

Environmental Problems in Đồng Nai Industrial Parks

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Dồng Nai is the province that leads the way in development of IPs. It now has 17 IPs with a total area of 6,123 hectares where house 505 projects capitalized at US\$5,910 million. In 11 months of 2003, IP enterprises gained total sales of US\$2,754 million, an export value of US\$1,127 million, and a total payment of US\$110 million to the Treasury, and supplied regular jobs to some 200,000 employees.

These IPs have contributed a lot to the modernization and industrialization of the provinces but they also posed serious environmental issues that required overall solutions.

1. Environmental problems in Đồng Nai

Wastes from IPs have all three basic forms:

- Effluent: There are only three IPs in Đồng Nai where effluent treatment plants are built (Biên Hòa 2, Amata and Loteco). In other IPs, this problem is left to companies.

Most IPs are located near rivers. Liquid waste from IPs in Long Thành, Nhơn Trạch and Gò Dầu flows into the Thị Vải River while other IPs let their effluent flow into

the Đồng Nai River. Many factories in the Biên Hòa 1 IP have no system for treating the effluent that contains high degrees of hazardous pollutants. The same situation is also found in factories in IPs in Long Thành District.

A survey of the environment authorities shows that the portion of the Đồng Nai River running through Biên Hòa Town is more polluted than all other sections while the Thị Vải River are polluted all two seasons of the year. The Nước Lớn Stream flowing into the Thị Vải River is black and smelly.

- Fumes: The treatment of fumes depends totally on determination of the factory management. In Biên Hòa 1 IP, the smoke density is much higher than the acceptable level. In others, the smoke level is within limit.

- Solid waste: Part of solid waste is buried in some dumping grounds. The volume of hazardous waste is estimated at 3,500 – 4,000 tonnes a year and it is usually kept in containers or plastic bags in waiting for treatment.

The task of protecting the environment hasn't been carried out properly:

- + Of 17 IPs in Đồng Nai, only three of them have effluent treatment plants. The treatment of effluent in individual factories is poor and not well under control. And as a result, industrial effluent keeps polluting rivers and streams.

- + Volume of smoke and solid waste containing hazardous substances in on the increase while the local ability to gather and treat them properly is limited. The lack of an industrial waste treatment plant has made the treatment of solid and hazardous waste a pressure for companies and local authorities as well.

- + There are many complaints from local residents about fumes from IPs. The danger of fumes pollution is a potential because their spread is quick and beyond control of local authorities.

- + Local authorities couldn't inspect environmental issues in IPs because they are understaffed and many investors and infrastructure developers refuse to cooperate in protecting the environment.

With high growth rates, Đồng Nai could develop the production at larger scale but it also needs strong measures to protect the environment before the pollution is beyond repair.

2. Some measures to deal with environmental problems in IPs

Companies are never ready to treat waste materials or try to reduce them because this means more production cost and less competitiveness. So local authorities should find ways to limit the pollution in order to reduce the negative effects of the economic development.

a. Enforcing properly regulations about the environment:

There are many regulations relating to the pollution but they aren't enforced correctly. When submitting plans to build factories, investors always include waste treatment plants but they are built very slowly and they may never come into being. The main reason is the fact that such plants are costly and produce no profit. Building a 3,000-tonne effluent treatment plant costs at least US\$1 million and takes many years to get pay back.

In the Biên Hòa 1 IP for example, there are many state-owned companies that lead the way in dumping waste. Many of them are reluctant to run their effluent treatment systems and tend to let it flow into the Đồng Nai River in order to reduce cost.

To protect the environment, the related authorities must examine whether investors keep their promises to build waste treatment plants or not. If they fail to do it, or they are intentionally slow to build the plant, they must be punished or fined severely. It's the lack of inspection and control that encourage investors to delay the building of waste treatment systems.

It's necessary to require infrastructure building companies to

bring effluent treatment plants into operation when 50% of IP area is filled with projects. Moreover, fuller attention must be paid to such IPs as Nhơn Trạch and Gò Dầu where the volume of pollutants is alarmingly high.

- + When the factory is under construction, inspection is much needed in order to ensure that the effluent treatment system is built and suitable to the overall treatment system of the whole IP.

- + Systems for gathering rain water and effluent from the whole IP must be separated.

- + Records of connections between sewers from factories and main sewers of the IP must be kept carefully.

- + Necessary equipment should be imported and used for controlling flows of effluent running through the treatment plant. All data must be written down.

- + Punishment as stipulated by law must be carried out against violations of environmental protection regulations committed by both private and state-owned companies.

b. Collecting pollution charges:

Collecting the pollution charges from companies is a common practice in many countries. At present, the sewerage charges are collected from all water buyers. It's necessary to collect charges on fumes and solid wastes from industries. The charge will vary according to the volume and nature of waste materials, which could force companies to pay more attention to the environmental protection.

However, paying the pollution charges doesn't mean that factories are free to cause pollution. They must

install equipment for treating fumes and solid waste before letting them go out of their premises. All violations must be punished strictly according to regulations.

c. Support from provincial authorities:

- The infrastructure building in the Biên Hòa 1 IP must be accelerated with full attention paid to the protection for the environment.

- Related authorities at provincial level must cooperate with district governments in protecting the environment, especially the air and the Đồng Nai River. Well-trained employees must be recruited and annual reports on the environment should be made carefully.

- Soft loans along with other incentives could be given to projects to build waste treatment plants in IPs. As for works that require big investment, BOT form is very useful.

- Encouragement could be given to private concerns that are ready to engage in this effort with a view to turning industrial waste into other goods. The participation of the private sector in treating solid waste is very necessary and such private concerns could be allowed to build their premises near the IP for convenient transport.

- Environment authorities must carry out regular investigations and survey of the volume of hazardous waste materials and zone area for treatment works specializing in hazardous substances.

- Workshops and training courses in the protection for the environment could be held to enhance the awareness of the issue among company managers and investors. ■

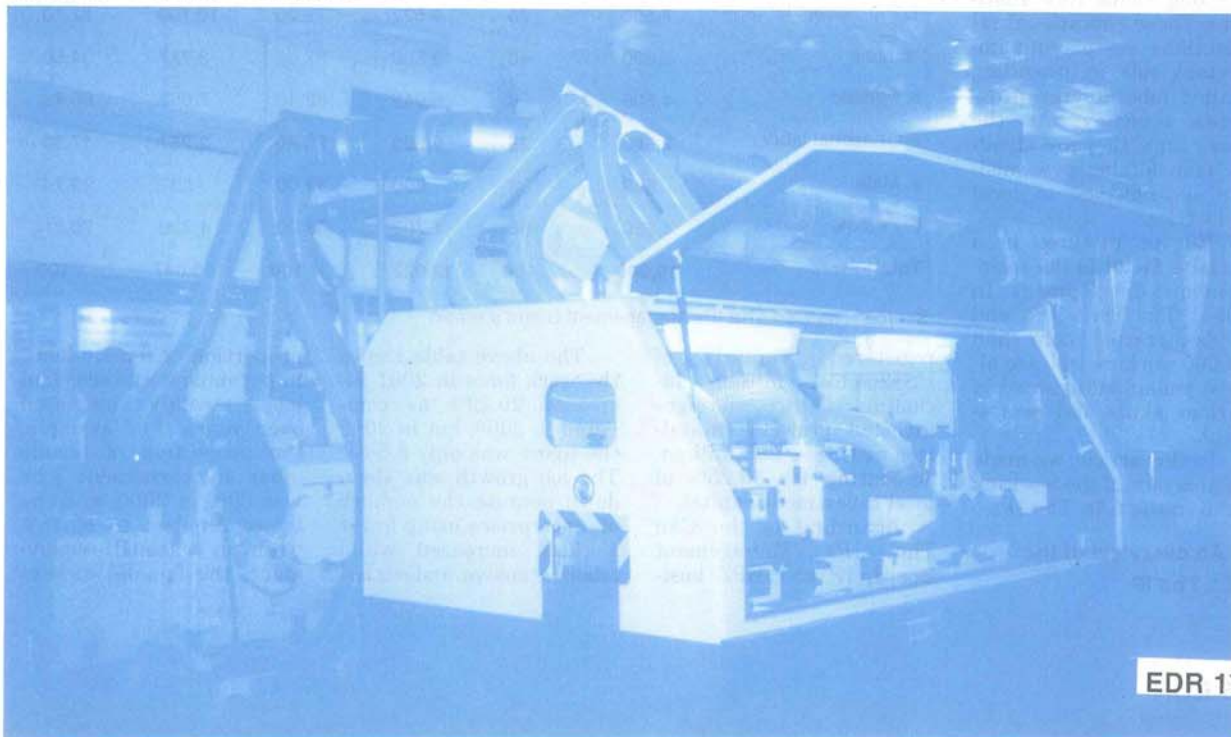


Photo by Hoàng Tuấn