CHAPTER 5

Industrial Readjustment in Vietnam: Special Focus on the New 10 Year Socio-Economic Development Strategy for 2011-2020

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CHAPTER 5

INDUSTRIAL READJUSTMENT IN VIETNAM: SPECIAL FOCUS ON THE NEW 10 YEAR SOCIO-ECONOMIC DEVELOPMENT STRATEGY FOR 2011-2020

Ha Thi Hong Van

INTRODUCTION

After implementing a strategy of socio-economic development for the period 2001-2010, Vietnam has overcome the difficulties and challenges of the negative effects of the global financial crisis and, by taking advantage of opportunities, attained remarkable achievements. It has elevated itself from its under-developed status and joined the middle-income developing countries. Major targets of the 10-year Strategy have been achieved. The economy has grown at the relatively high average rate of 7.26% per annum.[1] The development of industry has played an important role in economic development during this period. Vietnam has put into place the Socio-economic Development Strategy 2011-2020. This new development strategy refers to adjustments in the industrial sector that respond to changes in the global economy, while promoting the country's process of modernizing industry and

[1] Vietnam's Socio-Economic Development Strategy for 2011-2020, Documentation of the 11th Party Congress of the Vietnam Communist Party, Chinh Tri Quoc Gia Publishing House, 2011.

improving the people's standard of living.

1. REVIEW OF VIETNAM'S INDUSTRIAL DEVELOPMENT STRATEGIES

Vietnam is a developing country with 70 percent of its labor force working in the agricultural sector. Since 1960, the aim of industrialization has been to change Vietnam from an under-developed agricultural country to an industrialized nation. The focus of industrialization during this time was to establish a foundation of heavy industry. The priority for building and developing heavy industry continued until the 1980s. This emphasis on heavy industry without a good foundation in the development of agriculture and light industry was ineffective and led to an unbalanced economy. Therefore, after the 5th Party Congress in 1982, the guidelines for industrialization in Vietnam were: "Concentrating on developing agriculture, promoting the production of consumer goods, and continuing the construction of important heavy industries; combining agriculture, the consumer goods industry, and heavy industry into a reasonable agricultural-industrial structure (Nguyen Trong Chuan, 2011)." Soon after, the policy corrections were made. However, the expansion of important heavy industries continued. The 6th Party Congress of the Vietnamese Communist Party required a continuation of building the necessary elements for the next step in the industrialization process. However, the goals of producing consumer and export goods were near to becoming a reality at this time. At the 7th Party Congress, new guideline elements for industrialization were introduced, including a suitable policy that could

take advantage of the global revolution in science and technology.[2] New content was added to the definition of industrialization, which included not only the rising share of the industrial sector in the country's economic structure, but also, and more importantly, new and advanced technology as a basis for growth and enhanced economic achievement, particularly, the breakthrough in understanding that sustainable development is closely related to industrialization. Points of view which focused only on GDP growth were adjusted to points of view which focused on the quality of development and a concern for future sustainable development. The 8th Party Congress in 1996, defined the goal of industrialization and modernization to 2020 as one that would: "intensify to lead Vietnam to become an industrial country" with goals for developing industries, such as a) selecting and focusing on key industries which require a number of advanced skills, but not much capital, b) giving priority to industries supporting the agricultural sector, food processing, the manufacture and export of consumer goods, the electronic industry, information technology, the extraction and production of oil and gas, and tourism.[3] This strategy was considered suitable for development requirements in that it would take advantage of opportunities that allowed selected industries to develop appropriately.

[2] Documentation of the 7th Party Congress of the Vietnam Communist Party, Chinh Tri Quoc Gia Publishing House, 1991.

[3] Documentation of the 8th Party Congress of the Vietnam Communist Party, Chinh Tri Quoc Gia Publishing House, 1996.

2. VIETNAM INDUSTRIAL SITUATION (2000-2010)

2.1. Achievements

Industrial growth

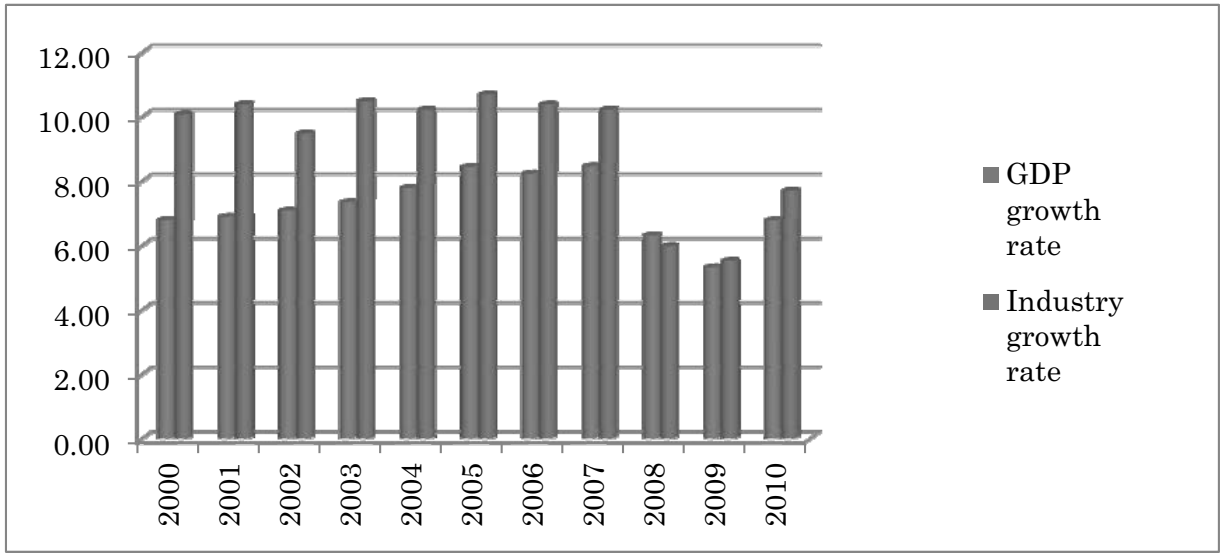
Since 2000, the industrial sector has played an important role in GDP growth. As seen in Table 1, the GDP growth rate was 6.79% in 2000, 8.44% in 2005, and 6.78% in 2010. In the same years, respectively, the industrial sector rate of growth was 10.07%, 10.09% and 7.7%, respectively. The service sector result was 5.3%, 8.48% and 7.52%, respectively. The industrial sector achieved a continuing high growth rate which contributed significantly to the overall GDP growth rate in the years mentioned. Figure 1 shows the close correlation between the GDP growth rate and the industrial gross output growth rate since 2000.

Table 1. Growth Rate of Economic Sectors and GDP (%)

	GDP	Agriculture, Aquatic and Forestry	Industry and Construction	Service
2000	6.79	4.63	10.07	5.32
2001	6.89	2.98	10.39	6.1
2002	7.08	4.17	9.48	6.54
2003	7.34	3.62	10.48	6.45
2004	7.79	4.36	10.22	7.26
2005	8.44	4.02	10.69	8.48
2006	8.23	3.69	10.38	8.29
2007	8.46	3.76	10.22	8.85
2008	6.31	4.68	5.98	7.37
2009	5.32	1.82	5.52	6.63
Preliminary 2010	6.78	2.78	7.7	7.52

Source: Statistical Yearbook of Vietnam 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Figure 1. GDP Growth Rate and Industrial Value Growth Rate 2000-2010



Source: Statistical Yearbook of Vietnam 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Structural Transition

Along with economic growth, Vietnam's economic structure has undergone a strong transition in the form of accelerated industrialization and the modernization of the economy. Table 2 shows changes in the structure of the economy where the industrial and service sectors increased and agricultural share decreased. The growth in GDP industrial value has seen a significant increase, representing 35% of GDP in 2000, increasing to 40% in 2005, and to 42% in 2010. The Vietnamese economy is evolving from one based on agriculture to one based on industry and services. Additionally, the industrial sector has motivated the economic structure to follow the path of modernization.

Inside the industrial sector there has been a marked transition of its structure, as well. This change is moving toward increasing the value of the manufacturing industry within the total industrial value. The percentage of manufacturing value within the total industrial value was 84.56% in 2005, 88.76% in 2008, and 89.3% in 2010. Meanwhile, the value of the mining and quarrying industry decreased gradually within the total

industrial value: 9.22% in 2005, 5.55% in 2008, and 4.82% in 2010 (Table 3).

Table 2. Structure of Economic Sectors in GDP (Unit: %)

	Agriculture/GDP	Industry/GDP	Service/GDP
2000	23	35	41
2001	22	37	41
2002	22	37	41
2003	21	38	40
2004	20	39	40
2005	20	40	40
2006	19	41	40
2007	18	42	40
2008	18	42	41
2009	17	42	41
Preliminarily 2010	16	42	42

Source: Statistical Yearbook of Vietnam 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Table 3. Structure of Industries (Unit: %)

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Total	100	100	100	100	100	100
Mining and Quarrying	9.22	7.74	6.54	5.55	5.58	4.82
Manufacturing	84.56	86.00	87.69	88.76	88.47	89.30
Electricity, gas, steam and air conditioning supply	5.73	5.44	5.22	5.11	5.35	5.29
Water supply; sewerage, waste management and remediation activities	0.49	0.52	0.55	0.59	0.60	0.59

Source: Statistical Yearbook of Vietnam 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Table 4. Gross Output of Industry Value at Constant 1994 Prices by Activity (Billion VND)

	2005	2006	2007	2008	2009	Preliminary 2010
Total	**415895.8**	**485829.0**	**567448.3**	**646353.0**	**701183.8**	**808,745.4**
Mining and Quarrying	**38350.8**	**37613.1**	**37086.5**	**35841.4**	**39144.4**	**38,948.6**
Mining of Coal and Lignite	6100.4	6643.3	7546.8	7140.0	7694.6	7646.1
Extraction of crude petroleum and natural gas	27410.0	25619.3	23800.3	22149.8	24133.6	23,202
Mining of metal ores	457.5	543.2	718.7	700.3	743.7	797.4
Other mining and quarrying	4358.1	4564.4	4966.1	5718.6	6472.5	7218.1
Mining support service activities	24.8	22.1	54.6	132.7	100.0	85
Manufacturing	**351684.7**	**417813.2**	**497615.5**	**573681.0**	**620341.2**	**722,222.2**
Manufacture of food products	75111.4	89135.6	105180.0	121136.1	130374.2	154,314.7
Manufacture of beverages	11085.9	12978.1	16105.8	19558.5	20411.6	24,148.8
Manufacture of tobacco products	11234.4	12529.8	12479.7	12486.7	13094.9	14,346.7
Manufacture of textiles	19078.5	20423.5	25406.8	26894.0	28357.3	30,200.5
Manufacture of wearing apparel	15354.2	18004.5	22775.7	27205.7	29145.6	32,768.4
Manufacture of leather and related products	18919.5	20770.6	24343.1	27781.7	28368.3	30,827.8
Manufacture of wood and of products of wood and cork (except furniture)	8120.4	10134.2	10934.8	12257.1	13681.3	15,684.3
Manufacture of paper and paper products	8311.4	10021.1	11353.9	14559.5	14804.3	16916
Printing and reproduction of recorded media	3491.2	3561.9	3512.0	3953.3	4225.5	4,584.2
Manufacture of coke and refined petroleum products	598.3	515.2	437.9	777.0	4635.4	15,045.9
Manufacture of chemicals and chemical products	20292.3	23671.8	28074.8	30187.2	32967.4	38,703.8
Manufacture of pharmaceuticals, medicinal chemical and botanical products	3551.5	4094.2	5199.6	6079.7	6941.6	8,007.2
Manufacture of rubber and plastics products	18236.6	22571.0	26453.2	31926.0	32770.6	35,470.9
Manufacture of other non-metallic mineral products	37055.4	40248.6	47573.9	53582.9	61548.4	74,719.7
Manufacture of basic metals	13946.9	16423.4	18492.7	21856.3	24069.6	28,050.7
Manufacture of fabricated metal products (except machinery and equipment)	17571.4	21478.4	28072.3	33065.3	37359.6	43,837.8
Manufacture of computer, electronic and optical products	12103.9	16408.1	19427.2	23120.7	24587.9	28,605.6
Manufacture of electrical equipment	11999.6	15539.0	21972.1	23445.4	23959.3	26,062.9
Manufacture of machinery and equipment n.e.c	5207.0	7029.1	5440.5	6757.6	7044.4	7701

Table 4 (continued)

	2005	2006	2007	2008	2009	Preliminary 2010
Manufacture of motor vehicles; trailers and semi-trailers	10024.9	13925.1	13201.0	18440.5	20255.5	22,975.8
Manufacture of other transport equipment	15796.6	21660.1	28071.5	32401.9	34290.6	39,201
Manufacture of furniture	10818	12631.1	17304.6	18785.8	19411.9	20,854.2
Other manufacturing	2710.8	2864.8	4443.3	5723.8	6135.9	6,906.6
Repair and installation of machinery and equipment	1064.6	1388.3	1359.1	1698.3	1900.1	2,287.7
Electricity, gas, steam and air conditioning supply	**23821.2**	**26416.7**	**29639.5**	**33043.4**	**37520.8**	**42,811.9**
Water supply; sewerage, waste management and remediation activities	**2039.1**	**2509.5**	**3106.8**	**3787.2**	**4177.4**	**4,762.7**
Water collection, treatment and supply	1569.9	1639.2	1831	2091.1	2104.2	2,274.9
Sewerage and sewer treatment activities	78.6	81.1	158.4	283	357.6	409.4
Waste collection, treatment and disposal activities; materials recovery	390.6	709.3	1108	1396.5	1701.7	2064.1
Remediation activities and other waste management services			9.4	16.6	13.9	14.3

Source: Statistical Yearbook of Vietnam 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Vietnam's industry has been gradually diversified into key industries with high growth rates and export ability. The country has slowly developed industries which have exploited its economic resources and attracted FDI to produce consumer goods, export goods, and heavy industry products. Table 4 illustrates major industry products manufactured between 2005 and 2010. Increased consumer goods, such as food products, textiles, leather, computers, and transport vehicles have high value. Additionally, key industry products such as chemicals, mining and quarrying, refined oil, electricity, metal products, etc. also increased substantially.

Within the structure of exported goods, we can see that the value of processed goods has grown. The structure of export goods has moved in the direction of

increasing processed goods. As we see in Table 5, the export values of electronics, footwear, textiles, and garments increased rapidly between 2000 and 2010.

The competitive advantage of the manufacturing and labor-intensive industries has been increasingly utilized. Compared to raw material exported goods, products from these industries have higher added value. The structure of exported goods has changed to increase the added value of products and compete successfully on world markets. Many export goods not only meet basic domestic demand for such items as electronics, coal, fertilizer, steel, etc., but also are exported to the world. These products include plastics, textile garments, electronic and spare parts, fine art products, etc. The export value of textiles and garments achieved income of USD 11.2 billion and took 1st ranking among manufactured products and 2nd among exported goods from Vietnam.

The development of a processing industry, especially in the areas of agriculture, forestry, and aquatic processing, has stimulated the transition away from agriculture to merchandise production. Many areas specializing in plant cultivation and animal husbandry have been established. Agricultural machines, fertilizer, plant protection chemicals, and the fuel industry have supported this agricultural modernization.

The development of industry has contributed to the development of the service sector. Industrial development has stimulated both domestic and foreign trade. Modern financial services, such as banking, insurance, and the stock market, have also expanded. Moreover, a number of export substitution industries have been developed: automotive assembly, motorbike assembly, electronic goods, sugar, cement etc. These products are available to the domestic market and contribute to socio-economic development.

Table 5. Major Export Goods of Vietnam (2001-2010)

Export goods	Unit	2001	2002	2003	2004	2005	2006	2007	2008	2009	Prel. 2010
Chrome	USD Million	3.4	2.9	8.1	9	1.9	2.7				
Crude oil	Thousand Ton	16731.6	16876	17142.5	19500.6	17966.6	16442	15062	13752.3	13373	7977
Coal	"	4291.6	6047.3	7261.9	11636.1	17987.8	29308	32072	19357.6	24992	19828
Tin	"	2.2	1.7	2	1.8		2.5	2.3	2.5		
Electronic product and spare parts	USD Million	709.5	605.4	854.7	1062.4	1427.4	1807.8	2165.2	2640.3	2763	3590.2
Products from Plastic	"	119.6	143.4	170.2	239.2	357.7	452.3	709.5	933.7	867.4	1049.3
Electric wire and cable	"	181	187.7	291.7	389.7	518.2	705.7	882.3	1009	891.8	1311.1
Bicycle and equipments	"	129.4	122.7	155.4	235.2	158.4	110.6	81.2	89.1	85.8	…
Backpack, briefcase, purse	"	183.3	237.2	243.3(*)	382.1	470.9	502.1	627.1	773.1	824.1	958.7
Footwear	"	1587.4	1875.2	2260.5	2691.1	3038.8	3595.9	3999.5	4769.9	4071.3	5122.3
Textile and garment	"	1975.4	2732	3609.1	4429.8	4772.4	5854.8	7732	9120.5	9065.6	11,209.70
Products made from rattan, bamboo, sedge	"	103.1	113.2	141.2	171.7	157.3	214.1	246.7	199.6	22.1	203.1
Porcelain and pottery products	"	117.1	123.5	135.9	154.6	255.3	274.4	334.9	344.3	267.2	316.9
Lacquer and fine art products	"	34	51	59.6	90.5	89.9	119.5	217.8	385.5	1296.2	…
Embroider products	"	54.7	52.7	60.6	91.6	78.4	98.1	111.8	110.6	129,3	
Vegetable and fruit	"	344.3	221.2	151.5	177.7	235.5	259.1	305.6	406.5	438,9	450.5
Pepper corn	Thousand Ton	57	78.4	73.9	110.5	109.9	114.8	83	90.3	134	117
Coffee	"	931.1	722.2	749.4	976.2	912.7	980.9	1232.1	1060.9	1183	1218
Ruble	"	308.1	454.8	432.3	513.4	554.1	703.6	715.6	658.7	731	782
Rice	"	3720.7	3236.2	3810	4063.1	5254.8	4642	4580	4744.9	5969	6886
Cardamom	"	43.6	61.9	82.2	104.6	109	127.7	154.7	160.8	176	195
Peanut	"	78.2	106.1	82.4	46	54.7	14	37	14.3		
Frozen meet	USD Million	41.7	27.3	21.1	39.9	35.6	26.3	48.4	58.9	45.1	…
Starch and cereal products	"	98.4	91.4	82.5	100.9	129.6	151.2	194.1	258.6	276.2	326.1
Milk and processing products from Milk	"	191.5	85.9	67.2	34.3	85.3	90.1	16.3	29.6	23.7	…
Sugar	"	32.4	9.4	10.7	0.5	0.3	2.3	4.7	5	1.5	…
Tea	Thousand Ton	67.9	77	58.6	104.3	91.7	105.4	115.7	104.7	135	137
Animal and vegetable oil	USD Million	30.1	23.5	22.1	36.1	13.7	15.4	49.3	99.6	77.4	…
Wood and wood products	"	343.6	460.2	608.9	1101.7	1561.4	1943.1	2384.6	2767.2	2989.3	3435.6
Cinnamon	Thousand Ton	3.8	5.1	4.9	8.3	8.3	14.3	14	14.4		
Aquatic products	USD Million	1816.4	2021.7	2199.6	2408.1	2732.5	3358	3763.4	4510.1	4255.3	5016.3

Source: Statistic Year Book 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

FDI and Industrial Zones

The FDI sector has been growing rapidly. FDI is a driving force of industrial growth and represents the highest percentage of the total industrial gross output value. As illustrated in Table 6, the FDI sector, since 2005, has been regularly seen as a high percentage in the total gross output of industry. In 2005, the gross output of the FDI sector was VND 155,319.1 billion (accounting for 37% of the total gross output of industry), VND 260,571.1 billion (accounting for 40.3%) in 2008, and VND 334,074 billion (accounting for 41.3%) in 2010.

Table 6. Gross Output of Industry at Constant 1994 Prices by Sectors (Billion VND)

	2005	2007	2008	2009	Preliminarily 2010
Total	**415895.8**	**567448.3**	**646353.0**	**701183.8**	**808,745.4**
State	**140030.0**	**155713.6**	**159555.2**	**166693.9**	**188,496.9**
Centre	103699.6	120851.9	126614.0	136053.2	157540.6
Local	36330.4	34861.7	32941.2	30640.7	30956.3
Non State	**120546.7**	**188840.5**	**226226.7**	**249338.1**	**286,174.3**
Collective	2018.4	2258.2	2469.1	2296.4	2207.3
Private	79919.3	137322.7	167747.5	184762.5	212283.7
Households	38609.0	49259.6	56010.1	62279.2	71683.3
Foreign Invested Sector	**155319.1**	**222894.2**	**260571.1**	**285151.8**	**334,074.2**
	Index (previous year=100)				
Total	**117.1**	**116.8**	**113.9**	**108.5**	**115.3**
State	**107.2**	**105.2**	**102.5**	**104.5**	**113.1**
Centre	112.4	106.9	104.8	107.5	115.8
Local	94.8	99.7	94.5	93.0	101.0
Non State	**125.5**	**124.6**	**119.8**	**110.2**	**114.8**
Collective	106.7	102.5	109.3	93.0	96.1
Private	131.4	130.1	122.2	110.1	114.9
Households	115.6	112.5	113.7	111.2	115.1
Foreign Invested Sector	**121.2**	**119.6**	**116.9**	**109.4**	**117.2**

Source: Statistic Year Book 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Table 7 shows the development of the FDI sector and the main FDI industries. It can be seen that FDI plays a crucial role in industrial growth. During the period 2006-2010, the FDI sector achieved a growth rate of 20% in 2006, 19.2% in 2007, and 27% in 2010. Manufacturing activities dominated the FDI investment structure in Vietnam. This sector attracted more than 60% of all registered capital between the years 2001-2007 (UNCTAD 2008). Its gross value accounted for 81.7% and 92.4% of total FDI gross value (GSO 2011).

Table 7. Growth Rate of FDI (Unit: %)

	2006	2007	2008	2009	2010
Industry	10.69	10.22	5.98	5.52	7.70
FDI sector	20	19	16	9.4	17.2
Mining and Quarrying	3.2	3.3	1.7	10.4	-3.5
Manufacturing	25.9	23.9	20	9.2	19.1
Electricity, gas, steam and air conditioning supply	7.5	16.3	3.7	24.8	25.2
Water supply; sewerage, waste management and remediation activities	43.9	-33.1	11.7	8.4	9

Source: Statistic Year Book 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Analysis reveals that industrial development contributed significantly to GDP growth in Vietnam. An added benefit is that average worker salaries have improved. In 2000, the average yearly salary per worker in mining and quarrying was VND 13,128,960. By 2008, salaries were 3.9 times larger, increasing to VND 51,687,149. For workers in the manufacturing sector, salaries grew 2.4 times within 8 years, from VND 11 million to VND 27 million. In the electric, water, and air conditioning supply industries, average salaries also increased, but at a slower rate (2.1 times).

Table 8. Average Compensation for Worker (Unit: VND)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mining and Quarrying	13,128,960	16,339,033	20,061,748	21,574,821	26,450,110	33,649,127	37,584,302	44,930,497	51,687,149
Manufacturing	11,440,870	12,008,776	12,586,799	13,932,488	15,103,281	16,703,631	18,977,977	21,988,942	27,535,611
Electricity, gas, steam and air conditioning supply, Water supply	19,676,183	22,034,117	23,900,992	51,083,039	26,262,116	30,251,458	37,668,557	38,886,145	41,656,996

Source: Enterprises in Vietnam during the First Nine Year of 21st Century, Statistical Publishing House, Hanoi, 2010.

Industrial zones have been extant in Vietnam for about 20 years, in which time they have grown, developed, and contributed to the economic transition of the provinces and Vietnamese economic development in general.

As of 2010, 250 industrial zones had been established. Of those, 170 industrial zones had begun operation, while the others were in various stages of implementation. Industrial zones are located in three major economic areas (Northern Major Economic Area, Central Major Economic Area, and Southern Major Economic Area). They have attracted more than 8,500 investment projects with a total capital input of approximately USD 70 billion. The FDI capital in these industrial zones was about USD 52 billion, accounting for 30% of total FDI capital in Vietnam. Industrial zones contributed more than 30% of industry gross values and created 1.5 million jobs for workers (Pham Thanh Ha, 2011).

Thus, industrial zones are an important contribution to local economic development as they create jobs and increase income for local people. In some places, industrial zones also attract and create development in neighboring areas that provide services for the industrial zone's activities. It makes sound economic sense to establish urban centers with connections to industrial zones (Phan Tuan Giang 2010).

2.2. Remaining Problems

Industrial distribution according to regions is still unbalanced

As seen in Table 9, the disparity in industry gross value distribution is obvious. Industrial development is concentrated in two areas, accounting for 70% of total industry gross value for the whole country. These areas are the South East and the Red River Delta. The South East has maintained the highest industry gross value,

accounting for more than 43% of total industry gross values. In second place is Red River Delta with 27% of total industry gross value in 2010. The Central Highland and the Northern Midland and Mountainous regions both had smaller shares of total industry gross value, around 0.9% and 3.4%, respectively. Investors have established their production units in areas which have the best infrastructure in place and available skilled labor. This is understandable due to the disparity among infrastructure development levels in local areas.

Table 9. Structure of Industry Gross Values by Areas (Unit: %)

	2005	2006	2007	2008	2009	2010
Whole Country	**100**	**100**	**100**	**100**	**100**	**100**
Red River Delta	24.6	25.7	26.8	27.3	27.5	27.6
Northern midlands and mountain areas	3.5	3.5	3.5	3.5	3.5	3.4
North Central and Central coastal areas	9.5	9.2	9.0	9.1	9.5	10.7
Central Highlands	0.8	0.8	0.9	0.9	0.9	0.9
South East	47.8	47.2	45.8	45.1	44.5	43.2
Mekong River Delta	9.0	9.1	9.6	10.0	9.9	9.9
n/a	4.8	4.6	4.3	4.1	4.3	4.2

Source: Statistic Year Book 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

Limited Competition Ability

The competitive ability of local enterprises is still limited and only slowly improving. This situation is due primarily to small economic capacity and outdated technology.

Concerning the former, most enterprises have small scale labor and capital. According to year 2008 statistics concerning Vietnamese enterprises during the First Nine Years of the 21st Century by the GSO, of 205,689 enterprises, there were 114,929 which had fewer than 10 employees, accounting for 55.87% of the enterprise total; 84,507 enterprises had 10 to 199 employees, accounting for 41%; and 3,896 enterprises (200-300 employees), accounted for 1.89%. By size of capital resources,

the number of small enterprises was 177,803, accounting for 86.44%; 20,349 medium enterprises, accounting for 9.89%; and 7,537 large enterprises, accounting for 3.66% of total enterprises.

The second significant problem is the outdated technology of Vietnamese enterprises. Most enterprises use outdated technology and subsequently lag behind global average technology usage. Most machines and technology assembly (76%) were made during the 1950-1960 period. The overall machines and equipment situation in Vietnam now may be stated as 10% modern, 38% medium, 52% outdated (Nguyen The Nghia 2007). Due to the use of outdated technologies, local enterprise production expenditures are 10-30% higher than the world average expenditure.

Therefore, an important mission and focus point for Vietnamese industrial development strategy is the rapid improvement of international competitive ability for enterprises.

Weak supporting industry and over-reliance on importing means of production

Supporting industries are a weak area of Vietnam's industry. Supporting industries are scattered and underdeveloped, a situation which does not satisfy the demands of the manufacturing industry, particularly that of the FDI corporations. At present, there are no comprehensive supporting industries. Table 10 offers a view of the local situation of some industries in Vietnam. The percentage of the localization of the motorbike industry was 75% in 2002. Television production was localized at between 20-40%, and automobile production had a very low percentage of localization: only 5-10%. Vietnam has about 50 automobile assembling enterprises, but has only 60 enterprises providing spare parts. Each enterprise provides 35 automobile models each year with

30,000 spare parts for each car. The number of supporting enterprises is too small to meet the demand (CIEM 2009). Therefore, they have to depend on importing equipment and spare parts from abroad.

Table 10. Localization of Some Industries in Vietnam

Industries	Scale (1000 unit)	Localization (%)
Motorbike (a)	1,290 (Thailand: 1,740)	75
TV (b)	1,600 (Thailand: 6,500)	20-40
Automobile (c)	35 (Thailand: 1,000)	5-10

Source: Saigon Hi-Tech Park website, http://www.shtp.hochiminhcity.gov.vn/Sites/web/NewsDT.aspx?PostID=1240&CateID=84 (accessed January 4, 2012).

Due to the fact that the localization percentage of products is very low, many manufacturing industries, such as the textile and garment industry, footwear, electronics, etc., have to rely on importing foreign materials.

As can be seen in Table 11, in the structure of imported goods of Vietnam, the means of production imports accounted for more than 90% of total import values. For the textile industry alone, the Vietnamese export value was USD 9.6 billion in 2009, but the import value reached USD 5.8 billion for materials and equipment necessary for this industry (Table 5 and data from GSO). In the first half of 2011, Vietnam textile and garment exports were USD 6.16 billion, but imports were USD 5.76 billion for equipment and materials.[4] The electronic industry is mainly an assembling operation for international manufacturers. Vu Tien Loc, Chairman of the Chamber of Industry and Commerce, stated that Vietnamese companies could only

[4] Saigon Hi-Tech Park (SHTP), http://www.shtp.hochiminhcity.gov.vn/Sites/web/NewsDT.aspx?PostID=1240&CateID=84.

provide cotton packing and plastic covers for the electronic industry (Trung Duc 2011).[5] As the number of enterprises manufacturing electronics spare parts is limited, most spare parts are imported. In 2010, Vietnam imported USD 5.2 billion of electronic spare parts and computers.[6] FDI enterprises have had to import more than 90% of necessary spare parts. Fujitsu in Vietnam has had to import 100% of spare parts from abroad.[7] The lack of supporting industries might make foreign investors hesitate before investing in Vietnam.

Environmental Pollution

The concentration of the manufacturing sector in the Vietnamese industrial structure is one reason for environmental pollution. Most technology used in this sector still lags behind other countries in the region. Subsequently, industries need to consume more resources and energy and eliminate more industrial waste (Nguyen Thi Huong, 2009). Additionally, the mining and quarrying sector also creates increasing pressure on the environment due to mining activities.

Along with the development of industrial zones, environmental pollution of the areas around them has increased. By 2009, only 43% of industrial zones had waste water treatment works and a large number of those did not operate efficiently (MONRE, 2010).

[5] Developing Supporting Industry in Vietnam: from different views, http://www.tapchicongnghiep.vn/News/channel/1/News/152/16356/chitiet.html. 30/9/2011 3:13pm

[6] GSO, http://www.gso.gov.vn/default.aspx?tabid=393&idmid=3&ItemID=11605

[7] SHTP http://www.shtp.hochiminhcity.gov.vn/Sites/web/NewsDT.aspx?PostID=1240&CateID=84

Table 11. Import Values by Group of Commodities (Unit: %)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Prel. 2010
Means of production	***93.8***	***92.1***	***92.1***	***92.2***	***93.3***	***89.6***	***88***	***90.5***	***88.8***	***90.2***	***90***
Machines, equipments, spare parts	30.6	30.5	29.8	31.6	28.8	25.3	24.6	28.6	28	29.3	29.2
Materials and Fuels	63.2	61.6	62.3	60.6	64.5	64.4	63.4	61.9	60.9	60.9	60.8
Consumer goods	***6.2***	***7.9***	***7.9***	***7.8***	***6.7***	***8.2***	***7.8***	***7.4***	***7.8***	***9.3***	***8.8***
Food	0		0	0	0	0	0	0	0		
Food products	1.9	3	2.5	2.4	2.4	3	2.8	2.5	2.7		
Medical goods	2.2	2	1.8	1.6	1.4	1.4	1.3	1.2	1.1		1.5
Others	2.1	3	3.6	3.8	2.9	3.7	3.7	3.7	4		…
Gold						***2.2***	***4.2***	***2.1***	***3.4***	***0.5***	***1.2***

Source: Statistic Year Book 2010, http://www.gso.gov.vn/default.aspx?tabid=217.

3. INDUSTRIAL READJUSTMENTS

3.1. Vietnam's Socio-economic Development Strategy for the Period 2011-2020

Vietnam's Strategy of Socio-economic Development for the period 2001-2010 specified the need to: "Continue to push the industrialization and modernization process in a rapid and sustainable way; to drive our country to emerge from a less-developed situation; to obviously improve people's lives; and to create a foundation for our country to become modern and industrialized." There are different opinions on what constitutes criteria for a modern industrialized country. In the resolutions of the party Congresses X and XI, the listed criteria are general. To fully describe a modern industrialized country, criteria should include three groups: macro-economic growth criteria, criteria describing the development of society, and criteria describing the level of international economic integration. Therefore, the criteria for a modern industrialized Vietnam by 2020 basically are:

+ *For economic structure*: The gross value of the service and industry sector is 90% and above of GDP, while the gross industry value is from 40% to 45%. The total social investment value/GDP is about 40%, while infrastructure satisfies the demands of economic development.
+ *For international integration*: The level of economic openness should be at 90% or above and the growth rate of exports is 2-3 times larger than the growth rate of the GDP in order to integrate with global economies in many fields and coordinate with general global institutional regulations.
+ *For modernization level*: Social labor productivity should reach USD 10,000 per worker/year and, when applying modern technology, achieve 60% or above.

Non-agricultural labor should achieve about 70-75%, while highly-skilled labor reaches about 30%. There must be widespread application of information technology in state and general economic management.

+ *For living standards*: HDI must be in the top 30-40 countries in the world; the GDP per capita amount should be USD 4,000, while labor training is at 70%.
+ The vast majority of the population should complete high school; life expectancy will be near 75 years and urban accommodation will be $20m^2$/ person, with no poor households and a GINI < 0,4 (CIEM 2005).

In the new Socio-economic Development Strategy, the renovation of the growth model and the stimulation of industrialization, modernization, and sustainable development are emphasized. A new point of the strategy is focusing on the renovation of the economic growth model and the reconstruction of the economy. From a growth model relying on natural resource exploitation, the emphasis is moved to a growth model of applying advantage technology, training high-quality human resources, improving labor productivity, and improving the quality of manufactured goods. Economic development is closely related to building a fair society and encouraging environmental protection.

3.2. Industrial Development Strategy for the Period 2011-2020

General Directions for Industrial Development

To achieve the goals of the socio-economic development strategy, Vietnam's general aims for industrial development include building an industrial sector with a modern orientation, increasing service and product quality, and sharper competiveness. Vietnam continues to build foundations for an industrialized country and increase its

economic strength.

Targets details include: industrial gross value in 2020 should be at least 5 times larger than year 2000 and it will account for 45% of GDP by that year. The structure of industry will move in a direction where the manufacturing share will be 87-88% of the total of gross industry by 2020. Trained labor will be 60% of the total labor force and the value of manufactured goods will account for 70-75% of total export values. High technology will be applied by 40-45% of industrial groups. The value of industrial goods will reach 85-90% of total export values.[8]

To realize these targets, the development strategy will be based on *Decisive Thoughts for Industrial Development Strategy*: a) give priority to developing key industries and export industries, b) speed up the pace of modernization, c) renew and refresh technology, d) promote rural industrialization and agricultural modernization, e) encourage private sector participation in developing industry, and f) particularly encourage small and medium enterprises.

The state plays an important role in implementing strategies and policies for industrial development by creating an appropriate environment and setting preferential policies for industries and enterprises. State investment for industrial development is also very important.

Concurrently, emphasize the development of research and functionality of industrial products. Encourage potential manufacturing industry with high-technology applications in order to achieve rapid growth in development. Rural industry should be developed along with urbanization and sustainable development.

[8] Quy hoạch tổng thể phát triển các ngành công nghiệp Việt Nam theo các vùng lãnh thổ đến năm 2010 tầm nhìn 2020, Tóm tắt Quyết định số 73/2006/QĐTTg ngày 4/4/2006 của Thủ tướng Chính phủ (General Plan for Developing Vietnam's Industry according to Regions to 2010 vision to 2020, Summary of Decision 73/2006/QDTTg on 4/4/2006 by Prime Minister).

Focus on attracting investment from trans-national corporations and participate in economic associations to help Vietnamese industry become an integral part of the regional and global industrial system.

Develop industry by stimulating exports and gradually change from exporting primary goods to exporting secondary goods. By 2020, Vietnam will try to be recognized as a newly emerging industrial country with strong manufacturing industries and large market shares for its exports (textiles and garments, footwear, food processing, household appliances, electronics, software, and other industries with competitive advantage). The Vietnamese government plays a crucial role by inviting large foreign corporations to do business in Vietnam and make their presence felt locally by helping supporting industries.

Development Direction for Industrial Groups

Vietnam categorizes industries into groups as below:

+ *Competitive advantage industrial group*: such as agriculture, forestry, seafood and food processing industry, consumer goods (such as textiles, footwear, and wooden furniture), heavy industry (such as shipbuilding and agricultural machines), electronic and motorbike assembly, and the home-craft industry.
+ *Basic industrial group*: including basic industries which produce the means of production (such as the infrastructure and energy industries), the mechanical and chemical industries, petro-chemicals, the pharmaceutical chemistry, and fertilizer to satisfy national demands for security and social welfare and to ensure stability in case of turbulence in global markets and create a solid foundation for other industries.

+ *Potential industrial groups*: including high-technology industries such as electronics, telecom, and information technology. This industrial group will still represent a small part of the total industrial structure, but it has vigorous competitive advantage and it needs to grow in the future (CIEM 2005).

For each group, suitable policies from government are needed to ensure coordinated and effective development. State industries will be a foundation for this development. Private industry and FDI will motivate the development of industry. FDI is considered a key partner for Vietnam's industry to grow and integrate into the global economy.[9]

By 2020, the structure of industry will have changed direction. The processing industry will increase from 79.72% in 2000 to 87-88% in 2020. However, the share of the mining industry will decrease from 13.78% in 2000 to 5-6% in 2020. There will be only a small change in the electric, gas, or water industries (6-7% in 2020).

In the manufacturing group, labor-intensive and exporting industries, such as garments and textiles, footwear, and agriculture-forestry-aquatic processing will develop rapidly between 2011 and 2020. These industries will gradually move to rural areas. Additionally, industries using high technology will experience accelerated growth in the period 2011-2020. These include electronics, information technology, mechanics, and chemicals. New manufacturing will be concentrated in the large cities and industrial centers of Vietnam.

By 2020, Vietnam will have established foundation industries, such as electricity, oil and gas exploring and processing, metallurgy; several heavy industries, such as shipbuilding, automobile production, electrical equipment, small and medium

[9] Vietnam industrial strategy to 2020, Paper Presented at International Conference "Building and Implementing Vietnam's Industrial Strategy," 24th May, 2005, Hanoi.

machines for agriculture and industry usage, lifting, and transporting equipment that will all use advanced technology.

Toward competitive advantage industry group: this group will apply the "concentrated development strategy" and be export-oriented. The textile and garment industries will develop into supporting industries. Industries will stimulate the allocation of production and use local labor, while importing semi-finished materials. Capital will be mobilized from the private sector, FDI, and through the state-owned enterprises.

The agriculture-forestry-aquatic processing industry exports highly processed products. Vietnam has the advantage of cheap labor and a well-known agricultural base. Forestry products have acquired their own brand names. This industry is asking for investment from the private sector and FDI to develop the farming of aquatic products, marine products, wood processing, forest plantation, fruit juice processing, and growing and processing herbal remedies. Vietnam encourages investors to become involved in industrial development.

The electronic manufacturing and assembling industry is to receive and assimilate technology to gradually produce electronic components and other equipment and to manufacture selected equipments by 2020. Vietnam will form centers for professional research and design to create domestic technology and specific products, such as producing consumer electronic devices. Grouped in industrial zones, this industry will be funded by FDI, joint-venture enterprises, and the private sector, all of which will play important roles in industry expansion. The emphasis on developing the competitive advantage industry group is very important because it has the potential to create jobs for a large number of workers in fields such as agriculture-forestry-aquatic

processing, food, electronic assembling, and building materials. Selecting and developing certain important production material industries, such as energy, chemicals, metallurgy etc. will help to improve the economy's self-reliance. The aim is to continue to reorganize and develop state enterprises by forming strong economic groups and general corporations, leading them to develop effectively. Multi-ownership will be the core ownership type in these key fields.

The basic industry group: because this is a very important group, the state still plays a decisive role. Vietnam will develop a metallurgy industry for the production of steel and other metals, such as aluminum, for export substitution. Local organizations are looking for strategic partners for large projects to carry out inter-governmental cooperation for metallurgy projects. The electricity industry will be reconstructed according to reforms in the electricity market to reduce importing electricity and to build inter-governmental projects on energy. The chemical industry will apply modern technology, reduce importing nitrogenous fertilizer, and develop high-technology chemical products after 2020. The mining and quarrying group will concentrate on exploring for big mines and high value, providing resources for industry, developing the oil and gas industry, and focus on investment in the Thach Khe (Ha Tinh Province) mine.

The mechanical processing industry will apply an import substitution and export strategy. It will implement a restructuring that will emphasize specialized production and develop high quality chemical products by encouraging FDI.

Toward potential industry group: these groups will continue to attract FDI to develop and apply high technology to electronic spare parts and the software industry. The pharmaceutical and chemistry industries will apply new and modern technology

and take advantage of natural resources. They will call for investment from the private sector and FDI as major investors. The new technology industries group that lacks well-trained human resources suggests that the government will focus on human resource development, develop biological technology supporting agricultural development, and the development of the agriculture-forestry-aquatic processing industry.

3.3. Development Strategies of Selected Industries

Garment and Textile Industry

- *Development Point of View:*
  - + The textile and garment industry will specialize and modernize. Vietnam will try to overcome certain weaknesses in this industry, such as weak brand names, undiversified products, undeveloped supporting industries, and lack of materials.
  - + Encourage export promotion, expand export markets, and extend product varieties to the domestic market. Due to this industry relying excessively on imported material, Vietnam will focus on supporting industries for the textile and garment industry. This will reduce the trade deficit and increase value added for products.
  - + Developing the textile and garment industry works well with environmental protection and the rural-to-urban labor trend. Factories which cause environmental pollution will be moved into industrial zones for convenient pollution treatment. Labor concentrating factories will move to rural areas.
  - + Diversifying ownership type in the textile and garment industry will attract

domestic and foreign capital investing in this industry.

+ The quality and quantity of human resources for the textile and garment industry will have to be considered by the government.

- *Goals:*

The textile and garment industry belongs to the competitive advantage industry group. Consequently, Vietnam aims to develop it to be a major industry, a key export industry as well as one that responds to domestic demand in order to create jobs, increase competitive ability, and integrate into global economics. During the period 2011-2020, the target production growth rate is from 12% to 14% and the growth rate set for export is 15%.

- *Development Orientation:*

+ Production: we will focus on how to develop both the input and output of this industry. The first step is to improve the competitive ability for the garment industry in order to promote exports. Therefore, improved fashion design and the creation of distinguished products are essential for building brand names. In addition, rapidly applying quality standards when integrating into global economics is important. Second, develop the support provided for the textile and garment industry by attracting foreign investment to produce synthetic fibers, by ordering replacement parts from supporting production, and implementing a fabric-for-export program. The Vietnam Textile and Garment Corporation will play a key role in this program, building a cotton tree development program.

+ Investment and Development:

✓ Toward garment enterprises: building fashion centers and fashion

design units at Hanoi, Ho Chi Minh City, and other large urban areas.

- ✓ Toward fiber, textile, dye, and fabric enterprises: building textile clusters with good infrastructure.
- ✓ Establishing locations specializing in cotton tree cultivation in suitable areas which have good climatic conditions and land for enhancing cotton productivity and quality.

+ Environmental Protection:

- ✓ Building textile and garment clusters: move textile and garment industries, which are likely polluters, into industrial zones which have good waste water treatment.
- ✓ Implementing a Program of Clean Manufacturing in the textile and garment industry, encouraging enterprises to apply environmental management standards according to ISO 14000, and to create a healthy working environment according to SA 8000.
- ✓ Increase research skills on environment technology.

Motorbike Industry:

- *Target:*

+ Focus on manufacturing and exporting motorcycles and motorcycle spare parts.
+ Produce high quality motorcycles.
+ Acquire ability to design and produce motorcycle engines and motorcycles using clean fuel.

Based on established targets, the strategy is for a focus on the domestic motorcycle market and exports. The first priority is to satisfy domestic demand as the main

transport vehicle used in Vietnam is the motorbike. This industry will focus on developing high quality motorcycle spare parts, particularly in engine production, fuel, and raw materials for this industry. Vietnam will develop supporting industries for the motorcycle industry such as chemicals, mechanics, rubber, plastics, electronics, and new materials.

- *Promote exporting activities*
    + Employ staff to carry out trade promotion and find new export markets, such as Africa, Southwest Asia, and Latin America.
    + Promote exporting comparative advantage motorcycles and spare parts to meet demand for each market.
    + Strengthen cooperation to improve domestic production and competitive abilities and design suitable motorbikes for export.
    + Actively participate in international labor allocation on motorcycle manufacturing.
- *Technology development*
    + Incorporate advanced and modern technology and actively seek international technology.
    + Invest in research and development.
    + Invest in production inspection technology.
- *Develop a distribution and supplier system*
    + Unite suppliers systematically to supply motorcycle and automobile spare parts.
    + Build and develop a distribution and service system.
    + Enhance the role of bike and motorcycle associations to link domestic

enterprises with international enterprises in this field.

Applied High-Technology Industries

To improve technology and increase the competiveness of the industrial sector, Vietnam has approved a strategy for industries applying high technology since 2008. These industries fall into three industry groups, as already noted. The main target is to apply high technology to priority and key industries which can promote the development of other industries, have a high added value, use high-level human resources, have potential for development, have the ability to integrate into the global economy and international production chain, and require suitable abilities and resources compatible with Vietnam's economic condition to 2020. These include:

- Electronic–information technology
- Mechanic industry
- Metallurgy industry
- Chemical industry
- Food processing industry
- Energy industry

In general, Vietnam will increase investment for R&D development. The size of the investment will be 3.5-5% of income in 2015 and 8-10% of income in 2020. Additionally, machine renovation is strengthened. The investment share for machinery renovation will be 10-15% by 2015 and above 20% by 2020.[10]

[10] Development Strategy for Applied High Technology Industries to 2020; 30th December, 2008, Decision approved by Ministry of Industry, Decision number 53/2008/QD-BTC.

Coal Industry

The coal industry belongs to the basic industry group. Therefore, Vietnam's development strategy for the coal industry is to help it become a developed and competitive industry with a high level of technology in fields such as surveying, exploration, sorting-out, processing, meeting basic domestic needs, and ensuring national energy security.

- *Target Details*

Vietnam will undertake a survey to verify coal reserves and ensure coal exploration activities to 2025. Toward the northeast coal basin, Vietnam will extract around 70-75 million tons by 2020 and more than 80 million tons in 2025. In the Red River coal basin, Vietnam experimentally invested in several traditional exploring technology projects in 2010. These are the initial steps for development investment for the years after 2010. By 2015, coal processing will be developed in the direction of diversified products (including directly burned fuel, coal used for metallurgy, liquid fuel from coal, fuel used for the chemical industry, etc.) Along with exploring activities, Vietnam intends to pay attention to environmental protection, as well. By 2015, Vietnam will improve major environmental indicators in sensitive areas, such as: urban centers, inhabited areas, tourist sites, etc.), and upgrade environmental standards set up for mines. By 2020, mine areas will have to meet environmental requirements for whole areas.

- *Solutions*
    + *On management*: to promulgate, modify, and complete legal documentation regulations for creating a convenient legal corridor in order that the management, exploration, process, and development of the coal industry follow market mechanisms under state management.

+ Vietnam will promote the equalization process to coal mining companies, begin to form diversified ownership, mode of production, and business in the coal industry.
+ *On financial aspects*: mobilizing capital from domestic and foreign economic elements through different forms of enterprises, such as joint-venture companies, joint-stock companies, etc. Vietnam encourages coal enterprises to mobilize capital through the stock market (issue domestic and international bonds, and stock) to invest in coal development projects.
+ Government will arrange a budget to survey and find coal resources and set up plans for coal development.
+ The government will contribute to a research budget for universities and for human resource training. In addition, government will help coal enterprises arrange loans from the state, ODA, the Vietnam Environmental Protection Fund, and other financial organizations to carry out waste disposal projects.
+ *On Investment*: Continue to revise foreign investment policies to attract investment in exploring, surveying the Red River Coal Basin, and areas under 300m of the Quang Ninh Coal Basin.
+ *On Human Resource Development*: Improve professional skills for officials, workers, and engineers working in this industry, build a strong labor force, and incorporate modern and advanced technology and equipment.
+ Vietnam will develop technical universities which achieve international standards and establish a common education program in specialized fields of training in the coal industry. Experienced engineers will be selected to oversee training.

+ *On technology*: maintain internal skill levels and expand international cooperation to research and apply high technology in surveying, exploring, processing and transporting coal; acquire advanced technology to improve safety at work and decrease loss and pollution.

Chemical industry

Vietnam considered the chemical industry as one of the most important and highly prioritized industries of its Economic Strategy for each period. This industry's mission is to ensure production materials and consumer products, national security and defense products, and national food security. The chemical industry is closely connected to the country's natural resources. Therefore, Vietnam needs to use its resources effectively and introduce suitable inducements to attract FDI for large and advanced technology projects. There are four main chemical product groups: chemicals for agriculture, petrochemicals, chemicals for industry, and chemicals used for consumer needs.

- Chemicals used in agriculture include fertilizer and plant protection chemicals. The focus is on upgrading technology and equipment for phosphates, NPK, establishing an organic fertilizer factory, and diversifying fertilizer production. The replacement of old technology is needed where plant protection chemicals are concerned. New products should be environmentally friendly, cause less damage to the environment, and be compatible with international regulations.
- The petrochemical industry will attract investment from different economic sectors, particularly FDI, to exploit oil resources effectively and create upstream products which are necessary for other industries.
- Chemicals used in industry and those used for consumer needs will be strengthened

Supporting Industry

Developing supporting industries is very important to improve industrial and competitive abilities. To advance in the industrialization process and integrate into global economics, Vietnam needs to make an effort to improve technology, provide effective logistic services, and expand industrial linkages. Thus, Vietnam considers supporting industries as a breakthrough phase to quickly develop key industries as the country moves toward 2020. Supporting industry needs to be developed to international standards. The development of supporting industries has to be based on Vietnam's potential and advantages. Supporting industries will attract investment from different economic elements, including TNCs. The government will focus on each industry group to utilize competitive effectiveness. The industry groups are: the textile and garment industry, footwear, electronics and IT, automobiles, and mechanisms.

Major Economic Zones and Industrial Zones

- *Major industrial areas*

Based on the advantages of geographic position, natural resources, labor, and infrastructure, the Vietnamese government has established the Industrial Areas Plan to 2020, which includes 6 major industrial areas:

Area 1: 14 provinces including: Bac Kan, Bac Giang, Cao Bang, Dien Bien, Hoa Binh, Ha Giang, Lai Chau, Lang Son, Lao Cai, Phu Tho, Son La, Thai Nguyen, Tuyen Quang, and Yen Bai, which focus on hydroelectric power, the agriculture-aquatic-forestry processing industry, mining and quarrying, chemicals, fertilizer, metallurgy, construction materials, the mechanical industry for agriculture,

and processing industries.

Area 2: 14 provinces including: Bac Ninh, Ha Noi, Ha Tinh, Hai Duong, Hai Phong, Ha Nam, Hung Yen, Nam Dinh, Ninh Binh, Nghe An, Quang Ninh, Thai Binh, Thanh Hoa, and Vinh Phuc. This area is focused on developing the mechanical industry, thermoelectricity, electronics, information technology, chemicals, metallurgy, mining and quarrying, and construction materials. Additionally, this area will continue to accelerate the development of textiles and garments, footwear, and the food processing industry.

Area 3: 10 provinces and cities: Binh Dinh, Da Nang, Khanh Hoa, Ninh Thuan, Phu Yen, Quang Binh, Quang Nam, Quang Ngai, Quang Tri, and Hue. The area is focused on developing agriculture, forestry, aquatic processing, petrochemicals, mechanics, construction materials, textiles and garments, electronics, and IT.

Area 4: including 4 provinces: Dac Lak, Dak Nong, Gia Lai, Kon Tum. This area will focus on hydroelectric power, agricultural and forestry processing, and mining and quarrying.

Area 5: The 8 provinces include Ba Ria-Vung Tau, Binh Duong, Binh Phuoc, Binh Thuan, Dong Nai, Lam Dong, Ho Chi Minh City, and Tay Ninh. Area 5 will focus on developing oil exploitation techniques and refining, agriculture, forestry, and aquatic processing. There will be special emphasis on developing mechanics, electronics, software, chemicals, pharmaceutical chemistry, high quality textiles and garments, and the footwear industry. All will be involved in exporting and developing industries based on applying high technology.

Area 6: 13 provinces: An Giang, Bac Lieu, Ben Tre, Can Tho, Dong Thap, Hau Giang, Kien Giang, Long An, Ca Mau, Soc Trang, Tien Giang, Tra Vinh, and Vinh Long will focus on export-oriented industries such as agriculture, forestry, aquatic processing, those industries using natural gas, mechanics for agriculture (particularly harvesting), the maintenance industry, and shipbuilding.

- *Direction for industrial zone development:*

Industrial zones have attracted the attention of Vietnamese leaders due to their importance in the area of socio-economic development. To establish the role of industrial zones within the socio-economic development of Vietnam and surmount the existing problems of industrial zones, Vietnam has put in place the Development Plan for Industrial Zones to 2020. By 2020, according the plan, Vietnam will form defined industrial zones of reasonable scale to lead national industrial development. More details will become available by 2015 as new industrial zones are established on plots of 20,000-25,000 ha. The construction of large-scale waste disposal systems in specialized industrial zones in major economic areas has attracted attention. Vietnam will continue to revise investment policies to encourage investment in industrial zones, of which around 6,500-6,800 are projected to be established with registered capital of about USD 36-39 billion. By 2020, the area of industrial zones will be 80,000 ha and the comprehensive management of these industrial zones will be strengthened.[11]

4. CONCLUSION

In conclusion, the development of industry has played an important role in Vietnam's socio-economic development. Although there are still a number of challenging problems ahead, Vietnam has made adjustments to industrial policies to overcome these obstacles. As in the new socio-economic development strategy, Vietnam has demonstrated efforts to stimulate industrialization and modernization to achieve the target of becoming a modern industrialized country by 2020. With political stability

[11] Development Plan for Vietnam's Industrial Zones to 2015 and Direction to 2020. Decision approved by Prime Minister number 1107/QĐ-TTg on 21/8/2006

and improvement in the business environment, Vietnam has become a rewarding place for international investors.

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