

# THE ENVIRONMENT AND INDUSTRIAL PRODUCTION IN HỒ CHÍ MINH CITY

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**H**ồ Chí Minh City has a geographical position and many conditions favorable for economic development, especially for industrial production. Its industrial output represents some 31% of national industrial production. Hồ Chí Minh City has made good progress in attracting foreign investment and renovating industrial equipment and technology. In the near future, HCMC along with Biên Hòa, Long Thành, Bà Rịa-Vũng Tàu, will form a leading industrial estate opening to the international trade and become the biggest cluster of cities of Vietnam.

In recent years, HCMC industrial production has witnessed a high growth rate of some 14.5% a year. This rate rose higher in the past two years.

The flow of foreign direct investment coming to HCMC is steady. In the first seven months of 1995, it increased by 1.5 times compared with 1994 and 3.2 times compared with 1991. Up to now, there are 420 foreign investment projects with total capital of US\$5.5 billion. The size of an average project becomes larger with bigger investment. In fact, foreign investment has been of great benefit to HCMC in creating new jobs, supplying more goods for domestic consumption and export, introducing new managerial skills and industrial practices...However, because of our low starting point, poor infrastructure, low levels of managerial skill and technology, so in the period between 1990 and 1995, we received mainly technologies exported by NICs. These technologies are imperfect, consume a lot of fuel and raw materials and release pollutants. For example, the Wi-wong joint venture producing seasoning with obsolete machines and equipment in Hóc Môn. Similarly, the Nhà Bè Steel Factory has polluted the air with smoke from its chimneys. Up to now, there is no document referring to the pollution of the environment caused by foreign-invested joint ventures. Because of the profit motive, most technologies and machines transferred to Vietnam are obsolete and harmful to the environment.

They have lost their competitiveness in their home countries, become outdated and unusable. If we aren't alert to this matter or don't know how to select good and appropriate technologies, we will make our nation a machine dumping ground.

The manufacturing industry in HCMC produced a wide range of products from ferrous and non-ferrous metals, copper and aluminium to rubber, glass, ceramic, clothing, paper, processed food, leather, etc. Over 500 factories in inner city, 200 other factories in suburbs and thousands of small industrial family businesses scattered over inner city areas have caused a lot of worries for local authorities. The HCMC People's Committee has made a list of polluting factories.

The main source of pollutants is smoke from factories using FO fuel for their machines. The Thủ Đức Power Plant consumes over 350,000 tonnes of fuel and releases around 4.27 million cubic meters of smoke every year. The smoke including various hazardous chemicals such as SO<sub>2</sub>, NO<sub>2</sub>, CO, SO<sub>3</sub>, etc. covers large areas and pollutes the environment seriously. The Southern Steel Factory releases from 3,000 to 4,000 tonnes of dust every year. In district 6, 8, 11, etc. various glass, aluminium, cast iron furnaces are also sources of pollutants. People living in surrounding areas have to suffer from many respiratory diseases. We can list here a lot of factories that release pollutants of 6 to 8 times of permitted levels. The following table shows the number of polluters in HCMC (1995):

Forms of pollution	CONCERN					
	Total	Manufacturing concern	Handicraft	Construction	Trade-Service	Others
Air	348	86	201	8	89	19
Waste water	78	28	27	9	10	4
Noise	158	22	100	18	15	5
Vibration	32	1	28	7	1	-
Hygienic conditions	81	8	-	12	19	47
Others	52	-	-	2	-	50
Total	747	138	351	46	87	125

This table shows that the main polluters are manufacturing and handicraft concerns representing 65.4% of surveyed concerns.

The HCMC Commission on the Environment carried out in 1993 a survey of air pollution in certain locations in HCMC caused by smoke from factories. The result is presented in the following table:

Polluting factors	Tân Sơn Nhất	Thủ Đức	District 3	Permitted level
SO <sub>2</sub>	0.55	0.7	0.030	0.4mg/m <sup>3</sup>
NO <sub>2</sub>	0.18	0.14	0.065	0.19mg/m <sup>3</sup>
Dust	1.20	1.30	0.350	0.35mg/m <sup>3</sup>

In 1995, the result will be very different because the manufacturing industry has developed remarkably in HCMC since 1993, so the level of pollution will be more serious.

We have recently carried out a survey of 61 plastic factories in HCMC and learned that most of them had polluted the environment. The following table is result of the survey:

Forms of businesses	% of concerns causing pollution						
	Dust	Noise	Waste solid	Waste water	Waste gas	Heat	Smoke
State enterprise	10	40	10	40	20	80	25
Limited company	21.7	47.8	7.2	21.7	15	65.2	23
Private business	-	50.0	-	25.0	-	50	-
Cooperative	-	10.0	-	10	15	60	15
Family business	16.7	33.3	-	25	-	41.7	20
Total	13.1	37.7	2.8	24.6	8.3	59	13.8

Manufacturing concerns have polluted the environment at different levels and this matter should be solved as soon as possible, because according to estimation, Hồ Chí Minh City will be the most polluted city in Vietnam in 2000.