

Environmental policy and fiscal instruments in The Netherlands

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1. INTRODUCTION

Environmental policy in The Netherlands started in the 1960's. Water and air pollution had become urgent problems, which needed to be tackled. Later also other environmental problems emerged. Problems which were related to the economic development and the growing population of the country.

In the past thirty years new policies were developed and a number of environmental laws were installed to deal with the various environmental problems. Next to the development of these classic command-and-control instruments, a lot of attention was - and still is today - given to the role of other instruments like economic instruments, social instruments and communication instruments. More in particular, the use of a combination of these instruments, tailor-made for specific environmental problems and situation, has played a major role in the implementation of Dutch environmental policy.

Among the various economic instruments, fiscal instruments tend to become more and more important. And not only the straightforward 'environmental' taxes, but especially the development of 'greener' general taxes, either as a burden or as an incentive. One has to keep in mind however that, being a very open economy and member of the European Community, there are limitations as to what can be done in the field of greener taxes.

2. FINANCING ENVIRONMENTAL POLICY

The question of how to finance the costs of the environmental policy has been one of the main topics from the very start of the environmental policy making. The basic principle of the financing system of the costs of the environmental policy in The Netherlands is the so called Polluter Pays Principle, which was adopted in the early seventies by the European Union and by the Organization for Economic Cooperation and Development. According to this principle everyone who causes damage to the environment should pay for the costs related to that damage. In doing so, environmental costs would be internalized in the prices of products and services and - if other countries should follow the same policy - the (international) competition would therefore not be distorted as a result of necessary environmental measures.

This should be, of course, the ideal situation. But, although the concept of the principle is in essence very clear, it is in practice not always possible to implement the principle in full. The relation between pollution or effects of pollution and certain activities of polluters is not always clear to establish. Besides that, not all environmental damage can easily be expressed in financial terms. The amount of the costs of environmental damage and who should pay for these costs can therefore not always be established.

A major element of the financing system in the Dutch environmental policy is closely related to the concept of direct regulation. Where a clear relation exists between environmental damage and its causes, the responsible polluters themselves have to take measures to avoid or diminish their pollution. Those measures can be imposed on the basis of direct regulation, such as licensing and permits, or can be agreed on in so called voluntary agreements or covenants. In those cases the polluters concerned must also bear the costs of these measures. One could say that the Polluter Pays Principle is here applied in a most direct sense. The environmental costs on the basis of direct regulation amount to almost 10 billion guilders (\$ 5.4 billion) in 1997, which is about 48 percent of the total environmental costs in The Netherlands.

So almost half of the total costs of environmental policy in The Netherlands is directly paid for by the polluters involved.

This means that the other half is financed by other, more indirect ways. In several cases

specific charges are used, while a part of the environmental costs also is financed out of the general budget of the government. Different forms of taxation play therefore also a role in the financing system of the environmental policy in The Netherlands.

3. DIFFERENT TYPES OF ENVIRONMENTAL TAXES AND LEVIES

Discussions about environmental taxation often distinguish between different types of levies. The Netherlands' Scientific Council for Government Policy, for example, distinguishes them according to their primary purpose and the way the revenue is used. Following this interpretation one can distinguish between earmarked charges, regulating charges and environmental taxes.

3.1. Earmarked charges

The primary purpose of earmarked charges is to generate revenues to pay for certain environmental activities or investments. The rate of the charge is determined by the funding needed and the volume of the tax base. The environmental effect is primarily a consequence of the use of the revenue. Dependent on the rate, however, the charge itself may also have a regulating effect.

Earmarked charges can be used where it is not possible to make a direct link between the causes of pollution and the measures to deal with them on an individual level or where this may not be an efficient approach. Instead of individual measures of polluters themselves, collective measures may be a more appropriate solutions for the environmental problems. The costs of such collective measures can be covered by charges to be paid by the polluters concerned.

Earmarked charges in The Netherlands are mainly used to finance environmental policies of regional and local governments, like provinces, water boards and municipalities. Charging systems for waste collection and disposal and for sewerage systems of municipalities and for the waste water treatment by provinces and water boards are examples in this respect. Total revenue of the charges of the regional and local governments is currently almost 6 billion guilders (\$ 3.2 billion).

Central government uses only in a few cases earmarked charges to finance some specific policy fields. This concerns charges related to aircraft noise, manure surplus and water pollution regarding the state waters. The total revenue of these charges is a relatively insignificant amount of 160 million guilders (\$ 85 million).

Although it is not possible to fill in the "Polluters Pay Principle" in full, in the case of earmarked charges one might speak of "Polluters Pay" to give a general description. The total of the revenues of the earmarked charges in the country covers about 30 percent of the total environmental costs.

3.2. Regulating charges

The purpose of regulating charges is to give price incentives in order to change economic behavior, irrespective of any funding which might be required for abatement measures. The rate of the regulating charge is in principle determined by the environmental objective related to the base of the charge. To avoid any second thoughts on behalf of the taxpayers, revenues of the regulating charges could be returned for example by lowering other taxes. Regulating charges are not supposed to have a structural role in the financing system of the environmental policy.

A recent example is the regulating **energy tax**, which was introduced in The Netherlands in 1996. On the introduction was decided when it became clear that an european wide CO₂/energy tax - a tax measure the Dutch government always strongly had supported - could not expected to be implemented by that time. The European discussion about such a tax was - at least for the time being - at a dead end. At the moment, however, the European Commission is working on new proposals for energy taxation in the European Union. The discussion on the european level can therefore be expected to go on very soon.

The Dutch regulating energy tax is focusing on small scale energy consumption: households, small commercial establishments such as restaurants and shops, office buildings, schools and so forth. These are target groups which are difficult or impossible to reach with policy instruments such as long term agreements or environmental permits. The regulating energy tax provides an important addition to the set of policy instruments currently being used to encourage energy conservation and reduction of CO₂-emissions in

The Netherlands.

Some industries are exempted from the tax in order to avoid the economic risks which would result from unilateral imposition of an energy tax on large industrial energy users facing competition from countries where such a tax is not in force. However, this observation does not mean that the industry has no obligations regarding energy saving. Other instruments than taxation are more suitable for that purpose. Industrial energy conservation is being realized in the context of long term agreements that industrial sectors have signed with the government. In these agreements sectors commit themselves to take measures to improve their energy efficiency by an average of 20 percent over the period 1990-2000. Since these policy instruments are proving to be effective in inducing large energy consumers to save energy, exposing them to the economic risks of a unilateral tax was felt to be unwarranted.

The Dutch energy tax features some interesting provisions to promote environmentally friendly options. First, there is a tax-exemption for heat supplied via district heating. This improves the competitive position of district heating relative to individual central heating, thus contributing to the expansion of the district heating in The Netherlands. The second provision is one which exempts natural gas used for electricity generation. This might contribute to a greater use of cogeneration of heat and electricity. And third, there is a special provision for energy generated from renewables (water, wind, solar and biomass), stimulating their use.

The tax is expected to raise about 2.1 billion guilders, including VAT to be paid over the tax, (\$ 1.1 billion) structurally in 1998 when the rates reach their ultimate level, as foreseen in the tax law. These revenues are recycled through relief in other taxes paid by households and businesses. Since one of the ideas behind the tax was to shift taxes from labor to the environment, labor taxes were the first choice as a recycling instrument.

3.3. Environmental taxes

Environmental taxes combine funding and regulation by introducing environmental considerations into the tax system. They can thus be a contribution to the "greening of the tax system", a subject which has become an important issue in The Netherlands as well as in other countries of the European Union and at the Organization for Economic Cooperati-

on and Development. Environmental value is added as a tax basis to the traditional system of taxing income, capital and consumption. And since the prime purpose is funding, this also determines the rate. The regulating effect of the price increase is a secondary effect, albeit it can be a desirable one. To prevent the overall tax base from being eroded, environmental taxes can best be levied on environmental resources for which demand is fairly constant (or in economic terms: when there is a low price elasticity of demand).

The revenues of environmental taxes accrue to the general budget of the government. As mentioned previously, a part of the total environmental costs are paid out of the general budget, because a lot of expenses of the government for environmental policy could only be linked very indirectly to certain kinds of pollution. In general it would not be possible to say which specific polluters are to be held responsible for the need of the expenses involved and in relation to that who should pay for those expenses. The Polluter Pays Principle is here difficult to apply, or may be only in a very indirect way by means of very general environmental charges. In that case there is not a specific link any more between pollution and its effects and the taxpayer.

Important categories of expenses by the central government, where a clear link with specific causes of pollution do not exist or where the polluters can not be traced, are for instance expenses for soil sanitation (especially in cases of "historic" pollution), research expenses, expenses for the promotion of environmental technology, energy conservation and sustainable energy, payments to other governments (provinces, municipalities), bilateral and multilateral international cooperation and of course the costs of the government organization itself. The environmental expenses out of the general budget will be an ample 4 billion guilders (\$ 2.2 billion) in 1997. This is about 22 percent of the total environmental costs.

4. DEVELOPMENT OF ENVIRONMENTAL TAXES

In the 1970's and 1980's the Dutch environmental policy was characterized by a number of sectoral environmental laws. These laws together created possibilities for at least 15 different levy systems, of which only some were actually in force at that time. Each levy

was supposed to finance the costs of the corresponding policy field, in accordance with the Polluter Pays Principle.

This system of different levies for different programs resulted in fragmentation and lack of transparency for tax payers. It was feared that continuing along the road of "different levies for different programs" would lead to tax collection systems in which the administrative costs were disproportionately high compared to the rather small revenue raised. There arose a need for a more integral system for financing environmental policy expenditures. In 1988, these levies were therefore replaced by one fuel charge, earmarked to finance the costs of the governments' environmental policy. Fuel was chosen as the tax base because it was felt that this would provide a general link with the Polluter Pays Principle. A great deal of pollution is directly related to fuel use. There is also a more indirect linkage, namely that fuel use can be seen as a rough indicator of activities which result in pollution. Nevertheless, the relationship between the tax and (the financing of the cost of) the environmental problem decreased, for the sake of simplicity of the tax system. In the period 1988-1992 environmental policy intensified and the revenue of the fuel charge had to rise accordingly. This higher revenue amplified ongoing discussions about the relation of the fuel charge with the Polluter Pays Principle. Why should, in the end, users of energy have to pay for soil purification or chemical waste policy? In 1992 it was therefore decided that the revenues raised would no longer be earmarked for environmental expenditures but would accrue to the general budget. Consequently, the fuel charge became a fuel tax. Environmental expenditures of the central government were from that moment on to be paid from the general budget. Needless to say that this change of names did not alter the effect of the tax on energy prices at all.

The government proposal in 1991 to raise the fuel tax substantially for budgetary reasons led to fierce resistance by the largest energy-intensive companies. In reaction, Parliament asked the government to look for other taxes with an environmental base. Taxes on the extraction of groundwater, the dumping of waste and on the use of uranium for the production of electricity were consequently introduced in 1995. The revenue of these taxes goes, like the revenue of the fuel tax, to the general budget of the government. The government argued that by introducing these taxes other taxes (like those on income from labor) did not have to rise. Introducing environmental taxes lead in this reasoning to an

implicit tax shift to the environment, by increasing the share of environmental taxes in total tax revenue.

The total revenue of the environmental taxes - on fuels, waste, groundwater, uranium - and the regulatory tax on the small use of energy is expected to rise to an amount of about 4 billion guilders (\$ 2.1 billion) in 1998, which will than be about 2.5 percent of the total tax receipts of the Dutch government. This percentage may seem not very high, but with the introduction of these environmental taxes, we have made some important steps in the process of "greening the tax system". The Dutch government has set up a special Green Tax Commission to study further possibilities and to make proposals in this respect.

5. FISCAL INCENTIVES AND SUBSIDIES

Subsidies financed from the budget are still used in The Netherlands, especially in the field of research and development and the stimulation of new techniques. However, their role is increasingly taken over by fiscal incentives. These incentives consist of amendments to existing tax laws, like the personal income and corporate tax. The introduction of such instruments can also be seen as a contribution to the "greening of the tax system".

5.1. Accelerated depreciation

In 1991 the scheme for accelerated depreciation for investments in environmentally friendly equipment was introduced on the initiative of Parliament. This scheme is not supposed to trigger certain investments as such, but it should stimulate that already planned investments will go into a more environmental friendly direction. This accelerated depreciation give companies the freedom to choose how to write off the costs of investing in a piece of equipment.

Accelerated depreciation keeps taxable income down so that in the year concerned companies pay less income tax or corporate tax. Of course in later years there will be less to write off, but it is precisely the deferral of tax payments which is of benefit to companies' cash and interest position. Depending on the write-off period and the interest rate this

advantage can be calculated at 5 to 10 percent of the investment sum.

Accelerated depreciation is only possible for equipment that is specified on a so called environmental list, which is updated every year by the Ministry of Environment. The list includes equipment in the field of water pollution, soil pollution, waste, noise and energy saving.

To qualify for the list, equipment should meet some specific criteria. For example, for reasons of controllability and feasibility, the equipment or asset must be quickly and unambiguously definable both in technical terms and in terms of cost structure. Moreover, the equipment or asset should not yet be in common use in The Netherlands. The penetration rate of the market should be below 30 percent of the potential outlets for a certain application. This feature makes the accelerated depreciation scheme an important instrument in promoting the dissemination and market introduction of new developed technology.

There is a close link between government sponsored R&D and the accelerated depreciation scheme. About 60 percent of the technologies placed on the list were sponsored by the Dutch government in an earlier phase of development, most through demonstration projects for new technologies. Thus the accelerated depreciation scheme complements the R&D programma by facilitating market penetration and encouraging diffusion.

5.2. Green investment

Possibilities of investing in green investment funds tax free have been available in The Netherlands since 1995. This means that private investors are not taxed on their interest and dividend payments, provided that these payments derive from investment in certain green investment funds. These green investment funds, in turn, have to invest in certain green projects. The aim of this tax concession is to encourage investment in major environmental projects, involving forests and nature areas, sustainable energy supplies and environmental technology.

The initiative for tax free green investment was taken by Parliament in The Netherlands, which considered it desirable to get Dutch citizens more involved in investing in green projects. The reasoning was that by offering fiscal incentives, more savings would be made available for these green projects. Such projects are often difficult to finance, since

they do not always provide the lavish returns the market expects. By ensuring that investors' returns on such projects are untaxed, this allows them to compete with the returns of regular investments funds on the market, which are normally taxed. So green projects offer not just a sound environmental yield, they also provide a sound financial return as well.

Returns on investment are only free from income tax if they come from green investment funds. Green investment funds are obliged to invest at least 70 percent of their total assets in green projects. Green projects are labelled as such by the Dutch government. Green projects should be new projects which are important for environment and nature, generate some return but cannot be funded in a normal commercial way. Categories of green projects are:

- Projects in the field of nature, forestry, landscape and organic farming.
- Green mortgages. These mortgages can then be granted at a lower interest rate for houses which score high environmentally because they are economical with energy, have been built from environmentally friendly building materials or using an ecologically benign building processes.
- Projects in the field of renewable energy. These can be wind, solar, or geothermal energy, energy from hydro power, from timber or energy rich crops, the use of heatpumps, the storage of heat or cold in aquifers, and the heat distribution networks for district heating and the heating of greenhouses for market gardens.

At the moment, all large Dutch banks offer green investment funds to their clients. The largest share of the projects these funds invest in consists of projects in the field of organic farming and energy.

5.3. Energy investment tax allowance

On 1 January 1997 a special energy investment allowance was introduced. This allowance is a provision in the personal and corporate income tax. It is comparable to the investment allowance for investments that already existed in The Netherlands. The energy investment allowance makes it possible for firms to subtract a percentage of the investment sum from the profit of the firm. In this way, the firm gets an advantage because less profit tax has

to be paid to the Treasury. Depending on the modalities that are ultimately chosen, the advantage will amount to about 10 to 15 percent of the investment sum.

Investments that qualify for the energy allowance are specified on a list. This list contains in the first place all energy items that are also on the list for accelerated depreciation among which renewable sources like wind, water and solar energy. For these innovative investments there is thus a double incentive. In addition, the list contains investments in specified equipment for energy saving, but which are not innovative and therefore not on the list for accelerated depreciation. Finally, the energy investment allowance facilitates energy saving investment in production processes satisfying a certain energy saving requirement.

6. FUTURE DEVELOPMENTS

The use of economic instruments in The Netherlands is not so much the result of a deliberate choice of the Dutch government at a specific point in time, but it is the result of a continuing political process taking place over the years. Political preferences of governments change, especially after elections. This is one of the reasons that the weighing of environmental effectiveness, revenue requirements, feasibility, competitiveness of firms and purchasing power of the citizens can lead to a diffuse outcome. Each economic instrument has its own history and background. Without understanding of the instruments genesis, it may often be difficult to see the rationale for the modalities chosen.

Nevertheless, the above mentioned fiscal instruments all contribute to the Dutch effort to further 'green' the tax system. Existing fiscal instruments will be amplified by differentiated tax rates and target groups. New instruments will very much be geared to transportation, the use of automobiles in particular, and to consumption. The Dutch VAT (Value Added Tax) could be a very useful tool to stimulate or discourage the consumption of particular goods and services. One must recognize however, that the Dutch membership of the European Community brings its limitations as well as new chances.

In its efforts to create uniformity between tax systems and to avoid unlimited

taxcompetition between members, members of the EC have only limited playground to use their national tax system to pursue national goals. This in particularly the case for differentiating the VAT on a national level.

On the other hand the EC-members recognize that fighting unemployment is the biggest challenge facing the EC today. One of the options under consideration is to lower the taxation of labor. An alternative tax base, to prevent erosion of public expenditure, could then be consumption, or factors of production other than labor. At this point, an increased use of environmental and energy taxes and differentiating the VAT could support national budgets and at the same time help the EC in its task to promote sustainable economic growth which respects the environment.