

Subject: Environmental economics

Course code: ECON3029

Topic: Pollution Tax and Environmental Subsidies

B.A. Economics (6th Semester)

Nitish Kumar Arya

Department of Economics

Mahatma Gandhi Central University

Motihari, Bihar (India)

Email: nitish.1424@gmail.com

Pollution Tax

- Pollution tax is an element of economic mechanism designed to reduce pollution and its negative effect on the environment.
- Pollution taxation charges polluters for the damages their actions cause the environment and others. Such taxes reduce environmental harm in the least costly way, by encouraging changes in behaviour that reduce pollution.
- The taxable object shall be physical, chemical or biological pollutants having negative effect on man and environment. The taxes shall be determined taking into account the amount of pollutants, their injuriousness, the standard and the time of its implementation.
- Pollution tax shall be paid by legal and natural persons who pollute the environment and for whom the standards have been determined.

Why Pollution Tax

- Shift the burden of pollution onto those responsible for it
- Create a price for harming the environment
- Discourage pollution and protect the environment
- Encourage more sustainable behaviour
- Promote greater economic welfare



Law on Pollution tax

- Tax rates shall be established per one ton of pollutants. Tax rates for water pollutants and air contaminants according to the extent of their deviation from the standards shall be as follows:
 - 1) basic;
 - 2) increased;
 - 3) reduced
- Legal and natural persons timely not subjected to the payment of taxes shall be liable to pay same for the period not exceeding two preceding years. The period for which corrections in the erroneously imposed tax may be made, as well as the required amounts of tax may be refunded or recovered shall also embrace two years.
- The tax shall be computed according to the established form and paid by the taxable entities.

Law on Pollution tax..

- The tax shall be paid by advance payments in equal instalments computed from the total amount of annual tax which is computed according to the basic rate for the standard amount of pollutants once in three months up to the 15th day of the first month of the next quarter. At the end of the year the amount of tax shall be recalculated according to the amount of pollutants actually discharged, and annual estimates shall be filed with the State Tax Inspectorate on or before 1 February.
- Failure to pay the required tax by the due date shall incur liability for interest at the rate of 0.5 percent for each day that the tax remains unpaid
- The Department of Environmental Protection of the Republic of Lithuania in conjunction with the Ministry of Finance of the Republic of Lithuania shall control the accuracy of the computation of taxes. Taxes shall be paid for any concealed amount of pollutants, and the economic sanction of increasing the rate of tax tenfold shall be applied.

How Pollution Tax

- Phase in the implementation of a Pollution Tax regime over the next 10 years
- The tax should be revenue neutral to the province
- All available revenue should be earmarked to provide generous support to low-income families, as well as overall corporate and personal income tax relief

Environmental Subsidies

What are environmental subsidies?

The UN System of Environmental-Economic Accounting (SEEA) Central Framework defines an environmental subsidy or similar transfer as a:

"Current or capital transfer that is intended to support activities which protect the environment or reduce the use and extraction of natural resources".

- This definition includes environmental subsidies and similar transfers that are current or capital transfers according to the SNA 2008 and its European version, the ESA 2010.

Environmental Subsidies

- Subsidies are financial assistance given to organizations and companies as an incentive to change their behaviour or to help offset the costs of mandatory environmental standards.
- Subsidies are usually provided by government agencies, but may also be provided by other parties.
- Subsidies typically come in the form of
 - Grants - non-repayable sums of money given to an individual or group for environmental reasons.
 - Loans - rates are below market rates (called soft loans) and/or loan is guaranteed.
 - Tax relief - given through tax or charge exemptions, rebates or accelerated depreciation allowance for environmentally desirable behaviour.

Where are they used?

Subsidies are appropriate to:

- Encourage the use of eco-friendly substitute products and discourage the use of products that pose relatively low environmental risks.
- Accelerate environmental performance that could not otherwise be afforded, and then reduce or eliminate subsidy once the necessary changes are accomplished.
- Reduce and share the investment risk in innovative and environmentally desirable technology, which may not have adequate access to traditional sources of venture capital.

Environmental subsidies Continue...

Most often subsidies are used to support public and private-sector pollution prevention and control activities, the clean-up of contaminated industrial sites, farming and land preservation, consumer product waste management, alternative energy fuels, clean running cars and municipal wastewater treatment facilities.



Economics of Environmental Subsidies

- Environmental subsidies are a tool of the economics which was meant to help the process production to be done in more environmental friendly way by giving a legal motivation to producers, since the requirements are imposed to them by laws and/or regulations, to produce goods taking into account the environmental concerns.
- Sometimes environmental subsidies could be a very costly incentive relative to the benefits delivered (preservation and protection of the environment), and their reduction and final removal was discussed by the Organization of Economic Cooperation and Development countries (OECD).

Economics of Environmental Subsidies..

- Environmental subsidies may serve as a useful tool for creating incentives for producers to produce goods in an more environmentally friendly manner and thus to take care for the protection of environment, but the costs covered through the subsidization will not be in conformity with the polluter pays principle.
- The subsidized product will be produced through less costly process of production than other like products which are not subsidized, so the ultimate result would be market distortions.

Thank You