(c) Personal income tax

It should be studied to reduce or even exempt personal income tax, for certain period, for foreign expatriates and overseas Vietnamese working in eligible manufacturing industries and high-tech industries, since technology transfer can not be made only with documents bought from overseas. Attendance of researchers and engineers in places of manufacturing and research activities is needed to make smooth technology transfer to Vietnam.

(7) Conclusion

As it will be learned from the experience of the studied Asian countries, economic environment changes due to changes of fundamental elements, as shown below, when the economy grows and develops.

- Shortage of labor and increase of labor cost.
- Competition with the South Eastern countries and China, and
- Appreciation of exchange rate

Therefore, and creation of higher value addition of the economy through R & D activities is indispensable to sustain in the changing environment. This is especially true for Vietnam because the environment, where Vietnam is going to develop its economy, is an international economy where a national economy is strongly linking and, at the same time, competing with economies of the other countries.

APPENDIX III INVESTMENT PROMOTION POLICIES FOR HIGH-TECH INDUSTRY

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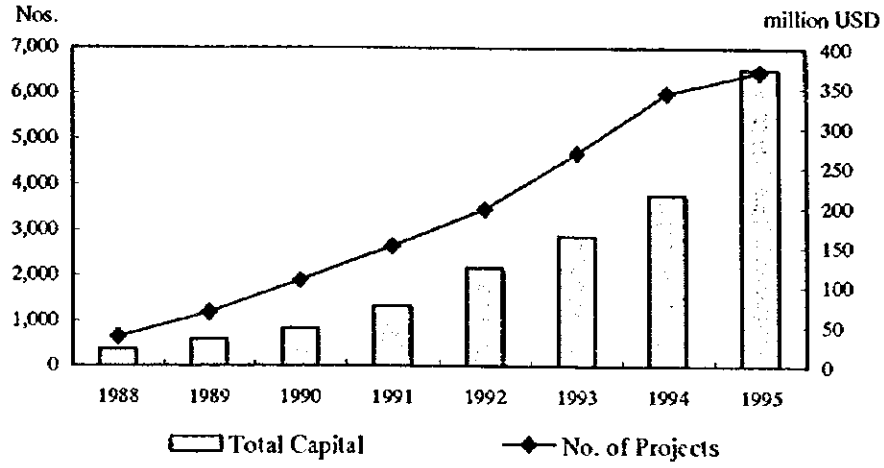
APPENDIX III INVESTMENT PROMOTION POLICIES FOR HIGH-TECH INDUSTRY

III.1 Current Status of FDI

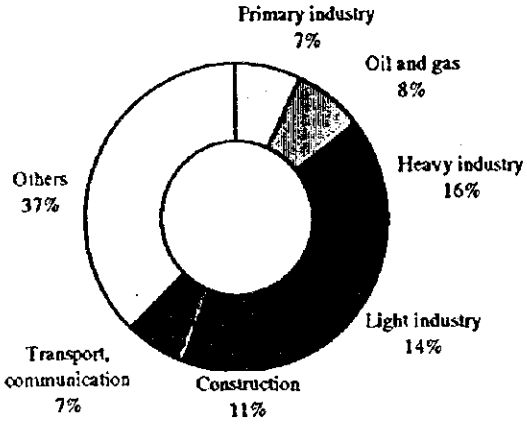
The Law on the Foreign Investment in Vietnam was enacted in December, 1987, and Foreign Direct Investment in Vietnam began in the following year. Both the number of FDI projects and total capital licensed by each year have been increasing year after year. In 1994, U.S.A lifted the embargo from Vietnam, subsequently the Government of Vietnam granted licenses to 370 FDI projects, which are equivalent to the capital amount of 6,530 million USD in 1995.



Licensed Foreign Investment

Around 50% of the investment up to the end of 1996 come from NIES, or Singapore, Taiwan, Hong Kong and Korea. In 1995, the licensed investment from Japan was close to the amount of as much as Taiwan, which is the top investor to Vietnam. The investment from USA increased rapidly after removing the embargo. The investment from ASEAN countries is also increasing.

40% of the total projects and 30% of the total capital are in manufacturing sector that consists of heavy industry and light industry. The investment in this sector increased up to 1,800 million USD in 1995.



Licensed Foreign Investment by sectors
(As of 1995)

Foreign Direct Investment in Vietnam is concentrated in a few regions. 30% of investment is in Ho Chi Minh City, 24% is in Hanoi, and 12% in Dongg Nai. The total of the three regions is almost 70% of investment in Vietnam.

Compared with investment in Ho Chi Minh City and its neighboring provinces, the investment in Hanoi and its surrounding is about one third.

By the end of 1996, 262 projects (16.2%) and 6,421 million USD (24.4%) investment in Hanoi were approved, 20 projects (1.2%) and 432 million USD (1.6%) in Ha Tay Province. Investment in Hanoi and Ha Tay provinces together account for a quarter of the total.

Licensed Foreign Investment by Major Province (As of Dec. 31, 1996)

	No. of Projects		Total Capital	
	Nos.	Share	Amount(million USD)	Share
Ho Chi Minh City	562	34.7%	8,007	30.4%
Ha Noi	262	16.2%	6,421	24.4%
Dongg Nai	172	10.6%	3,055	11.6%
Ba Ria-Vung Tau	56	3.5%	1,065	4.0%
Hai Phong	112	6.9%	995	3.8%
Song Be	57	3.5%	943	3.6%
Quang Nam-Da Nang	25	1.5%	511	1.9%
Hai Hung	23	1.4%	499	1.9%
Quang Ninh	47	2.9%	456	1.7%
Ha Tay	20	1.2%	432	1.6%
Others	285	17.6%	3,936	15.0%
Total	1,621	100.0%	26,320	100.0%

Note: Excluding oil & gas projects and overseas investment projects

Source: Ministry of Planning and Investment

III.2 Investment Environment

III.2.1 Comparison of Investment Environment

The first step of fostering high-tech industry is to promote foreign companies that have high technology in Vietnam. It is necessary for Vietnam, which has just limited capital and is behind other neighboring countries in industrialization, to stimulate investment from abroad for catching up as soon as possible.

When enterprises make a decision to invest, at the beginning they compare several countries. This means that the country which attracts companies needs to know her own superiority in comparison with other countries. The Study Team compared Vietnam with other ASEAN countries, rivals of Vietnam, in cost, infrastructure and incentives.

Cost

Vietnam doesn't have cost competitiveness but labor cost shown as the following table. The land price in Vietnam - 50 years private land ownership - is the most expensive of the six. Communication cost such as telephone installation cost, basic telephone rate and international call rate is also the highest. Utility cost such as electricity and water supply is high, too.

Infrastructure

Infrastructure in Vietnam is inferior to her surrounding countries. The major international ports, Hai Phong port in the north, Ho Chi Minh port in the south, are river ports. A big ship can not stop there.

Though road traffic plays an important role in domestic logistics, the road is poor. For example, the pavement rate is 11.8 %, the worst in ASEAN, road length per area is higher than world's average 11.8 km per 100 km^2, but road length per person is less than world's average 2.3 km per thousand persons.

Comparison of Investment Environment (Infrastructure)

		Singapore	Thailand	Malaysia	Indonesia	Philippines	Vietnam
Electricity		good	good	good	shortage	shortage	shortage
Telecommunication	Telephone per capita	47.3	4.7	14.7	1.3	1.7	0.6
Water supply	Waterworks	good	good	good	good (urban area)	good (urban area)	Outworn equipment
	Drainage system	good	not available	not available	not available	not available	Outworn equipment
Road	Pavement rate(%)	97.0	94.0	72.1	43.0	14.0	11.8
	road length per 1000 persons (km/1000perosons)	1.00	0.86	3.46	1.31	2.72	0.78
	Road length per area (km/100km2)	490.5	10.0	20.0	12.8	54.0	16.6
Port		The largest container port in the world.	Three commercial ports. Bangkok port is river port	As the expansion of logistics, the port become congestion.	Jakarta port is congestion.	The major port is Manila port, and Cebu port.	4 Commercial ports.
Air port	International airport	1	5	4	3	2	3
	Domestic airport	-	21	37	49	81	13

Source:JICA Study Team

Incentives

It is difficult to compare the incentives in ASEAN countries since each country has different ways of thinking for industrial encouragement. But it is attractive to get the 8 years exemption from corporate income tax in Vietnam. Incentives in Vietnam are no longer inferior to other countries. But they do not have much superiority enough to attract companies.

III.2.2 Evaluation of Investment Environment by Investors

Vietnam is ranked third country to invest in according to the questionnaire survey on the Japanese manufacturing companies conducted by Japan export-import bank (JEIB) in 1996. Most of the companies, which chose Vietnam for investment in the questionnaire survey by JEIB, answered the cheap labor cost as a reason. It means that the investment in Vietnam in future is cheap-labor-oriented same as most investment in developing countries. In other words, the situation will change as the construction of infrastructure in Myanma or Cambodia, the labor cost of that is much cheaper than that of Vietnam. And more, when Vietnam joins in AFTA in 2006, even companies targeting Vietnam market will not need to invest in Vietnam.

In the Study, the investment demand survey has been conducted in eleven foreign countries by means of questionnaire survey during the period from the end of January 1997 through the end of March 1997, in order to assess the investment demand of foreign

investors for the planned Hoa Lac High-Tech Park (HHTP) as well as investment environment.

Of the 7,588 enterprises approached in total, 1,549 firms replied, i.e. at a response rate of 20.4%. Of the 1,549 respondents, 209 firms showed interest in overseas investment. Of these 209, 74 firms (about 35%) showed interest in investment in Vietnam. Of the 74, 40 firms showed interest in investment in HHTP.

The results of the investment demand survey are described in Appendix VII in detail.

In the section, the investment environment of Vietnam is studied on the basis of the advantages and problems of Vietnam for investment and required incentives evaluated by foreign investors.

(1) Advantages of Vietnam for Investment

The enterprises that showed interest in overseas investment pointed out mainly the following advantages of Vietnam for investment:

- Cheap labor force
- Diligence of Vietnamese worker
- Big domestic market
- Geographical location
- Dexterous Vietnamese worker
- Recently high increasing ratio of GDP
- Abundant natural resources / materials

Advantages of Vietnam for Investment by Foreign Investors

		Total Number of Foreign Enterprises	(%)
(1)	Cheap labor force	131	74.9%
(2)	Creative ability	20	11.4%
(3)	Diligence of Vietnamese worker	72	41.1%
(4)	Dexterous Vietnamese worker	39	22.3%
(5)	High literacy rate	29	16.6%
(6)	Abundant natural resources / materials	35	20.0%
(7)	Big domestic market	47	26.9%
(8)	Geographical location	41	23.4%
(9)	Recently high increasing ratio of GDP	36	20.6%
(10)	Religion (Buddhism)	3	1.7%
(11)	Others	8	4.6%
	Total	461	
	No. of no answers	34	
	No. of answering enterprises	175	100.0%

(2) Problems of Vietnam for Investment

The enterprises that showed interest in overseas investment pointed out mainly the following problems of Vietnam for investment:

- Undeveloped infrastructure
- Unmatured supporting-industries
- Shortage of skilled-workers
- Complicated and slow procedure for the investment
- Difficulty of acquisition of low materials
- Difficulty of J/V and lack of J/V partners

Problems of Vietnam for Investment by Foreign Investors

		Total Number of Foreign Enterprises	(%)
(1)	Shortage of skilled-workers	51	29.0%
(2)	Difficulty of acquisition of low materials	46	26.1%
(3)	Unmatured supporting-industries	58	33.0%
(4)	Undeveloped infrastructure	103	58.5%
(5)	Undeveloped facilities	12	6.8%
(6)	Insufficient incentives for the investment	32	18.2%
(7)	Complicated and slow procedure for the investment	50	28.4%
(8)	Difficulty of J/V and lack of J/V partners	42	23.9%
(9)	Undeveloped products standard and quality control	29	16.5%
(10)	Others	17	9.7%
	Total	440	
	No. of no answers	33	
	No. of answering enterprises	176	100.0%

III.3 Investment Promotion Policy

III.3.1 Current Status of Investment Promotion Policy

(1) Main Orientations and Prospect of Vietnam's Investment Policy

According to the documents VIII Party National Congress, the general orientation for investment to 2000 is;

- to develop all-sided agriculture, forestry, and fishery which are closely linked with the agro-forest-aquatic product processing industry,
- to develop the industry of producing consumer goods and export goods.

(2) Approval Procedure

The Law on Foreign Investment in Vietnam, which was issued on 12 November 1996 and became effective on 1 March 1997, replaced the former Law issued on 27 December 1987, which were amended and added twice on March 1, 1997.

The main purpose of the new law is to simplify the procedure of granting investment license and to shift quickly from an approval-by-way-of-application mechanism to the one in accordance with promulgated norms, standards and regulations. In order to make the environment for investment more attractive, the incentives were reinforced and the license issuing bodies were decentralized. Especially, enterprises that

invest in IZ or EPZ can enjoy the one-stop service provided by the board of management of IZ or EPZ. The boards were delegated the authority to issue investment licenses.

However foreign investors still need to go through many procedures before operation their factory (Figure III-3-1).

(3) Incentives

Since Vietnamese Economy is suffering from the trade deficit, the Government of Vietnam aimed to save the foreign money by nurturing import substitution industry and to earn the foreign currency by attracting export-oriented industry.

There are two kinds of tax incentives; the exemption from or reduction of profit tax and the exemption from import duty.

1) Profit tax

The rate of profit tax for enterprises with foreign owned capital is 25 %, but the following enterprises can enjoy some reduction and exemption.

Group 1

The project belonging to this group is applied a rate of 20 % for a period of 10 years from the time when the commences its production or business activities and can enjoy the exemption from profit tax for a maximum period of 2 years commencing from the first profit-making year and may be entitled to a 50% reduction of profit tax for a maximum period 2 successive year.

- export of at least 50 % of products;
- having 500 or more employees;
- cultivation or processing of agricultural, forestry or aquatic product;
- utilization of advanced technology or investment in development research;
- utilization of a substantial amount of materials and supplies available in Vietnam: efficient processing and exploitation of natural resources in Vietnam: obtaining a high localization rate in production as required by the regulations in respect of each particular field.

Group 2

The project belonging to this group is applied a rate of 15 % for a period of 12 years from the time when the project commences its production or business and can enjoy the exemption from Exemption from profit tax for a maximum

period of 4 years commencing from the first profit-making year and may be entitled to a 50% reduction of profit tax for a maximum period 4 successive year.

- export of at least 80% of products;
- investment in the fields metallurgy, basic chemicals, machinery manufacturing, petrochemicals, fertilizers and manufacture of electronic components, automobiles and motorcycle spare parts;
- construction and operation of infrastructure projects (bridge, roads, water supply and drainage systems, electricity, construction of seaports and so forth);
- cultivation of perennial industrial crops;
- investment in regions with difficult natural, economic and social conditions (including hotel projects);
- projects satisfying two of the conditions stipulated in group 1.

Group 3

The project belonging to this group is applied a rate of 10 % for a period of 15 years from the time when the commences its production or business and can enjoy the exemption from profit tax for a maximum period of 8 years.

- construction of infrastructure in regions with difficult natural, economic and social conditions;
- investment in mountainous regions and remote or distant regions;
- afforestation;
- those in the list of projects in which investment is specially encouraged.

2) Import duty

(a) Equipment and machinery

An enterprise with foreign owned capital and business co-operation parties can enjoy the exemption from import duty in the following case.

- for the implementation of the business co-operation contract;
- expansion of a project and replacement or renewal of technology.

(b) Raw materials, parts and devices

Export Processing enterprises can enjoy the tax exemption from import duty as far as they will not sell the product to the domestic market.

III.3.2 Problems for Fostering High-Tech Industry

There are some bottlenecks for fostering high-tech industry as follows.

1) Financial system

The difficulty in local financing is one of the bottlenecks that hinder the development of local enterprises and joint ventures. The common way of saving money in Vietnam is holding money in cash or in the form of precious metals at home. Financial institutions have not been developed yet to circulate the surplus money for investment. In addition banks are suffering from bad debt to state companies. Consequently, banks do not have much capacity to lend private sector.

2) Intellectual Property

Vietnam has ratified the Paris Agreement and has issued a patent law. But laws and systems related technology transfer is not compatible with the international rules and practices. Despite the copyright law, software is copied freely. In short, the idea of intellectual property including copyright has not been established in Vietnam yet. High-tech industry is above all knowledge intensive. High-tech company can not do activities in the country where the intellectual property is not protected.

3) Foreign engineer

The longest commercial multiple visas issued by the Government of Vietnam is valid for 6 month. Foreign engineers, who stay in Vietnam for over 6 months have to apply to extension the valid of visa every 6 months.

In order to stimulate to transfer technology from foreign engineers, it is better that foreign engineers stay in Vietnam as long as possible.

4) Legal system

The structure of Vietnam is still rudimentary and evolving at a rapid pace. Unavoidably it lacks in stability and comprehensiveness. The Government copes with the situation by issuing decrees. Though quick in response, this type of regulation by executive orders often results in conflicting regulations and negligence of long term and side effects. The affected business cannot foresee the change beforehand, thus making long term planning and investment very difficult.

The legal system and fair jurisprudence systemn should be established expeditiously to give more stability to business operations and increase transparency of the system.

5) Land use right

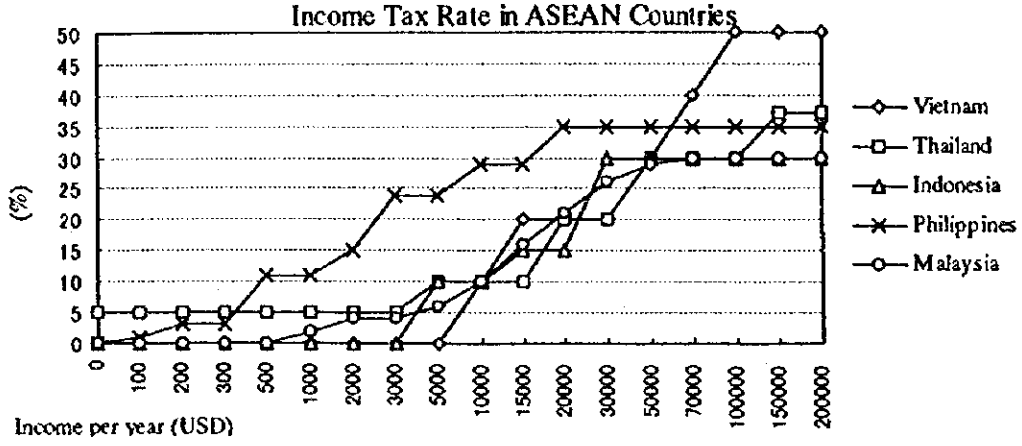
In case of investing outside an industrial zone, foreign enterprises face a complex procedure to obtain the land use rights. It normally takes a long time to transfer the land use right even if the partner of the joint venture company already has the right. (The decree issued on February 18, 1997 allows the construction of the factory without transferring the land use right so long as thee partner has it and the land use is note changed.) Even after getting the land user right, it often takes a long time to relocate the occupants from the site.

6) Technology transfer agreement

The joint venture company is the another company for the foreign parent company. When technology and know-how is transferred to the new company, the parent company usually requires the loyalty by return and makes the joint venture company keep confidential. Investors make a plan for 50 years (at least 20 years) because the longest period of land ownership in Vietnam is 50 years. But the period of technology transfer contract in Vietnam is 7 years and it is necessary to be admitted by the government. This means that the security of technological confidence and the payment for the loyalty is not assured after 7 years. Consequently, the foreign company is only to transfer the low technology instead of high technology and sometimes gives up investment itself.

7) Personal income tax

Not a few foreign companies in Vietnam are suffering from private income tax. The income tax rate in Vietnam for low and moderate income is as high as in other ASEAN countries as the below figure. But the maximum rate for high income is considerably high, 50 %. (This rate is the special rate for foreigners. The rate for Vietnamese people is more severe---the maximum rate is 60 %, the progressive rate of tax is double.) Thailand is 37 %, the highest maximum tax rate country except Vietnam, but the difference between them accounts for 13 %. Income tax is levied on the whole income throughout the world, and the maximum tax rate is applied to most foreigners.



Apparently private income tax is the private problem and has nothing to do with enterprise activities. But foreign companies have to pay much more salary to the foreign engineers because of assuring their income, which they get in home country. Japanese company in Vietnam, for instance, must pay more salary that the company pays in Japan, otherwise Japanese engineers cannot get salary as much as they get in Japan. This is the reason why the company feels heavy load.

In the ordinary industries, this higher tax rate will work for localization of factories and offices. But at the beginning of fostering high-tech industry, foreign engineers are required for production control and technical guidance. In short, it is good strategy to make many foreign engineers stay in Vietnam and transfer technology to Vietnam smoothly. But at present, it costs enterprises so much to hire many foreigners. The high tax rate is one of the bottlenecks for fostering high-tech industry.

8) Quality of infrastructure

High-tech industry requires the quality as well as the quantity of electricity, water and telecommunication. For example, not only the failure of power but also the fall of electric power at a glance affects the quality of products. It occurs the problem about subtle ingredients in water. The speed and the security of telecommunication is also important. Even in Japan, IC factory located in Kyushu region, has ever complained to the electric company of the fluctuation of the electric pressure though the fluctuation is within 5 % which is allowed by the government. (100 voltage of standard electric pressure is from 95 to 107. 200 voltage of standard electric pressure is from 198 to 222.) The fluctuation was too

big to produce IC. In short, high-tech industry sometimes requires higher quality than standard.

III.4 Investment Promotion Strategies for High-Tech Industries

III.4.1 Frame of Investment Promotion Policy

In order to promote investment, especially foreign investment, there are four strategies. That is:

- To create good business environment
- To offer good incentives
- To offer good infrastructure and facilities for high-tech industry
- To form the sales promotion system

(1) Attractive Business Environment

Investors require that the environment in which they can do business without unreasonable regulation. Vietnam is renovating the system, but it has not attained the satisfactory of investors. It is true that the government regulates in order to protect or nourish domestic industries, but basically economic condition should be free and fair.

The policy is the following:

- Forming investment system
  - Establishment of financial system
  - Establishment of stock market
  - Protection of intellectual property
- Easy access to any information
  - Announcement of proceeding investment license
  - Announcement of economic indicators
  - Announcement of rules
- Deregulation
  - Permission for export and import license
  - Technology transfer agreement
  - Royalty agreement
  - Work permission for foreign engineers

- To make procedure transparent
- To make the utilities cost reasonable
- To revise the Land use right system

(2) Excellent Incentives

To promote investment, excellent incentives should be offered, including not only monetary such as tax exemption, but also non-monetary such as services. Non monetary incentives are stressed here, reflecting that present Vietnam is not inferior to neighboring countries concerning monetary incentives.

Incentives offered now are applied to the whole country. To experiment with more progressive incentives for high-tech industry promotion, there is a policy option to designate a special area for new incentives.

- Monetary incentives
  - Exemption / reduction from corporate tax
  - Exemption / reduction from custom tariff
  - Exemption / reduction from private tax
  - Exemption / reduction from taxation on royalty
- Non monetary incentives
  - One-stop service
  - Mass transportation service
  - Business support service
- Regional incentives

(3) High Quality Infrastructure and Facilities

In Vietnam there is no industrial estate targeting high-tech industry now. The special industrial estate offered high quality infrastructure and facilities, that is high-tech park, is required.

- To build high-tech park
- To provide high quality infrastructure
- To provide good environment for foreigners' life

(4) Sales Promotion

It is no use that investors do not know it, however good investment environment is offered. Vietnam should give information about herself and take care of the companies, which located in Vietnam.

- To open the office in potential investor's country
- To hold the seminar for investment
- To prepare the documents
  - To make brochure in foreign languages
  - To design homepage on Internet
  - To make manuals for attracting companies
  - To list the potential investors
  - To list the experts for foreign companies
- To formulate the organization for exchanging information for foreign companies

III.4.2 Short-Term Strategy, Long-Term Strategy

It is difficult to carry out four strategies at once. Especially to create the attractive business environment needs to renovate system and amend the law. Considering difficulty and urgency of execution, the high quality infrastructure and facilities for high-tech industry shall be offered as a first priority. For this point is the weakest point of Vietnam against neighboring countries. In short, Vietnam should be at construction a high-tech park which provides international standard utilities at first. And the sales promotion activities come to the second.

III.5 Recommended Programs

(1) Business Environment

Financial system

The financial system should be secured and the stock market should be established quickly in order to raise fund easily.

Intellectual property

The idea that protecting intellectual property is important should be spread over the Vietnamese people. The Government should provide information concerning intellectual property and strictly execute the regulation of intellectual property.

Flexible immigration policy

The longest commercial multiple visas issued by the Government of Vietnam is valid for 6 months, causing unnecessary inconvenience to foreign expatriates. When foreigners work in Vietnam, they have to experience complex procedure such as applying extension of visa every 6 months. In order to foster high-tech industry, it is required to make the system simple and let many foreign engineers work in Vietnam.

It should learnt from Taiwan's case for a flexible immigration policy. Abundant human resource for R&D Zone, including good researchers working in the Silicon Valley in the U.S., who were originally from Taiwan, contributed to the development of the information in Taiwan.

Legal system and procedure

As a result of the continuous improvements in legal structure, the procedure such as investment license increases more transparent and takes shorter time. But even now some companies have difficulty in getting a license. The legal system and fair jurisprudence system should be established expeditiously to give more stability to business.

Infrastructure cost

Since the user charges for utilities and telephone service are higher in Vietnam, it is necessary to lower these charges to make production input costs competitive with other countries.

Admittance of free transfer of land use right

Enterprises should be permitted to transfer land use right freely, and the current limitation of value of land use right for mortgage should be abolished so that land use rights held by enterprises may be used as collateral for borrowing money from banks. This land use right reform will make a significant contribution to solution of the financial problem with which enterprises of Vietnam, including the private sector and the public sector, are facing.

Calculation of royalty

For installment payment of royalty, the Government of Vietnam 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.

A Government approval is needed to make a technology transfer agreement legally effective in Vietnam.

High-tech industry takes much of revenue from royalty. The technology transfer agreement including calculation rate of royalty should be made freely between parties concerned without government approval.

(2) Attractive Incentives

(a) Monetary incentives

Corporate tax

- Exemption/reduction of corporate income tax
- Accelerated depreciation
- Double deduction of certain eligible R & D expenditure

Machinery, equipment and instruments

High-tech industry uses expensive machinery, equipment and instruments, and they need to be replaced in a few years. All of them are imported.

At present, import duty is exempted when a factory is built and expanded. But import duty is laid on the machinery, equipment and instruments for renewal and on parts for repairing machinery. All the machinery should be duty free.

Personal income tax

The maximum tax rate is 50 %, considerably higher than those of the ASEAN countries. The tax rate for high income including foreign engineers is too high to stay in Vietnam. Personal income tax for foreign expatriates should be reduced so as not to increase production costs and to encourage technology transfer.

Income tax on royalty

10 % is currently imposed on royalty income in Vietnam. The tax rate is as high as other Southeastern Asian countries. To encourage technology transfer, the exemption or reduction from income should be made.

(b) Non monetary incentives

One-stop service

The services of application for investment license and construction permission and reporting on import and export should be provided by a one-stop system.

Business support service

Foreign companies have difficulty in preparing for operating a factory outside their home country. For example, they have difficulty in finding the partner of joint venture or the subcontractor and recruiting.

The new organization should be founded and provide the introduction service for recruitment of human resource, a directory of potential partners for JV and a list of companies for subcontractors.

Regional incentives

By now only few high-tech companies can be seen in Vietnam. In order to catch up with competitors effectively, high-tech related companies should be accumulate in a special areas such as high-tech park. Therefore, more progressive incentives should be offered to the special areas.

(3) Infrastructure

Establishment of high-tech park

In Vietnam there are no site for high-tech companies in terms of both facilities and systems. The Government should play main role of build high-tech park.

High quality infrastructure

High-tech industry's utility requirements are not just in volume. The quality required of electricity, water and telecommunication is much higher than that of ordinary industry.

The area where high-tech companies are located is provided international standard infrastructure in quality as well as quantity.

Excellent conditions for foreign engineers

Most investment will come from foreign countries. It means that good condition for foreigners should be offered. The road signs and hospital markers should be written in also English and some international schools should be established.

(4) Sales promotion

It is important to conduct sales promotion as well as to make known the investment environment of Vietnam to the outside world. As every ASEAN country tries to lure investments in high-tech fields, sales promotion activities are becoming more and more important.

Overseas investment promotion office

Most countries have investment promotion office in the potential investors' country. That office spreads propaganda for the country and provides information to investors. For example, MIDA (Malaysian Industrial Development Authority) of Malaysia, and BoI (Office of Board of Investment) and IEAT (Industrial Estate Authority of Thailand) of Thailand have their own offices in Japan. They provide documents in Japanese, and do activities for inviting companies.

The government of Vietnam should consider a more active investment promotion approach such as opening an office of MPI in the potential investors' country.

Investment seminar

To hold seminar in overseas is a good opportunity to claim advantage of Vietnam to investors directly. The mission to Vietnam is also effective to show the Vietnamese attractiveness in visible form.

Documents for attractive companies

Documents such as brochure or guidebook should be prepared for the potential investor's country. To design homepage in several languages is an option for advertisement.

Manual for investment promotion

Investment promotion manual should be prepared. This manual consists of the way of picking up potential investors and contacting them and the flow before making decision on investment. It helps the person in charge of sales promotion to understand his task and to do his work effectively. And it secures the minimum service to investors.

(5) Others

A series of campaign over a year should be held as "Vietnam year" in Japan and the U.S, which are the most potential investor's countries. During that year, through some campaign, the name of Vietnam will be known as a country of investment and sightseeing.

The campaign office, for example, has a space with a standing exhibition on Vietnam and provides videotapes, pamphlets and maps introducing Vietnam. In that year, seminar and mission are held intensively, and classes introducing Vietnamese culture such as language or cousin are given. The invitation tour to Vietnam as a prize is an option for advertisement of Vietnam.

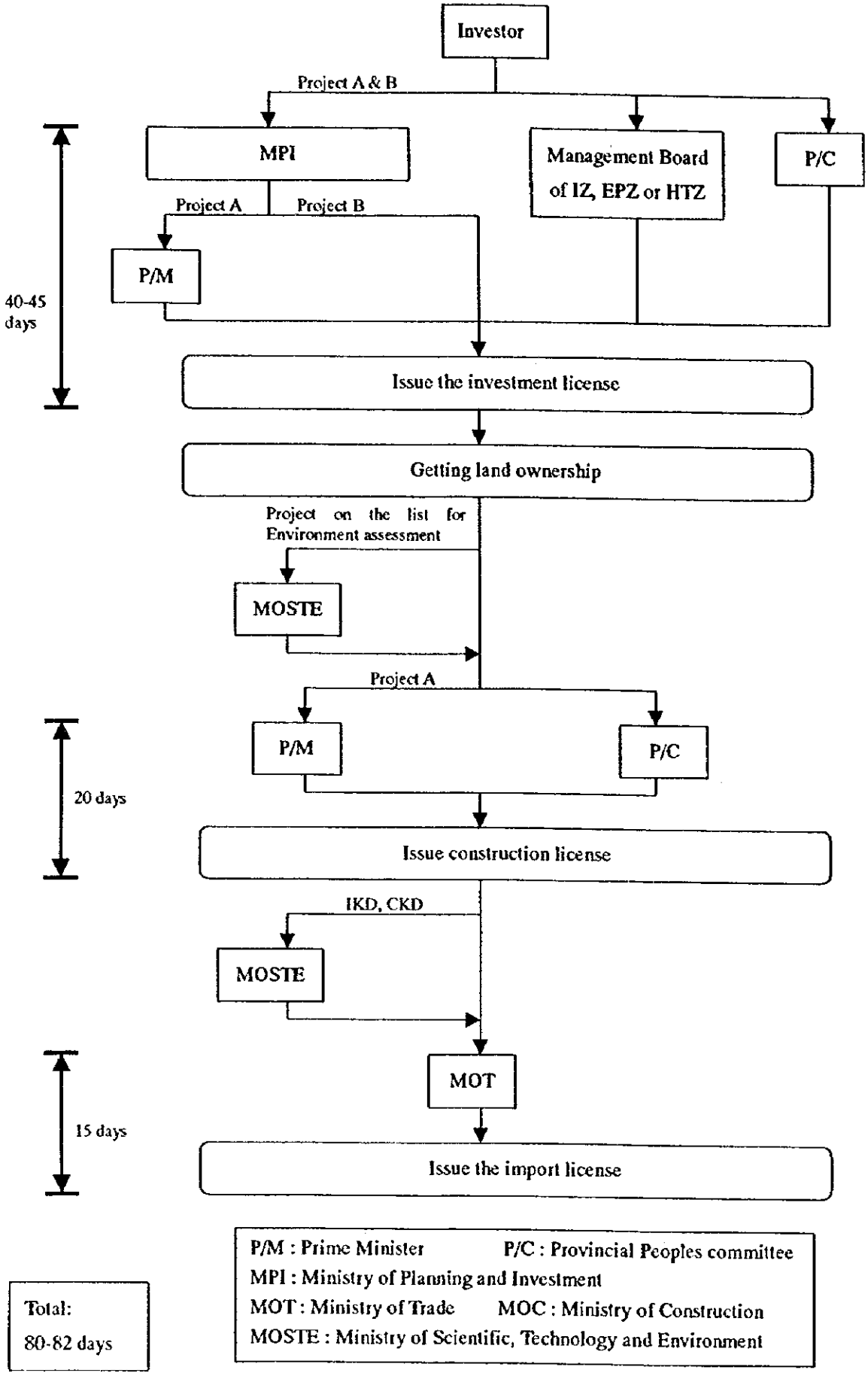


Figure III-3-1 Investment Procedure