

Instruments for Sustainable Development

**Environmental Tax Reform
Green Public Procurement
Ecolabelling**

The Danish Ecological Council



“Instruments for Sustainable Development”

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Preface

With the present booklet, the Danish Ecological Council wishes to spread awareness of three major instruments in creating a sustainable development.

1. Higher environmentally defined green taxes and removal of subsidies and tax rebates detrimental to the environment, as part of a green tax reform.
2. The possibilities and potentials of a consistently implemented green public procurement policy.
3. The environmental possibilities utilising and reinforcing various types of ecolabelling schemes.

The selected instruments will be extremely effective in achieving a more sustainable development in Denmark respecting the tolerance limits of nature.

Moreover, the three selected tools should be considered in the light of their interplay with other forms of intervention, e.g. bans, standards, subsidising schemes, public information, etc.

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”Green taxes and duties in EU and Denmark”

” Green public procurement – the obvious solution?”

”The Flower and the Swan labels – do they work?”

The booklets are available in Danish only. They can be read and downloaded on the website of the Danish Ecological Council:
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Sustainable Development

Sustainable development is a development “meeting the needs and aspirations of present generations without compromising the ability of future generations to meet their needs”.

The above condensed version of the Brundtland Commission’s definition of sustainability thus encompasses three major considerations:

- Securing the possibilities of future generations to meet their needs, which is impossible unless a global redistribution takes place, to level today’s monstrous inequalities between rich and poor.
- To secure nature and its diversity as the basis for continued life on Planet Earth.

The possibilities of present generations of having their needs met are grossly unbalanced. In fact skewed to the extent that a fifth of the world has to subsist on less than a dollar a day, and half on less than two dollars a day.

Overall, the living conditions of global plant and animal life are steadily deteriorating, and global consumption of renewable and non-renewable resources is far too great.

The need for a 50 per cent global reduction in our present resource consumption and pollution levels has been established from several quarters, including the UN Brundtland Commission in 1987.

The Ecological Latitude and Factor 10

If such halving is to take place, while providing more equitable living conditions for the global population, this implies that the western world will have to cut back by 90 per cent – the so-called Factor 10 concept.

Moreover, when such reduction has to take place with regard for the preservation and restoration of our global natural basis, we can use the concept of “the ecological latitude” as a point of reference.

In brief, the concept of “ecological latitude” reflects the amount of resources and environmental impacts allowed for each human in the way of consumption and disposal, while respecting Nature’s regenerative capacity and equitable consumption rights for the Earth’s population.

Market-based instruments

When it comes to moving on towards a state of globally sustainable development, the application of economic and other market-based instruments appears to gain ever more importance as supplements to e.g. bans, norms and standards.

Economic and other market-based instruments harness the market mechanisms to bring forward environmentally sustainable development in a market economy society.

Thus, market-based instruments can be organised in a variety of ways. Those most commonly used are:

- Subsidies e.g. for extra insulation and development/marketing of cleaner technology and products.
- Green taxes on resource consumption, goods, and environmental impacts relative to the resource consumption and environmental impacts generated by products.
- Tradable resource or emission quotas, for which gradually lowering ceilings have been laid down, thus approximating consumption or emissions to nature's tolerance limits.
- Product information in the form of declaration of contents and ecolabelling, thus to underpin environmentally friendly consumer choices.
- The laying down of a green procurement policy – especially for public purchasing – to generally reduce environmental impacts generated internally, to set a good example to private consumers, to encourage manufacturers and retailers to produce and market environmentally friendly products, and to provide incentives for product development and economies of scale in ecolabelled products.

Incentives to using economic instruments are increasingly in evidence in recommendations issued by several national and international organisations, including the EU Commission and the heads of governments of the OECD co-operation, who recently adopted their sustainable development strategies with considerable emphasis on the use of economic incentives – especially regarding the pricing of goods and products.

Environmental Tax Reform

A green tax reform will not necessarily lead to tax rises, will not necessarily skew income distribution, and will not necessarily compromise corporate competitiveness in a general way.

Principles of a green tax reform

The purpose of a green tax reform is to improve the environment. A green tax reform means: paying taxes differently. Basically, a green tax reform has nothing to do with how much tax we pay. The tax burden is not determined by how we pay taxes, but by the magnitude of public spending and saving/external debt service.

The principle of a green tax reform is that we begin by paying for our consumption of resources, use of hazardous substances, and for 'pollutive' behaviour.

As a result, the cost of using resources and hazardous substances and discharging pollutants will rise. This will cause companies to economise still more with resources, find less hazardous substances, and reduce pollution resulting from the production, use, and disposal of goods and products. At the same time the increased cost of environmentally questionable products will make consumers more inclined to demand environmentally friendly goods and products, thus making them more affordable in relative terms.

Generally, green taxes should be fixed for each to have a magnitude that will cause consumer and manufacturer behaviour to move towards an environmentally sustainable level. This will produce a revenue, which – if insufficient to cover public expenditure and saving – will have to be augmented with other taxes, typically income taxes. Thus, in a green tax reform, general income taxes and duties (e.g. VAT) work to supplement the green taxes, also in case, at a given time, their revenue actually exceeds that of the green taxes.

This is not the case at present. Today, green taxes merely supplement the ordinary income-based tax system, which is why they are often perceived as an extra tax burden.

Whenever new or increased green taxes are tabled, as part of a green tax reform, the revenue from such taxes should be spent such that

the aggregate net taxation, social impacts, and industrial competitiveness will largely remain constant upon implementation of a green tax reform.

If additional funds are needed for a major effort addressing environmental issues that go beyond the environmental effects of the green tax reform, this should be done as part of the overall political prioritisation of public spending, and not by raising green taxes beyond the levels required to achieve behavioural change and earmarking them for specific purposes.

Green taxes used as instruments towards environmental goals in Denmark up till now

Over the 1990s, Denmark – in line with Sweden – has made a targeted effort to integrate environmental considerations in its tax system. Thus, a green tax reform was carried through in 1993, mainly targeting households, a green tax reform in 1996, mainly targeting industry, and a green tax reform in 1998, comprising households and industry alike.

Further to these tax reforms, new green taxes were introduced and existing green taxes raised, while increases in social benefits and lowering of the bottom income tax rate meant that those with the lowest incomes were not left to carry a heavier burden than before.

Similarly, higher green taxes on industry were organised with exemptions and refunds to ensure that industry as such did not lose competitiveness abroad. For instance, the CO₂ tax on industry was graded according to the energy-intensity of the industrial sectors and recycled as subsidies for energy savings and reliefs on companies' employment costs.

Thus, Denmark stands out as a pioneering country when it comes to applying economic management instruments in its tax system and serves as a model for a number of (especially European) countries that have increased their use of economic incentives in national green tax reforms over the past few years.

The chapter "Green taxes in Denmark" on page 17 gives a brief roundup of Danish green taxes, including an overview of the Danish income tax structure and revenues from green taxes.

Green taxes and duties are effective

The Danish experience proves green taxes and duties to be environmentally effective. Consumption of disposable plastic bags and chlorinated solvents has declined considerably ever since they were

taxed. The high vehicle registration fee translates into fewer cars purchased in Denmark than in our neighbouring countries. Conversely, due to our relatively modest petrol tax, mileage is high. Danish energy taxes on household consumption have produced a large-scale extra insulation of Danish private homes.

Social distribution can be upheld

Objections to green tax reforms often amount to a claim that green taxes have a social bias. For most green taxes, this is true, since they do not meet the principle of letting the broadest shoulders carry the heaviest burdens.

Thus, in order to maintain social equilibrium after a green tax reform, it is necessary to make social adjustments, e.g. by introducing a floor for the levying of green taxes.

Moreover, a green tax reform is based on the tax system as a whole, meaning that any social bias can be compensated by reducing the bottom tax rate and increasing a number of social benefits, e.g. child allowances, housing subsidies, state educational grants, national old-age pensions, unemployment benefits, heating subsidies, etc. Thus, a green tax reform aims to uphold the social distribution of the tax system.

Competitiveness can be upheld

Additionally, a national green tax reform should aim to generally maintain the foreign competitiveness of companies, while also using economic instruments to make companies move towards a more sustainable behaviour.

This is done by adopting higher tax rates on business resource consumption and pollutive behaviour.

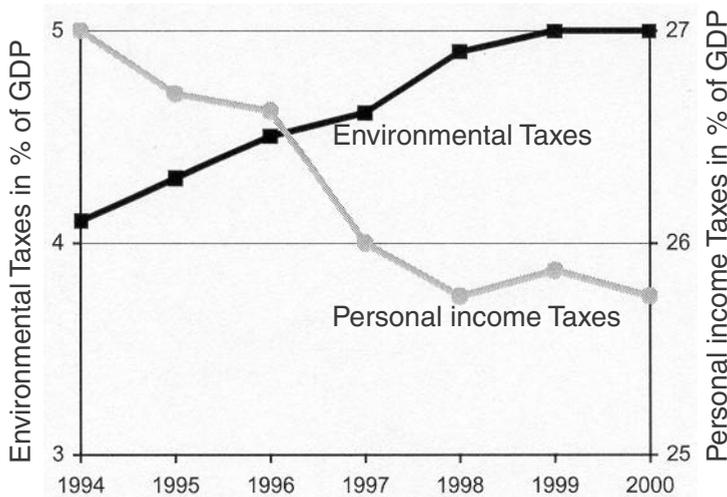
National revenues from such taxes can then be recycled to industry and service trades, e.g. by reducing their employment-related costs, by subsidies for e.g. energy efficiency investments or for developing cleaner products, or by an overall tax-cut on economic activity.

Have we reached the pain threshold?

It has been proclaimed from several quarters that the limit to more green taxes has been reached – either because green taxes have a social bias, or because they are not considered a reliable source of national revenue. As already mentioned, their social bias can be compensated, and actually, the main part of those taxes provides stable sources of income. The Danish Ecological Council finds that provided a green tax reform is configured appropriately, we are indeed very far from the pain limit.

A small-scale Danish green tax reform

A redirection of tax on labour to tax on resource use and pollution took place in the period 1994-2000. A good 2 per cent of tax revenues were redirected from income tax to green taxes – even such that the eased tax burden for income tax was a little more than the increased pressure of green taxes, which is seen from the below graph.



Note: The breakdown is based on income taxes including labour market contribution. When comparing income tax pressure we have to allow for the 1994 introduction of a 5 per cent labour market contribution, to increase incrementally to 8 per cent.

Source: "Grønne afgifter - sætter pris på miljøet", Skatteministeriet, 2000. [*"Green taxes – appreciate the environment", 2000; the Danish Ministry of Taxation and Revenues*]

A green tax reform spurs sustainable action

Responses to a green tax reform with sufficiently strong price signals fall in five phases showed at next page.

Phase 1	Consumers try to economise with the product, e.g. by turning down the heating, having shorter showers, or leaving out the car trip to the baker's.	Phase 1 practically happens immediately. However, the effect is limited.
Phase 2	Consumers begin to demand products offering the same service, though with less consumption. E.g. by demanding cars that return higher mileage per litre, or by buying Class A appliances.	Phase 2 is slow in starting up and only ends once e.g. all appliances have been replaced by more energy-efficient ones.
Phase 3	Manufacturers awake to increasing demand for e.g. energy efficient products and wish to launch a development process towards better appliances in terms of energy, in order to meet customer demands.	Phase 3 runs in tandem with Phase 2, though slightly offset in time. Following a period of perhaps several years Phase 3 will yield considerable results.
Phase 4	The state and manufacturers invest in developing energy efficient systems and technologies that e.g. can operate without the use of fossil energy.	Phase 4 is slow to gain impetus and takes a number of years to reach full impact. This owes to the sluggishness of infrastructural change and new technological developments.
Phase 5	The need for e.g. energy falls due to changes in constructions, infrastructure, and lifestyle.	Phase 5 only fully breaks through over several decades.

Source: "Ecological Tax Reform", Von Weizäcker and Jesinghaus, 1992

Green tax reform is recommended

A green tax reform with a continuing conversion of income tax into taxation of resource use and 'pollutive' behaviour is recommended by a wide circle of international organisations such as OECD, The World Bank, The EU Commission and The European Environment Agency (EEA).

Taxes need to secure sustainable development

The recommendations held in the sustainable development strategies of both OECD and the EU Commission spring from the view that market forces must be made to pay more regard to the environment, which is obviously a good thing.

The core philosophy is for taxes to be set in a manner allowing continuous reduction of pollution to the point where the cost of further reduction will exceed the money saved by less pollution. This is in complete agreement with current economic theory. However, the

problem is that this would imply setting a price on the impacts of environmental pollution. Presumably, some of those impacts may well be valued without major problems, based on existing market prices. Yet, many cannot. They include the greenhouse effect, increased morbidity, lost lives, fewer 'environmental assets' (eg. reduced biodiversity, less lark's song).

Even based on the very premises of economic theory, a valuation of such consequences is fraught with several major theoretical and practical problems. We will merely state two. First, such calculations presuppose that life and welfare can be expressed in terms of willingness-to-pay. If a Danish citizen is prepared to pay more for owning a car that uses excessive petrol than a citizen in Bangladesh will pay for a life insurance, then the Dane's car purchase is 'worth' more than saving a citizen in Bangladesh from a storm surge. Second, environmental damages occur across long periods, and such calculations typically assume a discounting of future costs to present value at e.g. 5 per cent annually. This implies that expenses to be paid e.g. a hundred years from now are practically inconsequential today.

Even more important than these aspects is the principle itself. Applying this principle on matters of environment implies that the environment is considered as a completely trivial consumable, and that we as consumers are entrusted to choose between environment and other consumables, basically as we choose between cornflakes and salami in the supermarket. It will be merely a matter of chance if the prices emerging from such an exercise will be substantial enough to ensure a sustainable development. It is often adduced that we are in fact already forced to value lives and health when prioritising resource allocations for the health sector. However, unlike the health sector, precisely environmental issues are often associated with a time lag and global impacts, while the health sector will prioritise between diseases here and now, and in Denmark.

By contrast, tax rates in a green tax reform should reflect what is needed to bring about the behavioural change needed to achieve global sustainable development with regard for nature's tolerance limits. We already have a bulk of knowledge on how consumption will rise or fall with changed prices. We can use our knowledge in setting the green tax rates to be used in a green tax reform so as to obtain the desired technological and behavioural changes in a market-based world. Hence, the resulting consumption volume will respect tolerance limits, both for resource use and pollution impacts.

In popular terms: As a minimum, consumption and pollution have to be expensive enough to keep the total consumption and pollution within maximum permissible levels – for instance as expressed by ‘The ecological latitude’.

Nature’s tolerance limits and ‘The ecological latitude’

Basically, Nature’s tolerance limits or ‘The ecological latitude’ defines the amount of resources available to each individual and the amount of pollution that each individual is permitted to generate, without exceeding the limits of nature’s regenerative capacity.

If we wish to set the rates of our green taxes and duties at levels that will keep our resource consumption and discharge of pollutants within a maximal permissible level, by a global perspective, it is imperative that we are able to pin down the size of those levels.

However, nature’s tolerance limits cannot be established scientifically once and for all – first because we will never have sufficient knowledge of nature’s functioning to fix them in precise terms, and second because tolerance limits will vary both over time and in relation to conditions of geography and climate, and will also depend on the relevant human activity.

On the other hand, it is not that we are completely ignorant of nature’s tolerance limits. For environmental toxins such as TBT and PCB, for instance, tolerance limits can be set with certainty at very-near-zero, and by now tolerance limits for greenhouse gas emission are pretty well-researched.

The position of The Danish Ecological Council is that relevant tolerance limits to human impacts on nature must be laid down in policies, based on extensive professional documentation, with due regard for meeting the precautionary principle and a principle of global justice, and showing consideration for the living conditions of future generations.

Based on such politically established tolerance limits, sustainable resource consumption and discharge of pollutants can be brought about for every single country and every single individual, using a package of bans, norms and standards, and by imposition of green taxes and duties to limit consumption and pollution.

Environmentally adverse subsidies and grants must be abolished

As a first step, all present subsidising and rebate schemes must be scrutinized to identify the many schemes that have environmentally adverse effects and therefore work counter to a sustainable development. These include subsidies for coal and nuclear power, the tax de-

duction for transport that makes commuting over long distances cheaper, certain green tax made deductible for the industries, farming subsidies encouraging more intensive and environmentally harmful agricultural practices and many more.

These environmentally adverse subsidies need to be removed or re-directed as soon as possible.

Calls for the removal of environmentally harmful subsidies have also been made in the EU Commission draft for an EU sustainability strategy. The Danish government prepares an annual environmental appraisal of the national budget. In it, the Ministry of Finance and other ministries must specify whether e.g. subsidies and tax exemptions have adverse or positive environmental impacts. However, this work has not been undertaken seriously so far, in several respects. Thus, ministries will apparently state – merely perfunctorily – that they administer no environmentally adverse subsidies.

Double dividends

A green reform, regardless of its starting point, will offer several economic advantages at the same time.

Increased green taxation will let citizens benefit from environmental improvements, and at the same time a lower tax on labour will boost employment, hence increasing the national revenue.

This dual economic benefit of a green tax reform is termed 'double dividends'. Several international studies have demonstrated, though with some uncertainty, that even small-scale green tax reforms will generate 'double dividends'.

One might ask, then, if increased employment would at all benefit Denmark, where voices are being heard talking about lack of manpower. However, this is most of all a matter of education and of creating an accommodating labour market, since several thousand employable people are excluded from the labour market.

Waiting for the ban

A minor part of Danish green taxes are used prohibitively, as instruments to be adopted at rather short notice for substances or products considered ecotoxic enough to require phase-out as soon as possible. Green taxes can be introduced nationally, while EU-wide directives on common duties or straightforward bans can even have a long lead-time before taking effect.

Green taxes will render it attractive for manufacturers to develop new products or production practices without the substances in point, and hence they will both quickly reduce the use of such sub-

stances and products and also clear the way to an actual ban. Revenue from these green taxes will cease once the use of substances subject to tax has been discontinued as planned.

Green taxes generate revenues

In Denmark, the most significant taxes (e.g. on cars, energy, and water) are not imposed in view of discontinuing use, but in order to reduce it as much as required out of consideration for the environment and a sustainable development.

These green taxes will provide positive tax revenue to the government, counties, and municipalities, even though these revenues are in part recycled for environmental purposes and to ensure both social cohesion and income distribution and competitiveness of firms. Today, the cost of hospitals and general welfare is typically covered by revenue from tax on labour. There is nothing to hinder that a larger proportion of that spending could in the future be covered by higher tax revenues imposed on resource consumption and pollution, enabling considerable cuts in e.g. income tax.

However, if increased tax revenue from a green tax reform is used exclusively to pay for environmental clean-up operations and prevention, then the option of reducing other taxes is barred, thus eliminating the double dividends of a radical green tax reform.

Green taxes are visible

For green taxes, a considerable part of their environmental efficiency lies in their visibility. Indeed, the point of taxing resource use and pollutive behaviour is to prod population and companies to deliberate, on an ongoing basis, whether their purchases or actions have grown too expensive because of green taxes. And the higher the green taxes, the greater their environmental efficiency.

Typically, visibly high taxes are not immediately popular.

On the other hand, individual citizens or companies will have clear options of reducing their own tax payments by consciously displaying environmentally responsible behaviour.

Green taxes can motivate voluntary agreements

Green taxes can also be used in motivating companies to enter voluntary agreements.

In 1999-2000, the Danish government finalised a green tax on MTBE, an additive used in high-octane petrol, which can easily contaminate groundwater. To avoid this tax, petrol companies entered a voluntary agreement restricting the sale of 98-octane petrol to a few filling sta-

tions. Practically all cars can run on 95-octane petrol, which no longer contains MTBE.

The continued possibility of imposing high green taxes on MTBE will stand warrant that the voluntary agreement is being met.

Green tax reform in other EU countries

Around the turn of the millennium, a number of EU countries, among them Germany, England, France, Italy and The Netherlands, have followed suit in converting their taxation systems, so notably taxes levied on energy consumption for transport, heating, and industrial processing have been increased. At the same time – slightly different from country to country – rises have been compensated by lower company and employee contributions to social benefit schemes, and by lower income tax rates and higher bottom thresholds. Hence, these counties have brought their energy taxes more in line with our Danish taxation system, thus considerably improving the possibilities and prerequisites of carrying through an agreed, common, large-scale green EU tax reform for all member nations.

A green tax reform can be implemented at several levels

At present, EU minimum taxes for the benefit of the environment can only be adopted by unanimous vote. Thus, many proposals on the use of green taxes for environmental purposes are today stonewalled by the veto of individual countries. The Danish Ecological Council therefore recommends that common EU minimum taxes be adopted by majority vote, thus reducing the problems of trans-border trade and competition.

Insofar this is not feasible, we recommend that the use of economic instruments (e.g. common minimum energy taxes) are sought adopted as part of a so-called "enhanced co-operation", allowing a large group of EU member nations to implement proposals domestically, without all countries joining in.

For areas, where this also cannot be done at present, Denmark should obviously take the lead in introducing a national green tax reform.

Danish options of a partial green tax reform

In several respects, Denmark's resource consumption or environmental impacts are clearly too high in terms of ecological latitude. All the same, there are several cases where sustainable alternatives exist, the use of which could be spurred by economic incentives, thus improving the state of the environment.

- Carbon tax should be raised for trades with low-impact processes and should be set up to include combustion of oil and gas on Danish oilrigs.
- Chemical substances from the "Impacts" list of the Danish Environmental Agency are undesired and can thus be made subject to green taxes, stimulating their phase-out. In the long term, this step could be extended to taxing all hazardous substances, once all substances have been assessed.
- A green tax should be imposed on NO_x emissions.
- A taxation mechanism could be introduced to let the most energy-intensive appliances in a number of product categories (e.g. kitchen hardware) be taxed most heavily.
- Water tax should no longer be tax-deductible for companies.
- A tax could be imposed on cadmium in fertilizers.
- Green taxes on fuels and transport – notably private motoring – should be set up to provide for a sustainable development. The green taxes for the transportation sector do not ensure the fulfilment of adopted action plans, and have for several years even failed to follow increases in real wages.
- The transport deductible allowance should be phased out.
- All greenhouse gases should be made subject to green taxes.
- A tax could be imposed on advertising material, both to cut resources used in production, and to ease the "buying pressure" on the population.

Moreover, the Danish Ecological Council has proposed how revenues from the above green taxes or abolition of tax-deductibles could be used in a manner that would leave the competitiveness of companies, distribution policy and tax burden largely unchanged.

Danish green taxes

Danish green taxes and duties are efficient and can – in line with experience gained from several other countries – serve as models for other countries planning to use green taxes, as part of a green tax reform, to target environmental and employment benefits.

Energy taxes

Energy taxes were imposed on Danish households as early as 1977, in response to the 1973 oil crisis. It was intended to boost efforts towards energy savings and encourage the search for alternative energy sources to oil. Since then taxes have been raised several times, and adjustments have been made based on the environmental problems arising from fossil fuels used in energy production. Energy taxes continue to be imposed primarily on household consumption, yet have also been introduced in industry for specified uses and trades.

Taxes on coal, electricity, natural gas, oil, and gas

Energy taxes are levied on the above energy sources and are set according to the energy content of the fuel. Fuels used in energy production are subject to energy taxes, though in such a manner that for power production the tax is imposed on electricity. Basically, energy taxes are imposed on both households and industry, however practically all energy taxes on industry are refunded.

Energy taxation has become instrumental in reducing Danish energy consumption and replacing the predominant use of oil for heating with natural gas and district heating. At the same time, energy taxes yield considerable revenue to state finances.

Taxes on engine fuels

Denmark has had a tax on engine fuels since 1927. Only in the 1970s did its focus shift from the fiscal policy revenues towards rather more environmental targets. Individuals and businesses pay taxes on engine fuels alike, while public transport is exempt.

Taxes provide a certain incentive to reducing the number of kilometres driven by car, also encouraging the purchase of energy efficient cars. Moreover, from 1986 to 1994, these taxes were used to effect a shift from leaded to non-leaded petrol.

Due to trans-border trade especially with Germany, it has now been made an explicit policy to follow the German level of taxation. Fuel taxes yield considerable revenues to the national finances.

Environmental duties

CO₂ tax

In 1992, a CO₂ tax (carbon tax) on households and trades & industries was introduced. This tax was raised in 1996. For the trades and industries part, carbon tax levels were made conditional upon the energy intensity of the relevant sector. As a result, full tax payment was imposed on the room heating consumption of minor service enterprises, while – for reasons of international competition – the most energy-intensive enterprises were given tax reliefs of up to 98 per cent on carbon tax. Equally, companies were entitled to reduction, if entering an agreement on energy efficiency investments. Carbon tax is revenue neutral for trades and industries as such and is recycled to companies as subsidies for energy efficiency investments and reduced general labour market contributions.

SO₂ tax

In 1996, along with the implementation of CO₂ tax on industry, an additional SO₂ tax was introduced. This was done with two motivations, namely to mitigate environmental problems – and hence fulfilling international commitments on a reduction of SO₂ emissions. In addition, the idea was that a SO₂ reduction would also lead to a carbon dioxide reduction.

Tax on disposable tableware

The tax on throwaway tableware of plastic and on certain chemicals found in disposable tableware has been in effect since 1982, with the purpose of reducing resource consumption and waste generation and increasing recycling.

Tax on retail sale packages/containers

The tax is intended to reduce the amount of packaging used and disposed of. The tax is quantity-based for retail containers for beer, wine, and soft drinks, which is linked up with the Danish returnable bottle system. For other packaging, especially containers for liquid or near-liquid produce, taxes are based on weight in order to provide an incentive for reducing resource use during the production and disposal of packaging.

Plastic and paper bags in retail shops

Due to a large consumption of disposable carrier bags, tax on packaging has been extended to also cover disposable bags of paper and plastic with a volume of more than 5 litres.

CFC tax

As part of the phase-out of ozone-depleting substances, a sizeable green tax was imposed on CFC and halons in 1989. The use of CFC gases has been banned since 1995 – however special authorisation can be granted for very narrowly defined cases.

Tax on chlorinated solvents

Chlorinated solvents damage the ozone layer and the groundwater. Moreover, they are harmful to the human nervous system and are suspected of being carcinogenic. The tax objective is thus to reduce the use of chlorinated solvents and prompt the development of less environmentally harmful alternatives. In some cases, chlorinated solvents can substitute CFC gases. Therefore, the tax was also intended as a countermeasure against potential rise, once a ban on the use of CFC gases has come into effect.

Tax on pesticides

Taxes on pesticides aim to reduce the amounts of pesticide used in agriculture, public areas, and private gardens. The target is to limit their use maximally, due to the many adverse environmental impacts of pesticides. When introduced in 1996, the tax targeted a 10 per cent reduction. The 1998 mark-up of the tax targeted another 10 per cent reduction. Taxes are set as a percentage of a fixed maximal retail price. To achieve the desired fall in consumption tax rates are differentiated according to pesticide class.

Waste tax

Already by the 1980s, it was obvious that the waste disposal issue had to be tackled with bans, directives, and taxes.

The first green waste tax was adopted in 1986, and the revenue used to support recycling and cleaner technologies – just as the tax itself helps to make recycling and cleaner technology more feasible. Thus, a dual effect was targeted.

Since then waste taxes have been raised and differentiated according to their environmental impacts, such that they were made higher for disposal than for combustion (with combined heat and power (CHP) utilisation). As a result of the increase, subsidised recycling could be

reduced and the revenues used for general government spending, thus easing the need for income taxation.

Tax on natural resources

All Danish natural resources, from gravel and sand to landfill and peat, are now subject to a uniform tax, based on raw material weight. Moreover, the same tax is levied on equivalent or competing imported natural resources.

The tax aims to prompt resource efficiency and (wherever possible) reuse of raw materials one or more times.

Tax on piped water

All drinking water distributed to consumers is subject to water tax, yet such that water tax must not to be paid in full by industry and agriculture. Equally, water tax is levied on the 'spills' of water companies due to leaky piping, if spills amount to more than 10 per cent. The purpose of the water tax is to make consumers economise with water, since some Danish regions have too little groundwater to cover actual consumption. Another purpose is to spur water companies to an increased effort in tightening their distribution grid. Another implicit aim is to reduce the amount of sewage to water purification plants, thus reducing the discharge of nutrients to watercourses, lakes, and the sea.

Tax on wastewater

The tax is levied to motivate a reduction of pollutants found in wastewater effluents. Wastewater tax is calculated based on the amount of actually discharged nitrogen, phosphorus, and organic matter from water purification plants, industrial discharges, and detached units without sewage systems. For competitive reasons, and to avoid distortions among the sectors, certain companies are charged a lower rate.

Tax on nitrogen

A tax on nitrogen in fertilizers has been introduced, as yet another incentive to limiting nitrogen spread on the fields, and hence to reduce nitrogen leaching from Danish agriculture to streams, lakes and fiords. The tax also applies for processed organic manure sold in packages of less than 50 kg.

In practice, slurry spreading is an exception, manure with a nitrogen component of less than 2 per cent of the total weight being exempt.

Tax on PVC and phthalates

The tax is intended to limit PVC use in a general way – due to the problems posed by dioxin formation and the large amounts of residue upon incineration – and to restrict the use of phthalates used to soften hard PVC plastics, which are suspected of causing damage to the general and reproductive health of humans and animals. The tax is imposed on PVC produced in Denmark and on imports, insofar as the PVC component is more than 10 per cent. The latter point is interesting, since in part solving the competition problem, because imported manufactures are subject to tax in line with those produced in Denmark. However, to lessen the administrative burden, the policy-makers had to exempt goods with less than 10 per cent PVC and phthalate content. The tax is paid according to PVC weight and is reduced if the manufacturer is able to establish that the PVC does not hold phthalates.

Tax on NiCd dry cells

Cadmium is a toxic heavy metal that can be absorbed in e.g. grain, and hence accumulate in humans. One of its most important uses today is in NiCd dry cells, the use of which was climbing rapidly in the pre-tax period. The tax has a dual purpose. On the one hand, the use of NiCd dry cells is sought reduced by imposing tax, and on the other hand, revenues are used to improve collection of spent NiCd dry cells by reimbursing the collecting companies in proportion with the number of spent cells collected. Since then, their predominant use has shifted towards industry and trades, thus enabling intensified collection.

Tax on industrial greenhouse gases

Further to the Kyoto negotiations on a reduction of climate gas emissions, it was resolved not to restrict the focus to the "classic" climate gases, CO₂, methane and laughing gas, but to also include the very potent greenhouse gases HFC, PFC, and SF₆, the emissions of which would increase considerably over the next years without interventions. In 2001, the (now defunct) Danish government notified a ban for a number of applications of these substances, to come into force in 2003 and 2006 respectively, up to which time a sizeable green tax was imposed on their use, largely fixed in relation to the present carbon tax. Following the change of government in November 2001, the ban was repealed, while the tax is being upheld.

Transport taxes

Green vehicle ownership tax

The green vehicle ownership tax succeeds the previous so-called weight tax, under which car owners would be charged a differentiated annual tax according to vehicle weight. The green vehicle ownership tax is intended to encourage Danes to buy energy-efficient cars, and hence the tax is differentiated according to the car's fuel consumption per kilometre.

Registration fee

All new vehicles in Denmark are subject to a registration fee, which is a differentiated percentage of the car's price. Registration fees are also payable for imported second-hand cars, calculated by car age etc. The registration fee was first introduced as a purely fiscal instrument; however, due to its expediency in keeping down the number of cars in Denmark, the fee has now been redefined as a green tax.

Tax on third party liability insurance and vehicle disposal

The tax is two-tiered: a general tax on compulsory third party liability insurance for motor vehicles and an annual environmental fee to cover end-of-life disposal of the vehicle. The latter is a quasi-deposit on cars, since the owner is paid an amount (EUR 200) provided the car is delivered to an environmentally certified breaker.

Road use tax

The tax results from an EU directive, binding member nations to impose taxes on heavy lorries. The tax is specified according to vehicle weight/number of axles, and is charged as a fixed amount per vehicle day. The tax is not calculated according to actual driving, and although not particularly efficient in environmental terms, it does yield revenue for road repairs, though far from sufficient, considering the environmental impacts and road wear on the road net caused by heavy lorries.

Planned taxes

The defunct Danish government planned a limited further conversion to green taxes. However, following the change of government in November 2001, these proposals will apparently be shelved.

Tax on pressure-impregnated wood

Pressure-impregnated wood contains large amounts of toxic substances that cause environmental problems, both during the wood utilisation phase and (in particular) disposal phase. The 2002 national budget bill proposed a green tax, with a view to shifting the use of conventional toxic pressure-impregnated wood towards more costly self-impregnating timber species, such as cedar and cypress wood, and to underpin the development and marketing of new "impregnation methods" without the use of ecotoxic substances.

Tax on cement

The draft for the 2002 national budget bill included a proposal for a new tax on cement and cement products. This was done in light of the fact that cement production is one of the heavy industries that, for competitive reasons, get away with an exceedingly low carbon tax, and a rise was not considered feasible since risking to cause production to be relocated abroad. Plans were therefore to impose a tax on cement products, since this would enable taxation of cement imports on an equal footing with cement produced in Denmark, and would exempt cement export from tax. However, the proposal had the shortcoming of only addressing cement, leaving out other energy intensive building materials such as bricks.

Tax on advertising

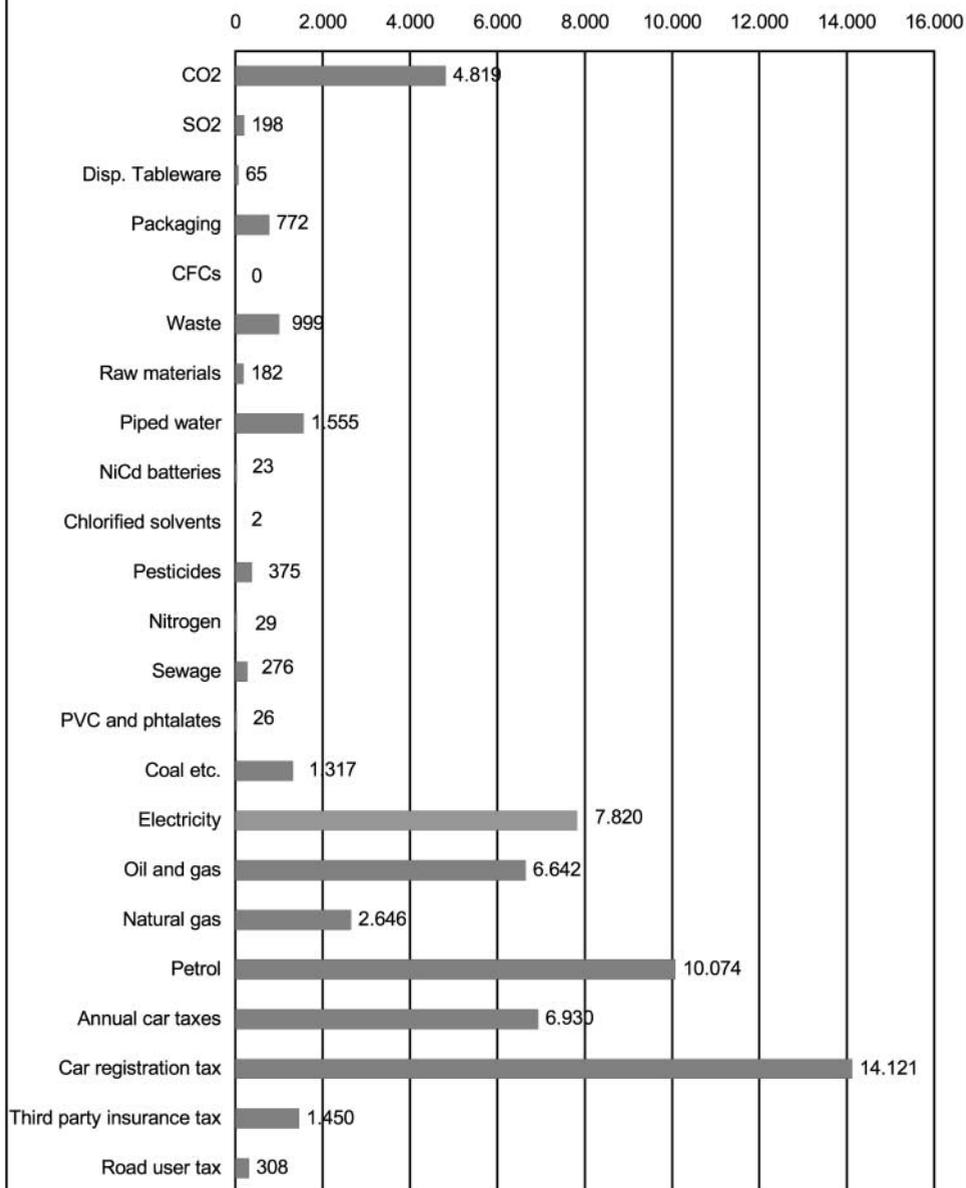
In 1997, the Danish Ecological Council submitted a proposal for a tax on advertising, covering both paper and electronic media. This was done in order to limit the skyrocketing amount of advertising matter, with reference to their adverse environmental effects – not only due to consumption of paper and printing ink, but also due to their consumption boosting effect.

In 2000, the Danish government then in power, as part of the 2001 national budget bill, tabled a tax proposal that was only to comprise printed advertising matter. However, the proposal was withdrawn as part of negotiations on the national budget. Among motives given was the fact that Sweden had just repealed a previous tax on certain advertising matter.

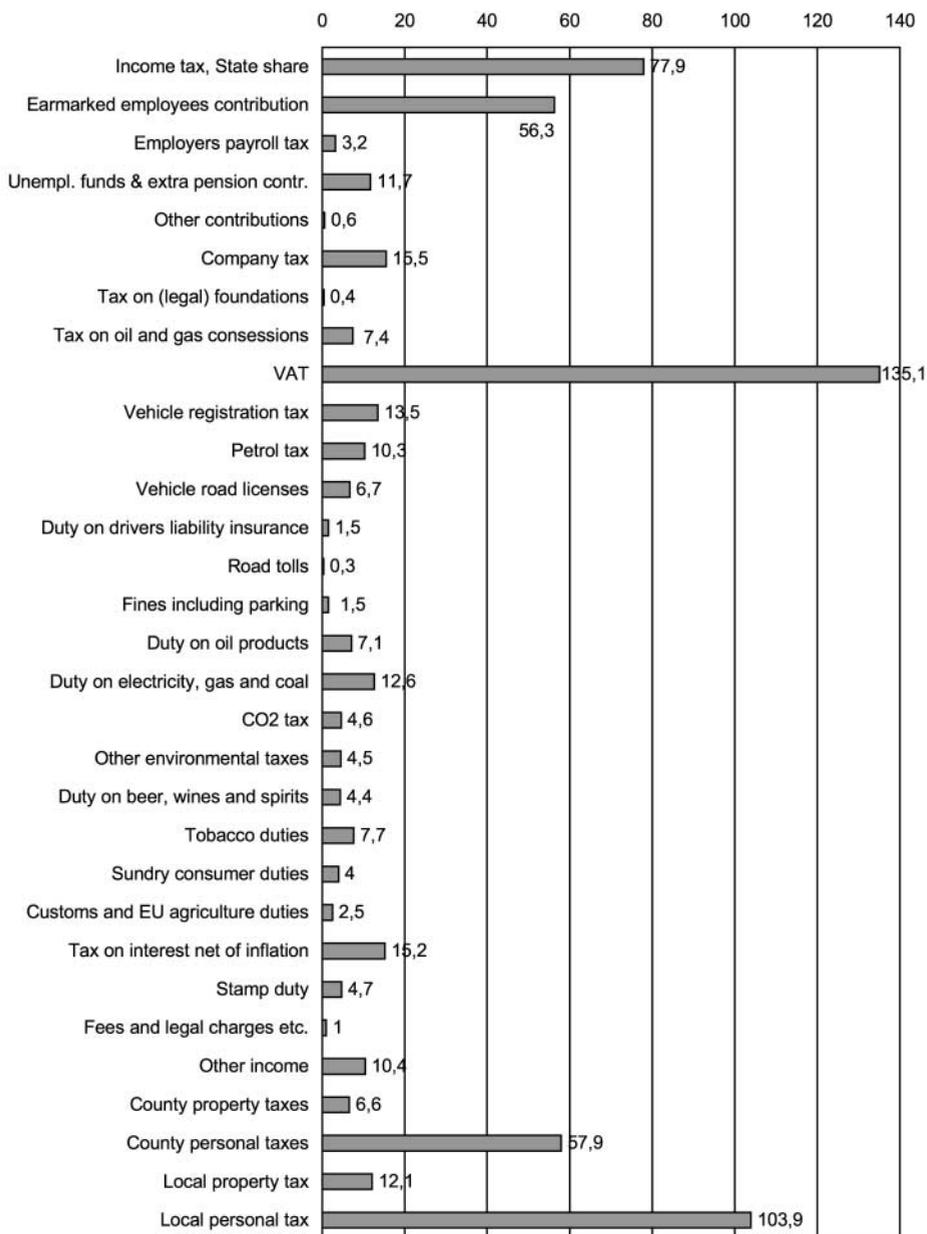
Links to further information on Danish green taxes

"Organisation"	Website
OECD	http://www.autoeval.com
EU	http://europa.eu.int/comm/environment/enveco/index.htm
EEA - European Environmental Agency	http://reports.eea.eu.int/index_table
EEB - European Environmental Bureau	http://www.ecotax.info
The Danish Ministry of Taxation	http://www.skat.dk/tal/afgift-indhold.php3 (All green taxes in Danish) http://www.skat.dk/english/index.php3 (Some green taxes in English)

Revenue from Danish Environmental Taxes 2000 in mio. Dkr.



Danish Public Income 2000 in billion Dkr.



Green Public Procurement

In Denmark, 1997 public sector spending on purchased goods and services amounted to approx. DKK 140 billion, plus several billion for construction or construction subsidies.

Hence, as a major player in procurement, the public sector can make demands on price, quality, and environment, thus bending the entire market towards 'greener' procurement.

Many environmental benefits associated with green purchasing

Consistent green procurement by the public sector entails a number of benefits.

- Green procurement is per se environmentally positive.
- Green public procurement rubs off on private consumers.
- Green public procurement influences manufacturers and service providers, and both planning and implementing agents, to adopt a green conversion qualifying them to provide to or work for the public sector.
- Green public procurement has a volume-generating effect, since increased demand for green products will enable economies of scale in production, and hence a drop in prices and increase supplies of green commodities in shops.

Green procurement of goods

Denmark is carved up into 14 counties, the principal task of which is to run hospitals, and 275 municipalities, which, among other things, are responsible for municipal primary and lower-secondary schools, day-care facilities, and care of the elderly. Compared to most other EU countries, Danish counties and municipalities have rather large jurisdictions. For convenience, we will merely refer to Danish decentralised authorities as 'municipalities'.

Many Danish public authorities and institutions have already adopted green procurement policies. But far too often these are only made applicable for the purchase of a very narrow selection of commodity types, while the many possibilities of actively pushing for production and marketing of many more green products are far from used advantageously.

Therefore, the public sector should make a targeted and efficient ef-

fort to demand and choose e.g. ecolabelled goods and also goods for which resource efficiency and environmental impacts are certifiably minimal. Indeed, public purchasing covers a great many commodities other than milk, vegetables, cleaning agents, computers, and paper.

Green procurement also covers services

Large portions of public spending go to services carried out by the municipality proper, or delivered to the municipality by third parties. This goes for e.g. cooking, food delivery for the aged, cleaning, school bus services, parks and road maintenance, waste collection, etc.

Regardless where the task, it is paramount for the public sector, when placing orders or inviting tenders, to make use of its options of defining a number of environmental green requirements regarding the task to be completed.

For instance, the public sector can make demands on the use of ecological foodstuffs, ecolabelled goods, non-use of toxic substances such as pesticides, on particle filters on diesel vehicles, low-noise buses, the use of energy-efficient cars or of bicycles for small deliveries, etc.

In addition, several such environmental requirements will also help to create a better working environment for performing the service in point.

Green procurement also covers building

It is important for the public sector to take advantage of its considerable options of making green demands on construction tasks. First, because today's building sector in Denmark uses a variety of materials that – in terms of manufacturing, use, and disposal – have adverse impacts on the environment and public health. Second, because such buildings will be in use for many years, so it is of paramount importance that they can be used on a daily basis with minimal water, heating, and power consumption.

Therefore, the public sector needs to make green environmental demands on itself and its partners covering the sale of public land for building, its own building activities, agreements on council housing projects, and subsidised urban renewal.

Thus, there is a clear case for making it prerequisite that:

- building materials be ecolabelled (e.g. in compliance with the Swedish building materials declaration)
- materials with a low energy consumption during manufacturing

- be preferred
- construction should have a very low thermal loss
- fixed installations ensure provide for low water and electricity-consumption
- only kitchen hardware with the lowest energy requirements be used (Class A)
- simple and environmentally friendly maintenance and servicing is possible.

Equally, green demands can also be made regarding public works, e.g. reuse of asphalt, minimal earth moving, energy efficient machinery, and particle filters on diesel machinery.

Green purchasing can also be non-purchase

Saving potentials on e.g. public heating, water, and electricity consumption are considerable. Some energy efficiency benefits can be obtained if employers and users change behaviour, while several others require investments on improved insulation, window renewal with energy-efficient glazing, installation of energy monitoring units, water-saving toilets, or refurbishment of radiators, water pipes, boilers, bathing facilities, etc. Moreover, repurchasing can be made unnecessary by staking on improved maintenance and repairs, and by increasing the reuse of materials.

A general feature of such potential savings is that consumption saved is far greener and more sustainable than green purchase of heating, water, or electricity produced e.g. by means of renewables.

Additional costs of green procurement?

At present, environmentally friendly goods are often more expensive than "conventional" ones. One reason is that ecolabelled goods also have to cover the cost of obtaining the ecolabelling licence. It is true that companies can apply for co-funding towards the cost of developing and converting to producing cleaner products, but they still have to pay a fee for using the ecolabel. This fee ought to be abolished as soon as possible. By contrast, manufacturers of conventional goods do not have to pay for several of the costs inflicted on the environment by their products during production, use, and disposal.

Moreover, the price differential often owes to the fact that ecolabelled and environmentally friendly goods continue to be produced in smaller quantities, so substantial economies of scale are hard to get by. However, environmentally friendly goods do exist that are cheaper to buy than are their conventional counterparts. This can be for a

number of reasons: The product does not contain unnecessary ingredients, or is cheaper viewed by its entire product life, e.g. due to energy saved during use.

A consistent public demand for ecolabelled and environmentally friendly goods will increase the market share of such products, hence providing better economies of scale, lower logistics costs, and increased private demand, which will further pull in the desired direction.

On the face of it, environmentally friendly services combined with requirements regarding health and safety at work could potentially result in additional expenses for the public sector. However, if services are considered under one heading over time, a number of prototypical problems related to the environment and to health and safety at work will be reduced or removed by a consistent green services policy. This will probably save the public sector a number of subsequent expenses, thus reducing aggregate public expenditure. At the same time, there would be considerable human benefits.

For construction works, some extra expenditure can be involved initially, since, unfortunately, more sustainable construction practices are yet to be fully worked in by the staff of projecting and operational contractors.

However, a persistent and comprehensive public stake on environmental requirements for construction tasks will very soon motivate both projecting and operational agents to acquire knowledge, machinery and construction methods and skills, thus enabling, in a matter of a few years, the construction of environmentally friendly buildings at costs matching the level of other construction projects. Moreover, very considerable annual swings will accrue on the costs of water, heating, and electricity, such that – over its entire lifespan – an environmentally friendly building will end up being clearly cheaper than other building projects.

Organising green procurement

Public procurement structures for the purchase of goods, services, and for construction and public works tasks vary greatly among different segments of the public sector. Several municipalities and counties have entirely decentralised procurement, where purchasers have nowhere to turn for assistance in e.g. making environmental demands in their invitations to tender. Mostly, in such cases, a purchaser will only make environmental demands for very few conventional groups of commodities.

Therefore, it is important for public agents and institutions to set up a strong co-ordinated procurement organisation, central or decentralised, capable of gathering up and communicating environmental requirements on the purchase of goods, services, and construction tasks. And it is important for such an organisation to be extremely knowledgeable concerning the environmental aspects of products, services, and construction and public works, since it is paramount for the successful outcome of a green procurement policy that requirements are stated as early in the process as possible.

In particular, it is important to organise the definition of green requirements on construction in a public framework, since until now this area has not been much favoured by politicians or administrators, who therefore largely fail to define relevant and sustainable green demands.

Which green demands can and should the public sector make?

In July 2001, the EU Commission, in its interpretative note, concluded that the public sector has many green procurement options, since the contracting entity – in specifying the “object under contract” – has ample opportunity for considering the environment by demanding an environmentally sound commodity or service, including requirements made on the production process. The latter, according to earlier interpretations of the EU tendering directives, has not previously been allowed.

Moreover, the EU Commission adds that “the extent to which the contracting entity takes advantage of such possibilities depends on its level of awareness.”

For construction works, the contracting entity can make demands on the building proper, in the form of energy efficiency requirements, use of insulation, and e.g. installation of solar cells (photovoltaics). Demands can be made on the construction works in the form of requirements for a maximum energy or water consumption during the construction phase, demands on engines to use specific propellants, and on engine exhausts or waste management. Moreover, demands can be made for all building materials to meet specific energy and ecolabelling requirements, and on the exclusion of a number of noxious substances from materials or construction processes.

Public demands on the purchase of ecolabelled products out of regards for the environment merely need to refer to the technical specifications, upon which the conferment of the environmental label is

based, since other documentation to substantiate that requirements are met, e.g. testing reports, must be approved. Equally, ecolabelling requirements must not be used to ensure that the contract will go to local or national companies.

It is paramount that environmental requirements are stated already when the tender is specified. Failing to do so, one can hardly subsequently allow environmental considerations to influence the choice of a supplier.

This demands considerable environmental knowledge from public procurers etc. Moreover, it can be necessary to scan the market for environmentally advantageous products or services, before preparing their invitation to tender in detail. This is to ensure that maximal environmental demands are made that can also be met.

For e.g. services, it is possible to make demands that cleaning staff use ecolabelled cleaning agents or use other methods that are least harmful to the environment. In addition, it is possible to prescribe that public transport will take place by electric buses, and public authorities will decide how collection of household waste is to be organised.

Moreover, according to the EU Commission, "for specified areas the contracting entity is free to make requirements on better environmental protection than laid down by statute or standards..."

Thus, it is generally possible to set requirements for all manufacturing aspects of products, without these necessarily being visible in the end product.

For instance, the use of ecological foods or "green" electricity can be made prerequisite to a production process.

Moreover, contracting entities have several options for drawing up terms of contract including specific environment protection objectives regarding the fulfilment of the contract (purchase).

For instance, terms can be set to require delivery and packaging as bulk goods, that packaging material must be recoverable or reusable, that spent products are decommissioned on the responsibility of the provider, that goods are delivered in reusable containers, and that the supplier is responsible for collecting, taking back or reusing wastes arising during or after the use of a product, and that chemicals such as cleaning agents are transported and delivered as concentrates, to be diluted on-site. Similarly, demands can be made that suppliers must be EMAS certified or conform to similar requirements.

If, despite high environmental requirements in the tender documentation, a contracting entity receives offers with environmental bene-

fits exceeding the requirements made, it is also possible to choose such an offer, even if on purchase it appears to be initially more expensive.

The EU Commission states that the final economic weighting between tenders can be based on lifecycle terms, since all costs involved in the product lifecycle can be included in an economic weighting. Equally, any costs of externalities – whether adverse or positive – arising from the product must be counted in, whenever the associated costs could fall to the public sector.

Thus, as a result of this interpretative note, it now stands that the public sector has good opportunities of making green purchases of goods, services and building and public works, in particular if requirements are stated as early as in the tendering phase.

In the future, these possibilities should be fully exploited by the state, by regional counties, by municipalities, and by the many public or semi-public institutions.

Yet, we should keep in mind that this is merely an interpretation, and that there is still a need to have these green purchasing options spelled out in the EU rules for the award of public contracts proper. These are currently under revision, and the new directives proposed by the Commission contribute no major improvements. (Some even feel there are impairments for certain important aspects). Thus, it is of paramount importance that these proposals be improved during their hearing by the EU Council and Parliament, though, unfortunately, little predisposition to do so is in evidence so far.

Green procurement policy must be measurable

Today Denmark keeps track of the municipalities and counties with a green procurement policy. No demands are made on the content or scope of the relevant procurements policies, and there is no registration of whether a green procurement policy is complied with in practice.

It should therefore be established how progress can be documented, and how such documentation can be used for the purpose of evaluating the objectives of local and national green public procurement policies.

This can be done e.g. during the annual environmental evaluation of the national budget carried out in Denmark, and by drawing up a number of indicators to determine the proportion of government, county, and municipal purchase that is in fact green.

Ecolabelling

Ecolabels are voluntary market based instruments, with the implied strengths and weaknesses. In environmental terms, such labels can be quite successful. However, they rely entirely on the commitment of private and public consumers, and on the interest of manufacturers and dealers in producing and marketing ecolabelled goods.

Why ecolabelling?

The greatest forte of ecolabels is their ability to communicate a complex message in a simple form.

Behind this fact lies a number of very different visions and criteria or requirements for qualifying for many of the different labels.

The ecology labels used for organically produced foods – in Denmark in the form of a state-certified label called the Ø label – are not just ecolabels. They certify compliance with a large number of requirements based on a vision of a future sustainable lifestyle. Other labels, e.g. the EU Flower label, do not refer to such visions, but are used exclusively as a consumer guide to the best possible (or the least inferior) products in terms of environmental properties among the marketed products fulfilling identical needs.

Moreover, labels are awarded to various product categories and with different geographical coverage.

Four common ecolabels used in Denmark

Denmark has a number of different ecolabels, based on vastly different notions, with very different requirements for conferment, and of very varying credibility.

The four ecolabels mentioned below are all officially controlled. The labels cover different product categories, have different diffusion, are overseen by different agencies, involve very different types of requirements, but all have reasonably high credibility.

EU Flower label

The Flower is the EU ecolabel, which can be awarded to the environmentally best non-food products on the market according to a number of criteria, fixed in such a way that a certain proportion – ranging from five to thirty per cent – of a specific product category would qualify for the Flower label.

Criteria are based on life cycle analyses and are developed co-oper-

actively by EU member nations and representatives of industry, commerce, and consumers. Hence, the criteria are relative and subject to approx. triannual updates.

The main asset of the Flower label is its Europe-wide coverage, and its main shortcoming is that the working out of criteria requires consensus among the EU countries. This is the reason why, as of now, few product categories carry the Flower label, and that some labeling criteria are relatively weak.

The Flower is a voluntary scheme, and manufacturers have to pay for achieving the label and entitlement to its use.

Nordic Swan

The Swan label is the Nordic Council of Ministers' ecolabel for non-food products and dates back to 1989. Thus, the Swan label is a state approved Nordic ecolabel, awarded according to a number of criteria that vary between products. National and Nordic ecolabel boards work out these criteria co-operatively, the target being – as for the Flower label – that a certain proportion (up to thirty per cent) of products in the market can meet the criteria.

Thus, the criteria are not finite requirements, but rather a set of requirements to sift out environmentally 'good' products from the bad ones. Requirements are revised and tightened up approx. every three years, so they can continually serve to propel a process, in which more environmentally friendly products are developed within different product categories.

The Swan scheme is voluntary, and manufacturers have to pay for achieving the label and entitlement to its use.

The Danish 'Ø' label

The 'Ø' label documents that (agricultural) produce is grown according to organic certification rules. The label is overseen by the Danish Ministry of Food, Agriculture, and Fisheries.

Originally, the qualification criteria of the 'Ø' label were drawn up by organic farmers/producers and stand as a number of absolute requirements to be met in order to obtain the label.

Requirements include the non-use of pesticides in production – with a few exceptions, e.g. sulphur. No fertilisers are to be used, and animal feed must be grown organically, although (until 2005) up to twenty per cent non-organic feed is allowed. Equally, organic food production only permits a total of 44 additives found on a particular positive-list.

Thus, the 'Ø' label is based on environmentally friendly and health

orientated farming practices and thus embodies a vision of a different mode of production and consumption. However, requirements on animal welfare take a pragmatic approach, reflecting what is feasible at present within reasonable incremental costs.

The Ø label is not based on lifecycle assessment, and hence does not include requirements on energy consumption, packaging for organic goods, or demands on environmentally friendly processing or transport of finished goods. Such requirements should be introduced in due course.

The FSC label

The FSC label is awarded to forest areas worldwide based on criteria laid down by the "Forest Stewardship Council" consisting of representatives of recognised forestry agencies and stakeholders the world over. A fee is paid for certification and use of the FSC label.

The FSC label is a globally recognised label certifying that wood from an FSC labelled forest is produced legally and sustainably, providing for the rights of indigenous peoples, and ensuring that forest workers enjoy a minimum of safe working environment and social benefits.

Yet, it does not prescribe e.g. ecological forest management.

The global FSC criteria are spelled out in national criteria, considering e.g. geographical and statutory conditions of the individual countries. In this work, the recommendations of economic, social, and environmentalist stakeholders are given equal weight.

Hence, the FSC label is the only global labelling scheme on the market, and also the only labelling system that can verifiably certify all types of forest, small and large, and all ownership categories, such as private forest owners, companies, regional communities, or crown forests.

The FSC label is gaining ever more ground, since both the amount of certified forest – notably tropical rainforest – and the number of consumers demanding the FSC label are rapidly increasing.

Ecolabelling cannot stand alone

The overall goal of environmental efforts is to bring about a sustainable development, in which resource consumption and environmental impacts respect nature's tolerance limits and a notion of global justice.

Fundamental instruments towards such a goal are e.g. the introduction of bans on production and use of toxic substances, introduction

of standards to secure energy and resource efficiency in the production and use of products, and laws to secure sustainable end-of-life recycling.

However, this is an extremely lengthy process, and therefore has to be supplemented with other instruments that can be implemented swiftly, on a voluntary basis, and with a known environmental effect. Ecolabelling can thus support the development of substitutions for environmentally harmful goods, subsequently to be banned. Ecolabels such as the Nordic Swan and the EU Flower therefore must be seen as an offer to those consumers, manufacturers, and retailers who – in environmental terms – wish to proceed further and faster than the often quite heel-dragging legislation and standardisation process. Yet, they can never render legislation dispensable.

By contrast, labels such as the Ø label and the FSC label certify that a purchase has been produced according to (various) sustainable principles, but are yet to ensure an equally optimal processing in environmental terms.

Consumers, retailers and manufacturers all need to join in

For ecolabelling to obtain environmental thrust, consumers need to be familiar with the labels and demand them, thus creating an incentive for manufacturers to develop an ecolabelled product range, and for retailers to stock ecolabelled products.

Conversely, manufacturers have options of developing a new market for ecolabelled goods via product development and marketing, so retailers are encouraged to stock their products, thus offering consumers more and wider opportunities for sustainable behaviour.

Hence, efforts towards more and superior ecolabelled products involve three interlocking stages. It is essential to prevent that all players leave it at observing the situation and each other. Consumers need to actually buy the ecolabelled products, and forward-looking consumer movements have to demand more ecolabelled products. Retailers and chain stores need to make a deliberate stake on a large ecolabelled selection, and producers need to make a positive effort to introduce new ecolabelled products to a market where the political consumer makes a difference.

The public sector needs to buy ecolabelled products

In the aforementioned interpretative note of July 2001, the EU Commission placed on record that the public purchasers are invited to make demands on ecolabels, regarding the fulfilment of the technical

criteria for obtaining such a label. And also that those ecolabelling requirements can comprise European labels (e.g. the EU Flower), cross-national regional ecolabels (e.g. the Nordic Swan), national labels (e.g. the Danish Ø label), and global labels (e.g. the FSC wood label).

The Danish Ecological Council finds that the public sector must, as part of a green purchasing policy, make the purchase of ecolabelled goods mandatory for all product lines, services, and building materials, provided an adequate supply of ecolabelled goods exists within the product group in point.

An example of public purchase of ecolabelled products: In June 2001, the Danish Folketing (Parliament) adopted a request that the government should make it mandatory for all public and semi-public institutions to buy sustainably produced tropical wood, and stated that the FSC label is a trustworthy documentation of sustainability.

Risk of protectionism

Demands on free trade must not – either globally, in the EU, or in individual member countries – stand in the way of essential environmental requirements. All the same, we need to make sure that environmental requirements do not degenerate into sheer protectionism. Systems have to be adjusted, so suppliers in all parts of the world are able to apply for and obtain an ecolabel.

Requirements of the Flower and Swan labels must be tightened up

The basic criteria of the Swan and the EU Flower label are often too lenient. For instance, requirements for the EU Flower label should be stiffened to include a demand for pesticide-free cultivation – as is already the case with the Swan label. Today, EU Flower labelled fabrics allow the use of highly hazardous pesticides in production, e.g. methyl parathion.

Criteria drawn up relative to other equivalent products must therefore currently be supplemented with a number of absolute demands, e.g. on the absence of particularly hazardous substances, based on the ‘undesired substances’ lists of the Nordic environmental agencies. Equally, it should be made an indispensable condition for all agricultural products to be produced organically, and for all wood used to be FSC certified.

Gradually, ecolabelled products should need to rely ever less on energy-intensive industrial production and ecotoxic substances, instead approaching an actual sustainable production.

Ecolabelling must not be made an option for every product

For a number of "black" products, e.g. petrol and diesel cars, golf courses, liquid textile softeners, and power mowers it is an open question if they can at all become environmentally friendly and hence qualify for a Swan or Flower label. On the other hand, there will still be an environmental benefit to reap from choosing the least "black" of such black products.

The Danish Ecological Council finds that "black" products should not be ecolabelled. However, they may well qualify for labelling on single parameters such as power consumption.

In addition, the relative environmental benefits can be rendered visible by labelling the worst "black" products with a "negative" label.

Fees payable for ecolabelling licenses must be removed

The present fees charged for a number of recognised ecolabels seriously discourage product development and marketing of far more ecolabelled products.

The Danish Ecological Council finds it unconscionable and illogical that a penalty is inflicted on the manufacturers of environmentally superior products. Recognised and credible ecolabels should therefore be made free of charge without undue delay, as part of efforts towards a more sustainable development. For the EU Flower label, this would require a directive amendment, while the fee on the Swan label can be abolished directly.

Instruments for Sustainable Development

Calls for sustainable development will remain hot air, unless allied with instructions on the instruments to achieve such goals. The Danish Ecological Council wishes to extend the knowledge of three essential instruments to stimulate a sustainable development.

Environmental Tax Reform

A green tax reform relies on the market mechanisms to serve environmental ends by increasing tax on resource consumption and pollution, instead reducing taxation of e.g. labour.

Green Public Procurement

The options and prospects of a consistently implemented public procurement policy are considerable, yet are far from used to their optimum extent at present.

Ecolabelling

The environmental possibilities of using and enhancing different types of ecolabelling need to be improved and further extended.

The three instruments are often referred to by so different parties as environmentalist NGOs, the EU Commission, OECD, and the governments of several EU members as being essential to efforts towards a more sustainable development respecting nature's tolerance limits and greater global justice in the distribution of consumption.

With the present booklet, the Danish Ecological Council offers an introduction to the three instruments and sets out our proposals on how these instruments could and should be used to far better effect than presently in promoting sustainable development.



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The Danish Ecological Council is an organisation working for an ecologically viable future with social justice and human welfare.

Publications of the Danish Ecological Council include "GLOBAL ØKOLOGI" magazine.