

POLLUTER PAYS?

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On November 3-5, the University of Economics organized a seminar on the "Economics of Environmental Management". This seminar was prepared in cooperation with the Economy and Environment Program for South East Asia (EEPSEA) and the Swedish International Development Authority (SIDA).

The participants, coming from academic and government institutions as well as the private sector, followed attentively the course given by the Swedish professor Stefan De Vylder. Within Europe, Sweden plays a leading role in the development and implementation of environmental regulations.

Keyword in this 3-day seminar was the so-called "externalities". Externalities are spillover effects, which are external to the consumer or the producer but have an effect on the society. Examples of negative externalities include industrial pollution, environmental damage, etc., while examples of positive externalities include reduced traffic congestion and increased literacy. So the social cost of a project is defined as private cost plus negative externalities. If we add the positive externalities to the private benefit, we become the social benefit.

Professor Stefan De Vylder explained how to convert the effects of "externalities" into financial values. Once you found and "monetarized" all positive and negative externalities, you can construct the Social Cost-Benefit Analysis.

One of the central points of discussion was the role of the government in the enhancement of environmental quality. The government has at its disposal a number of policy instruments to influence environmental behavior. According to Stefan De Vylder, the national or local government can intervene in a number of ways, such as:

- . Taxes: can be imposed on the import or use of environmental unfriendly products (e.g. products containing CFC)
- . Subsidies: to promote the use of environmental friendly products (e.g. subsidizing public transport)
- . Direct regulations or prohibition: to forbid dirty technology (e.g. forbid the use of 2-stroke motorcycles)
- . Deposit-refund: to make recycling and re-use of used

products possible (e.g. recycling of used glass bottles)

After his theoretical approach it was up to the participants to give their input and to apply the theory to the situation in Ho Chi Minh city. The group assignment was to identify the externalities of the traffic in HCMC and to propose which kind of policy instruments could be used to reduce the negative effect of the externalities in HCMC.

The 3 workgroups identified the following externalities for the HCMC road traffic:

- . Environment: noise and air pollution
- . Congestion: waiting time

The different groups proposed a series of instruments to reduce the environmental impact of the increasing motorvehicle circulation. All group agreed that only a combination of different environmental protection measures will improve the reduction of pollution. The enumeration below gives an overview of the ideas of the different workgroup;

- . Enhancing the quality and the frequency of public traffic at a subsidized price.
- . Introduce a road tax for 2-stroke motorcycles because they are more pollutant.
- . Introduce rural development programs to reduce migration to HCM-city.
- . Import ban on second-hand cars and motorcycles (old technology).
- . Promoting unlead petrol.
- . Increase tax on petroleum products.

The last 3 proposals will only be effective if they are implemented on national level. The latter proposal, increasing tax on petroleum products was backed by all discussion groups. In fact it is not such a bad idea.

Nowadays, the variable cost (mainly motorfuel) of driving a motorcycle is too small if compared to the fixed cost (ownership). Increasing the tax on motorfuel should encourage people to drive less and thereby reducing the negative externalities (air pollution by fumes, noise pollution by honking and exhaustpipe and of course, congestion).

For a moderate driver however the total yearly price of driving a motorcycle could stay the same if an increase

of the tax on petroleum is compensated by a reduction of the salesprice of a motorcycle (removal of the import tax). Also for the government it could be a zero operation because the loss in import tax is compensated by a higher fueltax. Let me give an example to clarify how it would work.

For the moment all imported motorcycles (full assembled, semi-or complete knockdown) are subject to an import tax of more than 50%. This import tax is one of the main reasons why a Honda Dream II is almost twice as expensive here as the comparable model in Indonesia (Astrea Grand Black).

But once you have bought a motorcycle, it's actually quiet cheap to drive it. If you take a look at the table beneath, you see that for somebody who drives 30 km a day, the variable cost (not taking into account the servicing) amounts around one fifth of the fixed cost.

I made the calculation for two motorcycles; one is the Honda Dream II, the other a fictitious imported bike costing around \$2100 (inclusive import tax).

Calculation A represents the current situation with a high import tax and a fairly cheap petrol price, while calculation B is based on the net sales price (current salesprice - 50%) and a petrol price of 7000 dong. For both motorbikes, we calculate two scenario's; in the first scenario one drives 30 km a day while in the second scenario, the motorist is doing 60 km/day. Both motorcycles consume 1.7 liter per 100 kilometer and have a lifetime of ten years.

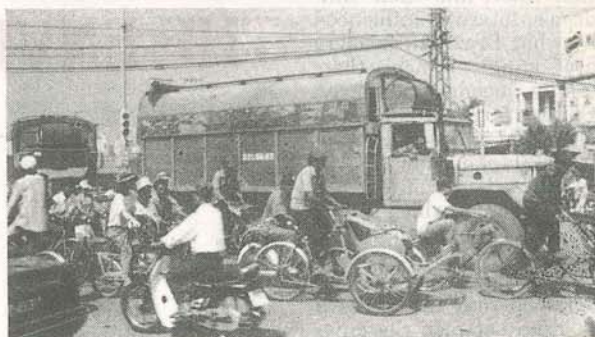
In the table we can see that for a moderate driver (30 km a day), the variable cost (=petrol) only amounts a minor percentage of the total yearly cost (16% and 21%). Environmentalists dislikes such a situation because there is hardly any relationship between the unfriendly environmental behavior and the costs.

motorcycle has become a sport and a way of entertainment at night. They seldom think about the negative effects of their conduct (unnecessary air & noise pollution) unless they will have to pay for it.

Decreasing or eliminating the import tax on motorcycles is no cushy job. AFTA (Asean Free Trade Association) and the WTO already have made recommendations for lowering import tax and tariffs in the light of free trade. Since Vietnam joined ASEAN this year they will have to anticipate the reduction of import tax anyway.

From an environmental point of view, the variability of the cost of driving a motorcycle is probably the best thing to do but from an economic point of view, we have to be critical. Increasing the price of petrol will have an immediate effect on the cost of production and the competitiveness of the Vietnamese-industrial countries.

Some countries however have already introduced a two-price system for the same petroleum product (e.g. Belgium). In that way only motorvehicles are obliged to use the high price petrol, while tractors and industrial machines can run on low-tax petrol ■



	Price in Dollar	Price in đồng	Depreciation (10 years)	Km/year	Petrol price	Variable cost/year	Total cost per year	Variable/Total cost
H.Dream II, 30 km/day								
A. Current sit.	2,850	31,350,000	3,135,000	10,950	3,200	595,680	3,730,680	16%
B. Alternative	1,900	20,900,000	2,090,000	10,950	7,000	1,303,050	3,393,050	38%
H. Dream II, 60 km/day.								
A. Current sit.	2,850	31,350,000	3,135,000	21,900	3,200	1,191,360	4,326,360	28%
B. Alternative	1,900	20,900,000	2,090,000	21,900	7,000	2,606,100	4,696,100	55%
Moto 20-30 km/day								
A. Current sit.	2,100	23,100,000	2,310,000	10,950	3,200	595,680	2,905,680	21%
B. Alternative	1,400	15,400,000	1,540,000	10,950	7,000	1,303,050	2,843,050	46%
Moto 20-60 km/day								
A. Current sit.	2,100	23,100,000	2,310,000	21,900	3,200	1,191,360	3,501,360	34%
B. Alternative	1,400	15,400,000	1,540,000	21,900	7,000	2,606,100	4,146,100	63%

The Polluter Pays Principle tries to reduce the negative environmental effects by putting the cost of the negative externalities on the person or the company causing the pollution. If we would increase the price of petrol from VND 3200 to VND 7000 and at the same time lower the salesprice of motorbikes by eliminating the import tariff, the total yearly cost for the moderate driver who travels 30 km a day would reduce or stay the same (Honda Dream: VND 3,7 mln to 3,4 mln, Moto II: 2,9 mln; little change).

People however, who drive a lot, will be penalized by higher cost (compare both scenario's). The argument is that unnecessary travel by motorcycle will be eliminated or reduced and that people start thinking before they drive. For too many young people in HCMC, riding a

