

# A SHARED FUTURE - balanced development

DENMARK'S NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT

THE DANISH GOVERNMENT

SUMMARY



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JUNE 2002

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### Foreword

"A shared future – balanced development" is Denmark's national strategy for sustainable development.

Denmark must be among the best countries in the world in which to work, reside and live. More welfare and expansion of the welfare society must provide all people with good opportunities for development. Denmark must be among the best at protecting the environment. Future generations should have at least as favourable opportunities for living in clean and healthy surroundings as we have at present.

Denmark is a society that meets economic, environmental and social challenges. We must ensure sound economic growth, socially balanced development and protection of nature and the environment and human health.

The Danish strategy for sustainable development is founded on eight objectives and principles:

- 1. The welfare society must be developed and economic growth decoupled from environmental impacts
- 2. There must be a safe and healthy environment for everyone, and we must maintain a high level of protection
- We must secure a high degree of biodiversity and protect ecosystems
- 4. Resources must be used more efficiently
- 5. We must take action at an international level
- 6. Environmental concerns must be taken into account in all sectors
- 7. The market must support sustainable development
- 8. Sustainable development is a shared responsibility, and we must measure progress

Sustainable development presents national and global challenges. The strategy will form part of Denmark's contribution to the World Summit on Sustainable Development to be held in South Africa in August-September

2002. The summit will take place during the Danish EU Presidency, presenting us with a unique opportunity to place sustainable development at the top of the international agenda. Denmark will work for the creation of a new global deal on sustainable development. This deal should combine the goals of better access to markets and increased development assistance globally to developing countries with the requirements of good governance and an improved environment. Elements of such a deal could be that industrialised countries undertake to decouple economic growth from environmental impact and support developing countries in realising growth and reducing poverty.

Sustainable development is a long-term process. Therefore the strategy has a 20-year time frame in which objectives and visions are presented for each area of activity.

Challenges, objectives and initiatives for the coming years are presented in this strategy.

Our decisions must be based on the best possible knowledge base, so that objectives are reached in the most cost-effective way. Furthermore, we must use indicators to help us to follow continuously progress made in achieving sustainable development in Denmark.

The visions and objectives of the strategy will be followed up by concrete initiatives within the sectors and areas concerned.

We all have a shared responsibility to ensure sustainable development. It is important that everyone – the Danish Government, enterprises, local and regional authorities, voluntary organisations and the public – participate in the implementation of the strategy.

Together we must create a shared future – balanced development.

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Anders Fogh Rasmussen, Prime Minister of Denmark

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### Vision and objectives

enmark is to be a society where economic progress can go hand in hand with social development and an improved environment. There should be both the impetus and the possibility for individuals to contribute to this goal. Denmark is to have high employment, a good standard of living, and a good environment. Sustainable development implies that we must address economic, environmental, and social challenges simultaneously. Future generations should have at least as favourable opportunities for a good life as we have at present. We must ensure sound economic development which is socially balanced and which does not have negative effects on human health or the environment.

Sustainable development cannot be achieved in one country alone. Global sustainable development envisions a world of economic progress, increased welfare, and better environmental protection. This development is for the benefit of all, including less-powerful and less-developed countries. Therefore, sustainable development is conditional upon respect for human rights, openness on the part of leaders, and democracy. As an affluent nation, Denmark has a special responsibility to assume a leading role in developing a global, sustainable community. Hence, Denmark will continue to be actively involved in international cooperation within the fields of environment and development.

### The Danish vision of sustainable development is based on eight objectives and principles:

- The welfare society must be developed and economic growth must be decoupled from environmental impacts
- 2 There must be a safe and healthy environment for everyone, and we must maintain a high level of protection
- We must secure a high degree of bio-diversity and protect ecosystems
- 4 Resources must be used more efficiently.
- We must take action at an international level
- 6 Environmental concerns must be taken into account in all sectors
- The market must support sustainable development
- Sustainable development is a shared responsibility and we must measure progress

Many results have been achieved since the 1992 Rio Conference on sustainable development. There remain, however, considerable challenges ahead both in Denmark and globally, if the vision of sustainable development is to become a reality.

Growing international trade and increased pressure on the Earth's natural resources have increased the interdependence among countries. Globalisation of economies means that many problems, including environmental ones, can only be solved through international cooperation. Climate change, which is one of the biggest global challenges, is expected to have wide-ranging social and environmental consequences. Poverty, hunger, and scarcity of basic resources give rise to conflicts which, in some regions of the world, result in severe refugee problems. The world's plant and animal life is under pressure from many human activities.

Economic growth must be decoupled from negative side effects on health and the environment in areas where, at present, such decoupling has not been successful. There must be control over the numerous chemical substances which are dispersed in the environment and which are harmful to organisms and the environment. Nature continues to be used so intensively that the number of species and ecosystems is declining. This trend must be stopped. The use of natural resources must be minimised. Those resources that are used must be used efficiently and re-used and recycled to a greater extent.

# Welfare and the environment are interconnected

 the connection between economic growth and negative environmental effects must be decoupled



Economic, environmental, and social development must be protected simultaneously. The welfare society must continue to develop. This means that development must be both economically sund and socially harmonious, taking into account both human health and environmental issues. Economic growth must occur without increasing environmental pressures, in accordance with the United Nations goal of reversing the present trend of loss of natural resources by 2015.

n the last two decades Denmark has successfully achieved a clear stabilisation in economic development. Through reforms to the labour market, taxation, and education it has been possible to achieve increased employment and higher incomes, without increasing the social inequality within Danish society. While the task is not yet complete, Denmark finds itself in a good position to maintain and further develop the welfare society with greater freedom to the individual and to the advantage of all its members. By strengthening the impetus for new initiatives and the desire for success, Denmark can achieve the necessary economic foundation for a welfare society. At the same time, people should have the opportunity of choosing between various private and public solutions within a number of service areas. With its strategy "Determined Growth" (Vækst med vilje), the Danish government has presented a broad strategy for growth which aims towards increasing the number of jobs and higher productivity. Reforms and structural improvements will be undertaken in order to create a good framework for growth. The strategy also emphasises that growth must be environmentally sustainable

Denmark must create an inclusive labour market, where there is room for individuals who cannot fully meet the demands regarding efficiency. Denmark must improve integration of immigrants into Danish society and the workforce. Denmark must also take steps to reduce the number of individuals who receive social benefits and to curb job absenteeism due to illness. The goal of the Danish government's reform programme, "The Common Responsibility" (Det fælles ansvar), is to improve efforts to help the most marginalised members of society, thus giving the weakest groups a better quality of life.

The future holds challenges for Denmark. In the next 30 years the number of elderly will increase, while the percentage of the population, which is actively employed, will steadily decrease.

If Denmark can maintain the current government budget surplus, a large share of its international debt can be repaid in the coming years. The money currently being used on interest payments may then be redirected towards meeting the rising costs of pensions, home-help schemes, care of the elderly, hospitals, etc.

Economic growth and higher employment must be decoupled from increasing pressures on the environment. Denmark must pollute less and use fewer resources. In a number of areas, including the energy sector, it has been possible to decouple the connection between economic growth and increased pollution. In other areas, for example anthropogenic effects on our climate system, significant challenges remain.

These challenges must be met with a range of measures, which will vary depending upon which measure is considered to be the most effective in a specific situation. It is crucial that all contributions provide the most costeffective solution for society - that the greatest environmental benefit is achieved from each contribution. Sustainable development may be promoted through an increased use of market-oriented measures, for example taxes, subsidies and tradable quotas, as well as through information and a broad dialogue. With its report on green market economy, the Danish government will analyse the possibilities of using market-oriented measures to promote a better environment. Research into causal relationships and into new environmental and societal problems is important as it enables government leaders to make sound decisions and legislate preventative measures as early as possible, thereby achieving sustainable development. At the European Union (EU) summit in Barcelona it was decided that the total expenditure on research and development in the EU should increase to a level of about three per cent of the gross national product (GNP) by 2010. Indicators are valuable tools to illustrate whether society is making progress towards achieving sustainable development.

### 2 A safe and healthy environment for all



Denmark is to be among the industrialised countries in the forefront of reducing environmental pollution. The quality of the environment in Denmark must be high. Soil, water and air pollution must have a decreasing influence on human health and plant and animal life. Hazardous, anthropogenic climatic effects must be prevented. Special attention must be given to groups of vulnerable people, particularly children and pregnant women as well as to fragile ecosystems. Consumers must have safe and healthy food. Hazardous chemicals must be removed from consumer products, homes, and workplaces.

C limate change is one of the greatest global challenges. The content of greenhouse gases in the atmosphere must be stabilised at a sufficiently low level to prevent hazardous, anthropogenic influence on the climate system. In an international context, Denmark has a high  $CO_2$  emission per capita, which obliges it to take a special responsibility. To meet the commitment made under the international Kyoto Protocol, Denmark must decrease its total greenhouse gas emissions compared to 1990 levels by 21 percent between 2008-2012. The UN's Intergovernmental Panel on Climate Change has indicat-

ed that a stabilisation of greenhouse gas concentrations at levels which avoid anthropogenic climate changes may require emissions to be reduced by 50 - 70 percent. Denmark, along with the other countries participating in the Climate Convention are expected to undertake further, significant emission reduction commitments in the budget period after 2012. Reducing CO<sub>2</sub> emissions by half within one generation can be considered as an indicative aim. The so-called flexible mechanisms under the Kyoto Protocol can be cost-effective tools which should be utilised and further developed.

Polfoto: Jens Dresling

Substantial progress has already been made though concentrated efforts. Danish energy supplies have shifted so that a greater percentage of the energy consumed is derived from natural gas and renewable energy. Surplus heat from electrical production is used more effectively today. This has resulted in a 10 percent reduction in  $CO_2$  emissions in the last decade. Other sectors, for example agriculture, transport, and industry, must also reduce their emissions. Emissions of other greenhouse cases used in industrial production must also be limited.

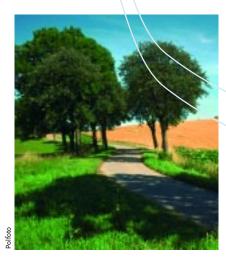
Environment and health are connected. The production, use, and disposal of products must not be hazardous to human health or the environment. In 2002, the Danish government will present a strategy on environment and health with proposals to reduce hazardous effects from environmental factors. The strategy will focus on chemicals, as well as efforts to improve food quality, work place environments, and the indoor climate.

The use of hazardous chemicals must be reduced to a minimum in the years ahead. Danish efforts to reduce the number and use of hazardous chemicals will continue to be based on the precautionary principle. This means that environmental impacts from chemical substances, etc. must not exceed critical tolerance levels in the environment. In 2020, products containing chemicals with particularly harmful health or environmental effects, for example carcinogens, mutagens, substances which reduce fertility or which are harmful to vulnerable ecosystems will be banned from the market. Within the EU, Denmark will work towards banning chemical substances if the necessary data regarding side effects is not supplied by the product manufacturer within a designated time. Chemical manufacturers must take the responsibility of ensuring that their products can be used without endangering human health or the environment.

Food must be safe, healthy, and of high quality. Assessment of risks associated with food is based on the precautionary principle. Denmark will limit the use of food additives. Authorities must ensure that there are clear and easily understood regulations, helpful information, effective controls, and openness. Food producers have, via their own internal controls, an important responsibility for food safety. The position of the food sector must be strengthened by promoting innovation, research, dissemination of information, product development and the capability to convert to new methods or types of production within the food industry. Denmark must have effective inputs within the field of nutrition, where the goal is to improve the health of the population and prevent illnesses.

All workplaces must have a safe and secure working environment. After 2020, no employee may be exposed to hazardous chemical substances, organic solvents, heavy metals, or other hazardous health impacts during work. The indoor climate must not give rise to health problems for the occupants. Construction and housing materials must be of a high quality so that they neither emit nor produce harmful substances.

# We must maintain a high level of protection



uring the last decade numerous lakes, streams, and wetlands have been restored in Denmark. New forests have been planted and a number of wildlife reserves and international nature protection areas have been established. Several wildlife species, which Denmark has an international responsibility to protect, are at present expanding their populations. The expansion of these populations is, however, still not satisfactory. Many species and natural environments are in danger of disappearing from Denmark. Fertilizers and environmentally hazardous substances associated with agriculture, fisheries and other industries affect nature and ecosystems.

It is important that Denmark protects and restores plant and animal habitats. A larger interconnected network of protected nature arNature and the ecosystems are the foundation for all life on Earth. Therefore, Denmark must ensure viable and varied natural resources, both for ourselves and future generations. We must safeguard biological diversity and protect unique and irreplaceable natural assets and landscapes in agreement with the goals stated in the EU's Sixth Environmental Action Programme which aims at stopping the loss of biodiversity by 2010.

eas should be created, and existing valuable natural assets and landscapes must be protected against deterioration.

In 2003 the Danish government will put forward a comprehensive plan to protect biological diversity. The plan will ensure that action will be taken, and it will guide efforts to preserve biodiversity and protect natural environments. Measures will include integrating considerations of biodiversity into the relevant sector's policies and activities.

Outdoor recreation promotes good health and quality of life. Experiences in natural environments give a better understanding of nature and of historic environments. The population must have access and opportunities to visit natural environments.

# 4 Sustainable use of natural resources

Nature's resources are used in many of society's activities. Denmark must reduce the use of natural resources and recycle more. In particular, the use of resources which are scarce, vulnerable, or which produce negative environmental impacts must be limited. Denmark's long-term goal is to reduce resource consumption to 25 percent compared to present levels.

World populations continue to grow, and in general, increasing economic wealth can be expected both in industrial and developing countries. This will increase the pressure exerted on nature and the environment. Therefore, it is essential to reduce resource consumption through changing production and consumption patterns.

Many manufactures and businesses use a more environmentally friendly technology and have introduced environmental management programmes. Today, many consumers purchase more environmentally friendly products than previously. Denmark has succeeded in stabilising its total energy consumption and water consumption has also decreased.

Over the last 10 years, the volume of waste has risen in the majority of sectors. Waste, which cannot be recycled, represents a loss of resources. In 2003 the Danish government will present a strategy aimed at preventing this loss of resources and the environmental pressure associated with waste. The waste which is unavoidably produced must, to a greater extent, be reused and recycled. In the future, efforts will focus on waste materials which produce the greatest pressure on the environment or which are associated with the greatest resource consumption. The Danish



government will investigate whether the goals of more effective resource consumption and waste minimisation are best achieved using targeted market-based measures, for example taxes on raw materials and other materials.

Denmark must promote sustainable use of Danish raw materials. It is relevant to consider setting targets regarding the proportion of the gross energy production to be supplied by renewable energy in the future. This will ensure continued expansion of the renewable energy sector, thus contributing to achieving environmental goals in a cost-effective manner.



### **5** A global deal

Sustainable development and a better environment can only be achieved through broad international cooperation. As a small, internationally oriented country, Denmark has an interest and responsibility in contributing to global sustainable development. At the World Summit for Sustainable Development in Johannesburg, Denmark will endeavour to achieve a global deal regarding sustainable development and global part-



nership. The Organisation for Economic Cooperation and Development (OECD) countries have committed themselves to decoupling economic growth from negative environmental impacts, to assisting developing countries to achieve economic growth, to alleviating poverty, and to achieving good governance. All countries, including the developing countries should agree to abide by international agreements and to consider environmental concerns when developing.

enmark will continue to contribute to creating a world of peace and stability, with less poverty and a high level of environmental protection. Global sustainable development implies that all countries respect human rights and democracy, as well as openness and responsibility in government administration. Denmark considers it important to balance economic, social, and environmental

considerations in international efforts towards global sustainable development.

Denmark has contributed to supporting sustainable development and environmental projects in developing and Eastern European countries. In 2002 Denmark provides approximately DDK 12.6 billion in development assistance. The Danish assistance is targeted at alleviating poverty while ensuring that neither natural resources or society's resources are over-exploited. Denmark's assistance has strengthened its international reputation. Denmark is working actively to encourage the many countries – also EU countries – which contribute less development assistance than the UN's goal of 0.7 percent of their GNP, to increase their contributions.

Denmark has increased the funds available for environmental projects in developing countries and Eastern European countries. Denmark will also support developing countries in living up to global environmental conventions, and assist them in solving the enormous environmental problems which arise in conjunction with rapidly growing megacities.

Denmark is working actively via cooperation with the EU to improve European and international environmental protection. Denmark will contribute by implementing, and following up on the EU's Sixth Environmental Action Programme and the EU's Strategy for Sustainable Development. Denmark will, through the Cardiff Process, continue to work towards integrating environmental concerns into EU policies. The Cardiff Process is one of the most important new tools in the EU's sustainable development policy. It is important EU leaders follow these efforts closely.

Denmark will work towards an active followup to the OECD's strategy for sustainable development adopted at the summit on sustainable development when Denmark chaired the OECD, in May 2001. Denmark strives toward a world market characterised by free trade based on high environmental and social standards, where the precautionary principle is central. Denmark will work actively to ensure that the upcoming World Trade Organisation (WTO) meetings involve negotiations where the developing countries are active partners and where the results reflect these countries' own interests, as well as the necessity of integrating the developing countries, especially African, into the global economy.

The World Summit on Sustainable Development will be held in South Africa in August-September, 2002. With the EU presidency, Denmark will work actively to create a new global deal for sustainable development and a global partnership. The deal should, among others, require the developed countries to commit to the following: decoupling economic growth from environmental degradation; supporting developing countries in their attempts to obtain economic growth; limiting poverty; increasing access to global markets; and establishing good governance. Other issues to be discussed may include debt relief, investments, and technology transfer. Additionally, all countries, including the developing countries, must comply with their international commitments and integrate environmental concerns into their production and administration.

Denmark is hopeful that the World Summit may result in initiatives which will improve public access to information on the environment, sustainable development, and participation in the decision-making processes.

# 6 Environmental concerns must be taken into account in all sector policies and initiatives



Integration of environmental concerns into all policies and decision-making processes in all sectors is a prerequisite for achieving sustainable development. These sectors include central, and local levels of government, business and other sectors of society.

Denmark has been working towards integrating environmental concerns into all policies and decisions for many years. Description and assessment of the environmental impacts associated with draft legislation, government proposals and large-scale engineering works is an important step in ensuring that the decision-making process takes into account possible environmental effects. Over the past decades, environmental action plans have been drawn up in a variety of policy areas. The Danish national strategy for sustainable development focuses on strengthening the process of integrating environmental concerns into policies and decision-making processes within seven selected sectors.

### Food production

#### - AGRICULTURE AND FISHERIES

The Danish food producers must supply consumers with safe and healthy food. At the same time food producers must consider a viable production basis, animal welfare, the environment, profitability, and saleability. Healthy food is essential for the population's quality of life and health. Healthy food and sustainable production require that we make demands regarding the production methods used in agriculture and fisheries.

Pesticides and fertilisers have negative effects on the environment. Since 1994, over 200 pesticides associated with unacceptable risks to human health, the environment or groundwater were either banned or their use was severely curtailed. Pesticides, which threaten groundwater quality, will also be banned in the future. The Danish government will work towards minimisation of pesticide use within the next few years. Excessive use of pesticides must be stopped, and new, specific reduction goals must be set. Within the international context, the Danish government will focus on pesticide over-use. Furthermore, the Danish government is advocating a restrictive assessment of pesticide use both in Denmark and internationally.

Denmark's Action Plan on the Aquatic Environment II is expected to ensure that nitrogen emissions from agriculture are reduced by 100,000 metric tons per year before the end of 2003. The Danish government will invite parliamentary parties to negotiate an Action Plan on the Aquatic Environment III, which will instigate a number of initiatives aimed at further reducing ammonia emissions from agriculture. The loss of nitrates, phosphorus, and ammonia via agricultural processes must be limited to a level where there is no nuisance to people or negative effects on aquatic environments or vulnerable types of nature, and which promotes richly varied plant and animal life. Livestock production must be assessed and regulated based on local environmental and cultural factors. Genetically modified organisms must be assessed individually, based on the precautionary principle and ethical considerations. The government will prepare a strategy for co-existence of GMO crops, conventional crops, and organic crops.

Sustainable fisheries are a prerequisite for preserving the ocean's fish stocks and ecosystems, and thus also for the sector's future development. A number of the stocks economically important for Denmark are overfished. Therefore, prompt action is required to limit fishing of endangered stocks, to adjust fish quotas to sustainable levels, and to limit unintentional by-catches and discards. The endangered fish stocks and the Danish fisheries are dependent upon both Danish compliance, as well as that of its neighbouring countries. Therefore, Denmark must promote environmental considerations in the fisheries sector nationally as well as internationally. New tools and technologies must be developed, the capacity of the fisheries fleet must be adjusted, and fish quotas must be administered to reduce the pressure on fish stocks. Improved fishing gear can reduce unintentional bycatches and reduce the pressure on the ocean bed and the ecosystem in general.

#### Forestry

Forests are one of society's welfare assets. Forests provide opportunities for outdoor activities in natural environments and they provide habitat for numerous plants and animals. Forests contribute to protection of groundwater and sequester  $CO_2$ . Not least, forests provide a number of wood products.

A new Danish forestry programme will be finalised in 2002. The programme aims at promoting environmentally friendly forestry with more emphasis on nature's principles. This will entail a greater number of native trees. A more robust forest in the future will permit pesticide use to be phased-out in state-owned forests. Via information and evidence of success in state-owned forests it will be possible to limit pesticide use in private forests as well.

The forested area of Denmark should increase so that forest landscapes cover 20 - 25 percent of the Danish landscape in the course of one tree generation (80-100 years). New, robust forests must be planted after the storm in 1999. The new forests will meet a number of needs including creating a framework for biodiversity and ensuring a physical connection between existing forest and nature areas which are presently surrounded by open land. Dialogue, information, guidance, and voluntary agreements are key aspects of the future forestry policy.

#### INDUSTRY, TRADE AND SERVICES

An important step towards sustainable development is the promotion of environmentally friendly markets where environmental considerations are important parameters of competition.We must achieve both cleaner production and cleaner products. This will require new solutions and innovation, as well as product and technology development.

It continues to be an important task to set environmental considerations higher on the agenda when businesses make decisions regarding production. Companies must incorporate environmental concerns in all aspects of their business and take responsibility for both their production and their products in the entire life-cycle of the product. The use of eco-labelling, environmental product declarations, consumer information, environmental accounting, and environmental management allow businesses to use the environment actively as a competition parameter. It is an important goal to promote voluntary efforts on the part of businesses to become more environmentally friendly. Legislation and measures must be adjusted according to technological and market developments so that businesses can increase environmental protection voluntarily.

An important tool is environmentally friendly public procurement, which can contribute to increased demands for environmentally friendly products. Environmental considerations must to a greater degree be taken into account when determining international product standards. More eco-labelled products and a good knowledge of the markets will motivate the producers and consumers to change their behaviour.

The Danish government established a think tank wich will produe a green technological to encourage environmental innovation in Denmark with participants from a number of large Danish businesses, universities, nongovernment organisations (NGO's) and investors

#### Transport

The population must have access to safe and efficient transport. At the same time respect for the environment must be a central aspect of transport policies. The overall goal within the transport sector is to decouple growth in the economy from growth in transport-related environmental and health problems. In the last decade, concerns of environmental pressures have been integrated into transport policies both in Denmark and the EU; this must continue. This means that the transport sector must contribute its fair share in the effort to reduce the emission of greenhouse gases. The Danish government's long-term goal for 2030 is the reduction of the transport sector CO<sub>2</sub> emissions by 25 percent, compared to 1988 levels. More effective energy consumption will contribute to achieving this target. A special effort has been made in urban areas to minimise the effects of traffic on city and town environments. Air pollution from NO<sub>x</sub>'s and hydrocarbons must be reduced to 60 percent by 2010 compared to 1988 levels. The Danish government will consider how best to promote the use of particle filters on trucks and busses. Diesel-powered passenger cars are more energy-efficient than petrol-powered cars and produce lower CO<sub>2</sub> emissions, however, they produce higher emissions of nitrogen oxides (NO<sub>x</sub>) and particles.

Noise from road traffic is a nuisance for many people. The Danish government has appointed a road traffic group which will prepare preliminary plans for a strategy dealing with noise from road traffic. This strategy will include information regarding the feasibility of achieving a significant reduction in the number of residences severely affected by road noise. It must be safer to travel in traffic. It is a goal of the Danish government that the number of traffic casualties (fatal and serious injuries) be reduced by 40 per cent before 2012.

Technological development is an import tool in the development of environmentally

friendly transport. Transport prices must, to a greater degree than today, reflect the real costs the transport sector imposes on society. The Danish government will establish a committee, which will investigate the possibility of restructuring vehicle registration taxes to make purchases of environmentally friendly vehicles advantageous. Furthermore, the government will research road-pricing programmes, which are being promoted in other countries, and analyse their potential effects in a Danish context.

#### Energy

Energy consumption and energy supply are important aspects of sustainable development. The Danish government will develop market-oriented measures that will ensure stable, cost-effective energy supplies while promoting environmental goals.

Within the energy sector, Denmark has decoupled economic growth from negative environmental consequences. The Danish economy has grown by approximately 27 per cent since 1988, while energy consumption for the same period has only increased by about two per cent.

The Danish government will liberalise the Danish electricity and gas markets in order to improve energy production efficiency, reduce energy prices, and ensure that energy is produced with less pressure on the environment. With its commitment to reduce greenhouse gas emissions by 21 percent compared to 1990 levels between 2008 and 2012, Denmark will make a significant contribution to the Kyoto Protocol. The Danish government will investigate how cost-effective and flexible regulation of the electrical sector's  $CO_2$  emissions can be established when the present programme involving  $CO_2$  quotas expires at the end of 2003. Denmark supports the European Commission's proposal of a European quota system. The expansion of renewable energy supplies must continue as renewable energy also contributes to a cost-effective fulfilment of environmental goals. It may also be possible to reduce  $CO_2$  emissions by converting from coal to natural-gas-based electrical production. Nuclear energy is not considered a sustainable energy source.

Expedient efforts in the energy sector are best achieved through international cooperation. This will ensure that efforts provide the most cost-effective solution for society. Additionally, international cooperation ensures a level playing field in terms of energy measures for businesses operating in individual countries. Denmark supports the use of flexible mechanisms advocated in the Kyoto Protocol.

#### URBAN AND HOUSING DEVELOPMENT

The Danish government will promote sustainable development of housing, buildings, and towns. Residents and users must participate actively in this development to ensure that urban areas are vibrant and diverse with a broad range of housing types, businesses, institutions, and green areas. Urban areas must be organised and administered with the goal of significantly reducing resource consumption and pressures on the environment.

In 2002, the Danish government will present its policy for development in Denmark, which will ensure and promote diversity, economic progress, and a better environment. New efforts will target depressed urban areas and housing districts. Urban renewal must be balanced between building new and preserving old, while emphasising quality, exceptional architecture, urban ecology, and better recreation opportunities. Heritage buildings and environments worthy of preservation must be safeguarded. Older business districts, former manufacturing sites and harbour areas must be utilised to a greater extent, for example by redeveloping them for other uses. Urban facilities and functions, which are associated with increased traffic, must be situated so that access to them is advantageous via public transport.

It is advantageous if urban areas expand into areas that are already urbanised, though perhaps disused or under-used. Expansion of towns in rural areas will continue to be possible, however the local community must be preserved and strengthened.

# The market must support sustainable development



Sustainable development and economic growth are not contradictory. Businesses engaged in significant environmental initiatives generally do well in competition. A forward-looking commitment to sustainable development and environmental protection may improve the competitiveness of Danish businesses.

here must be economic advantages associated with integrating environmental concerns into businesses. Businesses must be motivated to take risks associated with developing and selling environmentally friendly products. It must also be more attractive for consumers to purchase environmentally friendly products. The principle that the polluter pays must be followed consistently. The Danish government hopes to promote market-based measures for example environmental taxes, subsidies, and tradable quotas to ensure that prices reflect a product's actual cost to the environment. Thus consumption and production patterns can be influenced and environmental pollution may be reduced where the social costs are the lowest.

Denmark will work towards obtaining international agreement on environmental taxes.

Subsidies, especially tax exemptions in some sectors, may have negative consequences for the environment. A report, which is expected to be finished in the autumn of 2002, on green market economy will investigate whether existing subsidy programs can be adjusted to prevent associated environmental degradation

Reliable information regarding the environmental effects associated with products is a precondition for markets supporting sustainable development. Eco-labels and other forms of environmental information give consumers and businesses the possibility of making real and informed choices. The public sector is a large consumer and thus, may influence markets through its own purchases.

A broader and deeper knowledge base will support sustainable development. The Danish government has established an Environmental Assessment Institute which will conduct high quality, international research and will contribute to determining how environmental goals can be achieved in the most cost-effective way.

It is important that the financial sector also focuses on environmental considerations. When pension fund administrators and other investors prioritise a business' environmental profile, then respect for environmental issues can become a positive factor in market competition. Increased use of "green" and ethical accounting will improve the possibilities of choosing environmentally friendly investments. Evidence from stock indexes, which include "green" businesses' economic results, indicate that environmentally conscious companies often do better in market competition.



### From goals to results – shared responsibility



A sustainable society is built on democracy and openness. The population must have opportunities to take responsibility and to participate in decision-making. All parts of Danish society must be actively involved and work towards the goal of achieving sustainable development if we are to be successful. Local Agenda 21 activities are also important. Research, development, and new technologies are required to achieve sustainable development. Indicators are required to measure progress towards achieving sustainable development.

n a sustainable society everyone must take responsibility to ensure that development takes place with forethought. The state, municipalities, counties, businesses, schools, associations, voluntary organisations, and citizens must all have the opportunity to participate. As individuals we must consider our own behaviour and make conscious, pro-environment decisions regarding transport habits, energy consumption and selection of eco-labelled consumer goods.

The Aarhus Convention on access to information, access to participation and access to justice of 1998, which is now in force in Denmark, means that all citizens and environmental organisations must have easy access to information, the opportunity to participate in decisions on environmental matters, and the possibility of making environmental appeals. In the international context, Denmark proposes that the principles inherent in the Aarhus Convention be adopted more widely.

Dialogue is important, both locally and nationally. The solutions to numerous problems may be found in local activities and Local Agenda 21 has provided good results. The central government will facilitate the work of providing guidance and passing on experiences from Local Agenda 21.

Continuing research and development ensure that a sound knowledge base exits upon which the best possible decisions can be made, priorities and goals set and suitable measures selected. This will ensure that we get the most cost-effective solution. Knowledge regarding the interconnection between greater resource efficiency and general societal development is important. In addition, knowledge regarding environmental economics, environmental behaviour as well as prognoses and scenarios are valuable decision-making tools. Environmental policies must be knowledge-based and rest on the precautionary principle.

Technological breakthroughs and innovation are necessary aspects of sustainable development. We must continue to develop new technologies, materials and solutions to redirect society towards sustainable development. Training and education will spread knowledge about sustainable development and influence attitudes and behaviour.

Sustainable development is a process that requires both long and short-term goals The Danish National Strategy presents general goals and targets until 2020.

The Strategy is a common framework for Denmark's national efforts to achieve sustainable development. The Strategy's visions and goals will be followed up by action plans, programmes, and specific initiatives within individual sectors and areas such as the Action Plan on the Aquatic Environment III, an action plan for biological diversity, a strategy on environment and health, and a report on green market economy. These reports will present and assess the goals, the means, and the costs involved in achieving sustainable development.

The Danish government will monitor and report on the progress of implementing the strategy and achieving its goals. A set of indicators will illustrate progress towards the goals and success of the initiatives. The indicators will be updated annually and made accessible to the public via a homepage on the Internet. This gives the possibility of adjusting the course of the strategy where necessary.

