

SOME MAJOR CONTENTS OF THE INDUSTRIAL DEVELOPMENT STRATEGY TOWARDS THE YEAR 2010

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During the period 1991-2000 when the Vietnam Communist Party's line of renewing the national economy and accelerating the rate of industrialization and modernization was being implemented, the national industry experienced a number of positive changes. All enterprises in all economic sectors sought all possible measures to enhance their production and business efficiency, readjust their organizational structures, renew technologies and improve their products' design with an aim to increase the competitiveness of their products and gradually take initiative in integrating into the regional and world economy, especially into the ASEAN economy. It can be said that thanks to the economy renewal policy, Vietnam has managed to clear off the jam in production and business operation of the period 1986-1990, step by step overcome difficulties to further develop and gradually move into the period of speeding up the country industrialization and modernization process.

I. ACHIEVEMENTS OBTAINED DURING THE PERIOD 1991-2000

1. Industrial Growth Rate and Gross Output

During the period 1991-2000, the national industry has achieved a high and relatively stable growth rate.

1.1.1 Gross Industrial Output

The gross industrial output of 1995 (calculated based on the 1994 fixed price) was VND 103.37 thousand billion, of 1998 was VND 150.68 thousand billion, and of 2000 was estimated to be approximately VND 200 thousand billion. In total, the growth rate of the whole industrial sector was averaged at above 15%. Especially, this growth rate of the period 1991-1995 was 13.7%, far exceeding the planned objective of only 7.5-8%. This is the highest ever growth rate (1976-1980 increased by 0.6%, 1981-1985 by 9.5%, 1986-1990 by 6.07%). The growth rate of the period 1996-2000 has been estimated to be 13.57%, while the planned one is 14-15%. This is due in the main to the influence of the regional financial-monetary crisis which has spread over many countries include Japan, the U.S. and several West European countries. Financial changes have led to the shrinkage of markets, weakening the ability of absorbing foreign investment and reducing internal in-depth investments in technology renewal, thus speeding up the lagging of enterprises, particularly of those State-owned enterprises

(SOEs) that have already met with many difficulties now are facing many more constraints. The growth rate of the State owned sector has dropped from 13.44% in the period 1991-1995 to about 8.92% in the period 1996-2000.

1.1.2 Economic Restructuring

Industrial development during this period has contributed to the restructuring of the national economy, speeding up the industrialization and modernization process, and has substantially affected the development of other economic activities. For example, agriculture has considerably developed in terms of absolute value, but its share in GDP reduced from 38.7% in 1990 to about 25% in 2000. The share of industry and construction increased from 22.7% to about 36.6% during the same period.

The production of industrial products that have a strong impact on the scaled economic development has also been expanded. Over 10 years the production of crude oil has increased by 6.1 times; of electricity increased by three times; of clean coal exceeded the level of 10 million tons and included 3.5 exported tons; of laminated steel by 13.9 tons; of cement by 4.6 times; of textiles by 1.3 times; of paper by 3.8 times. Several new industries applying advanced technologies have come into being such as electronics, motorbike assembly, automobile assembly, shipbuilding, and building components production, bringing about the development of a number of auxiliary industrial activities. Simultaneously, the development of industries that produce consumption goods and process agricultural, forestry and fishery products has also been prioritized with an aim to respond to the national demand as well as export requirements. Mining and minerals refinement as well as construction materials production have also developed at a higher rate compared to that of the entire sector. The food processing industry has managed to maintain the growth rate approximately equivalent to the average growth rate of the entire sector, in 2000 accounting for more than 31% of the gross output of the whole sector. Thus in this period, the initial balanced development among industries has been obtained, creating prerequisites for a sustainable development of the national economy.

Much attention has been paid to the territory-based industrial restructuring with an aim to obtain a more evenly development among regions. Industrial estates and export processing zones have been formed in a number of provinces and initially absorbed foreign direct investment (FDI). However, while provinces and cities which have already been economically developed are absorbing a great deal of both internal and foreign investment, remote areas are still receiving very little investment and mainly depending on state budget, therefore the industrial development in these areas is still much limited.

With regards to the ownership-based structure there has also been a considerable transfer between the state-owned industry and the non-state industry. Thanks to the implementation of the open policy, particularly after the

promulgation of the Law on Foreign Investment in Vietnam, the rate of FDI-funded industrial development has rapidly increased (22.28%/year on the average). The share of FDI-funded industrial production went up from approximately 10% in 1990 to 31.82% in 1998 and is estimated to be over 35% in 2000, leading to the drop in the share of industrial production by domestic economic sectors from over 90% in 1990 to 68.18% in 1998 which is estimated to be down to only 64.15% in 2000.

Following the issuance of the Law on Companies, the Law on Private Enterprises and the Law on Enterprises have created premises for the sustainable development of other economic sectors, yet have not managed to mobilize the people's potential resources for industrial production.

1.1.3 Investment outlays during the period 1991-2000

During the five years 1991-1995, total investment outlays of industry is estimated to be of VND 51,989 billion, accounting for 45% of investment outlays of the entire society, of which investment allocated from the State budget accounted for 54%, FDI investment 31%, self-investment of SOEs 3.5%, and that of non-state enterprises 11.5%. These figures demonstrate the extremely low self-investment capability of SOEs, and this should be overcome in the next 10 years. Investment outlays concentrated mainly in the following industrial activities: electricity: 71%; cement: 20%, coal: 3.4%, steel: 1,6%, etc.

In general, the main funding sources during the period 1991-2000 included State budget allocations, FDI funding, loans (including ODA) and other sources such as self-investment by enterprises or funding by private economic stakeholders.

During the period 1990-1998, the total value of preferential bank loans as per approved plans was VND 32,200 billion, of which the total disbursed value was VND 25,089 billion (78%). Borrowers were identified based on annually announced priority lists. During the period 1995-1998, bank loans allocated for industrial activities were concentrated mainly in the following industries: electricity, coal, cane-sugar refinement, export manufacture, bricks, cement, post and telecommunication, and infrastructure of some industrial estates.

ODA funding was mainly from Japan, the World Bank (WB) and the Asian Development Bank (ADB). Total disbursed ODA during the period 1991-1998 was VND 9,000 billion, raising the totality of preferential credit and disbursed ODA up to about VND 41,000 billion.

FDI in industry rapidly increased during the period 1991-1995 and gradually declined during the period 1996-2000. By October 1998 there had been 1,017 projects investing in industrial activities with the total value of USD 11,3 billion of permitted FDI. Some industries only had FDI capital such as crude oil exploitation; in some other industries, FDI accounted for a substantial share of

the total investment like in the industries of steel refinement and steel structure, FDI contributed 70%, steel lamination 53.8%, cement 24% and estimated to increase to 41% in 2000; electronics 50%, liquor 78%, beer 48% and refreshments 56.5%.

From 1991 to 1997, the total value of funds created by SOEs self-investment was VND 49,340 billion, and of funds mobilized in the people and private enterprises was VND 119,900 billion (within the total investment of VND 385,729 billion as per 1995 price).

1.1.4 Operation of Industrial Estates and Export Processing Zones

In 1991, the first Export Processing Zone (EPZ) was established in Vietnam. In 1994 came into being the first Industrial Estate (IE). By the year 1998, projection of 67 EPZs and IEs had been approved. Among 58 established IEs (except Dung Quat IE and Hoa Lac hi-tech IE), 38 IEs are situated in the South, 13 IEs in the North, and 7 IEs in the Central Part. Only 16 IEs have received investment for the building of their new infrastructure; 35 other IEs have had FDI projects. Land use efficiency is 21.7%.

By the year 1998, permissions had been granted to 450 projects sited within the area of IEs with a total registered capital of USD 6,023 million and a total used area of 1,557 ha (compared to the total area of 6,983 having been invested in infrastructure).

Although the land use efficiency in the area of IEs is still low (due to the too great number of established IEs and being affected by the regional financial crisis which slowed down the investment rate), IEs have been still successful in terms of creating attractive premises for investors, reducing environmental pollution, and contributing considerably to the national economy (absorbing over 100 thousand laborers, contributing 11% of the export value of the whole country).

1.2 Outstanding Problems and Causes

1.2.1 Backward Technologies, Small Scale, Low Labor Productivity

Industrial enterprises are generally small-scaled with low, backward and not diversified technologies. Production technologies are backward by 2-3 generations compared to what are being applied in industrial developed countries; the percentage of low and medium technologies is 60-70%, i.e. the technological level is still a little bit lower than the average level of developing countries. The share of added value in processed products is still low (around 20%). The energy consumption level in a product unit is still high (1.2-1.5 times compared to that of other countries in the region). Manufactured products are characterized by monotonousness, bad quality, unstableness, high production

cost and low competitiveness, leading to the loss of domestic markets for a great number of products such as bicycles, electric fans, diesel motors, boats, etc.

The Government has introduced on a trial basis the models of General Corporations 91 and 90 with an aim to raise the production capacity of some essential industries. However, in reality, these models have been massively formed in almost every essential economic activities. On the other hand, the established models have not yet proved to be effective because substantially there has not been an essential tie among funding sources, technologies, organizational structure, way of management, etc.; enterprises still operate on a small production scale and do not have necessary conditions to mobilize investment for a synchronous renewal of technologies.

Labor productivity in industry is still low. In comparison with the Philippines which has the lowest industrial labor productivity in six ASEAN countries, that of Vietnam is still lower by about 3-4 times (labor productivity as per GDP in the Philippines is about USD 3,500-4,000 per year for an industrial laborer, in Singapore is USD 24,000-25,000 per year, while in Vietnam, this figure was only USD 1,300 in 1996).

1.2.2 Investment plans have not achieved their objectives

In general, the actual investment outlays have been much lower than the planned investment (on the average only responded to 40-50% of the annual requirements for investment). On the other hand, these investments have been extended to cover too many projects, therefore have not implemented in a synchronous manner and taken much time. Consequently, a great number of industries although have mobilized all internal resources still have not been able to invest in technological renewal.

1.2.3 Material sources have to be dependent on foreign markets, domestic resources have not been effectively exploited

At present Vietnam is experiencing the shortage of material markets. A number of newly invested industries require the accompanying development of auxiliary industries. However, due to the shortage of investment, they are forced to import most materials and semi-finished products. Therefore, in the coming period, attention should be paid to the development of materials- and semi-finished products-manufacturing industries with an aim to support the development of other production activities. This will help reduce production cost, increase domestic industrial productivity, reduce volume of imported materials, and create more employment opportunities.

Domestic natural resources have not been fully exploited; their usage efficiency and productivity is still low. Human resources are limited in terms of intellectual level and new technology acceptability. The ratio of trained skillful workers to

technicians to engineers is unreasonable. *The ratio of university graduates/technical secondary school graduates/technical workers is 1/0.26/0.28 while that of the world is 1/2.5/3.5 (Source: Science and Technology Development Strategy of Vietnam towards the year 2010 - Ministry of Science, Technologies and Environment).*

1.2.4 Domestic consumption market tends to stop short, internal competitiveness is low

During the period 1991-1995, the domestic consumption market suddenly enormously increased and became saturated in terms of demand (against the people's purchase power). Therefore, during the period 1996-2000, the increase in increase purchase power tended to decline. Meanwhile, the purchase power of economically developed zones and that of economically backward zones are very unequal (e.g. between rural and urban areas, between mountainous and deltaic areas).

During the period 1991-2000, we sometimes neglected some consumption industries and did not pay much attention to the issue of investment, causing the loss of competitiveness of a number of domestic consumption goods. Although the Government has taken some measures to overcome this problem such as releasing in-depth investments to expand these industries; however, a major part of them were just at the preparatory stage and the possibility to implement them in accordance with the planned progress may hardly be realized due to funds shortage. That's why many consumption industries would only be able to gradually recapture their domestic markets after the year 2000.

1.2.5 Lack of well-qualified management and business staff as well as initiative encouragement mechanisms and policies

The contingency of managers and businessmen operating in the industrial sector is very numerous yet has not been able to respond to current requirements as yet. The State has not stipulated norms as well as regulations for the selection of directors for production/business establishments, and not yet considered being director a true career, therefore not paid adequate attention to the comprehensive training of directors, leading to the inefficient operation of a great number of enterprises. Moreover, the State has not had any policies substantially encouraging initiatives of laborers. For example, the current salary regime is already too backward but has not been revised as yet; on the other hand it does not include any terms encouraging hard-working laborers as well as those who are highly qualified and/or show creativeness. Benefits laborers receive are not closely linked with their working results. The staff of scientific and technical researchers has not been much involved in production process. There have not been any systems providing small and medium-scaled enterprises with technical support as well as information in connection with science, technologies and markets.

1.2.6 The State management mechanism proves to have not been synchronous as yet

State policies and mechanisms have not been synchronously issued and unable to respond to development requirements therefore set limits to the absorbing and bringing into fullest play domestic as well as foreign resources, in particular funds, technologies and human resources.

a. **With regards to State management:** there are three SOEs-managing systems that have been established in reality, i.e. one is under the Government and responsible for General Corporations 91; one under the line ministry responsible for General Corporations 90; and one under People's Committees at the provincial/municipal level responsible for other enterprises. This makes the Ministry of Industry unable to implement State management over some general corporations 91 since it cannot ensure that they respect the stipulated regimes of reporting, control, inspection, etc. Meanwhile enterprises are subject to be under the management of many levels, and forced to pass many "doors" in order to clear unnecessarily complicated administrative procedures. The coordination among ministries, local authorities and the Central Government has not been synchronous; their responsibilities have not been clearly defined. Therefore when an SOE is running at a loss it is really difficult to identify the main responsibility stays with whom.

b. **With regards to the authority and responsibility of State ownership over SOEs:** In principle, the State's unified management and implementation of ownership over SOEs and decentralizing them to ministries, ministry-equivalent institutions, or governmental institutions is reasonable. In reality, the decentralization of ownership over SOEs has been implemented with too many focal points such as Ministry of Finance, Ministry of Planning and Investment, Government Organizing Committee, line ministries, etc. Meanwhile, the coordination among ministries/sectors has not been well done with many overlappings, causing constraints to production and trading activities of enterprises.

The authority of representing State ownership in terms of SOE funds and assets should be assigned to line ministries. The Ministry of Finance should only implement the function of State management over SOE financial operations and not the ownership over their financial aspects.

c. **With regards to sectoral management and territory-based management over industrial development:** The Ministry of Industry is the institution that is responsible to the Government for the nation-wide management over the industrial sector composed of various economic stakeholders. However, the function of State management has the following duplicity:

- Units involved in industrial activities and situated in a territorial area are subject to be under the sectoral management of the Ministry of Industry in order to ensure that the development of industrial structure in this area goes in line with the general planning and development strategy of the whole country with an aim to achieve the utmost efficiency.
- Industrial production units situated in the same area are also subject to be under the State management implemented by the local authorities.

In principle, this duplicity should create a unity between the sectoral economic structure and the territory-based economic structure, but in reality this principle has been frequently broken. The problem of clearly determining the concrete functions, responsibilities, authorities and regulations for the decentralization of local industrial management over all economic stakeholders to Departments of Industry has not been solved. The coordination between the central Ministry and provincial Departments of Industry is still loose. In reality, the Ministry of Industry does not have a department for local industrial management. Instead it assigns the task of locally monitoring to its vice-ministers. This situation leads to the fact that the central ministry is not fully aware of the industrial development at the local level while Departments of Industry are unable to control SOEs under central management situated in their areas. In order to solve this problem it is recommended to establish a Department of Industrial Extension under the Ministry of Industry.

- d. **With regards to the coordination among line ministries in implementing State management over industrial development:** Inheriting from the history, at present there are many SOEs involved in industrial production but subject to be under the management of different line ministries. For example, the industries producing cement and construction materials are under the Ministry of Construction; the industries building ships and railway cars under the Ministry of Communication and Transportation; the industries processing wood, agricultural-forestry-fishery products under the Ministry of Agriculture and Rural Development, etc. This situation has led to dispersion in industrial management. In reality, the Ministry of Industry does not have a good command of the industrial component under the management of other ministries.
- e. **With regards to State management over FDI-funded enterprises:** At present in all 19 specialized economic-technical industries under the State management of the Ministry of Industry exists the operation of FDI-funded enterprises. If these industries are classified by product groups there will be up to 40 industrial sub-sectors. Over the last period, the Ministry of Industry has implemented the State management in coordinating with the Ministry of Planning and Investment to 1) formulate laws, policies, plannings, projections, lists of industrial areas and localities that should receive prioritized investment

and of projects that likely attract foreign investment of each industry; 2) participate in appraising investment projects and providing guidelines in connection with the Government's policy of releasing investments in locally sectoral development; 3) solve post-investment problems such as the need to change forms of investment, increase or reduce investment volume, disband projects; etc.

However, as per the current reporting regime, the Ministry of Industry does not receive reports made by FDI-funded enterprises. Inter-ministerial Circular 01/LB dated 21 March 1998 between MPI and General Statistics Office (GSO) provides guidelines for the statistics to be carried out in foreign investment enterprises and for the foreign party participating in business contracts, stipulating that these enterprises is only subject to submit statistical reports to the MPI, Departments of Planning and Investment, local Departments of Statistics and reports on their export component to the Ministry of Trade. In reality, the Ministry of Industry only receives information from 96 joint-venture companies also funded by SOEs under its management. In any way, these 96 joint-venture companies cannot represent 1,069 currently operating FDI-funded industrial enterprises. Therefore, the issuance of new regulations in connection with the reporting regime for FDI-funded enterprises is a necessity. It is better if after a permit for investment has been released, the function of managing the related FDI-funded enterprise is assigned to its line ministry.

Besides, the delegation of authority to grant FDI permits to local authorities and EPZs/IEs has proven to have a number of gaps. According to regulations, before granting permits to FDI-funded projects, the authorized agencies have had to consult the relevant line ministries. But in reality, a great number of permits have been released without having been consulted the Ministry of Industry. This situation has created the unnecessary competition between FDI-funded enterprises and domestic production enterprises since they have not respected the general development projection of the entire sector.

In order to ensure a unified State management in the industrial sector it is necessary to integrate the IE/EPZ Managing Committee into the management apparatus of the Ministry of Industry, while at the local level, the industrial development should be under the management of provincial/municipal Departments of Industry.

II. COMPETITIVENESS OF SOME IMPORTANT LINE INDUSTRIES

At present, the industrial commodities of Vietnam can be divided into three following groups in vies of their competitiveness:

- Currently have competitiveness
- Will have competitiveness in the future if sponsored by the State

- Have low competitiveness

2.1 The group of line industries having competitiveness

2.1.1 Garments and Leather-Footwear's

a. Competitive advantages of these two industries are low labor cost and very skillful workers who can quickly grasp production techniques. However, their labor productivity is not high; the level of organizing production from the stages of design and material purchase to the stages of production and quality examination is still low, leading to high production cost.

b. Impact of the world trade

East Asian and South East Asian countries are large exporters of textiles/garments and footwear's (they contribute 43% textiles, 46% garments and 70% footwear's produced all over the world). Therefore, Vietnam has to severely compete with other countries in the region in order to keep its share in the export market.

Before 1995 Vietnam mainly exported its garments and footwear's to East European and SNG countries. After 1995, the export markets of these commodities have been expanded to Japan, Taiwan, South Korea, HongKong, Federal Republic of Germany, France, Holland, Belgium, Canada and the United States.

Vietnam garments are exported to two regions of markets: with and without quotas.

The garment and footwear producing industries of Vietnam can well develop and compete if their competitive advantages of production cost and labor productivity can be maintained and in addition are combined with the application of advanced management skills.

For domestic markets, garment and footwear commodities are presently sponsored by a high tax rate (50%). If this tax rate is cut down the competition pressure in domestic markets will become fierce.

In preparing to integrate into the world economy, the garment industry is classified as a highly sponsored line industry with the tax ceiling planned to be 40% and then decline gradually until 2010 in order to stabilize its markets and develop domestic markets; besides the development of the textile industry will be promoted so as to catch up with the garment industry within the sponsoring time. Footwear commodities are now levied the tax rate of 50% but will be put at the medium sponsorship level with the tax ceiling of 30% and the sponsoring time lasting until the year 2015.

2.1.2 Metal building components manufacturing industry

Together with the development of economic activities, the investment in building infrastructure items has promoted the development of industries manufacturing metal building components and non-standard equipment with an aim to respond to the demand of large projects.

Domestic as well as FDI-funded enterprises have invested in the establishment of workshops or factories specialized in processing and producing large-sized building components. Now they have managed to obtain the total capacity of 200,000 tons per year and are able to produce building components for hydroelectric schemes, huge electricity conveyance poles, and communication and irrigation schemes.

Because of its competitiveness, the group of industries producing metal building components is put at the medium sponsorship level with the tax ceiling being 30% and the sponsoring time lasting till 2010.

2.2 The group of line industries expected to have competitiveness in the future (if sponsored)

2.2.1 Textile Industry

In comparison with other countries, the textile industry of Vietnam is more advantaged thanks to low labor cost, but now it is still being equipped with obsolete machinery and backward technologies. In order to respond to the increasing demand of the world market for textiles and garments and in preparing to integrate into WTO, the textile industry of Vietnam should make enormous efforts to improve its products in terms of both quality and quantity. Only then can it produce lines of good quality, nice design and low cost that can compete in international as well as domestic markets, supplying fabrics for the export garment industry. Especially the textile industry should receive in-depth investment in order to renew its equipment synchronously. This investment is estimates at up to USD 1 billion and should be completed as soon as possible to help the industry integrate into the ASEAN then APEC markets, and at last into WTO.

It is planned to put textiles at the medium sponsorship level with the tax ceiling of 30% and the sponsoring time lasting till 2015. Exceptionally, artificial fibres of all kinds and filament are planned to be put at the high sponsorship level with the tax ceiling of 40% till 2015.

2.2.2 Mechanical Industry

The mechanical industry of Vietnam produces the following main specialized lines: complete equipment, machine tools, sea ships, dynamic engines and agricultural machinery, vehicles and motorbikes, construction machinery, mechanical machinery to be used in agricultural/forestry production and processing industries, electric equipment and materials, machinery to be used in the light industry, consumption goods, etc.

In general, technologies and equipment currently used in the mechanical industry of Vietnam is backward by 30-40 years compared to the region and 50-60 years compared to the developed countries. 95% of the equipment are single and not synchronous. Production is organized in a closed manner and lacks of specialization and cooperation, further weakening the mechanical industry which is already weak.

In general, the competitiveness of the mechanical industry is still low. However, it has managed to make some products that can compete with ASEAN countries such as diesel motors of all kinds from 6 to 18 CV, milling machines from 70 kg/h to 2 tons/h, synchronous rice milling chains, pumping machines, sugar-cane-refining equipment, single equipment for cement producing factories, spare parts for vehicles and motorbikes, etc. In order to increase its competitiveness, the mechanical industry should as soon as possible renew its technologies with an aim to create new products of new design and better quality.

In preparing to participate in WTO, for mechanical products the tax ceiling of 40% will initially be applied and gradually reduced to 30% by 2015.

Exceptionally for ships under 10,000 tons and vehicles, it is recommended to apply the initial tax ceiling of 60% and reduce it to 50% in 2015.

2.2.3 *Electric equipment manufacturing industry*

Electric equipment products are divided into two groups: industrial electric equipment and consumption electric equipment.

In general, electric equipment products have been able to respond to 60-100% of domestic markets' demand. Several products have reached the international standard such as electric wires and cables, transformers, and measuring equipment. The quality of most other products is not yet good, their cost is still high in comparison with other countries in the region, particularly with regards to consumption electric equipment.

In order to integrate into WTO, it is planned to apply the tax ceiling of 30% to industrial electric equipment and the sponsoring time will last till 2010; for consumption electric equipment, these planned figures may be 20-30% and 2010.

In order to be able to compete during the process of integrating into WTO it is necessary to draw out plans to renew technologies for the manufacture of the following products: electric wires and cables, electric motors, transformers, measuring equipment and electric tools. We should obtain certificates for ISO-9000 quality management system as soon as possible, actively renew the way of managing enterprises, and increase our production and trading efficiency.

2.2.4 Electronic and Information Technological Industry

Over 8 years of developing in the market mechanism, the electronic and information technological industry has attracted the participation of all economic stakeholders. The current production and trading level has been increased by a remarkable step. From simply assembling products bearing foreign trademarks, now we have got production units that produce components and parts of electronic-information technological products. The content of domestically produced parts has gradually increased through joint venture and 100% FDI-funded projects. Material and technical bases have been built, technologies have been renewed, and products of this industry now have competitiveness and have been exported to a large number of countries. Several enterprises have grown up in the market mechanism and now are able to produce some electronic-information technological products bearing Vietnamese trademarks.

However, within the industry itself there is an obvious unbalance: with regards to its structure of products, the major portion is occupied by the group of television sets, radios and cassettes; in other groups of products, import still overwhelms. Industrial electronic line industries have not received investment to develop (only accounting for 13%).

The development of services and software technologies have been paid attention, however there exists a fierce competition.

At present, electronic-information technological lines are levied a high tax rate (30-50%). For integrating into WTO it is planned to apply the tax ceiling of 40% and the sponsoring time lasting till 2015.

2.2.5 Chemical Industry

Because the technologies and products of the chemical industry are very much diversified, after assessing their current status and competitiveness, chemical products are classified into the following groups:

- Fertilizer of all kinds
- Agro-pharmaceutical products
- Rubber products
- Base chemicals
- Consumption chemicals

- Petrochemistry

Vietnam is advantaged to develop its chemical industry thanks to its domestic natural resources (Appetite, Pyrite, oil and gas, natural rubber, etc.). However, due to backward technologies, the industry has high material cost and high energy consumption level, making its products have high production cost and bad quality. For example: the technology producing N-fertilizer from coal consumes more energy by three times than the technology producing N-fertilizer from gas.

The competition capacity of the industry's groups of products is presently poor.

With regards to fertilizer production:

- N-fertilizer: small scale (130,000 tons per year), backward technologies, high production cost, unable to compete with imported products therefore not sponsored by tax.
- P-fertilizer: basically able to respond to domestic demand with the annual capacity of over 1 million tons, however just able to produce single fertilizer, unable to produce DAP as yet.
- NPK-fertiliser: current production capacity is above 2 million tons per year, able to respond to demand, however the import of DAP, SA and potassium is still a must.
- Plant protection medicine: able to respond to domestic demand, however still limited because still unable to produce base active elements.

Base chemicals: The capacity to respond to demand is still limited because the industry is only able to produce some basic inorganic chemical products. It is also only able to respond to the demand for H_2SO_4 , HCl, H_3PO_4 . Now it still has to import solid soda, different kinds of pure chemicals, alum of all kinds.

Consumption chemicals:

- Batteries: able to respond to 70% of domestic demand, however lead-antimony batteries still overwhelm in the total output.
- Cleansers: current production capacity is 340,000 tons/year, good quality, competitive, able to fully respond to domestic demand and even set aside a part for export.
- Tyres and tubes for motorbikes and bicycles: able to respond to domestic demand, good quality.
- Petrochemistry: just develop, now only able to produce PVD and DOP but still at high cost and obliged to import intermediary materials.

For integration process, those products that can respond to the domestic demand will be sponsored till the year 2010 with the following tax ceilings:

Tax Ceiling	Products
40%	Products made of rubber, including tyres and tubes of bicycles, motorbikes and barrows. Plastics and plastic items including PVC, DOP
30%	Soaps, cleansers Normal kinds of paint Carbon welding sticks
20%	Base chemicals H ₂ SO ₄ , HCl, H ₃ PO ₄ Fertilizer Pesticide Zinc-manganese-alkali cells

2.2.6 Paper Industry:

Competitive Advantages:

- Pulp can be produced from forest products of Vietnam. At present, Vietnam is initiating a 5 million hectares afforestation programme, of which a million hectares will be forests producing materials for the paper industry.
- Vietnam has a diversified and abundant material source therefore can produce various kinds of paper.
- Abundant working force, low labor cost.
- Great demand of domestic markets.

Weak points:

- Backward technologies, small scale.
- Low afforestation productivity leading to high cost of wood thus reducing competitiveness.
- Vietnam is not yet able to produce highly durable paper, several kinds of technical paper, and high quality paper.

At present, the paper industry is being sponsored by customs and non-customs barriers. Only kinds of pulp and paper that cannot be domestically produced such as kraft paper which is used to make cemented bags and pulp of all kinds which has been bleached or not are still levied the low tax rate.

For integration process, it is planned to apply the tax ceiling of 40% and the sponsoring time lasting till 2010.

2.2.7 Terracotta-porcelain-glass Line Industry:

This line industry consists of the following commodity groups:

- Electric lamps (straight fluorescent lamps, round lamps) of all kinds

- Thermos bottles and thermoses.
- Plastic tubes for neon lights and round bulbs.
- Packing glass bottles.
- Personal porcelain products.

Competitive Advantages:

- Domestically available materials (clay, silicone sand, etc.)
- Products, except personal porcelain, have the quality equivalent to those of ASEAN countries. The industry is going to apply IEC criteria and organise its management as per ISO-9000. Domestic markets have been conquered. Selling price is lower than that of the region by 3-5%. Products have been exported to the markets of South Korea and Japan.
- Low labor cost, skillful laborers.

Weak points:

- Industrial glass products can hardly compete with those of NIC and G7 countries in terms of both quality and prestige.
- For personal porcelain products, there are much potential in terms of materials and domestic markets. However, due to high level of fuel and material consumption, unattractive designs and high production cost, they can hardly compete in the world market.

With regards to tax commitment, when we integrate into WTO, the tax ceiling of 30% will be maintained; the sponsoring time will last only till 2006 for electric lamps and thermoses, till 2010 for straight fluorescent lamps and personal porcelain; and exceptionally till 2015 for tubes of neon lights.

2.2.8 Liquor-beer- refreshments Industry

Competitive Advantages:

- Able to use domestically available materials, in particular natural mineral water.
- Currently available large domestic consumption markets.
- Low cost therefore able to compete with other countries in the region.
- Under the State prioritized sponsorship.

Weak points:

- The production of liquor is still weak; materials have to be imported; domestically planted grapes are presently unusable.
- Wrapping materials still have to be imported.
- Small- and medium-scaled enterprises still apply backward technologies therefore cannot ensure the quality of their products.

In order to integrate into WTO, this industry is planned to continue to be sponsored at the high level till the year 2015.

2.2.9 Milk Processing Industry

Over the last years the milk processing industry has rapidly grown up at the average rate of 29.3% per year. Since this is a young industry, the introduced technologies are advanced and the equipment is new. Consequently its products have reached the international standard and can be exported.

A constraint for the industry is that because this is a newly developed industry, the raising of dairy cattle has not been able to keep pace with its growth. The volume of domestically available milk can only respond to 10% of the demand for materials of the industry. Therefore when integrating into the world, this line will meet with many difficulties in competing with countries having traditional dairy cattle husbandry and milk processing industry.

When integrating into WTO this line industry will be sponsored at high level until the year 2010.

2.2.10 Vegetable Oil Industry

At present, Vietnam mainly imports raw vegetable oil to refine and bottle domestically. Although Vietnam has available raw materials for the production of vegetable oil, i.e. kinds of plants and nuts giving oil such as coconut, groundnut, sesame, soya-bean, etc., but due to obsolete equipment and backward technologies, the production cost of raw vegetable oil is still high. In addition, material producing zones have not been projected as yet. Plantation productivity is low, therefore in the coming time, this industry will only have weak competitiveness.

At present this industry is being sponsored at high level. During the progress of integrating into WTO, it is planned to maintain the tax ceiling and sponsor the industry till 2010 with an aim to encourage the development of domestic material sources.

2.2.11 Mining and Minerals Refining Industry

Vietnam has a diversified source of minerals among which the most worth-noticing are coal, oil and gas, aluminum (boxit), iron, bronze, lead-zinc, Immenhite, gold, chromite, gems and construction materials.

At present in Vietnam, minerals are being exploited mainly to respond to the requirements of domestic industrial development and partially to serve export. Export items are mainly raw materials with low processed content. Main export items are coal, crude oil, tin, zinc powder, chromite, ilmenhite, etc.

Mining and refining equipment is old and backward, causing high cost and poor competitiveness of products in the world market.

2.2.12 Construction Materials Producing Industry

Vietnam has very much diversified and abundant material resources to produce construction materials. At present, the industry basically has been able to respond to the domestic demand, i.e.

For cement production: In the coming period, the cement industry of our country needs to continue to be prioritized to develop on the basis of its advantages in terms of market resources and convenient transportation in order to have an output able to meet all the domestic demand and export a portion of special cement. The cement producing industry needs to be sponsored until when APTA comes into force.

For the industries producing other materials such as construction stone, materials for building, roofing, paving, etc., due to its specific characteristic of having high cost of transportation, current production volume is able to respond to domestic demand and products will be able to compete when we accede to APTA.

2.3 The group of line industries that have low competitiveness

Steel Industry

The steel industry of Vietnam at present has a very small scale, obsolete equipment, backward technologies and a patchy set-up, leading to low productivity and high production cost. Up to date it has been able to produce only construction steel. Economic-technical norms defined for both stages of steel refinement and lamination of Vietnam are far behind those of other countries in the region and on the world hence no competition ability. On the other hand, the domestic mineral resources that can serve the steel industry are very much limited: in Vietnam there is almost no peat; there is iron ore but reserve volume is not big and quality is bad; exploitation conditions are very much constrained; and infrastructure is not yet developed. Therefore, when Vietnam is subject to apply the import tax of 0-5% when acceding to APTA, ASEAN countries can export their products to Vietnam. The steel industry of Vietnam can only be viable when sponsored at high level.

CONCLUSIONS

Based on the current status, characteristics and competitiveness of industries of Vietnam, in order to implement industrialization and modernization, we have to concentrate resources to develop industrial activities as per the following order:

1. Export-oriented Industries:

- Garments
- Footwear's
- Electronics and Information Technologies
- Process agro-forestry-fishery products
- Mining industry

2. Imports Replacing Industries:

- Energy (electricity, oil and gas, coal)
- Chemicals, fertilizers and petrochemistry
- Textiles
- Leather items: both genuine and fake
- Mechanical engineering
- Paper
- Cement and construction materials
- Terracotta, porcelain and glass
- Liquor, beer and refreshments
- Milk processing
- Vegetable oil

However, in order to ensure that industrialization is always combined with national defence, it is particularly necessary to sponsor and support the development of the following industries:

- Mechanical engineering
- Electronics and Information Technologies
- Metallurgy (steel, bronze, aluminum)
- Chemicals, petrochemistry

because these are the spine industries for the cause of national industrialization and modernization yet their current competitiveness is still low.

III. ORIENTATING THE INDUSTRIAL DEVELOPMENT STRATEGY OF VIETNAM TOWARDS THE YEAR 2010

3.1 Development views

- The national industry should be developed at a rapid rate, sustainably and efficiently, on the basis of bringing into play comparative advantages and increasing competitiveness of products, by bringing into fullest play internal resources and making full use of international cooperation, in order to

become the driving force to promote the cause of national industrialization and modernization. The development of export orientated industries should be combined harmoniously with the development of imports replacing industries. Appropriate sponsoring measures should be worked out to ensure that the industry would develop with high competitiveness.

- All economic sectors should be encouraged to participate in developing industrial production in harmony with an open market mechanism under the State's management and regulation. Small- and medium-scaled enterprises should be encouraged to develop in order to create work distribution and cooperation in industrial production. During the initial stage of national industrialization and modernization, resources of the State owned industry should be concentrated on some key activities and areas of the national economy.
- Industrial development should create a dynamic and efficient structure which can help change products quickly in response to the market demand.
- The process of rural and agricultural industrialization and modernization should be sped up on a reasonable scale with appropriate technologies.
- The industrialization and modernization process within the industry itself should be sped up to shorten the distance with other countries in the region.
- Priority industries should be chosen in accordance with the general orientation and specific advantages of each region, each locality. First of all, strong points of agriculture should be enhanced to serve processing industries, labor-intensive industries and exports producing industries. Appropriate developments should also be defined for industries lying in the following areas: metallurgy, mechanical engineering, electronics-information, chemicals and petrochemistry.
- Industrial development should be in accordance with the needs of strengthening national defence and security. The national defence industry should be made full use of to serve economic goals and vice versa economic forces could be mobilized to serve national defence.
- Industrial development should be linked with urban projection, ecological environment development and rural development while ensuring the conservation of natural heritages as well as national valuable cultural and historical works.

3.2 Objectives of the industrial development strategy

- The overall objective is building our country basically into an industrial country by the year 2020.
- Basic changes in the sector are created to make industry truly become a driving force for the development of national economy in the trend of integrating into the regional and world market, increasing the share of industry and construction in GDP to 38-39% by 2005; 40-42% in 2010; and over 42% in 2020.

- By all means ensure the average growth rate of 12-12.5%/year in the period 2001-2005 and 11-12% in the period 2006-2010.
- Change the current industrial production structure to orientate export and replace imports. Strive to rapidly increase the export turnover of industrial consumption goods, mining commodities and handicrafts in the total export turnover of the whole country.
- Gradually establish some selected fundamental industries having a structure of extremely critical and essential products with an aim to create premises to promote the future development of other industries such as producing electricity, exploiting and refining oil and gas, mechanical engineering, electronics-information, chemicals and metallurgy.

3.3 Development Orientation towards the year 2010

The overall orientation is prioritizing investments in the development of 1) processing industries, especially agro-processing industries which are closely linked with the development of agro-forestry-fishery material sources (e.g. milk is linked with dairy development zones, sugar linked with sugar-cane growing zones, cigarettes linked with tobacco growing zones, vegetable oil linked with zones cultivated to coconut, sesame, soya-bean, groundnut; fishery processing linked with aquaculture and capture areas, etc.); 2) exports and consumption goods producing industries and handicrafts that attract a great deal of labor (such as textiles and garments; leather and footwear's; embroidery and lace-making, etc.); and 3) production industries making much profit, having markets for their products and having competitive advantages (such as beer, refreshments, cosmetics, cleansing materials, etc.). For fundamental industries, it is needed to select for development some works that are of emergency nature, advantaged in terms of resources and possibility to find funding sources, and able to ensure efficiency in order to build foundation for the development of industry in particular and the whole economy in general (such as electricity, coal, exploiting and refining oil and gas, mechanical engineering, electronics-information technologies, chemicals, petrochemistry, fertilizers, metallurgy, etc.).

During the period 2010-2020, simultaneously with the development and modernization of processing industries, textiles and garments, leather and footwear's, and other consumption goods producing industries, it is recommended to concentrate resources to establish and develop the modern infrastructure industry, high-tech industries, and new materials producing industries such as energy, petrochemistry, chemicals, industrial electronics, information software's, metallurgy, mechanical manufacture, etc.

DEVELOPMENT ORIENTATION FOR EACH KEY INDUSTRIAL AREA

3.3.1 ENERGY

Ensure to supply enough energy for socio-economic development and the people's livelihood, implement energy security on the basis of a reasonable multi-source exploitation of domestically available key primary energy forms at high synthesizing efficiency (such as hydro-energy, oil and gas, coal). Increase and promote an efficient use of different energy forms based on the policy of demand and supply management (DSM). Control environmental impact during the process of developing and using energy of all kinds. After 2020 it is likely that the domestically exploited energy will not be sufficient to respond to the national demand. Hence the need to take initiative in finding solutions.

Electricity: by the year 2010 the total capacity would be 13,000-15,000 MW, of which hydroelectricity accounts for 47-50%, thermoelectricity 50-53%. The power grid will be set up synchronously with power supply sources, thus increasing conveyance ability and reliability, reducing electric energy loss and ensuring electricity quality. By 2005 able to produce 47 billion KWh, by 2010 produce 78-80 billion KWh. Commercial and technical loss reduces by 12% in 2010. Efforts will be made so as by 2010, every province will have had at least one 220 KV transformer station with a minimum capacity of 63 MVA.

Coal: investment will be made to develop the industry both in area and in depth. Exposure exploitation will be enhanced. After 2010 the industry will be re-orientated to mainly pit exploitation. Efforts will be made so as to be able to exploit 15-16 million tons of finished coal in 2010 and sustainably maintain this output in the following period.

Oil and gas: Expand the form of product distribution in order to survey and exploit oil and gas, gradually increasing the share of Vietnamese side. Generate conditions for self-survey, exploitation and refinement. Efforts will be made so as by 2010 we are able to exploit 20 million tons of crude oil, 10-12 billion m³ of gas. The oil refining industry will be built having a capacity of 6.5-13 tons of crude oil per year.

3.3.2 CONSUMPTION GOODS PROCESSING AND PRODUCING INDUSTRIES

Agro-forestry-fishery and food processing industries: in 2010, the total percentage of processed agricultural products will be at least 70%, responding to domestic demand and basically replacing imported agricultural products. Export turnover will be USD 9 billion. 90% paddy production will be industrially processed to obtain 32 million tons including 4 tons for export. Sugar production will increase to 1.6 million tons. 90% coffee and tea production will be industrially processed (equivalent to 550,000 tons of coffee kernels, 170,000 tons of dried

tea). The percentage of dried rubber latex used for domestic production demand will be increased by 60-70%. 1.5 million tons out of the total 4 tons of live pork will be processed. The yield of domestically produced milk will be 500,000 tons, responding to 56% of domestic consumption demand. The processing yield of 4-5 million tons of feed for animals will be ensured. The total oil refining capacity will be 400,000 tons per year. Around 10 million tons of vegetables and 10 million tons of fruits will be processed to respond to domestic demand and export requirements. By 2010 the industry will be able to produce 2.5 billion liters of beer and 1 billion liters of refreshments. 1 million cubic meters of wood and forestry products will be processed in 2010.

Textiles and Garments + Leather and Footwear's: By the year 2010 the textile and garment industries will have been strongly developed both in area and in depth in order to obtain the average growth rate of 13% per year. In 2010 the industries will produce 2 billion square meters of fabrics, 610 million pairs of shoes and sandals of all kinds. Export turnover will be USD 8-10 billion.

Paper Industry: Improve in-depth investments, renew technologies and the environmental treatment system. By 2010 the production capacity will be 635,000 tons per year for paper and 614,000 tons per year for pulp. Total investment over all stages will be USD 2.2-2.5 billion.

3.3.3 FUNDAMENTAL INDUSTRIES

Mechanical engineering: This industry should be developed with clearly defined objectives; production areas and products should be classified; focus should be determined for each stage from now to 2005 and 2010 following the highly specialized and cooperative orientation in order to partially respond to the demand of the national economy. Initially, we should concentrate resources and efforts to enhance the development of agriculture, forestry, fisheries, processing industries, communication and transportation and the industry producing consumption mechanical goods. Efforts will be made to be able to respond to 40% of the demand for mechanical products of the economy by the year 2010 including 30% for export. Total product output of the industry will be USD 2.8-3 billion on the average for the period 2001-2010 (of which export value will be USD 0.8-1 billion).

Mechanical areas that should be highly prioritized and promising domestic markets of which should be mastered are the following: agricultural mechanical engineering, processing industries, electrical technical equipment, consumption mechanical engineering, shipbuilding, and road transportation.

Some new key mechanical schemes (large mechanical engineering, heavy mechanical engineering, mechanical engineering that produces tool machines, etc.) should be built and modernized; equipment and technologies of existing

mechanical engineering companies should be invested in depth and renewed on the basis of rearranging and restructuring the national mechanical engineering industry.

Large mechanical schemes with complicated technologies that play the key and dominant role should be controlled and invested by the State to be the decisive schemes. Heavy mechanical engineering that manufactures modern and single equipment should be put under joint ventures with foreign partners with an aim to make use of their capital, technologies, management skills and consumption systems. The people should be encouraged to invest in small- and medium-scaled mechanical engineering production, products of which will serve agriculture, rural areas and consumption mechanical engineering.

Electronics - Information Technologies:

This industry should be built and developed at high speed on a gradually enlarged scale in order to be able to respond to most of the domestic market demand with high competitiveness, then striving to be able to compete in the regional as well as world market. Selected modern technologies should be introduced. At the first stage we should accept assembling components and gradually increase the percentage of domestication in the product. In the following stages we should try to advance to produce components and auxiliary parts domestically. The development of software technologies and export-orientated services should be paid attention to immediately from the beginning.

The industry will be developed at the growth rate of 20-35% per year. The total output value was USD 1.1-1.48 billion in 2000; it will be USD 2.1-4.5 billion in 2005; USD 4.5-11.2 billion in 2010, of which 50% will be exported.

Chemical Industry:

Efforts will be made so as by the year 2010 a modernized chemical industry will have been built with a relatively completely set up production structure and capacity. This will be reflected by the establishment of the organically synthesizing industry and the petrochemistry, and of concentrated industrial estates and chemicals producing groups that are formulated on a world-level scale, apply advance technologies, thus produce a relatively great production capacity which is able to respond to 70-80% of domestic markets' demand for fertilizers, N-fertilizer, fibers, medicines, etc. and fully meet the demand for consumption goods.

Metallurgy Industry:

Steel Industry: it is estimated that during the period 2001-2005 the industry will have an average growth rate of 9.5-10% per year. In 2005, its production capacity will go up to 2.4 million tons per year. During the period 2006-2010 the growth rate will be 9% per year. By 2010 the average steel production of the whole country will be 4.45 million tons per year, able to respond to 78% the national demand for steel.

Aluminum Industry: The first basis for the aluminum industry of Vietnam will be built up at the beginning of the 21st century. Efforts will be made so that by the year 2010 the average aluminum output will have reached 3 million tons per year to be partially exported and partially in response to the domestic demand.

Bronze Industry: From now to 2005 Sin Quyen bronze selection mining group will be established and its capacity will be twice expanded in the following period. A respectively refining factory will also be built up having a capacity of annually producing 20 thousand tons of bronze.

3.3.4 CONSTRUCTION MATERIALS PRODUCING INDUSTRY

Existing cement producing lines will be improved and upgraded. By the year 2000, 100% of these lines will apply drying technologies. Cement categories will be diversified in order to achieve a production of 15.5 million tons in 2000, 23 million tons in 2005 and 34-35 million tons in 2010.

In 2000 the industry produced 6.6 billion bricks of all kinds. In 2005 it will produce 10.9 billion bricks and in 2010 this figure will go up to 13 billion bricks.

In 2010 the industry will be able to produce 555 million baked tiles, 44.5 million m³ fibre-cement, 28 million m² metal roofing sheet.

IV. SOLUTIONS AND MAJOR POLICIES THAT HELP ENSURE THE STRATEGY IMPLEMENTATION

4.1 Renewing the State management in industry

In order to implement the function of State management in the industrial sector on a national scale in an effective manner we should:

- strengthen the supervision of direct line institutions, while State economic management bodies (which are either sectorally or territorially organized) should only be assigned the task of macro management;
- unify a State management focal point for the areas of industry, commerce and export;
- integrate the IEs/ EPZs Management Board into the Ministry of Industry, while the task of locally industrial management will be assigned to provincial/municipal Departments of Industry;
- The State should build up a management institution taking responsibility in steering the management of small- and medium-scaled enterprises (SMEs);
- encourage the establishment and provide guidelines for the operation of social organizations such as business associations, clubs, consultative centers, etc. in supporting SMEs.

4.2 Renewing SOEs

The strategy of renewing SOEs in general and industrial SOEs in particular is aimed at enhance their **competitive** and **financial** capacity, generating premises to help SOEs hold the leading role in promoting key industrial activities and areas.

In order to renew SOEs it is needed to concentrate on the following tasks:

- renewing the enterprise management mechanism, facilitating the right of self-control of SOEs, ensuring rights and authorities of legal SOEs. In return, they should operate in compliance with the law;
- reorganising and rearranging SOEs, increasing the financial supervision over SOEs;
- establishing some general corporations in some industries being orientated to become strong economic groups;
- carry out ownership diversifying and transferring measures such as equitisation, sale, hire by the piece, and lease of SOEs in order to increase their efficiency and reduce the number as well as share of less efficiently operated SOEs.

4.3 The policy favoring investments in industrial development

For domestic investments:

- Issue policies in connection with investment mobilization and internal resources enhancement in order to create the people's trust in the investment environment so as to mobilize their capital. Create the capital market.
- Encourage domestic investments by transferring the ownership of SOEs.
- Encourage domestic enterprises to cooperate with one another or create joint ventures in order to become large economic corporations.
- Affirm the active and sustainable role of the private economic sector.
- Work out and make it public the strategy and projection of developing private economy which is closely linked with the strategy of national industrialization and modernization.
- Develop investment promoting consultative activities of the State and non-governmental organizations.
- Encourage joint-venture activities between the State-owned economy with the domestic private economy.
- Create equity in terms of law, institutional set-up and policies for enterprises of all economic sectors.
- Allow the application of some financial measures such as rapid depreciation, tax preference, etc.

For foreign investments:

- Build a new and stronger viewpoint of attracting foreign investment and technologies, in particular those from West Europe, North Europe and North America.
- Continue to improve the investment environment; revise administrative produces; promote capital mobilization through BOT projects, etc.
- Expand the capital market.
- Prioritize foreign investments in the areas that have not been domestically produced as yet or have products of high technological level and good quality.

4.4 Policies encouraging investments in export-oriented industries and development of labor intensive industries

- Formulate policies encouraging labor intensive industries.
- Allow enterprises of various economic sectors to directly export their products and build up relations with foreign markets.
- Improve and increase the effectiveness of policies encouraging investments in exports production.
- Reasonably accommodate the exchange rate to have a favorable one for export.
- Support and encourage the establishment of export market promotion centers.

4.5 The policy of training human resources

A synchronous kit of strategic programme and plans should be worked out for the training of a contingent of skillful workers and cadres. This training should be carried out in accordance with the line of both extensive development and intensive implementation in order to have leading scientific researchers for the future. Attention should be paid to the treatment policy, the honorarium policy as well as the management and use of cadres. In-service training should be organized. So should competition in staff recruitment.

4.8 Policies in connection with science and technologies

- Gradually increase the percentage of State budget disbursement for science and technologies.
- Improve laws and mechanisms protecting intellectual ownership and research subjects.
- Increase the quality and feasibility of scientific research subjects.
- Concentrate capital for the research of key subjects.
- Encourage investments in technologies and modern technological keys through tax exemption and reduction.
- Establish technological development support funds, organize credit guarantee for industrial enterprises.
- Establish a center providing information on technologies.

4.8 Financial Sector Policies and Tax Policies

- Review the rates of VAT as well as income tax imposed on industries in which investment for development should be encouraged. The law on VAT should be revised to be in accordance with industrial production with an aim to promote, not to hinder, production.
- Foreign investment projects can be considered and given priority based on each concrete project and prioritized activity in order to attract foreign investment in this area.
- A favorable policy on land rent should be issued to encourage domestic and foreign investors to invest in fundamental industries.

4.8 Policies relating to markets and protection

- Facilitate the establishment of business associations within the same industries and encourage their operation.
- Release subsidized loans to farmers helping them purchase machinery.
- Improve import and export procedures.
- Encourage the use of domestically produced goods, prevent fake commodities, and determinedly fight against smuggling.
- The import of goods that have already been produced inside the country should be strictly controlled.
- Timed protection should be actively implemented in order to phase out protection by:
 - * implementing protection based on relevant tax policies;
 - * prohibiting or limiting within the applicable time duration the import of products that can be domestically produced;
 - * establishing criteria and norms to determine line industries and industrial commodities that need State protection.

4.9 Policies to support SMEs

The State should issue policies to support SMEs in terms of:

- financial operations and credit;
- market information, technologies, training of human resources;
- land.

4.10 Policies regarding the development of industrial material zones

- Material zones should be set up in close proximity with processing factories. Create stable material zones to serve processing factories.
- Allow processing industries to withhold 2-3% of material value in their production cost for developing material zones.
- Provide farmers with guidelines on the application of advanced techniques in order to increase material quality and production efficiency.