



FCCC/WEB/2002/7

17 October 2002

**“GOOD PRACTICES” IN POLICIES AND MEASURES AMONG PARTIES INCLUDED IN
ANNEX I TO THE CONVENTION**

**Policies and measures reported by Parties included in Annex I to the Convention
in their third national communications**

Database information

1. To facilitate the analysis on “good practices” in policies and measures among Parties included in Annex I to the Convention¹, the secretariat set up a database for policies and measures of Annex I Parties reported in their third national communications (NC3). This database contains mainly information on key policies and measures reported by the Parties² in the relevant summary table as required by the UNFCCC guidelines. It also contains information on policies which have been reported as having a significant impact, or are innovative, or are replicable, or could modify long-term trends or have a negative impact³ on emission trends. In cases when a Party reported a large number of policies and measures in the summary table of its NC3, the choice of which to include in the database was made according to the following criteria: policies and measures already implemented or adopted, and clearly on track to be implemented in the near future; policies and measures with a significant effect; and policies and measures at the national level.⁴
2. The level of detail in the database broadly corresponds to the requirements of the UNFCCC guidelines for reporting of information on policies and measures in the form of a summary table. However, depending on the approach taken by Parties in reporting information in the summary table, in some cases the information is self-explanatory whereas in others it should be considered together with information from the relevant national communication. The database has already proven its usefulness in facilitating the analysis in document *Report on policies and measures of Parties included in Annex I to the Convention reported in third national communications* FCCC/SBSTA/2002/INF.13.
3. This web-based document contains a printout of the database, presented by Party and by sector. Each policy or measure is described in the printout by its name and objective (first column), type of instrument used (second column), status of implementation (third column) and implementing entity (fourth column). Additional information from the national communications (for example when more than one type of instrument was used for implementation) is presented in italics.
4. In addition to the database printout, the greenhouse gas (GHG) emission profile of each Party is presented, based on the information from the 2002 annual GHG inventories⁵.

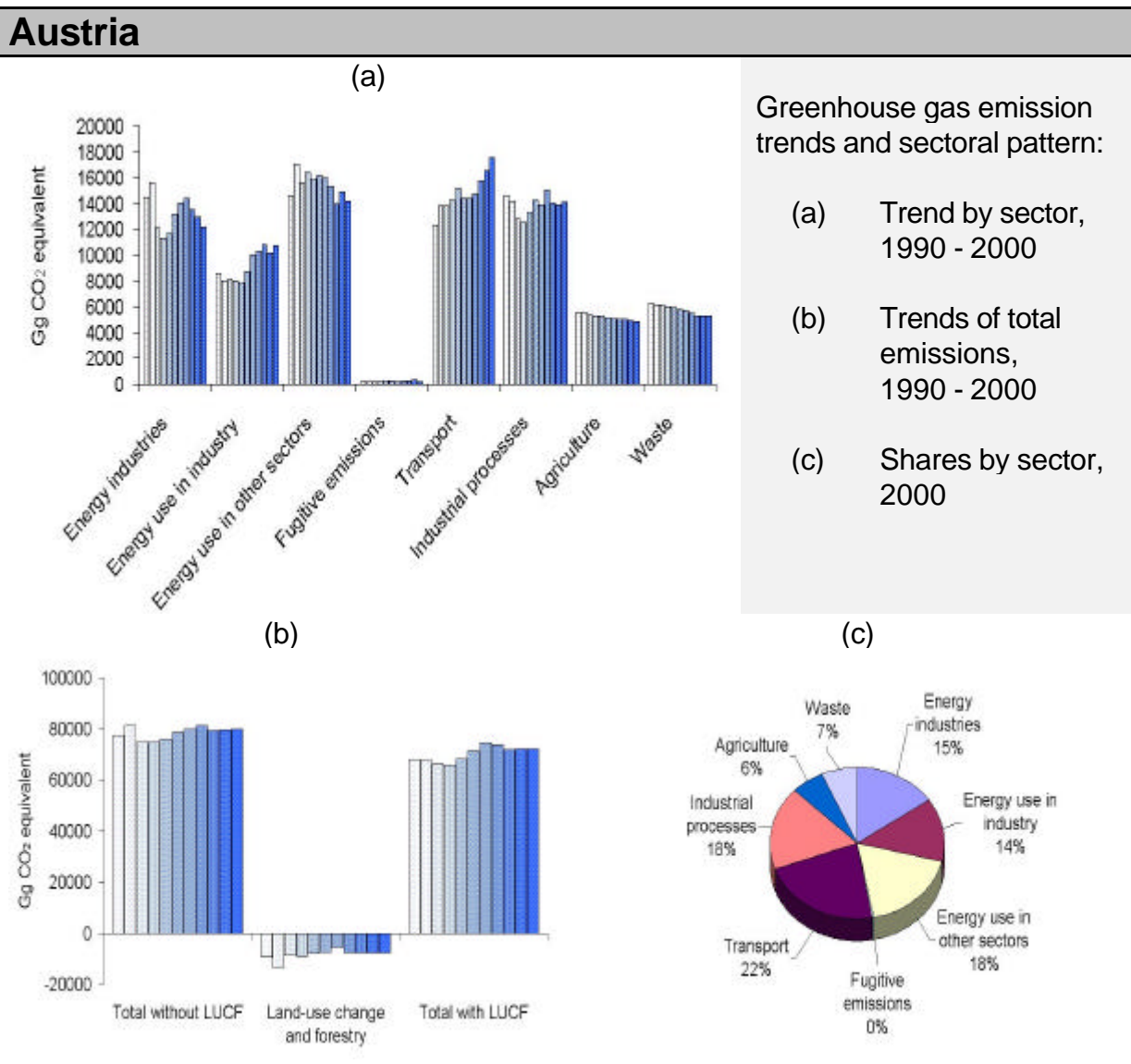
¹ This analysis is contained in document *Report on policies and measures of Parties included in Annex I to the Convention reported in third national communications* FCCC/SBSTA/2002/INF.13.

² The database contains information on 21 Parties which submitted their third national communications before the of end June 2002. The information on Liechtenstein and Monaco was not included, because the third national communications of these Parties contained little information related to the database.

³ These are policies and practices which encourage activities that lead to greater levels of anthropogenic GHG emissions than would otherwise occur (see UNFCCC reporting guidelines on national communications, FCCC/CP/1999/7, page 83, para 16)

⁴ To include information on policies and measures at the regional and the local levels at this stage could potentially lead to double counting (see FCCC/SBI/2001/INF.4).

⁵ In some cases, where no complete time series of GHG inventory data was available, the GHG profile has some data gaps.

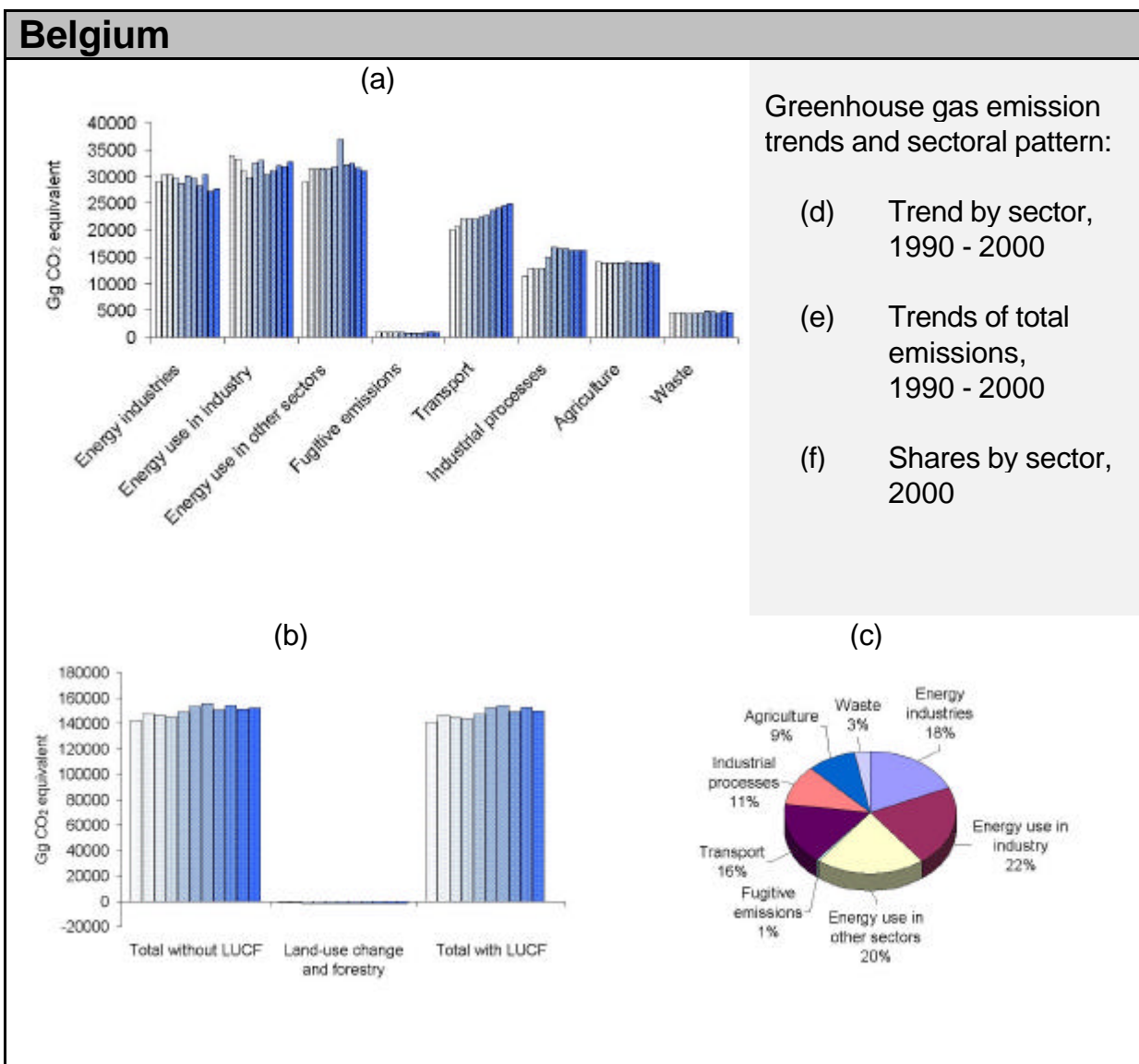


| Sector: Energy | Instrument | Status | Implementing Entity |
|---|---|--|--|
| <p>Stepped-up public support for GHG mitigation projects</p> <p>Promotion of heat supply from renewable energy, energy efficiency measures etc.</p> | <p>Economic</p> <p><i>Promotive</i></p> | <p>Planned</p> | <p>Federation</p> <p><i>national</i></p> |
| <p>'Green electricity' for public buildings</p> <p>Raising share of electricity production from renewables through purchase power of public entities</p> | <p>Economic</p> | <p>Adopted</p> <p><i>adopted / planned</i></p> | <p>Federation, Länder, municipalities</p> <p><i>national, regional and local</i></p> |
| <p>Promotion of energy efficiency and renewable energy</p> <p>Energy-savings and increasing share of renewables in industry</p> | <p>Economic</p> <p><i>promotive</i></p> | <p>Implemented</p> | <p>Federation</p> <p><i>national</i></p> |
| <p>Energy efficiency programme</p> | <p>Information/ Education</p> | <p>Planned</p> | <p>Federation</p> |

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|---|--|--|---|
| Promotion of economic energy-saving in industry | <i>consultative, promotive</i> | | <i>national</i> |
| Voluntary agreements and flexible instruments | Voluntary Agreement | Planned | Federation |
| Cost efficient GHG reductions in industry | <i>voluntary / negotiated / agreements, economic</i> | | <i>national</i> |
| Energy related taxes | Fiscal | Implemented | Federation |
| Revenue-raising with positive side-effect of potential GHG reductions | | | <i>national</i> |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| Preferential market access for 'green electricity' | Economic | Implemented | Federation (framework), Länder (executing laws) |
| Raising share of renewable energy sources in electricity supply | <i>regulatory</i> | | <i>national and regional</i> |
| Public support for renewable energy projects and district heating | Economic | Implemented | Federation, Länder, EU |
| Raising share of heat production from renewable energy sources and CHP | <i>Promotive</i> | | <i>national, regional and</i> |
| Preferential framework conditions for CHP | Economic | Implemented | Federation (framework), Länder (executing laws) EU (future targets) |
| Promotion of combined heat and power production by granting improved feed-in conditions or setting obligatory quota | <i>Economic, regulatory, promotive</i> | <i>framework law implemented; executing laws planned</i> | <i>national, regional and</i> |
| Further development of targets for 'green | Economic | Planned | Federation (framework), Länder (executing laws) |
| Raising share of renewable energy sources in electricity supply | <i>Regulatory</i> | | <i>national and regional</i> |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Agreement between Federation and Länder on energy-saving | Regulatory | Implemented | Federation and Länder |
| Energy-savings in buildings, heating installations and electricity consumption | <i>framework legislation</i> | | <i>national and regional</i> |
| Minimum thermal standards for buildings | Regulatory | Implemented | Länder |
| Energy-savings in buildings | <i>implementation</i> | <i>implemented/ planned</i> | <i>regional</i> |
| Housing support schemes | Economic | Implemented | Länder |
| Energy-savings in dwellings (new and renovation) | <i>Promotive</i> | <i>Implemented / adopted / planned</i> | <i>regional</i> |
| Consumption-related heating costs calculation | Regulatory | Implemented | Federation |
| Energy-savings in buildings | | | <i>national</i> |
| 'Contracting' for public buildings | Economic | Implemented | Federation, Länder, |

| Sector: Transport | Instrument | Status | Implementing Entity |
|---|---|--|---|
| Energy-savings in public and private sector buildings | <i>Economic / voluntary</i> | <i>Implemented / adopted / planned</i> | municipalities <i>national, regional and local</i> |
| Replacement of old heating systems Energy-savings in buildings by improvement of heating energy supply | <i>Economic Promotive</i> | <i>Implemented Implemented / adopted / planned</i> | Länder, municipalities <i>regional and local</i> |
| Reduction of emissions from passenger cars Raising market share of advanced engine technologies with low fuel consumption | <i>Voluntary Agreement voluntary / information</i> | <i>Implemented</i> | Federation, EU <i>national and EU</i> |
| Fuel consumption levy Fiscal incentive for low fuel consumption vehicles | <i>Fiscal</i> | <i>Implemented</i> | Federation <i>national</i> |
| Road tolls Internalisation of external costs for use of highways | <i>Fiscal</i> | <i>Implemented</i> | Federation <i>national</i> |
| Vehicle tax adaptation 2000 Internalisation of external costs, especially for strong engines | <i>Fiscal</i> | <i>Implemented</i> | Federation <i>national</i> |
| Rail infrastructure and public transport Changing modal split to the benefit of rail/public transport | <i>Other public investments and promotion</i> | <i>Implemented Implemented / adopted / planned</i> | Federation, Länder, municipalities <i>national, regional and local</i> |
| Improvement of fuel quality and promotion of 'bio-diesel' GHG emissions reduction through fuel improvement and renewable energy sources | <i>Regulatory Regulatory and fiscal</i> | <i>Implemented Implemented / planned</i> | Federation <i>national</i> |
| Mileage based toll for lorries Internalisation of external costs of road transport | <i>Fiscal</i> | <i>Adopted</i> | Federation <i>national</i> |
| Improvement of transport logistics Avoidance of inefficient and unnecessary transportation of goods, aiming at a total reduction of | <i>Information/ Education Promotive, information</i> | <i>Implemented Implemented / adopted / planned</i> | Federation, Länder <i>national and regional</i> |
| Promotion of walking and cycling Shifting modal split, improving living conditions and safety | <i>Information/ Education promotive, information, education</i> | <i>Implemented implemented / adopted / planned</i> | (Federation), Länder, municipalities <i>national, regional and local</i> |
| Improvement of spatial planning Avoidance of traffic-inducing settlement structures | <i>Regulatory planning / regulatory</i> | <i>Planned</i> | Länder <i>regional</i> |

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|--|--|---|--|
| Traffic management and speed limitation Avoidance of congestions; promotion of economic driving | Regulatory <i>information / regulatory / fiscal</i> | Planned | Länder <i>regional</i> |
| Sector: Industrial Processes | | | |
| Implementation of the IPPC directive Energy-savings and efficiency raising measures in industry | Regulatory | Implemented | Federation, (EU) <i>national (and EU)</i> |
| Partial phase-out of HFCs and SF6 Substantial reduction of emissions of gases with high GWP | Regulatory | Planned | Federation <i>national</i> |
| Avoidance of leakage Substantial reduction of emissions of gases with high GWP | Voluntary Agreement <i>voluntary, research</i> | Planned | Federation <i>national</i> |
| Sector: Agriculture | | | |
| Extension of ecological farming Protection of rural environment (soil, water, natural and cultural habitate); production of high quality food | Economic <i>promotive / economic</i> | Implemented | Federation, Länder, EU <i>national, regional. EU</i> |
| Cultivation of oil-seed crops Extension of crops for production of bio-fuels | Fiscal <i>promotive, fiscal</i> | Implemented | Federation, Länder <i>national and regional</i> |
| Sector: Land Use Change and Forestry | | | |
| Maintenance and extension of high conservation value forests Protection of high conservation value forests, adaptation to climate change | Research <i>informtion, training</i> | Adopted <i>planned</i> | Federation Länder <i>National and regional</i> |
| Sector: Waste | | | |
| Landfill Regulation 1996 Minimisation of waste landfilling | Regulatory | Implemented <i>Implemented / adopted</i> | Federation (framework), Länder (executing laws), municipalities <i>national, regional and local</i> |
| Expansion of waste treatment capacities other than landfilling Banning disposal on landfills by 2004/2008; expanding share of other capacities, e.g. energy efficient incineration | Regulatory | Planned <i>Planned / adopted</i> | Länder, municipalities <i>regional and local</i> |
| Efficient energy recovery from waste Energy recovery from waste incineration (CHP) | Economic | Adopted | Federation <i>national</i> |
| Sector: Cross-Sectoral | | | |
| GHG emissions trading Cost-effective GHG emissions reductions for large stationary emitters | Economic | Planned | Federation <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--------------------------------|-------------|--|
| <p>RUE/electricity Fund</p> <p>Improvement of energy efficiency, promotion of the RES and the RUE (Rational Use of Energy)</p> | Economic | Implemented | Federal State, Ministry of Economic Affairs - Energy Administration <i>national</i> |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| <p>Purchase at a guaranteed price of electricity produced from renewable energy sources</p> <p>Promotion of renewable energy</p> | Economic | Adopted | Federal State, Ministry of Economic Affairs (Energy Administration) <i>national</i> |
| | <i>Minimum price guarantee</i> | | |

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| Green certificates | Regulatory | Adopted | Federal State, Ministry of Economic Affairs (Energy Administration) and regional ministries <i>national and regional</i> |
| Promotion of electricity derived from renewable energy sources or from CHP | | | |
| Green electricity | Regulatory | Adopted | Federal State, Ministry of Economic Affairs (Energy Administration) <i>national</i> |
| Promotion of electricity derived from RES or from CHP: Eligibility of producers and consumers, and priority access to the network for green electricity | | | |
| Subsidies to promote renewable energy sources | Economic | Implemented | Regional Energy Administrations <i>regional</i> |
| Installation of photovoltaic panels, CHP installations and solar water heaters. | <i>Subsidies</i> | | |
| Reductions in tariff for the clients of CHP installations | Regulatory | Implemented | Federal State, Ministry of Economic Affairs - Energy Administration <i>national</i> |
| Promotion of CHP | <i>Price regulation</i> | | |
| Financial support for the production of electricity from RES | Economic | Implemented | Federal State, Ministry of Economic Affairs - Energy Administration <i>national</i> |
| Promotion of RES | <i>Subsidies</i> | | |
| <hr/> | | | |
| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
| Tax reductions on investments (industrial and residential sector) | Fiscal | Implemented | Federal State, Ministry of Finance <i>national</i> |
| Improvements in energy efficiency (industry and residential) | | | |
| Energy auditing | Economic | Implemented | Regional Energy Administrations <i>regional</i> |
| Free energy pre-audits, grants towards the cost of an audit, free consultation service for SMEs and subsidies for energy audits | <i>Grants, environmental information</i> | | |
| Benchmarking and other voluntary agreements with industry | Voluntary Agreement | Implemented | Regional Energy Administrations <i>regional</i> |
| Energy efficiency in the industrial sector | | | |
| <hr/> | | | |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Subsidies to promote energy efficiency | Economic | Implemented | Regional Energy Administrations <i>regional</i> |
| Improve energy efficiency in private companies, households, public buildings etc. | <i>Subsidies</i> | | |
| Energy certification and performance standards for buildings | Regulatory | Adopted | Energy Administrations (federal + regional) <i>national and regional</i> |
| Energy efficiency of buildings | | | |

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| Standards of energy efficiency for boilers and water heaters | Regulatory | Implemented | Federal State, Ministry of Social Affairs, Public health and environmental health <i>national</i> |
| Improvement of the energy efficiency of boilers and water heaters | | | |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Improvements to public transport | Policy Process | Implemented | Regional public transport entities <i>regional</i> |
| Increase the provision and improve the quality of public transport | <i>Mixed</i> | | |
| Federal Government's rail investment plan | Other | Adopted | Federal State (Min. Communications and Infrastructure) + agreement for State / Region cooperation <i>national and regional</i> |
| Increase the provision and improve the quality of public transport | <i>Planning</i> | | |
| Tax exemption for employer's contribution to the price of public transport season tickets and car pooling | Fiscal | Adopted | Federal State, Min. of Finance <i>national</i> |
| The use of public transport and car pooling for home / work journeys | | | |
| Improvement of infrastructure for cyclists and pedestrians | Other | Adopted | Regional public transport entities and <i>regional and local</i> |
| Promotion of the use of bicycles and walking for short trips in towns & cities | <i>Information/ Education and other instruments</i> | <i>Implemented, adopted</i> | |
| Improvement of systems to promote the use of alternative modes of transport | Information/ Education | Adopted | Regional public transport entities and <i>regional</i> |
| Modal shift of passenger and goods transport from road towards rail and navigable waterways; creation of multimodal platforms (hubs): rationalisation of the traffic flow and parking for heavy duty vehicles in urban areas | <i>and regulatory (traffic flow and parking space management)</i> | <i>Regulatory component is only planned</i> | |
| Modulation of the size of the European road tax | Fiscal | Implemented | Federal State, Min. of Finance <i>national</i> |
| Promotion of less polluting vehicles | | | |
| LPG Allowance | Information/ Education | Implemented | Federal State, Min. of the Environment <i>national</i> |
| Promotion of less polluting vehicles | | | |
| Promotion of "clean" vehicles | Information/ Education | Implemented | Regions (Cooperation agreement) <i>regional</i> |
| Changing the behaviour patterns of consumption | | | |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| Adaptation of the VLAREM regulations (N2O catalysts) | Regulatory | Planned | Flemish Region <i>regional</i> |
| Limitation of N2O emissions released by the | | | |

production of nitric acid

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|---|---------------------|---|--|
| Regulations aiming to limit the use of fluorinated greenhouse gases Reduced emissions of fluorinated greenhouse gases | Regulatory | Implemented | Flemish Region <i>regional</i> |
| Best Available Technologies Implementation of the IPPC directive | Regulatory | Adopted | Regional Administration <i>regional</i> |
| Sector agreements Reduction of GHG emissions (Chemistry, paper, mining industries, cement) | Voluntary Agreement | Adopted <i>some are only planned</i> | Walloon Region <i>regional</i> |

| Sector: Agriculture | Instrument | Status | Implementing Entity |
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| Manure Action Plan 2 Reduction of agricultural inputs | Regulatory | Adopted | Flemish Region VLM - manure bank <i>regional</i> |
| Reduction in pork rearing Reduction of agricultural inputs | Economic | Implemented | Flemish Region ALT (Agricultural and horticultural administration) <i>regional</i> |
| 'Organic Agriculture' action plan 10% of farmed land to be "organic" by 2010 | Economic <i>and informational</i> | Planned | Flemish Region ALT (Agricultural and horticultural administration) <i>regional</i> |
| Rural Development Plan (RDP) Improvement of agricultural practices | Economic <i>and informational</i> | Adopted <i>some elements are only planned</i> | Regional Administration <i>regional</i> |

| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
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| Measure to support reforestation Reforestation | Economic | Implemented | Federal State, Min. of Agriculture <i>national</i> |
| Prohibition of deforestation Preservation of woodland | Regulatory | Implemented | Flemish Region Department of Woods and Countryside <i>regional</i> |
| Investigation of carbon sequestration Improved knowledge of carbon sinks | Research | Implemented | Walloon Region <i>regional</i> |

| Sector: Waste | Instrument | Status | Implementing Entity |
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| Ban on dumping biodegradable organic waste To stop organic material going to landfill sites, closure of biologically active landfill sites | Regulatory | Implemented <i>in some regions only planned</i> | Regional Administration <i>regional</i> |
| Remedial treatment of old landfill sites Recovery of discharged gas | Regulatory | Implemented | Walloon Region <i>regional</i> |

Reduction of waste at sourceInformation/
Education

Implemented

Brussels -Capital Region

To reduce the quantity and harmfulness of waste at
source*regional***Recovery of waste**

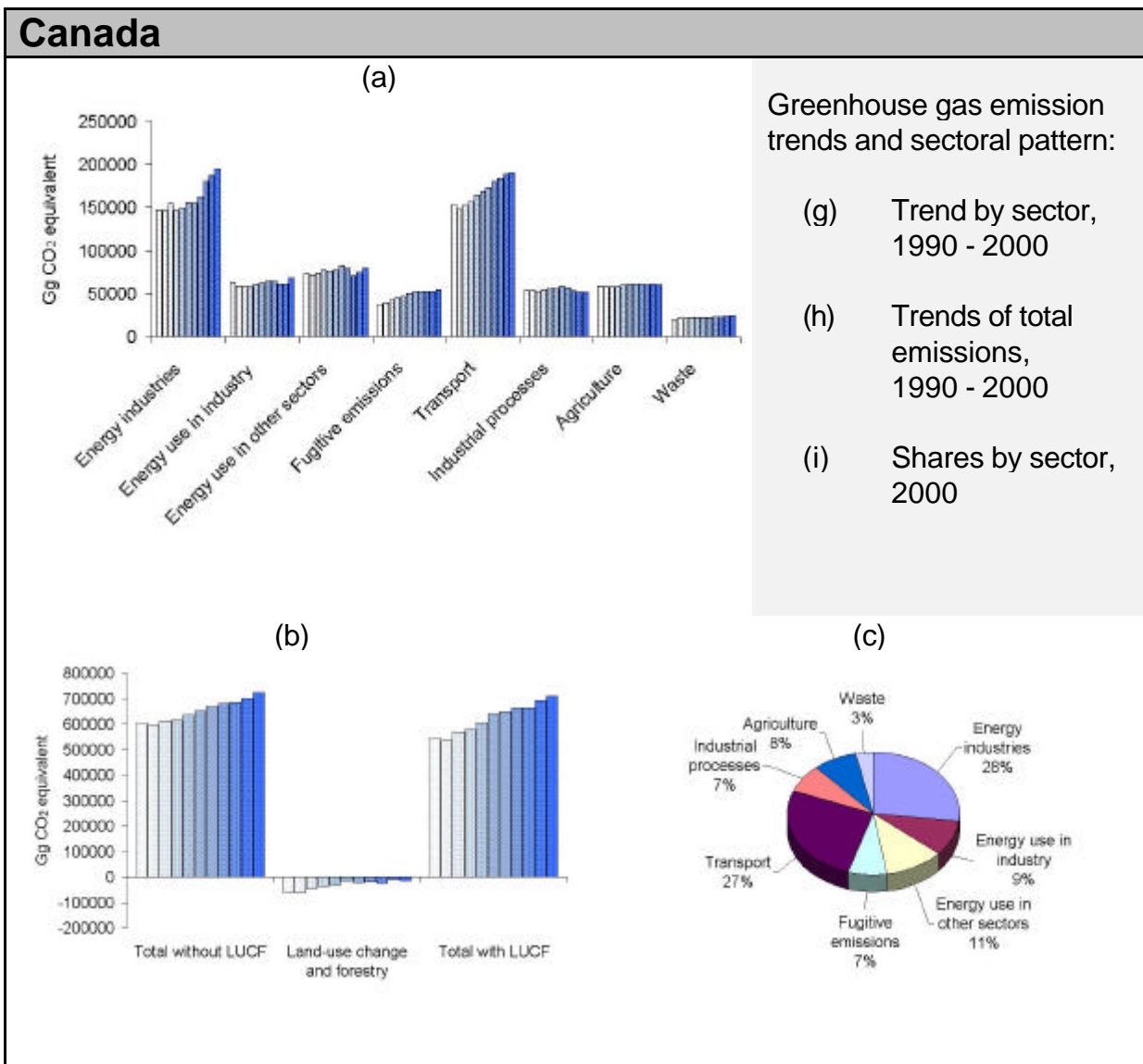
Waste recovery, prevention

Policy Process
Instrument mix

Implemented

Brussels -Capital Region

regional



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|------------|-------------|---|
| <p>Greenhouse Gas Emission Reduction Trading Program is designed to test the effectiveness of emission reduction trading for GHGs in the Canadian context. Buyers and sellers of emission reductions submit documentation on traded projects to a multi-stakeholder committee for review. If the emission reductions satisfy the requirements of the pilot, they are registered and will be eligible for recognition against future compliance obligations.</p> | Economic | Implemented | Government of Canada, Government of Nova Scotia, Government of Saskatchewan, Government of Quebec <i>national/regional</i> |
| <p>National Fuel-Cell Research and Innovative This initiative involves collaborative industrial research, technology development, demonstration and deployment related to the use of fuel cells for alternative energy production.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |

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|--|--|-------------|--|
| <p>Program of Energy Research and Development This fund focuses on the economic and environmental impacts of the non-nuclear energy sector. It supports and complements a wide range of energy science and technology initiatives undertaken by 11 federal departments and agencies in Canada. The program supports the development of a range of environmentally and economically sustainable energy production and end-use technologies.</p> | Policy Process <i>Policy/Research/ Information</i> | Implemented | Natural Resources Canada <i>national</i> |
| <p>Technology Early Action Measures Provides funding support for early action technology projects to reduce GHG emissions domestically and internationally, while sustaining economic and social development.</p> | Other <i>Technology Development and Demonstration</i> | Implemented | Government of Canada <i>national</i> |
| <p>Capital Cost Allowance and Related Changes Encourages investment in certain types of energy-efficient and renewable energy technologies.</p> | Economic | Implemented | Department of Finance <i>national</i> |
| <p>Renewable Energy Market Development Program Program encourages the use of renewable energy from emerging resources and helps the supply industry take advantage of promising markets. The program also helps industry improve its delivery infrastructure through a variety of activities, including upgrading industry training programs and product standards, and developing software to facilitate feasibility studies and system designs.</p> | Information/ Education | Implemented | Natural Resources Canada <i>national</i> |
| <p>Community Energy Management Includes two broad initiatives that have taken root in the Canadian planning profession. The first of these is a move to change the way in which neighbourhoods, towns, cities and regions are designed. The overarching principle is to create more "livable" environments that improve accessibility to services and employment, preserve green space, reduce pollution and noise, and generally create a safer urban landscape with a greater sense of place and community. The second initiative is the focus on meeting society's energy service needs in ways that minimize energy consumption, with potential economic and environmental benefits. This initiative is directed at choices about energy delivery systems, district heating and cooling, combined heat and power, renewable energy, and building energy and resource efficiency, passive solar design, reduced building heat loss, reduced water consumption and wastewater production.</p> | Economic <i>Economic Regulatory Information</i> | Implemented | National Climate Change Process <i>municipal</i> |
| <p>Green Municipal Investment Fund The Green Municipal Investment Fund will increase municipal access to innovative and cost-effective energy services, such as district energy systems, renewable energy and energy efficiency. The fund provides loans for up to twenty five percent of capital projects that will allow eligible recipients to carry out environmental projects within municipal operations.</p> | Economic | Implemented | Government of Canada Municipalities <i>municipal</i> |

The Green Municipal Investment Fund will also address the issue of climate change by supporting projects designed to improve energy efficiency and thus reduce GHG emissions. The Green Municipal Investment Fund, will provide grants, loans and loan guarantees for projects that increase the environmental efficiency and cost-effectiveness of existing municipal water, wastewater, waste, energy and public transportation facilities.

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|---|---------------|---|
| <p>Green Power Procurement Initiative This initiative commits the Government of Canada to displacing purchases of high-carbon electricity with electricity from emerging renewable sources, referred to as "green power". In addition to reducing GHG and other emissions in federal operations, this initiative provides a demand for green power and encourages electric utilities to market this type of power to other customers.</p> | Policy Process <i>Policy</i> | Implemented | Natural Resources Canada, Environment Canada <i>national</i> |
| <p>Renewable Energy Deployment Initiative This program promotes renewable energy systems for space and water heating, and for cooling through an incentive that funds 25 percent of the cost of adopting new systems (to a maximum of \$50,000). Eligible systems include solar air heating, solar water heating, high efficiency/low emission biomass combustion. Initiative also provides market support for earth energy systems and supports pilot projects in the public institutions and residential markets.</p> | Economic <i>Economic Technology Transfer Information</i> | Implemented | Natural Resources Canada <i>national</i> |
| <p>Advanced Combustion Technologies Program Program supports the development of pollution-abatement and novel combustion technologies aimed at reducing emissions of acid rain precursors, GHGs, particulates and hazardous substances from stationary power sources fuelled by coal, oil, natural gas or biomass.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |
| <p>Bio-Fuel Turbine Power Generation Systems The project consists of the development and testing of systems for engine operation on liquid bio-oil fuel. Bio-oil fuels are derived from feedstock such as wood, grasses, wastepaper and agricultural residues. The project will further advance the engine technology by redesigning and refining the combustion system, and developing specifications for a full-scale power generation system.</p> | Research | Implemented | Industry Canada, Orenda Aerospace Corporation |
| <p>Community Energy Systems Program helps Canadian communities meet their energy needs by identifying and developing opportunities for the use of district heating and cooling, combined heat and power (cogeneration), waste heat recovery, thermal storage and local sources of renewable energy, particularly biomass.</p> | Information/ Education | Implemented | Natural Resources Canada <i>national</i> |

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|--|---|---------------|---|
| <p>Green Power Procurement Initiative</p> <p>This initiative commits to displacing purchases of high-carbon electricity with electricity from emerging renewable sources, referred to as "green power". In addition to reducing GHG and other emissions in federal operations, this initiative provides a demand for green power and encourages electric utilities to market this type of power to other customers.</p> | Information/ Education | Implemented | Natural Resources Canada, Environment Canada <i>national</i> |
| <p>Market Incentive Program</p> <p>The purpose of this program is to provide incentives to electricity retailers to purchase or produce electricity based on emerging renewable electricity sources from new or expanded generating capacity, or to promote the sales of electricity from emerging renewable energy sources.</p> | Fiscal | Implemented | Natural Resources Canada <i>national</i> |
| <p>Renewable Energy and Hybrid Systems for Remote Communities</p> <p>Program accelerates the deployment of renewable energy technologies to more than 300 remote communities that are not connected to the main electricity grid or natural gas networks.</p> | Other <i>Technology Transfer</i> | Implemented | Natural Resources Canada <i>national</i> |
| <p>Renewable Energy Technologies Program</p> <p>Program supports efforts to develop and commercialize advanced renewable energy technologies that can serve as cost-effective and environmentally responsible alternatives to conventional energy generation. The program supports the development of technologies - including active solar, wind energy, small hydro (less than 20 megawatts) and biomass.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |
| <p>Tax Incentive for Renewable Energy and Energy Efficiency</p> <p>Improved access to financing for renewable energy and energy efficiency by relaxing the "specified energy property" rules, and expanding the eligibility for flow-through shares to include pre-production costs pertaining to eligible investments in the renewable energy industry. The specified energy property rules were relaxed to allow manufacturing and processing, and mining, companies undertaking energy efficiency and renewable energy investments to claim the accelerated tax write-offs association with these investments against income from all sources.</p> | Fiscal | Implemented | Department of Finance <i>national</i> |
| <p>Renewable Energy and Hybrid Systems Program</p> <p>Program focuses on the development, implementation and promotion of photovoltaic technologies for domestic and international markets.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |
| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
| Canadian Industry Program for Energy Conservation (CIPEC) | Voluntary Agreement | Implemented | Natural Resources Canada |

The Canadian Industry Program for Energy Conservation (CIPEC) helps industrial task forces set and achieve targets for improving energy intensity in their sectors. CIPEC's 21 voluntary sector task forces determine the potential for energy-efficiency improvements within their sector, establish a means of reporting and tracking progress, and create action plans for reaching targets. They also provide a forum for identifying common needs in such areas as energy-management planning, technical information, financing, training and employee awareness. The Office of Energy Efficiency of Natural Resources Canada then works with the task forces to develop appropriate services to satisfy these needs.

national

Industrial Energy Efficiency Initiative

Voluntary
Agreement

Implemented

Natural Resources Canada

The Industrial Energy Efficiency Initiative is a voluntary industry-government alliance that recognizes that improving energy efficiency can help Canadian industry stay competitive and help protect the environment. Also assists the manufacturing and metal/non-metal mining industries identify energy efficiency potential, establish energy efficiency improvement targets, implement and manage programs, report on progress and celebrate

national

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|--|--|--------------------|---|
| <p>Building Heat Management Research Program The purpose of this program is to develop and disseminate knowledge and technology that will contribute to a reduction in GHG and other emissions through improvements in buildings energy efficiency, and help build the energy efficiency industry in order to capture growing domestic and international markets.</p> | <p>Research <i>Research / Information</i></p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| <p>Commercial Buildings Incentive Program This program provides financial incentives to encourage building owners to incorporate energy-efficient technologies and practices in designs for new commercial and institutional buildings.</p> | <p>Economic <i>Economic / Information</i></p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| <p>EnerGuide for Houses The program encourages Canadians to improve the energy performance of their houses. Homeowners receive advice from independent energy efficiency experts on how to improve home comfort and reduce heating and cooling costs when making home improvements.</p> | <p>Information/ Education</p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| <p>Heating, Ventilation and Air Conditioning Energy Efficiency Rating System This program provides consumers with energy-efficiency ratings for gas and propane furnaces, central air conditioning equipment and air-to-air heat pumps. Oil-fired furnaces will soon be added to the</p> | <p>Information/ Education <i>Information Technology Transfer</i></p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |

rating system. Ratings are published at the back of manufacturers' brochures in order to provide consumers with the information needed to purchase energy-efficient home heating and air conditioning products. This program is operated in association with the Heating, Refrigeration and Air Conditioning Institute, which provides contractors with the tools to promote the sale of more energy-efficient equipment.

Model National Energy Code for Buildings and Houses

This program aims to increase the energy efficiency of new Canadian houses and buildings by specifying minimum energy requirements, supporting the implementation and adoption of these model national energy codes by relevant authorities having jurisdiction for buildings and houses, and monitoring and analyzing the impact of such codes.

Policy Process

Implemented

Natural Resources Canada

Policy

national

Accelerated Standards Action Program

This program builds on performance standards that are prescribed under the Energy Efficiency Act. The minimum standards are estimated to have accounted for over 10 Mt of annual aggregate emissions reductions in the year 2000.

Policy Process

Implemented

Natural Resources Canada

Policy

national

EnerGuide for Equipment

Program ensures that new major household appliances and room air conditioners comply with the Energy Efficiency Act and show a yearly energy consumption rating (major household appliances) or an energy-efficiency ratio (air conditioners). All ratings are based on standard test procedures. Labeling helps consumers obtain consistent and reliable information on energy performance.

Regulatory

Implemented

Natural Resources Canada

national

Model National Energy Code

Aims to increase the energy efficiency of new Canadian houses and buildings by specifying minimum energy requirements. This program supports the implementation and adoption of these model national energy codes by relevant authorities who have jurisdiction for buildings and houses. This program also monitors and analyses the impact of such codes.

Regulatory

Implemented

Natural Resources Canada

national

Sector: Fugitive Emissions

Instrument

Status

Implementing Entity

Tax Incentive for Flare Gas Generation

Made generating equipment fuelled by flare gas at oil fields eligible for a higher capital cost allowance under federal tax regulations. This helps to reduce GHG greenhouse gas emissions in the oil and gas industry due to a more controlled combustion process, as well as through the displacement of coal-fired electricity generation.

Fiscal

Implemented

Department of Finance

national

| Sector: Transport | Instrument | Status | Implementing Entity |
|--|---|-------------|---|
| <p>Alternative and Future Transportation Fuels</p> <p>Encourages the development, production and use of alternative and future vehicle and fuels technologies. The focus is on a number of fuels, including propane, natural gas, and alcohols, as well as on electricity and hydrogen. The program provides support to fleet operators in the public and private sectors through economic and market studies, emissions and safety assessments; market demonstration, communications and awareness activities, and general and technical information about fuel options.</p> | <p>Information/ Education</p> <p><i>Information Education</i></p> | Implemented | <p>Natural Resources Canada</p> <p><i>municipal</i></p> |
| <p>Auto \$mart Program</p> <p>Promotes energy-efficient practices among Canadian motorists through publications, events, joint projects and a Student Driver Kit available to driver trainers across Canada. Motorists also receive helpful tips on buying, driving and maintaining their vehicles to reduce fuel consumption and GHG emissions.</p> | <p>Information/ Education</p> <p><i>Information Education</i></p> | Implemented | <p>Natural Resources Canada</p> <p><i>municipal</i></p> |
| <p>EnerGuide for Vehicles</p> <p>The program provides prospective new-vehicle buyers with information on energy consumption and costs to enable them to compare and purchase the most fuel-efficient vehicle that meets their needs. Includes information on all new vehicles sold, a complete listing of fuel consumption information for all new vehicles, and identifies the most fuel-efficient vehicles in different categories.</p> | <p>Information/ Education</p> <p><i>Information Education</i></p> | Implemented | <p>Natural Resources Canada</p> <p><i>municipal</i></p> |
| <p>Excise Tax Exemption for Ethanol and Methanol</p> <p>The federal government's Excise Tax Exemption for Ethanol and Methanol Program provides a 100% exemption from the ten cent per litre excise tax on gasoline for ethanol and methanol made from biomass that is blended with gasoline.</p> | Economic | Implemented | <p>Natural Resources Canada, Finance Canada</p> <p><i>municipal</i></p> |
| <p>FleetSmart</p> <p>Helps fleet managers reduce fuel costs and vehicle emissions through energy-efficient practices. The program develops energy-use data and profiles for fleet segments and provides a range of products such as an energy management tool kit, success stories and case studies that identify best practices, and training initiatives.</p> | <p>Information/ Education</p> <p><i>Information Education</i></p> | Implemented | <p>Natural Resources Canada</p> <p><i>municipal</i></p> |
| <p>Intelligent Transportation System (ITS)</p> <p>This Plan sets out the federal government's strategy for stimulating the development and deployment of these systems across urban and rural Canada. The goals are to maximize the use and efficiency of existing</p> | <p>Information/ Education</p> | Implemented | <p>Transport Canada</p> <p><i>municipal</i></p> |

infrastructure and meet future mobility needs more responsibly. The ITS Plan provides leadership and support to advance the application and compatibility of ITS technologies to make Canada's multimodal ground transportation system safe, integrated, efficient and sustainable.

Moving On Sustainable Transportation

Information/
Education
*Information
Education*

Implemented

Transport Canada
municipal

Supports projects that produce the kinds of education, awareness and analytical tools Canada needs if we are to make sustainable transportation a reality. Program provides funding to help support projects that will provide practical information and tools to better understand sustainable transportation needs; encourage the creation of innovative ways to promote sustainable transportation; and achieve quantifiable environmental and sustainable development benefits.

National Biomass Ethanol Program

Economic

Implemented

Natural Resources
Canada,
Finance Canada
municipal

In December 1994, the federal government reiterated its support for the production and use of fuel ethanol by announcing the National Biomass Ethanol Program. This program introduced a \$70-million, government-guaranteed line of credit that will make it easier for manufacturers to obtain private sector financing for ethanol plants, and will also provide a means of rescheduling their long-term debt in the event of financial difficulties. The line of credit is intended to assist ethanol manufacturers should a future government change the excise tax on fuel ethanol.

Transportation Energy Technologies Program

Regulatory

Implemented

Natural Resources Canada
municipal

Transportation Energy Technologies Program (TETP) supports efforts by Canadian industry to develop and deploy technologies and fuels that provide a cleaner, more sustainable energy mix for our roadways. TETP assists industry in responding to a growing worldwide demand for more environmentally responsible transportation alternatives, while enhancing Canada's competitive edge in the changing transportation marketplace. Key activities include the development of electric vehicles and hybrids, fuel cells and alternative transportation fuels, including natural gas, propane, ethanol, methanol, and hydrogen.

Vehicle Fuel Efficiency Program

Voluntary
Agreement

Implemented

Natural Resources Canada
municipal

Program promotes improvements in vehicle fuel efficiency by encouraging motor vehicle manufacturers to meet voluntary annual company average fuel consumption targets for new automobiles. Working with vehicle, this initiative focuses on opportunities to improve vehicle fuel technology and provide information to consumers on the fuel efficiency of vehicles.

| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
|---|---------------------------|---------------|--|
| <p>Advanced Combustion Technologies Program The program supports the development of pollution-abatement and novel combustion technologies aimed at reducing emissions of acid rain precursors, GHGs, particulates and hazardous substances from stationary power sources fuelled by coal, oil, natural gas or biomass.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |
| <p>Bio-Fuel Turbine Power Generation Systems The project consists of the development and testing of systems for engine operation on liquid bio-oil fuel. Bio-oil fuels are derived from feedstock such as wood, grasses, wastepaper and agricultural residues. The project will further advance engine technology by redesigning and refining the combustion system, and developing specifications for a full-scale power generation system.</p> | Research | Planned | Industry Canada <i>national</i> |
| <p>Canadian Lightweight Materials Research Initiative works to strengthen and coordinate research and development for lightweight and high-strength materials for vehicle applications. It addresses fundamental materials issues in alloy design and thermo mechanical processing, and in manufacturing processing, to improve the performance or reduce the cost of implementing lightweight materials to reduce vehicle weight in order to achieve greater energy efficiency. The technologies developed can also significantly improve the performance of vehicles powered by fuel cells, electric batteries or hybrid systems. The materials considered include manganese, aluminum, high-strength steel, metal matrix composites, plastics and polymer-based composites.</p> | Research | Implemented | Natural Resources Canada <i>national</i> |
| <p>Ethanol From Biomass The project consists of the development and demonstration of a cost-effective process for the production of ethanol from a wide variety of biomass, including farm waste products such as straw and oat hulls.</p> | Research | Planned | Industry Canada <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| <p>Agricultural Environmental Stewardship Addresses the impacts of agricultural practices on water, soil and air quality, biodiversity and GHG emissions.</p> | Information/ Education | Implemented | Agriculture and Agri-Food Canada <i>national</i> |
| <p>Permanent Cover Program The primary objective is to reduce soil degradation on environmentally sensitive lands that have high erosion risk under annual cultivation. Marginal lands were targeted for conversion to alternative sustainable uses under permanent cover.</p> | Voluntary Agreement | Implemented | Prairie Farm Rehabilitation Administration |

Shelterbelt Program

A permanent program for the distribution of seedlings to farmers and Conservation Boards for planting shelterbelts or for conservation and land reclamation projects. This program includes a research component (tree improvement, agro-forestry and carbon sequestration) and a communications component.

Direct results from this program include the creation of wildlife habitat, conservation of soil, sequestration of carbon, significant energy reductions in farmsteads, management of snow and stabilization of crops.

Voluntary
Agreement
*Voluntary /
Research*

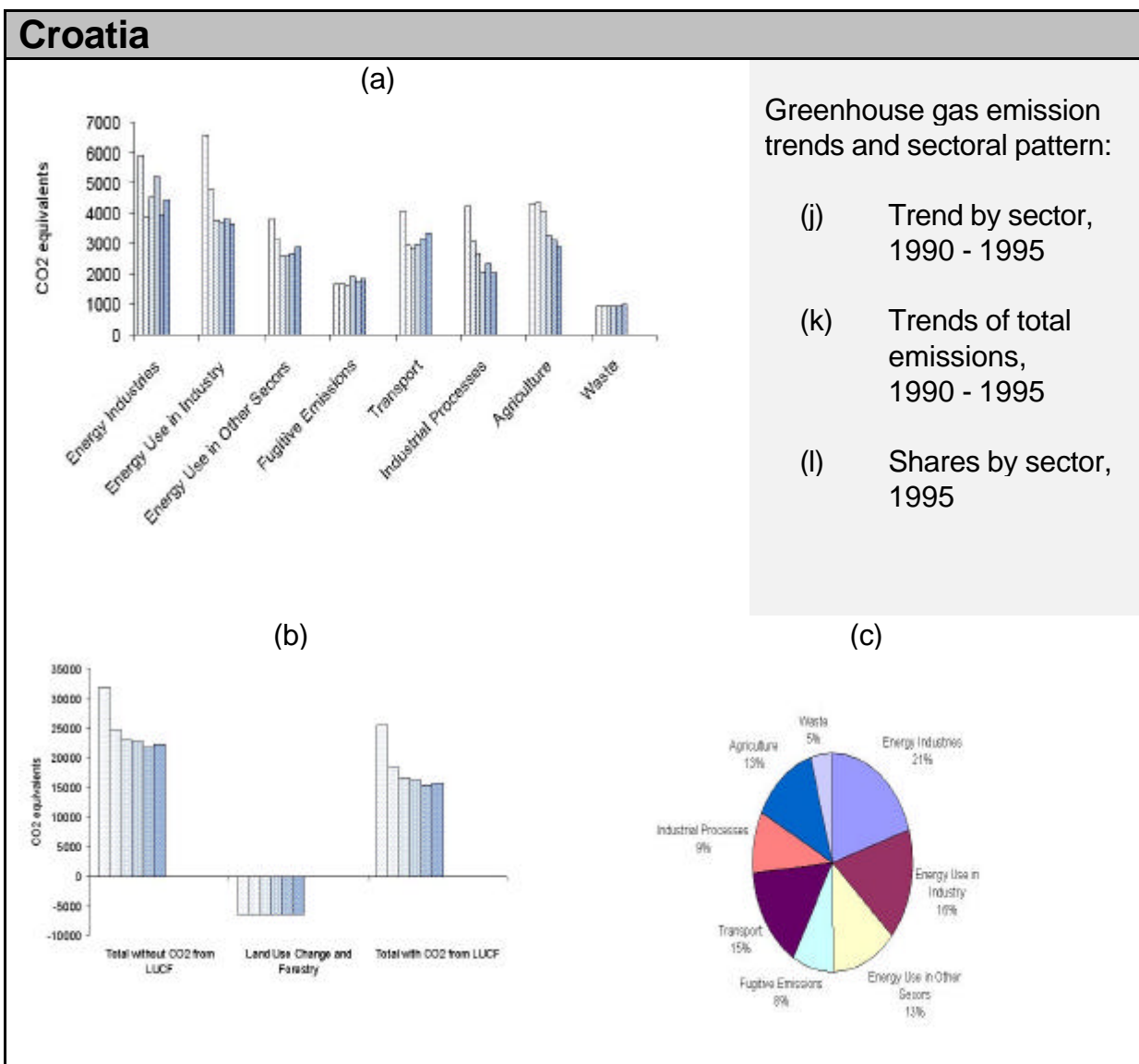
Implemented

Prairie Farm
Rehabilitation
Administration

| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
|--|--|--------------------|---|
| <p>Afforestation Program Development Initiative Planning and designing afforestation program in Canada, including cost-shared pilots with provinces/territories. This is a preparatory action to carry out program development work that may lead to a larger scale Phase Two national afforestation</p> | <p>Policy Process <i>Policy</i></p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| <p>Energy for the Forest Program funds research relating to biomass energy production. The program seeks to advance the understanding of the role of biomass production in the global carbon cycle.</p> | <p>Research</p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| <p>Fire Protection - Adaptation Responses to Climate Change Project in place, as part of its climate change research program, focused on improving our fire and insect prediction capabilities and devising improved options and strategies to adapt to and respond to future fire conditions.</p> | <p>Research</p> | <p>Implemented</p> | <p>Natural Resources Canada <i>national</i></p> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| <p>Landfill Gas Capture An increasing number of Canadian municipalities are implementing landfill gas recovery. In addition to eliminating the risks related to landfill gas emissions, the gas can often be used or sold for its energy content. The 1.2 million tonnes of CH₄ currently generated at Canadian landfills has the equivalent energy of 9 million barrels of oil or enough energy to heat more than 600,000 homes annually. About 25% of the landfill gas being emitted by Canadian landfills is being captured, and of that about 70% of the gas is utilized and the remaining 30% is flared. The majority of the gas is used for electricity generation. Other applications range from simply heating buildings, to providing fuel for a gypsum manufacturing plant, a cement plant and a recycling plant.</p> | <p>Economic <i>Economic Regulatory</i></p> | <p>Implemented</p> | <p>National Climate Change Process <i>municipal</i></p> |
| <p>Enhanced Anaerobic Digestion of Municipal Solid Waste with Energy Recovery The project consists of the development and</p> | <p>Research</p> | <p>Implemented</p> | <p>Industry Canada <i>municipal</i></p> |

demonstration of SUBBOR, an innovative approach to the treatment of the non-recyclable biomass components of municipal solid waste (MSW). The project will involve modified anaerobic digestion (a two-step process) followed by power generation and stabilization of the solid residue for use.

| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
|--|---|--------------------|---|
| <p>Research and Development for Innovative GHG Reduction Technologies</p> <p>This initiative will provide funding to support the research, development and demonstration of eleven separate climate change technology projects by federal departments and research organizations. Projects include oxygen-fired combustion, advance power cycles, microturbines in distributed power systems, CO₂ sequestration in oil sand tailings and gas hydrates, cogeneration from agricultural and municipal wastes, energy efficiency improvements in multi-phase flow, clean combustion of flare gas, gas from biosolids for fuel cells, and power from landfill gas.</p> | <p>Fiscal</p> <p><i>Fiscal Research</i></p> | <p>Implemented</p> | <p>Government of Canada</p> <p><i>municipal</i></p> |
| <p>Action Plan 2000 on Climate Change</p> <p>The Action Plan 2000 on Climate Change, the Government of Canada's contribution to the First National Business Plan, will achieve a significant reduction in CO₂ emissions. This \$ 500 million undertaking will address CO₂ emissions in a wide array of sectors including, transportation, electricity, CO₂ capture and storage, buildings, agriculture, forestry, minerals and metals, industry.</p> | <p>Policy Process</p> <p><i>Economic Research Information Education</i></p> | <p>Implemented</p> | <p>Government of Canada</p> <p><i>municipal</i></p> |
| <p>Climate Change Action (CCAF) Fund Extension</p> <p>The Climate Change Action Fund Extension was announced as a \$150 million, three-year initiative over the 1998/99-2000/01 period. It funds economic and policy analysis requested as well as federal policy coordination and early action to reduce emissions. The primary objectives of the CCAF were to demonstrate the federal government's commitment to ensuring that Canada meets its climate change obligations and to help lay the groundwork for a National Implementation Strategy on Climate Change, developed in concert with the provinces and territories, industry and other stakeholders.</p> | <p>Policy Process</p> <p><i>Economic Research Information Education</i></p> | <p>Implemented</p> | <p>Government of Canada</p> <p><i>municipal</i></p> |
| <p>Development of a National Implementation Strategy on Climate Change</p> <p>A national implementation strategy to meet Canada's obligations under the Kyoto Protocol. Sixteen Issues Tables, involving some 450 experts from multiple perspectives, examined the costs, impacts, and benefits of implementing the Kyoto Protocol and the options open to Canada in developing a climate change strategy. Their work has been the foundation for the development of the National Implementation Strategy and the First Business Plan of measures to implement the strategy.</p> | <p>Policy Process</p> <p><i>Policy Other</i></p> | <p>Implemented</p> | <p>Government of Canada</p> <p><i>municipal</i></p> |



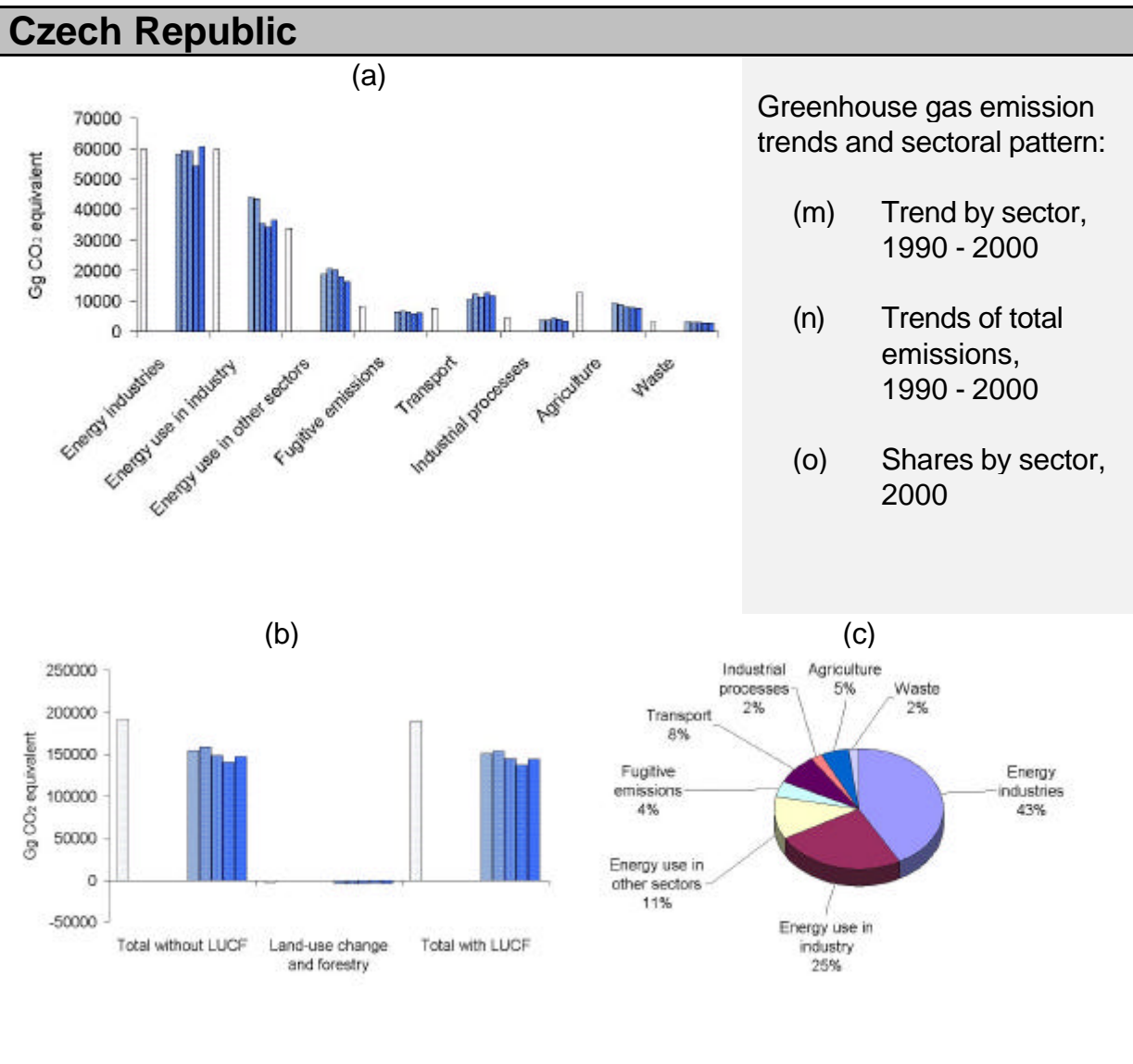
| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--|---|---|
| <p>Restructuring of energy sector and privatization of the national electricity and of oil companies (HEP and INA)</p> <p>Removes market imperfections and introduces market prices for energy. Provides incentives for energy efficiency and faster penetration of natural gas. Privatization of Croatian National Electricity and Ina Oil Company.</p> | <p>Regulatory</p> <p><i>economic</i></p> | <p>Adopted</p> <p><i>Restructuring: The five energy laws were adopted in July 2001.</i></p> <p><i>Privatization: The two laws were under consideration in 2002.</i></p> | <p>Energy supply companies, power utility, state oil company, Croatian National Electricity and Ina Oil Company</p> <p><i>national and private sector</i></p> |

| | | | |
|---|---------------------------------|--|---|
| Fund for Energy Efficiency and Environment Protection | Economic | Planned | Ministry for Economy and Ministry for Environmental Protection and Physical |
| Supports implementation of energy efficiency and renewable energy | | <i>Draft law was submitted to the Parliament in 2002.</i> | <i>national</i> |
| Croatian National Energy Programmes | Research | Implemented | Ministry for Economy, Energy Institute Hrvoje Požar |
| Promotes energy efficiency and renewable energy | <i>Research and Development</i> | <i>Since 1998</i> | <i>national</i> |
| <hr/> | | | |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| Subsidies for Renewable Energy | Economic | Planned | National Energy Regulator, Power producer, power transmission companies |
| Promotes the use of renewable energy and enhances its market penetration | | | <i>national and private sector</i> |
| Croatian Renewable Project | Other | Planned | Coordinated by the HEP |
| Introducing new renewable energy: small hydro, bioenergy, wind power | | <i>WB/GEF project under preparation</i> | <i>national</i> |
| Commissioning of combined cycle power plant | Other | Implemented | HEP |
| Increases the share of natural gas and promotes its efficient use | | <i>One unit was commissioned in 2001 and second one was under construction in 2002</i> | <i>national</i> |
| Upgrading of Nuclear Power Energy Production | Other | Implemented | HEP and Slovenian National Electricity Company |
| Increases production of nuclear energy by upgrading power of Nuclear Power Plant Krško with installation of new steam generators | | <i>Finished in year 2001</i> | <i>national</i> |
| Extension of the natural gas network in Northern Croatia and gas exploration in Southern Croatia | Other | Implemented | INA Oil Company and gas distribution companies |
| Increases natural gas consumption in residential and service sectors. Nearly all North Croatia is connected to natural gas network; project documentation completed, decision is expected. Development of gas system network in South Croatia | | | <i>national and private sector</i> |
| Promoting small hydro and wind power by independent producer | Economic | Implemented | Croatian National Electricity |
| Encourages energy production from small hydro and wind power capacities by independent producers. A pilot project was launched and power purchase | | | <i>national</i> |

agreement is made for one wind power facility

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|--|---------------------|---|--|
| Standards and labeling for energy efficiency | Regulatory | Planned | Manufacturer of appliances, building works companies |
| Promotes energy efficiency in buildings, service sector and households | | <i>Respective law was under preparation in 2002.</i> | <i>private sector</i> |
| Energy Efficiency Services | Other | Adopted | Croatian National Electricity and different consumers in public sector |
| Introduces energy servicing companies (ESCO) to promote energy efficiency improvements in industry and public sector. | | <i>WB/GEF project approved (15 mil. USD) to be started in the end of year 2002</i> | <i>national</i> |
| Removing barriers to energy efficiency in residential and service sector | Economic | Adopted | Residential sector, hotels and other consumers in service sector |
| Introduces specific efficient appliance, compact fluorescent lightening (CFL) in residential sector and supports ESCO operation in hotels and other services | | <i>UNDP/GEF project approved (12 mil. USD) to start with implementation at the end of year 2002</i> | <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Environmentally appropriate farming practices | Voluntary Agreement | Planned | Ministry of Agriculture and Forestry |
| Organic Agriculture and Good Agricultural Practice to improve management of nitrogen | | <i>scientific project, field testing</i> | <i>national</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| Reforestation of productive bare forest land | Economic | Planned | Ministry of Agriculture and Forestry and Croatian Forests |
| Establishes energy forests and pioneer coniferous and deciduous woodland | | <i>Planting could be completed by 2020</i> | <i>national</i> |
| Improved forest management | Regulatory | Planned | Ministry of Agriculture and Forestry and Croatian Forests |
| Improves thinning practices to increase productivity and carbon stocks | | | <i>national</i> |
| Reforestation degraded woodland areas | Economic | Planned | Ministry of Agriculture and Forestry and Croatian Forests |
| Increases forest area by 20,000 ha | | <i>Planting could be completed by 2020</i> | <i>national</i> |

| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
|--|------------|--|--|
| <p>Environmental Impact Assessment</p> <p>Examines new industrial projects with respect to Croatia's commitments under international treaties.</p> | Regulatory | <p>Implemented</p> <p><i>Updated by law on EIS, firstly issued in 1986, updated in year 2001</i></p> | <p>Ministry for Environmental Protection and Physical national</p> |
| <p>Control of Air Pollution</p> <p>Reduces emissions of classical air pollutants with a positive side effect for GHG reduction. By law on emission standard adopted in 1996. Heat losses limitation for small boilers</p> | Regulatory | Implemented | <p>-</p> <p>-</p> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|--------------------|-------------|--|
| New Energy Act | Regulatory | Implemented | Ministry of Industry and Trade and the Energy Regulation Authority |
| Harmonization of CZE legislation with EU legislation | <i>legislative</i> | | <i>national</i> |
| The Act on energy management | Regulatory | Implemented | Ministry of Industry and Trade |
| Harmonization of CZE legislation with EU legislation | <i>legislative</i> | | <i>national</i> |
| State program of support for energy savings and use of renewable energy sources | Economic | Implemented | Czech Energy Agency (Part A); State Environmental Fund (Part B) |
| Decreasing the energy intensity of the economy, energy savings in production, reduction of both ambient air pollutant and greenhouse gas emissions | | | <i>national</i> |

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|---|---|--------------------------|---|
| GEF Efficient lighting initiative Decreasing emissions of GHG through accelerated introduction of energy-efficient lighting technology | Economic | Implemented | GEF; SEVEn (local coordinator) |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Set of measures in the transport sector Emission reductions | Regulatory <i>legislative, economic, fiscal, information</i> | Implemented | Ministry of Transport and Communications in cooperation with other sectors <i>national</i> |
| Support for the production of alternative motor Non-foodstuff use of domestic agricultural production | Economic | Implemented | Ministry of Agriculture <i>national</i> |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| Introduction of Directive 96/61/EC concerning Integrated Pollution Prevention and Control Harmonization of CZE legislation with EU legislation | Other <i>legislative</i> | Adopted | MoE, Ministry of Industry and Trade <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Support for afforestation of unused agricultural areas More rational use of agricultural land | Economic | Implemented | Ministry of Agriculture <i>national</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Draft Act on waste and Draft Act on packaging Harmonization of the CZE legislation with EU legislation | Other <i>legislative</i> | Adopted | MoE, Ministry of Industry and Trade <i>national</i> |
| Utilization of landfill gas and biogas from waste water treatment plants Decreasing emissions of methane from landfill sites and waste water treatment plants | Other <i>technical</i> | Implemented | Operators of landfill sites and waste water treatment plants |
| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
| Strategy for the protection of the climate system of the Earth in the Czech Republic Provisions for meeting commitments under the Kyoto Protocol | Policy Process <i>framework</i> | Implemented | Government of CZE and entrusted Ministries <i>national</i> |
| Preparation of the new Clean Air Act Harmonization of CZE legislation with EU legislation | Regulatory <i>legislative</i> | Other <i>prepared</i> | MoE and other bodies of the state administration in the area of air <i>national</i> |
| Support from the State Environmental Fund for | Economic | Implemented | State Environmental |

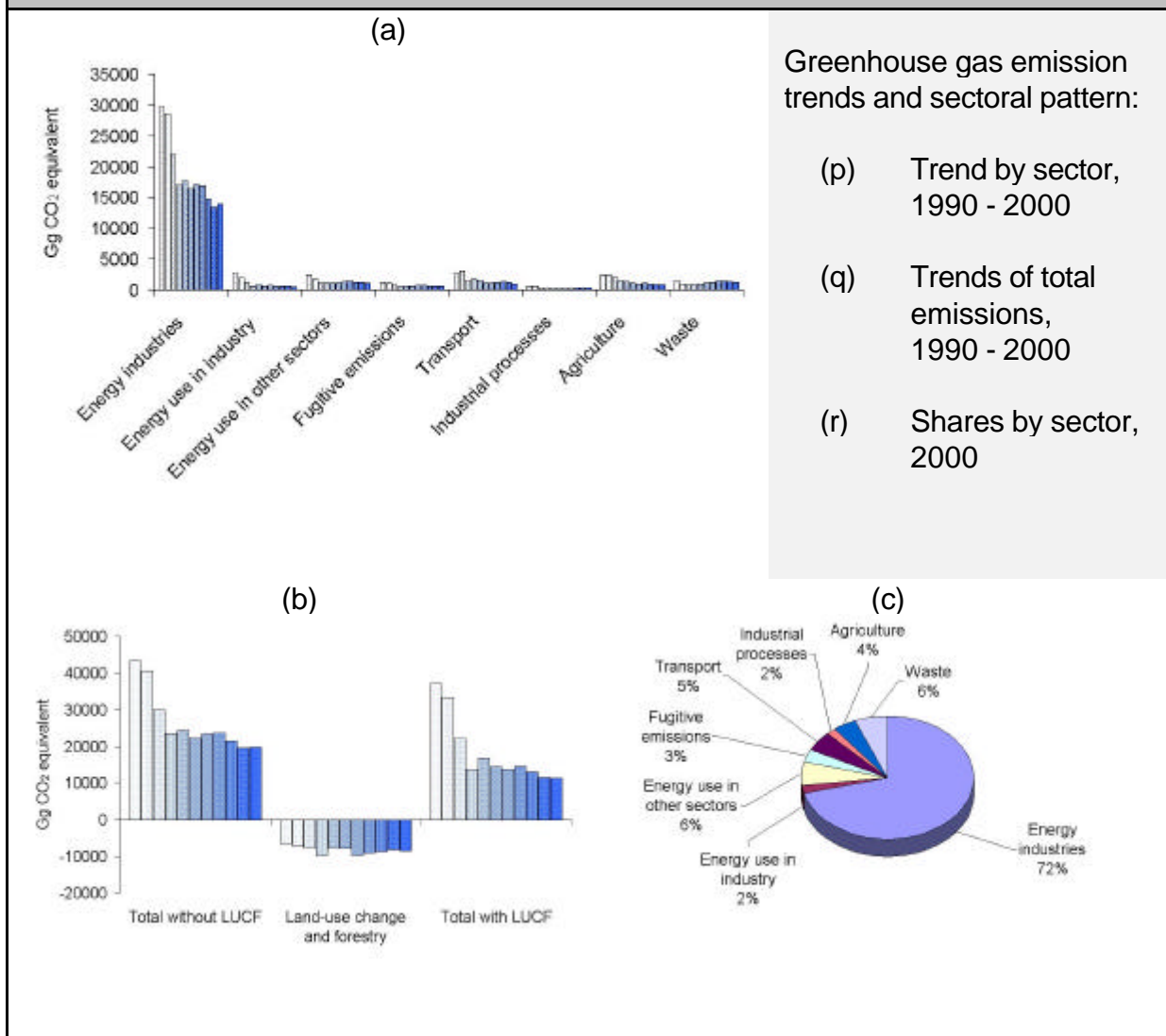
Air Quality Management

Decreasing ambient air pollutant emissions

national

| Sector: Other | Instrument | Status | Implementing Entity |
|--|-------------------|---------------|--|
| Supporting programme for reconstruction and recovery of concrete panel buildings Repair and reconstruction of concrete panel buildings | Economic | Implemented | Ministry for Regional Development <i>national</i> |

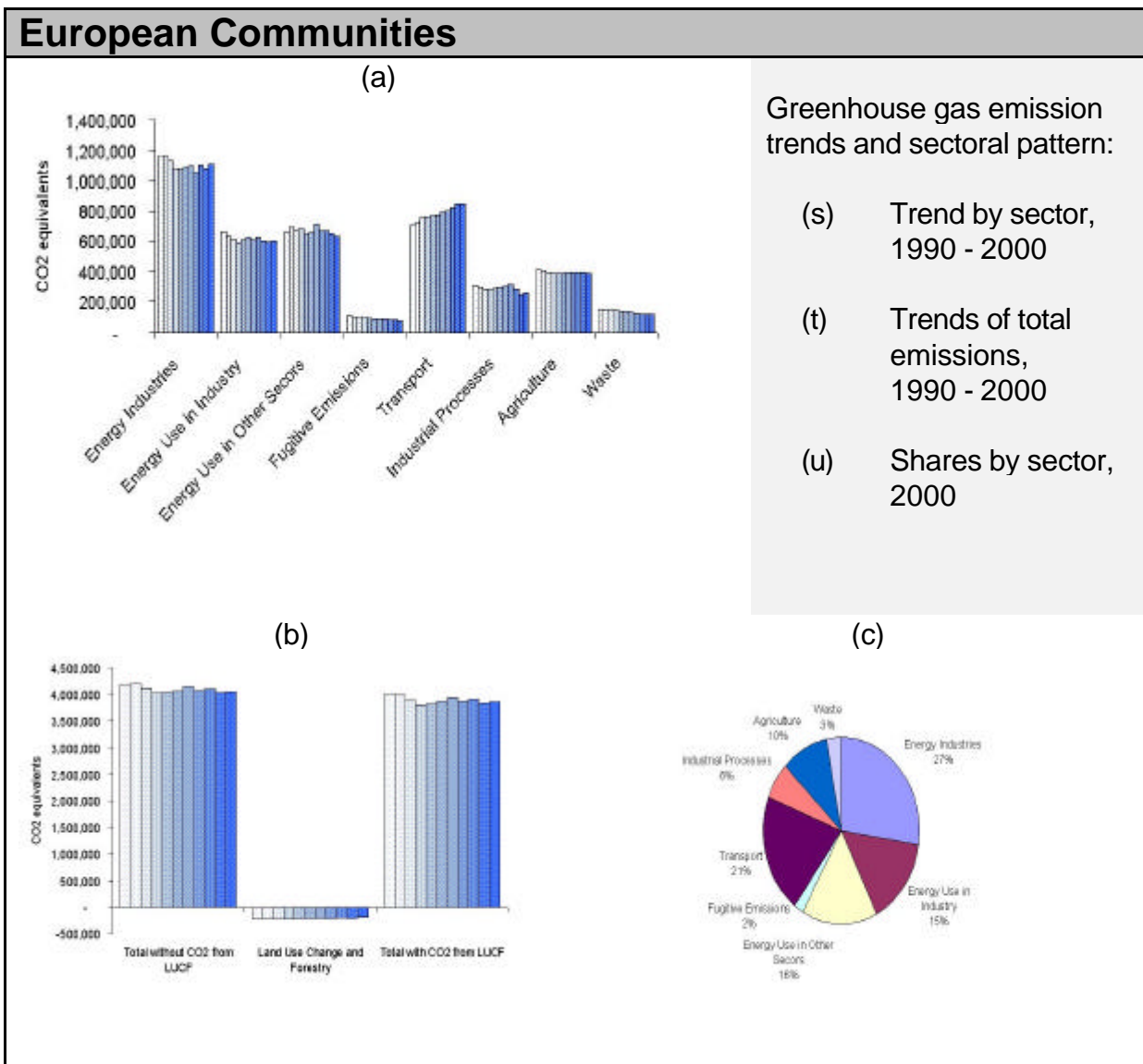
Estonia



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|-------------------------------|----------------|---------------------|
| Long-term National Development Plan for the Fuel and Energy Sector | Regulatory | Planned | MoEA |
| Reduction of emissions; energy efficiency | | <i>Ongoing</i> | <i>national</i> |
| National Energy Conservation Programme | Regulatory | Planned | MoEA |
| Reduction of emissions | | <i>Ongoing</i> | <i>national</i> |
| Local energy planning | Regulatory | Other | |
| | | <i>ongoing</i> | <i>national</i> |
| Implementation of EU SAVE Directive | Regulatory | Planned | MoEA |
| Energy auditing and certification | <i>Regulatory /voluntary,</i> | | <i>national</i> |
| National Energy Conservation Programme | Regulatory | Planned | MoEA |
| Reduction of emission | | <i>ongoing</i> | <i>national</i> |

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|---|---------------------------|--|
| Fuel switch from coal Reduction of emissions | Voluntary Agreement | Implemented | Utilities <i>national</i> |
| Renovation of Narva Power Plants | Voluntary Agreement | Planned | Eesti Energia, MoEA <i>national</i> |
| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
| Boiler conversion programme | Voluntary Agreement | Implemented | <i>national</i> |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Renovation of district heating systems | Voluntary Agreement | Other <i>ongoing</i> | <i>national</i> |
| Revised Building Code | Regulatory | Implemented | <i>national</i> |
| Renovation of apartment houses | Voluntary Agreement | Other <i>ongoing</i> | <i>national</i> |
| Labeling of household appliances | Regulatory | Planned <i>ongoing</i> | MoEA <i>national</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Quality requirements for liquid fuels Reduction of emissions | Regulatory | Implemented | MoEA; EMI <i>national</i> |
| Heavy Goods Vehicle Tax Act Reduction of emissions | Regulatory | Implemented | MoF <i>national</i> |
| Development Plan for the Transport Sector for 1999-2006 Reduction of emissions | Regulatory | Implemented | MoT <i>national</i> |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| Pollution Charge Act Reduction of emissions | Regulatory | Implemented | MoF <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Organic Farming Act Environmentally sustainable agriculture | Information/ Education <i>Linked to voluntary Organic certification process</i> | Implemented | Ministry of Agriculture <i>National</i> |

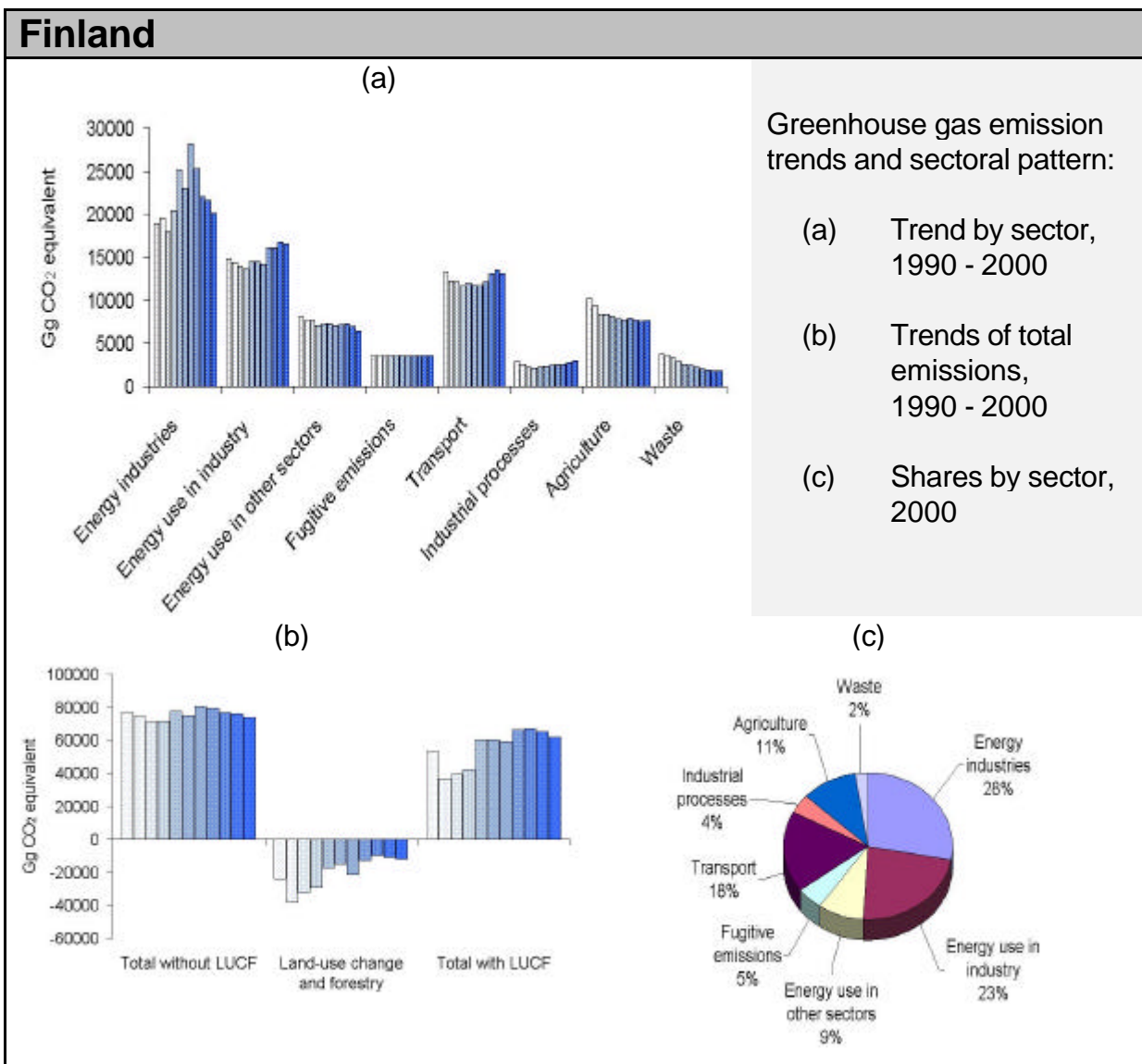
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
|---|-------------------|--|-----------------------------------|
| Estonian National Environment Strategy Improving forest growth | Regulatory | Implemented | MoE <i>national</i> |
| Estonian Forestry Strategy Improving forest growth | Regulatory | Planned <i>ongoing</i> | MoE <i>national</i> |
| Forest Act Improving forest growth | Regulatory | Implemented | MoE <i>national</i> |
| Restoration of Mining Areas Improving forest growth | Regulatory | Implemented | MoE <i>national</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Estonian National Environmental Strategy Reduction of emissions | Regulatory | Planned <i>ongoing</i> | All ministries <i>national</i> |
| Environmental Impact Assessment and Environmental Auditing Act Reduction of emissions | Regulatory | Planned <i>ongoing</i> | MoE <i>national</i> |
| Requirements to Establishing, Using and Closing of Landfills Reduction of emissions | Regulatory | Planned <i>ongoing</i> | MoE <i>national</i> |
| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
| Estonian National Environmental Strategy Reduction of emissions | Regulatory | Planned <i>Ongoing</i> | All Ministries <i>national</i> |
| Sector: Other | Instrument | Status | Implementing Entity |
| National Programme for Reduction of Pollutant Emissions from Large Combustion Plants (for 1999-2003) Reduction of emissions | Regulatory | Planned <i>Ongoing (up to 2003)</i> | MoEA <i>national</i> |
| Emission standards of pollutants into ambient air by large combustion plants Reduction of emissions | Regulatory | Implemented | MoE; MoEA <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|------------------------------------|------------------|----------------------|
| Programme - SAVE I and II | Information/ Education | Implemented | European Commission |
| Improving end-use energy efficiency | <i>Dissemination programme</i> | | <i>supranational</i> |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| CO₂ capture and sequestration | Research | Implemented | EU |
| Promotion of further technological efforts | <i>RTD (Pilot project)</i> | | <i>supranational</i> |
| Programme - CARNOT | Research | Implemented | EU |
| Technological actions to promote the clean and efficient use of solid fuels. | <i>RTD</i> | <i>1998-2002</i> | <i>supranational</i> |

| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
|--|---|--|--|
| Programme - ALTENER Non-technical programme to promote use of RES | Research <i>RTD</i> | Implemented <i>1998-2002</i> | EU <i>supranational</i> |
| Industrial Energy Efficiency Action Plan Long-term agreements, audits, information dissemination, technology procurement and innovative financing schemes | Policy Process <i>Pilot action</i> <i>2000-2001</i> | Planned | European Commission, Member States, nat. agencies, industry <i>supranational/national/private</i> |
| Industrial Processes: Long term agreements with energy intensive industries, · Comprehensive energy audit and management scheme (E2MAS), · Adapting existing IPPC Directive, · active energy services for SMEs Renew old and inefficient production plants for energy intensive industries · Energy efficiency in non-core areas of industry and SMEs | Regulatory <i>Agreements and regulation</i> | Planned <i>Proposed: 2001-02, 2001-03, 2002</i> | <i>EU/Member States</i> <i>supranational/national</i> |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Agreement with lamp manufacturers to increase sales of compact fluorescent lamps (CFLs) by To promote sales of energy efficient CFLs | Voluntary Agreement <i>Negotiated agreement</i> | Adopted | Manufacturers <i>private</i> |
| Energy Star Programme and Code of Conduct for Digital TV Services To reduce energy consumption of information and communication technology | Voluntary Agreement | Adopted | Manufacturers <i>private</i> |
| Negotiated agreements stand-by losses televisions / video recorders; washing machines Reduce stand-by losses and increase minimum standards | Voluntary Agreement <i>Negotiated Agreement</i> | Implemented | Manufacturers <i>private</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Motor challenge programme To achieve system optimization in motor driven processes | Research <i>Research and Development</i> | Planned | EU <i>supranational</i> |
| Environmental Agreement with car industry on reductions of CO₂ emissions from Light Commercial Vehicles Reduce average CO ₂ emissions of light vehicles | Voluntary Agreement | Planned <i>under preparation</i> | EU/ Manufacturing industry <i>supranational/private</i> |
| Voluntary agreements with European, Japanese and Korean car manufacturers Reduce average CO ₂ emissions of newly sold cars to 140 g/km until 2008/2009 (25 % reduction compared to levels in the mid-90s) | Voluntary Agreement | Implemented | European Commission + car manufacturers' associations <i>supranational/private</i> |

| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
|---|---|--|------------------------------------|
| Framework directive for improved containment of Fluorinated gases; Links to other EU legislation (IPPC, WEEE, End of life vehicles); Voluntary agreements; Development of alternative fluids and Not in Kind technologies; Sector specific recommendations | Regulatory | Planned | EU/Member States |
| Improve monitoring and verification, improve containment and apply marketing and use restrictions | <i>Regulation and agreements</i> | <i>Proposed for 2002, 2001-02; 2002; 2002</i> | <i>supranational/national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Economic Evaluation of Emission Reductions | Research | Implemented | EC |
| To determine the least cost contribution of gases and sectors to the ECs quantitative KP targets. | | | <i>supranational</i> |
| Nitrates Directive | Regulatory | Implemented | EC |
| Reduce use of inorganic nitrate fertilizers to protect aquatic ecosystems and reduce pollution. Considerable co-benefits in the reduction of N ₂ O and promotion of sustainable agricultural practices | | | <i>supranational</i> |
| Common Agricultural Policy (Rural Development Policy) | Regulatory | Implemented | Member States and Accession States |
| Improve competitiveness of agriculture and forestry sectors in rural areas whilst protecting the | | <i>ongoing</i> | <i>supranational</i> |
| Common Agricultural Policies (CAP) (market policies) | Regulatory | Implemented | EC |
| Agenda 2000 - Sustainable agriculture | | | <i>supranational</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| Forestry strategy | Regulatory | Implemented | EC |
| Sustainable forestry | | | <i>supranational</i> |
| Other forestry measures | Regulatory | Implemented | EC |
| Prevention of damage to forests | | | <i>supranational</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Landfill Directive | Regulatory | Implemented | Member states |
| Reduce amount of waste to landfill sites; recovery of landfill gas | <i>Implementation by Member States can involve other instrument types as well</i> | <i>To be implemented by Member States 2000/1</i> | <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|------------|--|--------------------------------|
| Electricity Market Act | Regulatory | Adopted | Ministry of Trade and Industry |
| To increase competition | | <i>Came into force in 1995, modified in 1997 (small consumers included)</i> | <i>National</i> |
| Energy taxation | Fiscal | Adopted | Ministry of Finance |
| To reduce energy consumption and to improve competitiveness of renewables | | <i>Several changes in tax structure in 1990s. Latest change in 1998. Revisions have raised taxes and introduced subsidies on</i> | <i>National</i> |

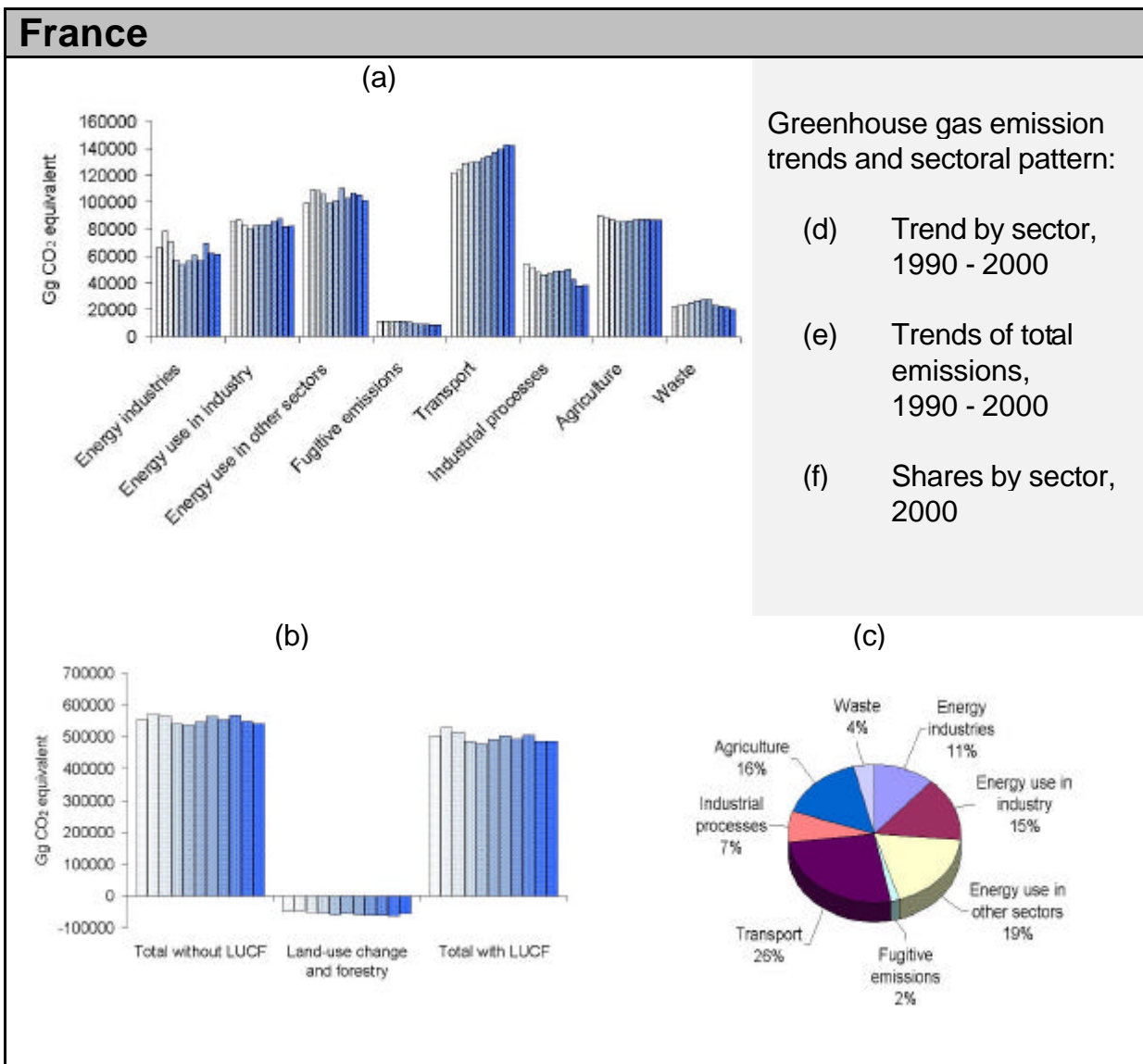
renewables

| | | | |
|--|--|---|--|
| Energy Conservation Programme | Other | Adopted | Ministry of Trade and Industry, Motiva Oy |
| To reduce energy consumption | <i>Technical, information, education</i> | <i>Adopted in 1995</i> | <i>National</i> |
| Voluntary agreement on energy conservation and energy auditing | Voluntary Agreement | Adopted | Ministry of Trade and Industry, Motiva Oy, industry, municipalities |
| Agreements on monitoring, conservation plans, energy audits, energy investment, new technology | | <i>Voluntary agreements since 1997</i> | <i>National</i> |
| Energy and climate technology R&D | Research | Adopted | Ministry of Trade and Industry, TEKES |
| To reduce CO ₂ emissions | <i>Technical</i> | <i>Continuous</i> | <i>National</i> |
| Revised energy Conservation Programme | Other | Planned | Ministry of Trade and Industry, Motiva, Ministry of Finance, Ministry of the Environment |
| To reduce energy consumption | <i>Technical, information, education, fiscal</i> | <i>New Energy Conservation Programme proposed in 2000</i> | <i>National</i> |

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|--|--|--------------------------------|
| Action plan for renewable energy | Other | Adopted | Ministry of Trade and Industry |
| To reduce CO ₂ and non-GHG emissions | <i>Fiscal, technical, information, education, economic</i> | <i>Several programmes in 1990s, important aspect in 1997 Finnish Energy Strategy</i> | <i>National</i> |
| New action plan for renewable energy | Other | Adopted | Ministry of Trade and Industry |
| To reduce CO ₂ and non-GHG emissions | <i>Fiscal, technical, information, education, economic</i> | <i>Accepted in</i> | <i>National</i> |
| Supply of electricity | Other | Planned | Ministry of Trade and Industry |
| To reduce CO ₂ emissions | <i>Regulatory, Economic</i> | <i>unclear</i> | <i>National</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Voluntary agreement with European, Japanese and Korean industries | Voluntary Agreement | Implemented | EU with car industry |

| | | | |
|--|--|--|--|
| Reduction of CO2 emissions from passenger cars: 140/120 g/km by 2008/2010. | | <i>existing</i> | <i>National</i> |
| Differentiation of vehicle taxation Promoting purchase and use of energy-efficient | Fiscal | Other <i>proposed</i> | Government <i>national</i> |
| Promotion of public and non-motorized transport Increasing share of public and non-motorized transport | Information/ Education <i>Information, education, economic</i> | Implemented <i>existing, new measures proposed</i> | Government in co-operation with local authorities <i>National</i> |
| Eco-driving Adoption of ecoefficient driving skills and habits. | Information/ Education <i>Information, education, economic.</i> | Other | Government in co-operation with driving schools <i>national</i> |
| Energy-saving Adoption of energy saving agreements between administration and transport operators. | Voluntary Agreement | Implemented <i>existing, new agreements under preparation</i> | Government in co-operation with transport operators <i>National</i> |
| Transport planning and land use planning Maintaining compact urban structure | Other <i>Zoning, transportation system plans, information and education</i> | Implemented <i>existing</i> | Government and municipalities <i>National</i> |
| Increase of fuel taxation to reduce traffic volume and GHG emissions | Fiscal | Planned | Ministry of Finance <i>National</i> |
| Additional promotion of public transport To promote public transport | Information/ Education <i>Information, education, economic</i> | Planned | Government in co-operation with local authorities <i>national</i> |
| broader energy saving agreements to broaden the scope and effectiveness of energy | Voluntary Agreement | Planned | Ministry of Transportation and Communications <i>national</i> |
| Additional measures to maintain urban structure concentration of urban structure | Information/ Education <i>Information, education, economic</i> | Planned | Government in co-operation with regional and local <i>national</i> |

| Sector: Waste | Instrument | Status | Implementing Entity |
|---|--|--------------------------------|---|
| Government decisions on landfills To reduce CH4 emissions | Regulatory | Implemented | Ministry of the Environment <i>national</i> |
| Waste minimisation, the collection and recovery of waste paper and other waste fractions | Regulatory <i>National waste plan, regulatory</i> | Implemented | Ministry of the Environment <i>national</i> |
| The waste tax to reduce CH4 emissions | Fiscal | Implemented <i>existing</i> | Ministry of Finance <i>national</i> |
| Landfill gas recovery and utilization To reduce CH4 emissions | Regulatory <i>Regulatory, fiscal</i> | Planned | Ministry of the Environment, Ministry of Finance <i>national</i> |
| Waste minimisation, the utilisation of source-separated waste fractions as material and To reduce CH4 emissions | Regulatory <i>regulatory, fiscal</i> | Planned | Ministry of the Environment, Ministry of Finance <i>national</i> |
| Development of waste taxation To reduce CH4 emissions | Regulatory <i>Regulatory, Fiscal</i> | Planned | Ministry of Finance <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|--|--|-------------------------------|
| <p>Renewable energy for DOM/TOM To replace diesel generators in DOM/TOMs with renewable energy sources.</p> | Other | Implemented <i>Reinforced under the PNLCC.</i> | |
| <p>Use of wood in construction</p> | Information/ Education <i>Information, studies, regulation</i> | Adopted | MATE <i>national</i> |
| <p>Reduction of Peaks on Load Curve Broadening the scope of the Tempo rate and using an ADEMEDF agreement</p> | Economic <i>Pricing, public incentives</i> | Implemented <i>30,000 Tempo subscriptions recorded in 1996, EDF/ADEME</i> | Ademe, EDF <i>national</i> |

*agreements
dated 1993 and
1996*

| | | | |
|---|------------------------|------------------|---------------------------------|
| Replacement of older power units | Policy Process | Planned | Minefi / Electricity Department |
| Replacement of fuel- and coal-powered electricity plants with gas plants | <i>EDF Investments</i> | <i>Initiated</i> | <i>national</i> |
| Expanded Tax on Energy (TGAP) | Fiscal | Planned | Mate, Mate-Minefi |
| Expansion of the existing general tax on polluting activities by introducing carbon taxation. | <i>Tax system</i> | <i>Suspended</i> | <i>national</i> |

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|---|---|--|---------------------------------|
| Nuclear Investments Continued operation of non-carbon electricity generators. | Economic <i>Investment decisions on EDF's part</i> | Implemented <i>in force</i> | EDF <i>national</i> |
| Development of Co- generation Substitution of less efficient energy production, with a target of 4 GW in 2010 | Regulatory <i>Mandatory purchase of electricity produced through co-generation</i> | Implemented <i>in force</i> | EDF <i>national</i> |
| Development of Wind Energy Substitution of fossil-fuel generation (EOLE 2005 programme) | Regulatory <i>Regulation</i> | Implemented <i>Reinforced by the PNLCC.</i> | Minefi <i>national</i> |
| Development of Wood Energy Substitution of fossil-fuel generation (wood energy plan and local development) | Economic <i>Government grants, contracts with local authorities</i> | Implemented <i>Reinforced by the PNLCC.</i> | Map-METL <i>national</i> |
| Bio-based Fuels Developing the production of agricultural biomass for energy-related purposes | Economic <i>Government grants, tax regimes</i> | Implemented <i>in force</i> | Map <i>national</i> |
| Production of Wind Energy Encourage the production of wind energy by establishing a minimum purchase price for electricity distributors (reinforcement of an existing measure) | Regulatory | Implemented <i>enforced</i> | Minefi <i>national</i> |
| Wood Energy for Collective Purposes, District Heating Systems Continuation of the Wood Energy Plan, with an increase of 50,000 TOE in 2000 | Fiscal <i>Grants, tax measures</i> | Implemented <i>Applied</i> | Mdeme-Minefi <i>national</i> |
| Solar Heat Energy Develop the usage of solar heat energy within "continental" France. The three applications targeted are hot sanitary water for individual use, heating, and hot sanitary water for collective use | Fiscal <i>Grants</i> | Implemented | Ademe-Minefi <i>national</i> |

| | | | |
|--|-------------------------|---------|--------------------------------------|
| Geothermal Energy Measures to encourage the use of geothermal energy | Fiscal <i>Grants</i> | Planned | Ademe-METL-Minefi <i>national</i> |
|--|-------------------------|---------|--------------------------------------|

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|--|-------------------|---------------|----------------------------|
|--|-------------------|---------------|----------------------------|

| | | | |
|---|----------------------------------|--|-------------------------|
| Thermal Regulation Additional improvements in energy efficiency in new buildings (also applies to new services buildings) | Regulatory <i>Regulations</i> | Adopted <i>Decree adopted on 29 November 2000</i> | METL <i>national</i> |
|---|----------------------------------|--|-------------------------|

| | | | |
|---|---|-------------|---------------------------------|
| Financial and Tax-Related Incentives for Work on Existing Buildings Reward improvements in energy efficiency in buildings | Economic <i>Economic instruments</i> | Implemented | METL, Minefi <i>national</i> |
|---|---|-------------|---------------------------------|

| | | | |
|--|------------|-----------------------------|--|
| Actions on State-owned Buildings Improvements in energy efficiency | Regulatory | Planned <i>Initiated</i> | |
|--|------------|-----------------------------|--|

| | | | |
|---|----------|----------------------------|-------------------------|
| Improvement of Existing Housing. Institutional Actions Concerning Road Freight Improve existing housing | Economic | Planned <i>Underway</i> | METL <i>national</i> |
|---|----------|----------------------------|-------------------------|

| | | | |
|---|-------------------------------|---|---------------------------|
| Reduced rate of VAT on Products and Services Encourage renovations that decrease the greenhouse emissions in existing buildings | Fiscal <i>Tax measures</i> | Implemented <i>Reinforcement under PNLCC is planned.</i> | Minefi <i>national</i> |
|---|-------------------------------|---|---------------------------|

| | | | |
|--|------------|---------|-------------------------|
| Reinforcement of Regulation on Heating (Recent Buildings) Reinforcement of regulation on heating adopted in 2000 (follow-up to RT-0.1) | Regulatory | Adopted | METL <i>national</i> |
|--|------------|---------|-------------------------|

| Sector: Fugitive Emissions | Instrument | Status | Implementing Entity |
|-----------------------------------|-------------------|---------------|----------------------------|
|-----------------------------------|-------------------|---------------|----------------------------|

| | | | |
|--|--|-------------|------------------------|
| Leakage from Natural Gas Grids Reduction of fugitive methane emissions | Economic <i>Investment decisions on the part of GDF</i> | Implemented | GDF <i>national</i> |
|--|--|-------------|------------------------|

| Sector: Transport | Instrument | Status | Implementing Entity |
|--------------------------|-------------------|---------------|----------------------------|
|--------------------------|-------------------|---------------|----------------------------|

| | | | |
|------------------------------------|-------|--|-------------------------|
| Use of alternative vehicles | Other | Implemented <i>Reinforced by the PNLCC.</i> | METL <i>national</i> |
|------------------------------------|-------|--|-------------------------|

| | | | |
|--|--------------------------------|-----------------------------|---------------------------|
| Recovery of Fiscal Dues on diesel fuel and Increase of Minimum Tax Levels on Fuel Reduce the gap in taxing on diesel fuel and gasoline to meet the European average, and change tax measures on fuel at the European level | Fiscal <i>Fiscal regime</i> | Planned <i>Suspended</i> | Minefi <i>national</i> |
|--|--------------------------------|-----------------------------|---------------------------|

| | | | |
|--|---|-------------|-------------------------|
| Technical Arrangements Relating to Heavy-Freight Vehicles Reduce specific emissions through technical inspections and mandatory reconditioning | Regulatory <i>Technical regulation</i> | Implemented | METL <i>national</i> |
|--|---|-------------|-------------------------|

| | | | |
|--|-----------------------------|---------|-------------------------|
| Development of Inter-Modal Freight Transport Develop inter-modal transportation alternatives, by | Other <i>Combination</i> | Planned | METL <i>national</i> |
|--|-----------------------------|---------|-------------------------|

using grants and technical measures (financing provided by FITTVN)

| | | | |
|--|---|--|--|
| <p>Technical Inspection of Light-Freight Vehicles Reduce polluting emissions by making repairs mandatory</p> | Regulatory | Implemented <i>Decrees dated 5 July 1994 and 1 January 1995</i> | METL <i>national</i> |
| <p>Urban Transport Optimise urban transport through the implementation of UTPs and local initiatives</p> | Other <i>Law requiring local authorities to establish UTPs</i> | Implemented <i>Law on Air and Rational Use of Energy from 30 December 1996 - circulars dated 27/01 and 13/05/98 on UTPs</i> | METL, local authorities <i>national</i> |
| <p>High-Speed Trains Offer an alternative to road and air transport</p> | Other <i>Combination, including investment</i> | Implemented | METL, SNCF <i>national</i> |
| <p>Limiting Speed for Light-Freight Vehicles Road safety and energy consumption</p> | Regulatory <i>Inspection and enforcement</i> | Implemented <i>Reinforced by the PNLCC.</i> | METL <i>national</i> |
| <p>Speed Limits on Lightweight Vehicles Speed limits integrated in newly constructed vehicles so that the difference between the speed they can reach and the maximum speed limit is not so significant</p> | Regulatory | Planned <i>Initiated</i> | METL-Mate <i>national</i> |
| <p>Monitoring of Speed in Heavy-Freight Vehicles Reinforcement of speed checks at roadside and promotion of chronodactylograph use</p> | Regulatory | Implemented | METL-Ministry of the Interior-Ministry of Defense <i>national</i> |
| <p>Operation of Traffic Lights and Progressive Signal Systems Higher penalties for speed violations, leading to average reductions in speed of 10%</p> | Other <i>Technical</i> | Planned | METL <i>national</i> |
| <p>Giving Priority to Mass Transport Encourage the usage of collective transport, by increasing its speed and reducing its fuel consumption</p> | Economic | Implemented <i>Launched</i> | METL <i>national</i> |
| <p>Controlling the Development of the Urban Environment Definition of methods to help local authorities prioritise infrastructure projects, according to how much traffic they create and assistance in identifying</p> | Research <i>R&D, Economic</i> | Adopted <i>Launched</i> | METL-Mate (D4E) <i>national</i> |
| <p>Taxation of Kerosene Oil Implementation of a tax or fee system at the European level</p> | Fiscal <i>Tax System</i> | Planned | METL-Minefi-Mate <i>national</i> |
| <p>Recovery of Tax Revenue from Gasoil (follow-up)</p> | Fiscal | Planned | Minefi |

to T-0.1.1)

Gradually bring taxation on gasoil to the level of that on gas

*Tax System**Initiated**national***Internalisation of Cost of Carbon**

Allowance for the cost of carbon in the TIPP

Fiscal

Planned

METL-Minefi-Mate

*Tax System**Suspended**national***Inter-City Infrastructure Offering - Other**

Measures within the framework of service schemes

Other

Planned

METL

*Planning**national***Sector: Industrial Processes****Instrument****Status****Implementing Entity****Voluntary Commitments**

Voluntary Agreement

Implemented

Mate/Industries

Reduction in GHG emissions

Voluntary agreements

Five agreements have been signed (aluminum, steel, lime, cement and glass)

*national***Tax on Nitric Oxide Emissions**

Pollution control

Fiscal

Implemented

Map

Reinforcement under PNLCC is planned.

*national***PFCs (CF4) in the Production of Aluminum**

Limitation of PFC emissions in the production of aluminum

Regulatory

Planned

Mate

*Regulation**Initiated**national***Sector: Agriculture****Instrument****Status****Implementing Entity****Reducing emissions of methane from ruminants, manure and fertilizer management**

Preparation of recommendations of methods to reduce such emissions.

Research

Adopted

Map

Research into a range of measures designed to be environmentally effective

*national***N2O Emissions in Soil**

Reduction of N2O emissions from nitrated fertilizers

Fiscal

Planned

Map-Mate

*Tax measures**national***Improvement of knowledge**

Research into CH4 from ruminants, use of biomass, causes of N2O emissions from soils, CO2 emissions from agricultural soils

Research

Implemented

Map

*Adopted**national***Sector: Land Use Change and Forestry****Instrument****Status****Implementing Entity****Afforestation of Farmland**

Expansion of carbon sinks (policy decision to timber 30,000 hectares of farmland per year)

Fiscal

Implemented

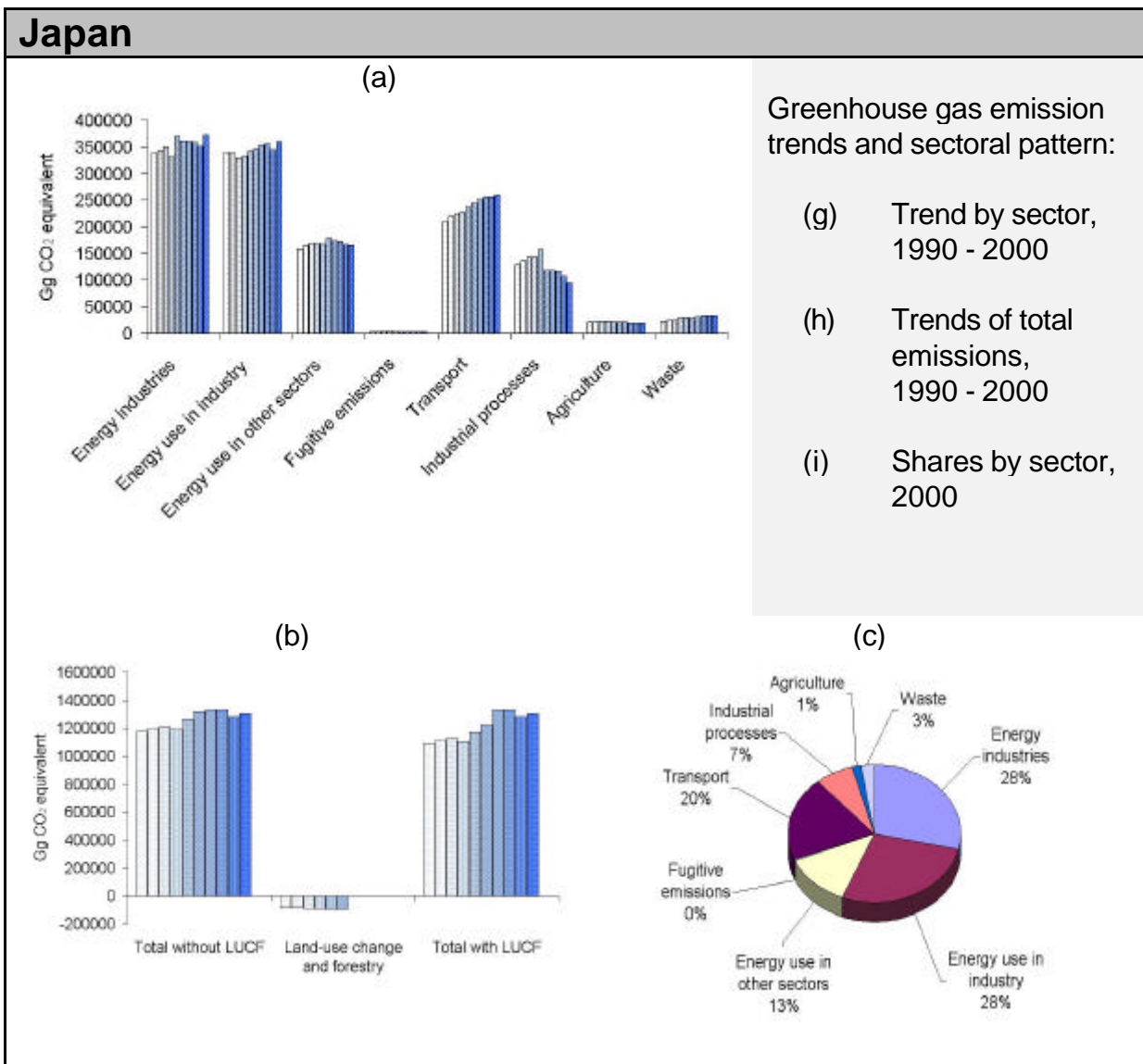
Mate

State Grants

Implementation slowed down after the 1999 storms.

*national***Sector: Waste****Instrument****Status****Implementing Entity**

| | | | |
|--|--|---|-------------------------|
| Conversion of Waste into Energy Doubling the incineration capacity | Policy Process <i>Legislative measure</i> | Implemented <i>Law on Waste dated 13 July 1992</i> | Mate <i>national</i> |
| Ban on Dumping of Waste Reduction in CH ₄ emissions | Policy Process <i>Legislative measure</i> | Implemented <i>Law on Waste dated 13 July 1992, circular dated 28 April 1998</i> | Mate <i>national</i> |
| Reinforcing Recycling of Materials or Organic Matter | Regulatory | Adopted | |
| Agronomic Recycling of Organic Waste | Regulatory | Implemented <i>Launched</i> | |



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|---|---|--|
| <p>Keidanren Voluntary Action Plan on the Environment (Japan Federation of Economic Organizations = Keidanren)</p> <p>Steady implementation of voluntary action plans and follow-up</p> | Voluntary Agreement | Implemented | Industry <i>national</i> |
| <p>Comprehensive energy management</p> <p>On-site energy management at private residences and office buildings, factories and business sites</p> | Other <i>Measures based on the Law Concerning the Rational Use of Energy</i> | Implemented <i>Implemented for factories and business sites, planned: factory checkups</i> | Private and enterprises <i>national</i> |
| <p>Energy demand side management for commercial sector</p> <p>Strengthens energy demand side management measures at large business sites by revision of Law Concerning</p> | Other <i>Revision of existing Law</i> | Planned <i>Revision of Law proposed</i> | Business <i>national</i> |

the Rational Use of Energy and new system of already implemented measures

| | | | |
|--|---|--|-----------------------------|
| <p>Top Runner Approach Further improving appliance efficiency, introducing Top Runner Approach in line with Law Concerning Rational Use of Energy to raise standards for max. energy conservation and efficiency performance</p> | Other | Adopted <i>Top Runner Approach concept just adopted</i> | <i>national</i> |
| <p>Reduction of standby power consumption To achieve a target of 1 W or less for equipment requiring energy consumption when on standby.</p> | Voluntary Agreement | Other | Industry <i>national</i> |
| <p>Promoting introduction of high performance industrial furnaces To introduce energy saving facilities to companies by assistance systems.</p> | Other | Other | Industry <i>national</i> |
| <p>Energy conservation performance in housing and buildings To increase energy conservation in residential and commercial sector.</p> | Information/Education <i>To publicize judgment criteria for construction parties and give assistance, construction instruction and information to consumers.</i> | Other | Industry <i>national</i> |
| <p>Development and diffusion of new energy-saving technologies To further improve energy efficiency by developing and distributing new energy-saving technologies such as boilers, lasers and light emitting diodes.</p> | Other | Implemented <i>Effect expected until 2010.</i> | <i>national</i> |
| <p>New energy sources To adopt new energy sources in order to maintain steady supplies. (Wind power generation, waste power generation, biomass energy for local authorities and businesses. Photovoltaic power generation and solar thermal utilization for individual housing. Furthermore it is planned to make use of snow ice cryogenic energy and to promote green purchases and procurement.</p> | Other | Planned | <i>national</i> |
| <p>Fuel switching Subsidize converting coal fired power generations to natural gas power generations and domestic natural gas development projects (developing wells and linked pipelines etc.) Preparation of safety standards for natural gas pipelines.</p> | Fiscal | Implemented | <i>national</i> |
| <p>Promotion of nuclear power To establish new nuclear power plants while giving priority to safety. Research and development of nuclear fuel cycles and promotion of the MOX utilization in LWRs. Acquire nationwide agreement</p> | Other <i>Economic and educational</i> | Implemented | <i>national</i> |

concerning the nuclear power policy thru public hearings and PR activities and promoting education related to energy and nuclear power.

| | | | |
|---|-------|-------------|-----------------|
| Promoting development of innovative technologies beyond current technical standards | Other | Implemented | <i>national</i> |
| To develop energy conservation-related technology such as: technology using supercritical fluids, technology for ultra high efficient photovoltaic power generation, innovative hydrogen production technology, technology for CO ₂ storage and fixation and for ultra-steel and super heat-resistant materials. Also to promote studies relating to resource cycling, | | | |

| Sector: Transport | Instrument | Status | Implementing Entity |
|---|---|---------------------------------------|---------------------|
| Use of hybrid and natural gas vehicles | Economic | Planned | <i>national</i> |
| Promoting the smooth introduction and use of hybrid vehicles and natural gas trucks and buses through subsidies and tax concessions. | | | |
| Improving energy efficiency of railways, ships and aircraft | Other | Implemented | <i>national</i> |
| To introduce train, ships and aircraft with better energy efficiency characteristics. | | | |
| Accelerated introduction of vehicles that meet Top Runner standards | Fiscal | Planned | Industry |
| To achieve Top Runner standards on vehicles through industry's voluntary measures (reducing Automobile Acquisition Tax and green automobile taxation). | | | |
| Vehicle traffic measure | Other | Planned | <i>national</i> |
| To promote alternatives to transportation (e.g. tele-working) and ITS (Intelligent Transport Systems). | | | |
| | <i>To promote eco-driving though distribution of idling prevention systems on buses and trucks. TDM (Traffic Demand Management), business vehicles' driving style</i> | <i>Measures should be implemented</i> | |
| Construction of traffic system with minimal environmental impact | Other | Planned | <i>national</i> |
| To implement transportation system with little carbon dioxide emissions and low environmental impact by shifting transportation modes towards alternative ones. Also public transportation will be continuously improved to reduce use of private passenger vehicles. | | | |
| Promoting use of domestic sea freight transportation by ship and rail | Economic | Planned | <i>national</i> |
| To promote domestic sea freight transportation by ship and rail and to improve efficiency of freight | | | |

transportation.

Promoting use of public transportation

Other

Planned

national

To promote public transportation by constructing new railways and modified personal rapid transit systems in urban areas and improving existing services and conveniences. Utilization of Traffic Demand Management (TDM).

Sector: Industrial Processes

Instrument

Status

Implementing Entity

Measures to reduce CO₂ emissions from industrial processes.

Economic

Implemented

national and local

Increased use of mixed cement with less CO₂ emissions during the production process. Promotion of Law for Promotion of Procurement of Recycled Products by the National Organizations and Local Authorities on its own Initiative.

Measures to reduce N₂O emission

Other

Implemented

local

Establishment of N₂O emission suppressing equipment in adipic acid production process.

Promotion of implementation of voluntary action plans of industries

Other

Implemented

national

To reduce HFCs, PFCs and SF₆ by industry through voluntary action plans (established 1998) and further support to these organizations.

Development of substitutes

Other

Implemented

national

To develop substitute gases systems, and substitute processes, for etching gas (PFC) used in production of electronic devices. Develop production and cleaning process system for electronic device production substituting SF₆ and PFCs. Develop technologies to destroy HFC 23 generated as by-product in industrial processes. Promotion of implementation of voluntary action plans of industries and use of products using substitutes.

Recovery and destruction of HFC refrigerations as required by law.

Other

Implemented

national and local

Preparation of a recovery and destruction system through voluntary measures by industries as well as local communities.

Sector: Agriculture

Instrument

Status

Implementing Entity

Promoting the effective use of timber resources

Other

Other

*implemented/
planned*

national

To expand utilization of timber and wood materials by improving technologies for timber and wood materials processing and expanding wood demand (e.g. in housing).

Promoting a reduction in emissions of CO₂ from farmland soil

Other

Implemented

national

To promote compost deoxidization and green manure cultivation in farmland as well as the preparation and preservation management of grassland.

| | | | |
|--|-------|-------------|-----------------|
| Measures to reduce CH₄ emissions by improving farmland management, e.g. livestock feeding management skills. | Other | Implemented | |
| To develop technologies to reduce emission of greenhouse gases from the agricultural sector. | | | <i>national</i> |

| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
|---|-------------------|---------------|----------------------------|
|---|-------------------|---------------|----------------------------|

| | | | |
|--|-------------------------------|-------------------------------|-----------------|
| Sound forest management | Other | Planned | |
| Establishment of multi-storeyed forests, broad-leaved tree species according to the functional classification of forests. Implementation of tending practices such as urgent thinning. Re-establishment (re-planting) and weeding after felling. Afforestation and tending in non-forested areas, waste land, forests hit by natural disaster and abandoned agricultural land. | <i>Planned or implemented</i> | <i>Planned or implemented</i> | <i>national</i> |

| | | | |
|--|-------|-------------|--|
| Appropriate management of protected forests | Other | Implemented | |
| Promotion of systematic designation of forests as protected forests, promotion of conservation measures in protected forests. Prevention of damage caused by diseases and pests. Forest related activities with citizen participation. Coordination between groups such as community residents and NPOs as well as forest environment education. | | | |

| | | | |
|---|-------|-------------|-----------------|
| Promotion of utilization of timber and wood | Other | Implemented | |
| Developing new demand for forestry products such as timber and wood biomass energy (i.e. in construction and facilities). Using local timbers i.e. in school interiors and school-related facilities. | | | <i>national</i> |

| | | | |
|--|-------|---------|-----------------|
| Promotion of urban greening | Other | Planned | |
| Greening of public facilities vegetation along public facilities such as urban parks, roadways and rivers. Promotion of greening based on "Green Policy Guidelines and "Eco Port Policy" (for greening of ports and harbors), Drafting of "Basic Plan of Green" by cities, towns and villages. Promotion of education to popularize greenery activities by groups such as residents, companies NPOs etc. | | | <i>national</i> |

| Sector: Waste | Instrument | Status | Implementing Entity |
|----------------------|-------------------|---------------|----------------------------|
|----------------------|-------------------|---------------|----------------------------|

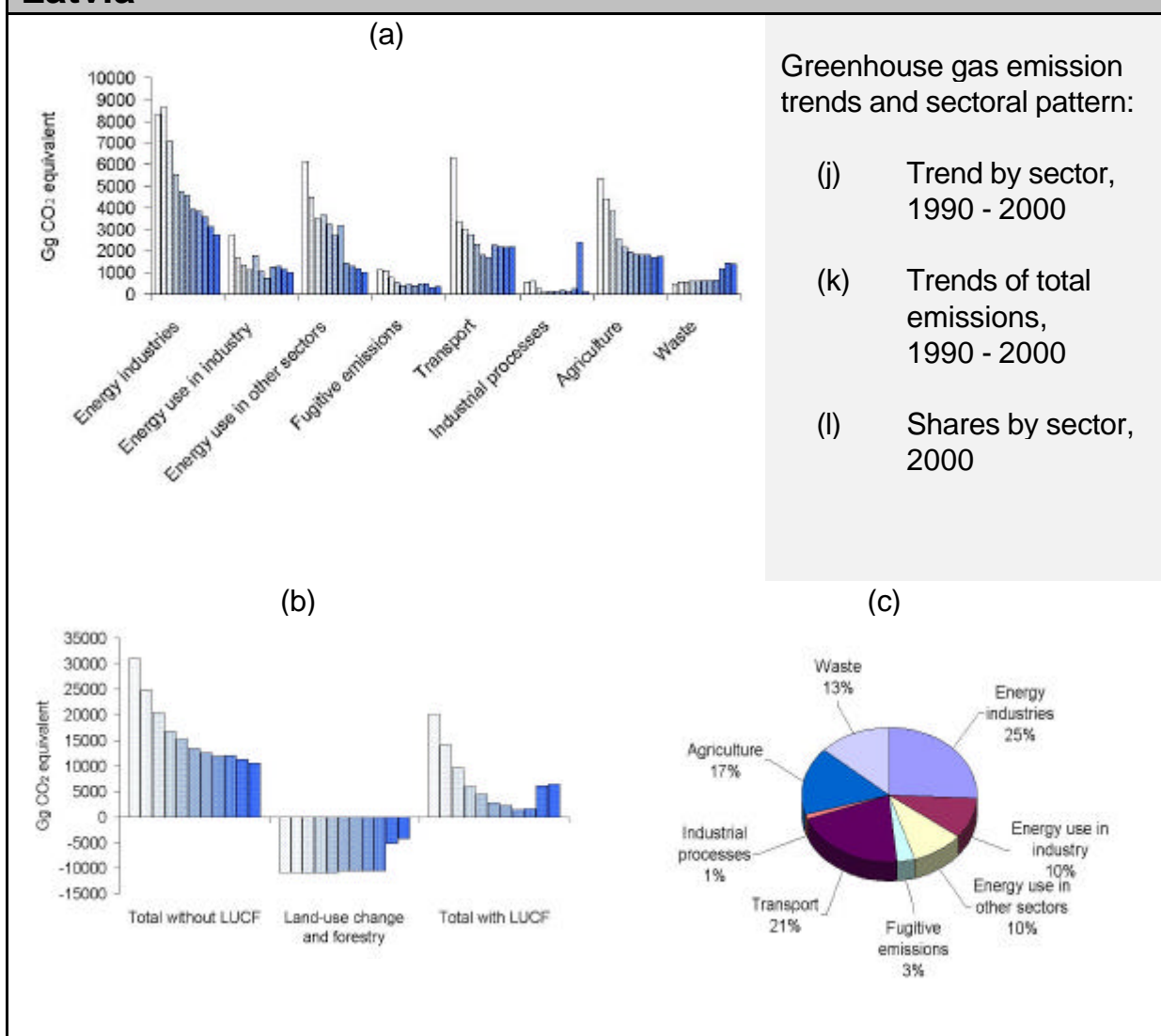
| | | | |
|--|-------|-------------|-----------------|
| Promotion of measures to reduce CO₂ emissions caused by waste incineration | Other | Implemented | |
| To reduce and restrict waste generation and increase recycling ratio through sorting of waste. | | | <i>national</i> |

| | | | |
|---|-------|-------------|-----------------|
| Measures to reduce CH₄ emissions by reducing waste generation and recycling waste. | Other | Implemented | |
| To halve the volume of waste disposed of in landfills by only incinerating waste that cannot be reduced through other measures. | | | <i>national</i> |

| | | | |
|---|-------|-------------|-----------------|
| Sophistication of combustion in incineration facilities. | Other | Implemented | |
| To reduce emission of N ₂ O by promoting combustion for wastewater sludge and municipal solid waste. | | | <i>national</i> |

| Improving drainage treatment. To increase use of sewage and combined household treatment systems. | Other | Implemented | <i>national</i> |
|--|-------------------|---------------|------------------------------|
| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
| Establishment of the basis for promoting global warming prevention activities Implementation of a national campaign to create a lifestyle suited to the global environment era. Strengthening the basis for promoting regional measures. Promotion of measures implemented by individual families (i.e. info about a product's greenhouse gas emission through labeling). Residential and commercial sector: raising air conditioners temperatures to 28 degrees Celsius and lowering heater temperatures to 20 degrees Celsius or lower. Changing incandescent lamps to fluorescent lighting. Purchase of microwaves with lower electrical consumption. Introduction of dish washers and water-saving shower heads. Reduce usage of heaters and lighting by family members spending more time in the same room. Watching TV by one hour a day and selective TV viewing. Reducing each family member's use of shower by one minute daily. Using bathwater to wash clothes. Eliminating usage of electric thermostat in pots and rice cookers. Using one's own shopping bag. Transportation sector: Installation of solar-proofing film on vehicles. Installation of parts contributing to reduce CO ₂ emissions while driving. Promotion of eco-drive for company cars. Commercial and transportation sector: Implementation of measures to reduce greenhouse gas emissions with regard to clerical work and projects of all governmental levels as well as cities, towns and villages. | Other | Planned | <i>national and regional</i> |
| Promotion of awareness campaigns for global warming prevention activities Revive national debate on Daylight Saving Time. Campaigns to promote teleworking and bicycle use. Support schools to further environmental and energy-related education and study. Establishment of eco-schools (environment-friendly school facilities). Introduce importance of greenery as means to remove carbon dioxide. | Other | Planned | <i>national</i> |

Latvia

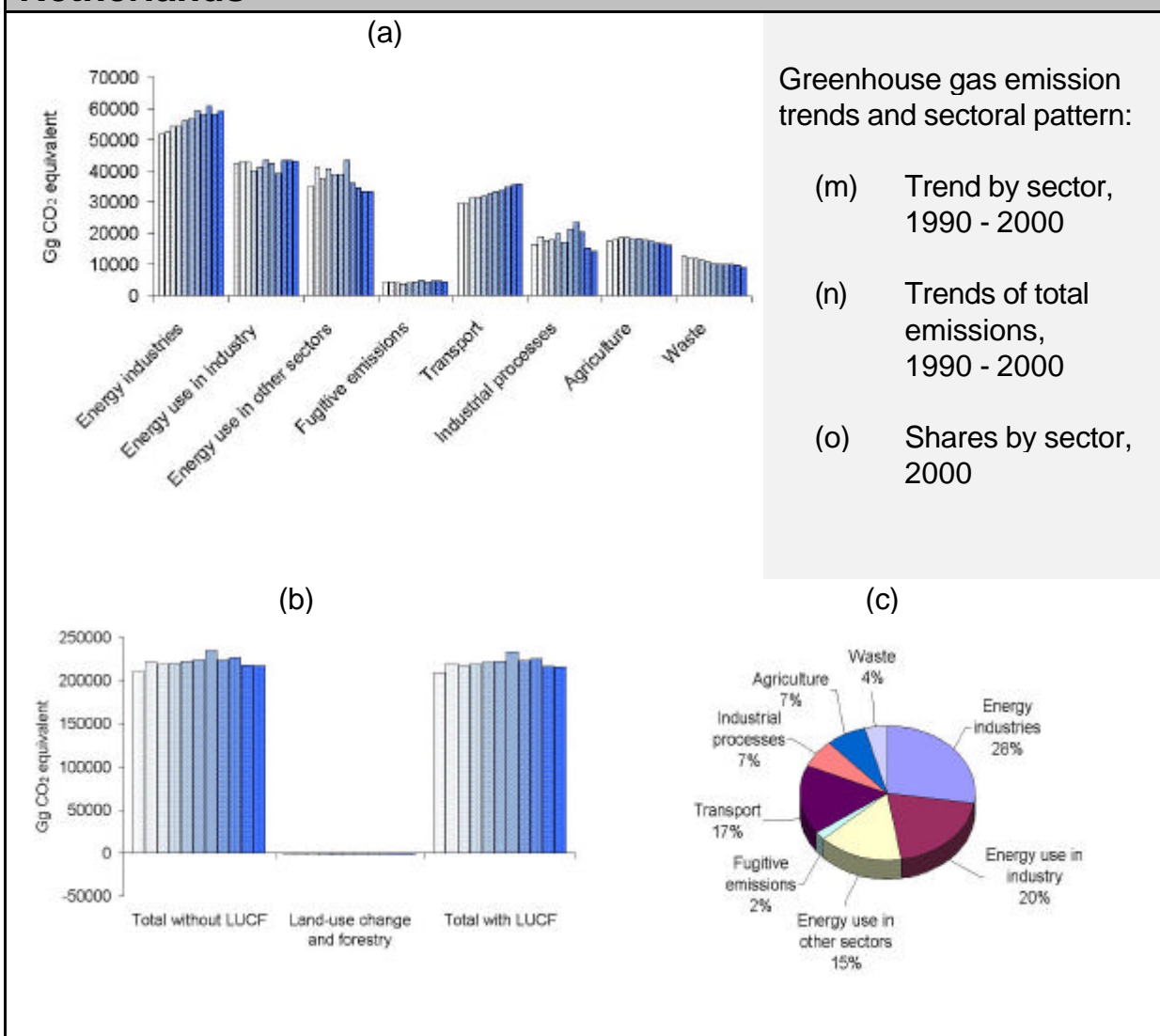


| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|---|--------|--------------------------------|
| <p>Renewal of small HPS (Hydro Power Stations) Increase the specific weight of renewable resources in total energy balance</p> | Economic <i>Economic, socio-economic</i> | Other | Enterprises <i>national</i> |
| <p>Use of wind energy Increase the specific weight of renewable resources in total energy balance</p> | Economic <i>Socio-economic</i> | Other | Enterprises <i>national</i> |
| <p>Bio diesel fuel as a internal combustion fuel in small scale co-generation plants To reduce CO₂ emissions by replacing diesel fuel with bio diesel fuel in small capacity co-generation equipment internal combustion engines</p> | Economic <i>Socio-economic</i> | Other | Enterprises <i>national</i> |

| | | | |
|---|--|---------------|--|
| Cost-effective use of wood-waste in the local governments' heating systems | Economic | Adopted | Dutch energy company "Essent" and "Vides Projekti" |
| New pilot boiler house to demonstrate the use of wood-waste as a substitute for fossil fuels. To develop the potential of Ludza municipality and to continue similar projects in other locations of Latvia. | <i>Economic, informative</i> | | <i>local</i> |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Projects of the Local Governments' Crediting | Economic | Implemented | Local governments |
| To improve operation of the heat supply system, in some projects - to carry out efficient heat insulation of buildings and radical reduction of energy consumption. | <i>Economic, socio-economic</i> | | <i>national</i> |
| Heat efficiency improvement program in | Information/ Education | Planned | MEPRD Construction Dpt., ME Energy Dpt., etc. |
| To study the general situation in the country in the area of heat keeping of buildings, provide information on opportunities and efficiency of heat insulation, as well as on the activities to be accomplished for optimization of situation | <i>Informational research, educational</i> | | <i>national</i> |
| Reduction of heat losses in buildings. Educational system development project | Economic | Adopted | MES and local governments |
| Increase energy efficiency in 116 school buildings | | | |
| Efficient lighting program | Voluntary Agreement | Adopted | DPC, Ekodoma |
| To decrease the impact of lighting on climate change, reforming modern lighting technologies market in | <i>Economic, socio-economic</i> | | |
| Sector: Fugitive Emissions | Instrument | Status | Implementing Entity |
| Reduction of VOC emissions from fuels arising from the storage of oil products | Economic | Adopted | Oil base owner |
| To establish the order how all oil depots of Latvia should install steam collection and processing | <i>Economic, legislative</i> | | <i>regional</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Improvement of the public transport system in | Information/ Education | Adopted | Riga Council |
| To improve public transport system | <i>Informative, socio-economic</i> | | <i>regional</i> |
| Development of cycling | Economic | Adopted | Riga Council |
| To include cycling as a transport mode in the general transport system of Riga | <i>Economic, informative</i> | | <i>regional</i> |
| Construction of technical check-up stations | Regulatory | Adopted | RTSD (Road Traffic Safety Department) |
| To improve quality of technical control of motor vehicles (inspection and maintenance) | <i>Economic</i> | | <i>national</i> |

| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
|--|--|---------------|--|
| <p>Introduction of EMS and CP in pharmaceutical industry of Latvia</p> <p>The objective is to integrate EMS in other management systems (quality, health and safety at work) of enterprises.</p> | <p>Economic</p> <p><i>Voluntary, economic, informative</i></p> | Implemented | Company management |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| <p>Rural development program</p> <p>To improve productivity of milking cow and pig herds and partly raise revenues of grain producers and field vegetable farmers, encourage rational use of covered areas, compensate energy price rise in covered areas and ensure the domestic demand for vegetables produced in Latvia.</p> | Economic | Adopted | Public institutions, local government, agricultural producers <i>regional</i> |
| <p>Good agricultural practice</p> <p>To lessen the negative impact of economic activity on the environment and to respect agricultural production regulations adopted in developed countries, Europe and the world</p> | Voluntary Agreement | Adopted | Agricultural producers <i>regional</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| <p>Targeted afforestation of abandoned agricultural land</p> <p>To encourage rational use of abandoned agricultural and otherwise not reclaimed land thus increasing forest-covered areas</p> | Voluntary Agreement | Adopted | Land owners and users <i>regional</i> |
| <p>Increase of forest productivity</p> <p>To increase forest productivity</p> | <p>Economic</p> <p><i>Economic, legislative</i></p> | Implemented | Land owners and lawful possessors <i>regional</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| <p>Processing of animal-origin waste</p> <p>Processing of animal-origin waste</p> | Regulatory <i>Regulatory, economic</i> | Planned | Not identified |
| <p>Waste recycling</p> <p>To reduce the amount of household waste in landfills</p> | Economic | Adopted | Enterprises <i>national</i> |
| <p>Biogas generation: Modernization project of "Getlini" - Riga municipal waste landfill</p> <p>To produce biogas from waste and use it for energy generation</p> | Economic | Adopted | SIA "Getlini-Eko" <i>regional</i> |
| <p>Biogas generation: Waste management project in Liepaja</p> <p>To create a modern waste management system and to use the produced biogas for energy generation</p> | Economic | Adopted | SIA "Liepajas RAS" <i>regional</i> |

Netherlands



Greenhouse gas emission trends and sectoral pattern:

- (m) Trend by sector, 1990 - 2000
- (n) Trends of total emissions, 1990 - 2000
- (o) Shares by sector, 2000

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|---|--|--|---|
| 5% renewables in 2010 | Policy Process | Implemented | national governments, prov. governments, energy companies, housing corporations |
| Decrease emissions though increased market share for renewable energy | <ol style="list-style-type: none"> 1. subsidies 2. fiscal incentives 3. market liberalization/ green certificates 4. agreement with provincial NGO's resiting of windmills 5. voluntary agreements with | <ol style="list-style-type: none"> 1. in effect 2. in effect 3. in effect 4. in preparation 5. in preparation | national |

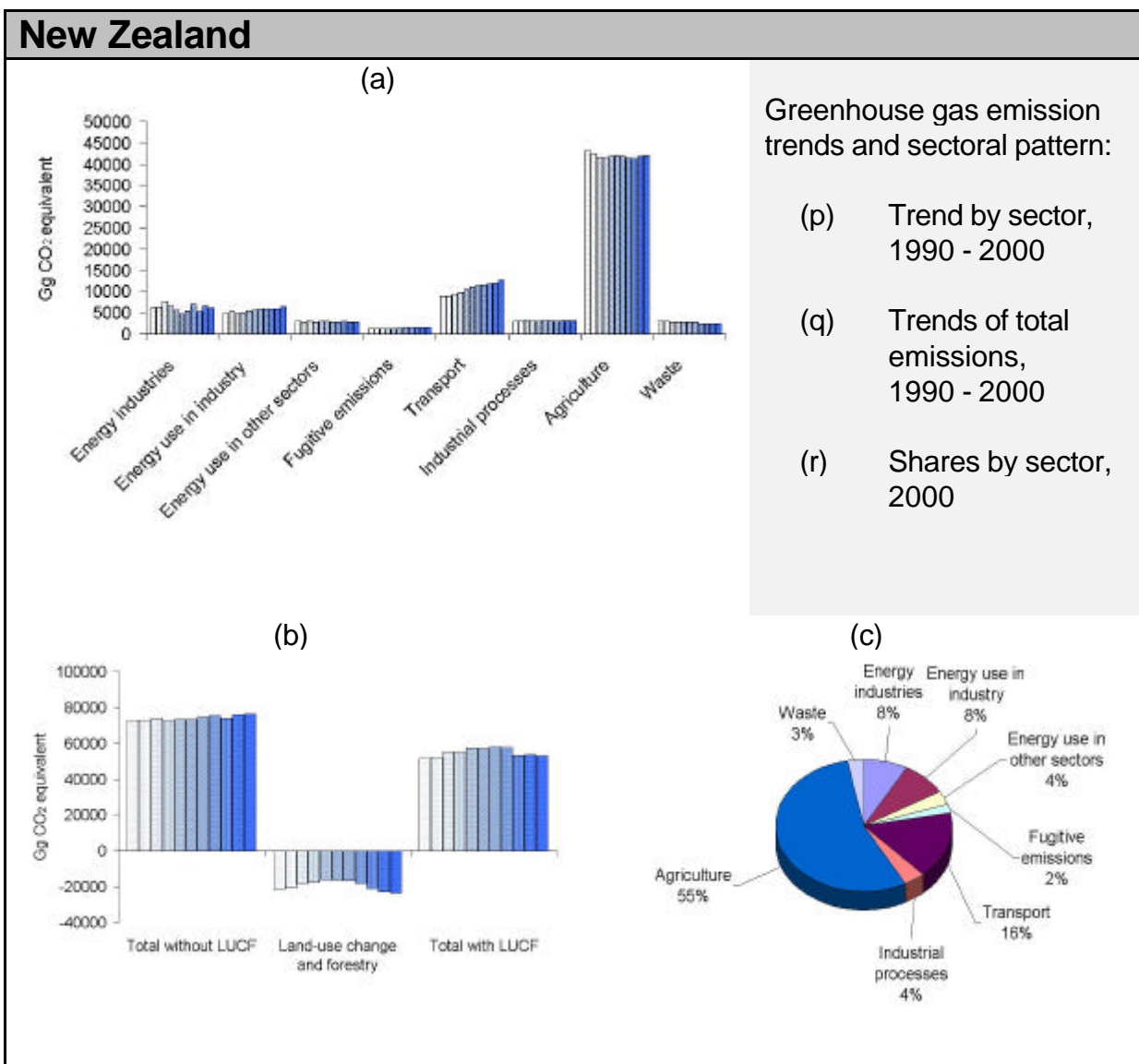
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|--|--|--|--|
| | <i>housing corporations</i> | | |
| Measures at coal-fired power plants | Other | Implemented | national government, owners of coal-fired plants |
| Decrease emissions through fuel switch and efficiency improvement | <i>1. voluntary agreements with plant owners, 2. fiscal incentives, 3. regulatory/environmental permit</i> | <i>1. in preparation 2. in effect 3. in effect</i> | <i>national</i> |
| Promotion of combined heat and power (CHP) | Fiscal | Implemented | national government |
| Encourage construction of new and continued use of existing CHP capacity | | | <i>national</i> |

| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
|--|---|---------------|---|
| Energy savings in industry | Voluntary Agreement | Implemented | nat'l gov't, prov. gov't, industry, NOVEM |
| Attain 'world top' by 2012 in most energy-intensive sectors; take all measures in other sectors with internal rate of return > 15% after taxes | <i>1. Benchmarking covenant 2. long term agreements 3. regulatory/permits 4. fiscal incentives</i> | | <i>national and regional</i> |
| Energy savings in greenhouse horticulture | Voluntary Agreement | Implemented | |
| To improve energy efficiency by 65% between 1980 and 2010 | <i>1. voluntary agreement 2. regulations 3. CO₂ buffer project 4. fiscal incentives 5. subsidies</i> | | <i>no entity given</i> |

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|---|---|---------------|-------------------------------|
| Energy Performance Advice | Voluntary Agreement | Implemented | energy companies, nat'l gov't |
| Save energy in existing households | <i>1. voluntary advice 2. fiscal incentives</i> | | <i>national</i> |
| Encouraging energy-efficient appliances | Regulatory | Implemented | nat'l gov't, retailers |
| Increase penetration of most efficient appliances | <i>1. energy labeling 2. fiscal incentives</i> | | <i>national and regional</i> |

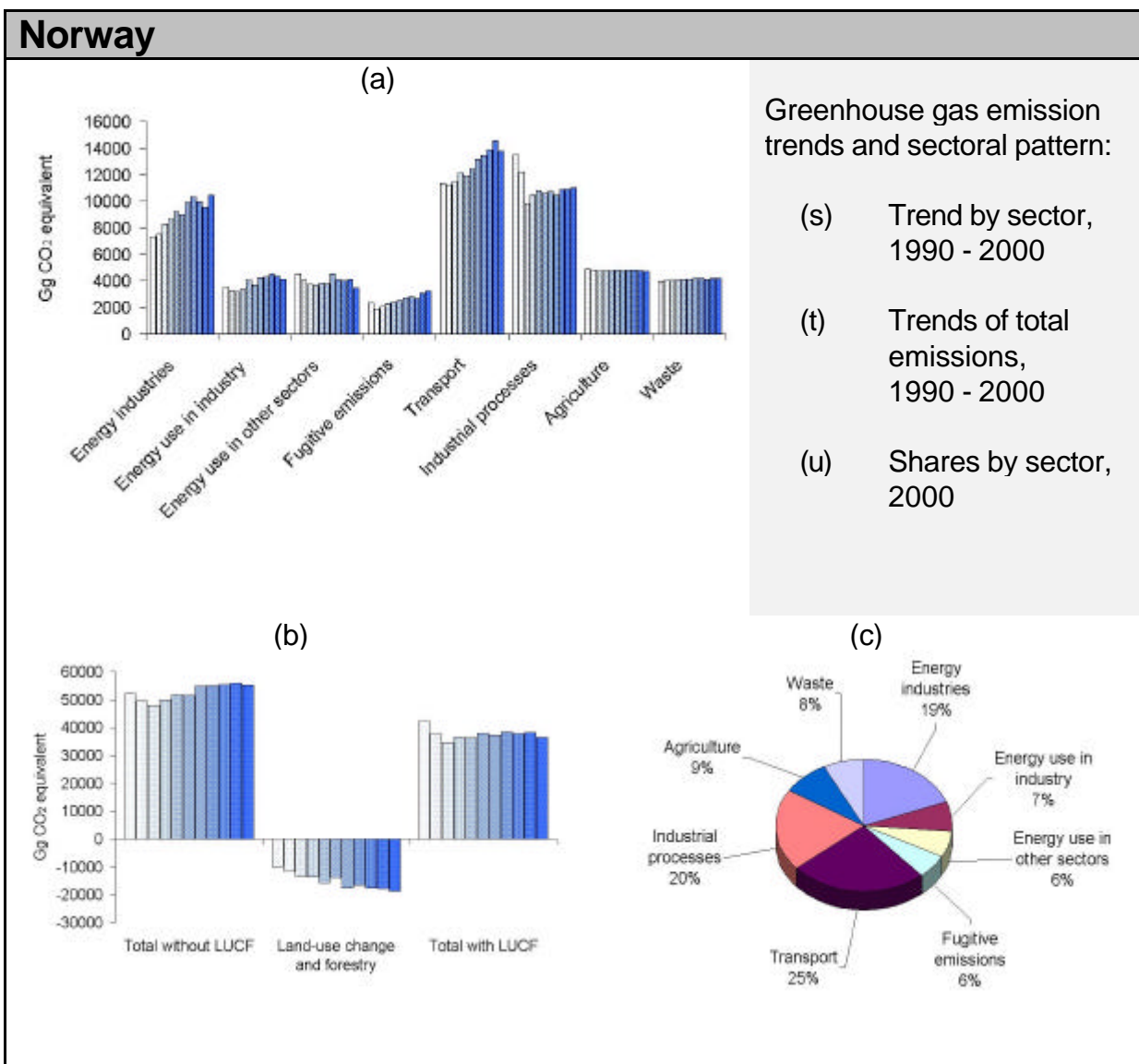
| | | | |
|---|---|--|---|
| Energy performance Advice | Voluntary Agreement | Implemented | energy companies, nat'l gov't |
| Save energy in existing non-residential buildings | <i>1. voluntary advice 2. fiscal incentives 3. regulations</i> | | <i>national</i> |
| <hr/> | | | |
| Sector: Fugitive Emissions | Instrument | Status | Implementing Entity |
| Methane Emissions from oil and gas production | Research | Planned | national government, research institutes |
| Identify reduction potential | | <i>1. in study</i> | <i>national</i> |
| <hr/> | | | |
| Sector: Transport | Instrument | Status | Implementing Entity |
| CO₂ differentiation in vehicle tax and car | Fiscal | Implemented | national government, car dealers |
| Encourage purchases of fuel-efficient cars | <i>1. fiscal, 2. new car labeling</i> | <i>1. in preparation, 2. in effect</i> | <i>national</i> |
| Encouraging in-car instruments | Fiscal | Implemented | national government, car dealers, garages |
| Promote monitoring instruments for fuel efficient driving behaviour | <i>1. fiscal incentives, 2. voluntary agreements with car dealers and garages</i> | | <i>national</i> |
| Tax measures to limit passenger traffic | Fiscal | Implemented | national government |
| Discourage commuter traffic and personal use of company cars | | | <i>national</i> |
| Increased tire pressure | Voluntary Agreement | Implemented | nat'l gov't, car dealers, garages |
| Reduce road friction and energy consumption | <i>1. agreements 2. public information</i> | | <i>national</i> |
| Road pricing | Economic | Planned | national government |
| Improve access to cities and reduce congestion | <i>experience</i> | | <i>national</i> |
| Stepped up enforcement of speed limits | Regulatory | Implemented | national government |
| Reduce speeding and save fuel | <i>1. targeted traffic control</i> | | <i>national</i> |
| Traffic and transport projects in CO₂ reduction | Economic | Implemented | national government, NOVEM, Senter |
| Improve logistics, efficiency of goods transport, improve driving behaviour | <i>1. subsidies, 2. communication</i> | <i>1. in effect, 2. in preparation</i> | <i>national</i> |
| Emissions reductions by use of catalytic | Regulatory | Planned | |
| Further European regulations | | <i>1. in study</i> | <i>national</i> |

| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
|--|--|-----------------------------------|---|
| Reduction of HFC, PFC as (H)CFC alternatives Improve knowledge about emissions and reduction possibilities and realize as much reduction potential as possible | Other <i>1. research 2. regulations 3. agreements 4. subsidies 5. fiscal incentives</i> | Planned | nat'l gov't, prov. gov't, industry <i>national and regional</i> |
| Reduction of PFCs from the aluminum industry Make adjustments to production process | Voluntary Agreement <i>1. agreements 2. permits</i> | Other <i>no status given</i> | nat'l gov't, prov. gov't, industry <i>national and regional</i> |
| Reduction of HFC's from processes Install/optimize afterburner | Regulatory <i>1. permit</i> | Implemented | prov. gov't, industry <i>regional</i> |
| SF₆ from chip industry and heavy current technology Identify reduction potential | Research | Implemented <i>1. in study</i> | nat'l gov't, industry, research institutes <i>national and private</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| CO₂ sequestration Accelerate afforestation in the Netherlands | Fiscal <i>1. certification of CO₂ reduction from forests 2. fiscal incentives</i> | Implemented | national government <i>national</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Emissions from former dumpsites Identify reduction potential | Research | Planned | nat'l gov't, research institutes <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|-----------------------------|-------------------|---|
| National Energy Efficiency and Conservation Strategy | Policy Process | Implemented | Energy Efficiency and Conservation Authority (EECA) |
| Promotion of energy efficiency and conservation | <i>All</i> | | <i>National</i> |
| Greenhouse Agreements | Voluntary Agreement | Planned | Central Government |
| CO ₂ -reduction from energy and industry | | | <i>National</i> |
| Carbon tax | Fiscal | Other | Central Government |
| Reduction of CO ₂ emissions | | <i>Considered</i> | <i>National</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Vehicle Fleet Control Strategy | Regulatory | Planned | Ministry of Transport |
| Air Quality and Climate Change | <i>Government programme</i> | | <i>National</i> |

| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
|---|--|---------------|---|
| Reduction of PFCs Air Quality and Climate Change | Regulatory <i>Resource consent condition</i> | Implemented | Government <i>National</i> |
| Training and certification programme for refrigeration engineers Correct handling of fluorocarbon refrigerants and reduction of emissions | Information/ Education <i>Training Programme</i> | Planned | Central Government (Ministry for the Environment) and the Institute of Refrigeration, heating and Air conditioning engineers <i>National</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Research funding into methane mitigation Reduce Ruminant methane emissions and enhanced animal production | Research <i>Research funding</i> | Implemented | Ministry of Agriculture and Forestry <i>National</i> |
| Research funding into nitrous oxide mitigation Reduce nitrous oxide emissions from soils and reduce nitrogen leaching to ground water | Research <i>Research funding</i> | Implemented | Ministry of Agriculture and Forestry <i>National</i> |
| Animal Waste Management Systems Water quality | Regulatory | Implemented | Local government <i>Local</i> |
| Code of Practice for the Use of Fertilizer Water quality and sustainable management | Regulatory | Implemented | Local government <i>Local</i> |
| Reduction in agricultural subsidies Agricultural reform | Regulatory <i>Economic, fiscal</i> | Implemented | Central Government <i>National</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| Forest expansion New forest under sustainable management | Regulatory | Implemented | Central Government <i>National</i> |
| East Coast Forestry Project Erosion reduction and Forestry production | Regulatory | Implemented | Central Government <i>National</i> |
| Indigenous Forest Protection Protection and Conservation of native forests | Regulatory | Implemented | Central Government <i>National</i> |
| Forest risk management Reduction of forest fires | Regulatory | Implemented | Central Government <i>National</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| National Waste Minimisation and Management Strategy Reduce volume of waste and enhanced methane recovery | Regulatory | Adopted | Ministry for the Environment <i>National</i> |
| Removal of methane in waste water Water quality and methane capture | Other | Implemented | Local government initiatives |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--|---|-------------------------------|
| CO₂ tax Consumption of mineral oil, petrol, coal and coke | Fiscal | Implemented <i>Implemented in 1991</i> | Government <i>national</i> |
| Petroleum Act Oil and gas production. Permit required for flaring | Regulatory | Other | Government <i>national</i> |
| Carbon reinjection Deposition of carbon at Sleipner | Other | Implemented <i>no type given</i> | no entity given |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| Support for renewable energy Investment grants and tax exemptions for renewable energy production | Economic <i>Economic, subsidies</i> | Implemented | Government <i>national</i> |

| | | | |
|---|---|---|--|
| CO₂-free gas-fired power production Government wishes to establish pilot plant for CO ₂ -free gas-fired power production around 2005 | Research <i>Research, development.</i> | Other <i>Proposed in white paper.</i> | Government, industry. <i>national</i> |
| Energy efficiency Private and public energy use. State funding for energy efficiency to be coordinated through Enova | Research <i>Research, information.</i> | Other <i>Enova has been operative from 1 January 2002.</i> | Enova and regional energy efficiency centers. <i>national</i> |
| Energy use Greater use of bioenergy and alternative fuels in cement production | Voluntary Agreement | Implemented | Industry <i>national</i> |
| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
| CO₂ tax Oil and gas production | Economic <i>Economic, fiscal</i> | Implemented <i>Implemented in 1991</i> | Government <i>national</i> |
| Electricity tax Electricity consumption. Tax rate in January 2001 NOK 0.113 per kWh | Economic <i>Economic, fiscal</i> | Implemented | Government <i>national</i> |
| Agreements with energy intensive industries Efficiency improvements in industrial activities that are currently exempted from the CO ₂ tax | Voluntary Agreement <i>Voluntary/negotiated agreements</i> | Implemented <i>Implemented March 2002</i> | Government and branches of industry or individual companies <i>national</i> |
| Sector: Fugitive Emissions | Instrument | Status | Implementing Entity |
| CO₂ tax (petroleum sector) Flaring and burning of natural gas and diesel in the petroleum sector | Economic | Implemented | Government <i>national</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| CO₂ tax, petrol and diesel taxes Domestic transport | Economic | Implemented | Government <i>national</i> |
| Exemption from purchase and investment tax for alternative fuels Purchase tax differentiated according to car weight and engine output. Electric cars exempted from purchase and investment tax | Economic <i>Economic, research and development</i> | Implemented <i>Exemption from the purchase tax implemented. Investment tax will be removed from February 2002.</i> | Government <i>national</i> |
| Exemption of natural gas from CO₂ tax Use of natural gas in buses, ferries and supply ships | Research <i>Research and development</i> | Implemented <i>Natural gas used in buses in certain towns. Pilot project on natural gas in</i> | Government <i>national</i> |

ferries started in February 2000. Supply ships will be in operation from 2003.

| | | | |
|--|--|--|---|
| Production improvements | Voluntary Agreement | Implemented | Industry |
| Technical changes in the production of nitric acid | | | <i>national</i> |
| Sector: Industrial Processes | | | |
| Agreements on Fluorinated Gases | Voluntary Agreement | Other | Government and aluminum industry |
| Aluminum industry | <i>Voluntary/negotiated agreements</i> | <i>Agreement reached in 1997.</i> | <i>national</i> |
| Production improvements | Voluntary Agreement | Implemented | Industry |
| Improved routines and plant maintenance in magnesium production | <i>Voluntary Implemented Industry</i> | | <i>national</i> |
| SF₆ recovery facility | Other | Implemented | Facility (RENAS) established in June 2001. |
| Collection, recycling and destruction of electric equipment | <i>Administrative</i> | | <i>national</i> |
| Sector: Waste | | | |
| Pollution Control Act (licensing requirements) | Regulatory | Implemented | Government |
| Licences include requirements for collection and combustion of methane | | | <i>national</i> |
| Tax on final waste treatment | Economic | Implemented | Government |
| The tax puts a price on emissions from final waste treatment | <i>Economic, fiscal.</i> | <i>Implemented in January 1999.</i> | <i>national</i> |
| Agreement with industry | Voluntary Agreement | Implemented | Government and industry |
| Waste minimization | | | <i>national</i> |
| EU Directive on landfills | Regulatory | Planned | Government, EU Commission |
| Requirements to reduce biodegradable municipal waste and collect methane | | <i>Under implementation.</i> | Government, EU Commission <i>national and EU</i> |
| Sector: Cross-Sectoral | | | |
| Pollution Control Act/IPCC Directive | Regulatory | Other | Government |
| Industrial activities, oil, gas, energy production. BAT and energy efficiency requirements in industrial installations | | <i>IPPC Directive applies to new entities. For</i> | <i>national</i> |

*existing entities
the Directive will
apply from
2007.*

Emissions trading

Most major emission sources from 2008. The proposed system would then cover 80-90% of total GHG emissions. A narrower system from 2005

Economic
*Economic,
market*

Planned
*Implementation
from 2008
proposed in
Report No. 54
(2000-2001) to
the Storting.
Implementation
with narrower
coverage from
2005 proposed
in Report No. 15
(2001-2002) to
the Storting .*

Government
national

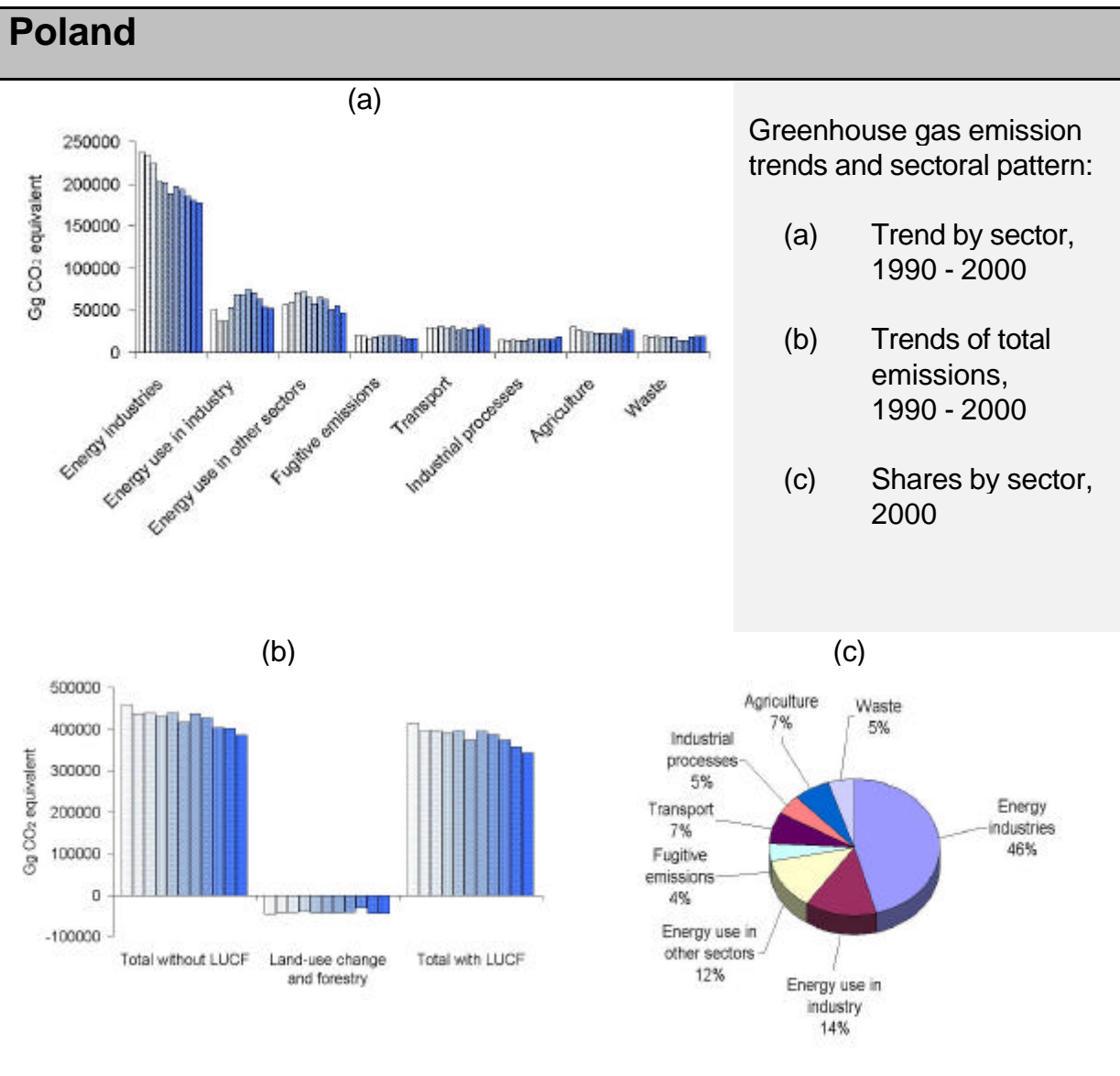
Pollution Control Act

NMVOC regulation on- and offshore

Regulatory

Implemented

Government
national



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|-----------------------------------|---|--|
| <p>Assumptions for Energy Policy for Poland until 2020 (ZPE20) (Document of the Council of Ministers of 22/02/2000)</p> <p>Safety, competitiveness, environmental protection. Impact on all the components of environment</p> | <p>Information/ Education</p> | <p>Implemented</p> <p><i>Effective from 22 February 2000 upon a Decision of RM (the Council of Ministers)</i></p> | <p>The Council of Ministers and entire central administration and Voivodes RM</p> <p><i>National</i></p> |
| <p>Restructuring of PGNiG</p> <p>Basis to create a market structure</p> | <p>Regulatory</p> | <p>Adopted</p> <p><i>Governmental Strategy of Privatisation of PGNiG adopted</i></p> | <p>MSP, MG, RM and PGNiG</p> <p><i>National</i></p> |

in 2000

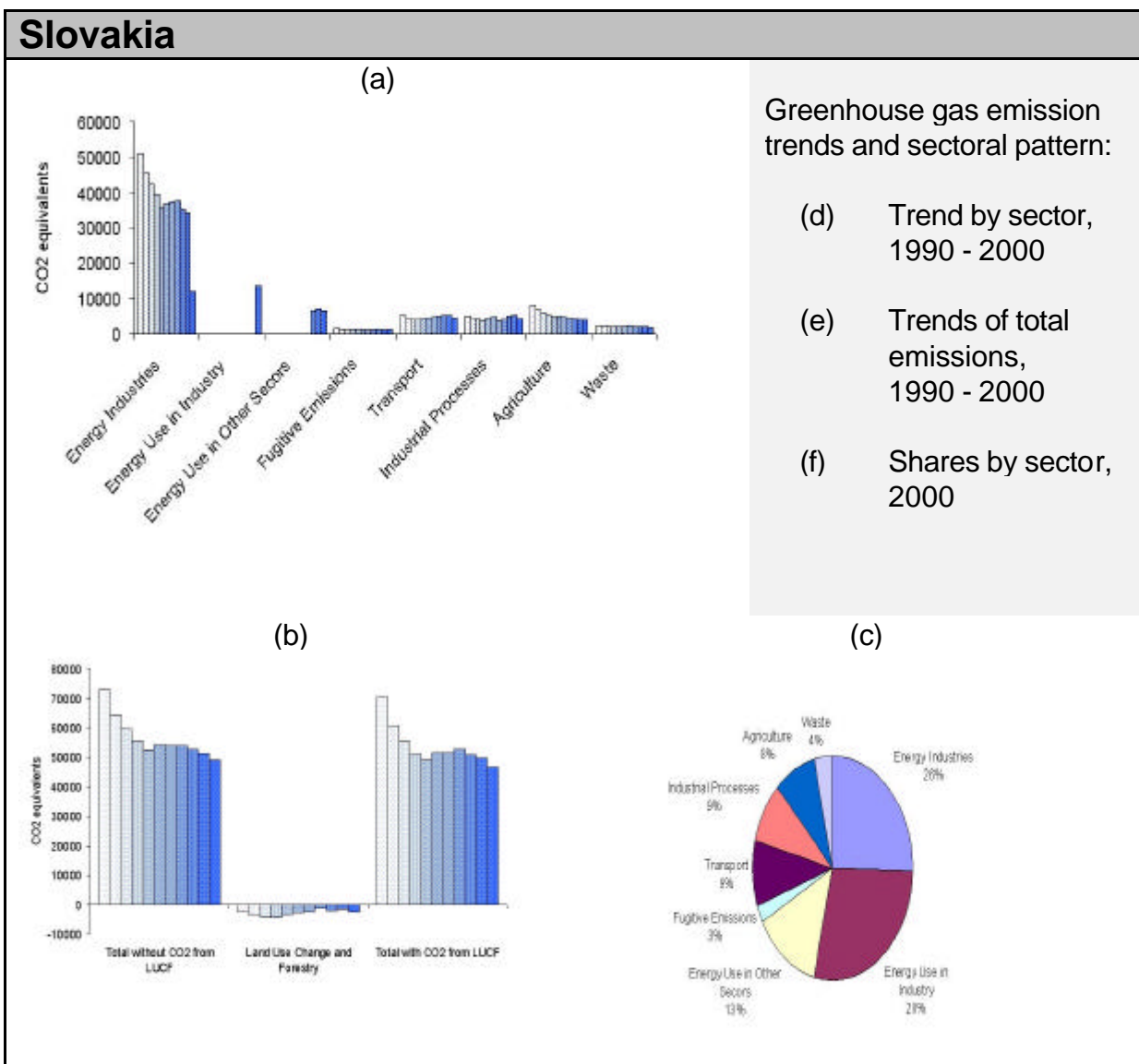
| | | | |
|--|---|---|--|
| Self-governmental offices and power engineering companies (PEN) | Regulatory | Adopted | President of URE, Self-governmental offices, PEN |
| Development of local markets including OZE | | <i>Decided in 1997 upon the Act on Energy Law, in the course of implementation</i> | <i>Private</i> |
| Monitoring system | Information/ Education | Planned | MG, URE |
| Supervision over ZPE20 effectiveness | <i>Recommendation of RM</i> | <i>Being considered</i> | <i>National</i> |
| Strategy of integrated management of energy and environment: pinch technology analysis; promotion of OZE; emission trading (SO₂ and | Regulatory | Planned | MG, MS, President of URE |
| Improvement of energy efficiency of companies, and increase of competitiveness with significant reduction of emission and at the cost as low as possible for companies and the whole country | <i>Legal, economical and regulatory instruments are expected to be used</i> | <i>Recommended upon ZPE20 and Resolutions of the Parliament of the Republic of Poland. There are projects of amendments to some Acts and Ordinances of MG. It has been implemented since 1998</i> | <i>National</i> |
| Strategy of organisational and technological decentralisation of power engineering systems; investment policy; development of small CHPs; development of local markets - local resources (OZE and others); assumptions and plans of communes and plans of companies | Regulatory | Adopted | MG, territorial self-governments and power engineering |
| Development of local energy markets, increase of OZE share, development of small CHP sources, stimulation of activities in communes - as a result, significant growth of energy use efficiency is expected. Strong rationalisation of the energy use and decrease of emission level. | <i>Of legal, regulatory, information and education and research character</i> | <i>Decided upon the Energy Law: OZE + commune plans - heat, from 1997, commune plans - energy from 1998, CHP from 2000, MG Ordinance of December 2000</i> | <i>National</i> |

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|---|------------------------------|----------------------------|
| Strategy for transitional period: restructuring of hard coal mining | Regulatory | Implemented | RM, MG |
| Economical level of coal production. Improvement of coal quality and CH ₄ reduction | <i>Special Act on Restructuring of Hard Coal Mining</i> | <i>Valid from 15/12/2000</i> | <i>National</i> |

| | | | |
|--|---|---|---|
| Long-term contracts | Regulatory | Other | President of URE and Power Stations and CHP's |
| Modernisation of public power engineering. Reduction of atmosphere pollution. Emission standards and charges | <i>Of civil law and regulatory character, of legal character - MS Ordinance</i> | <i>System of Compensation Charges included in the Second Environmental Policy; Ordinance of MS</i> | <i>Private</i> |
| New sources of gas supplies | Regulatory | Adopted | MG, PGNiG |
| Safety of deliveries, reduction of GHGs emission | | <i>Act of 26/05/2001 on Amendments to the Act on Energy Law (PE) is still effective</i> | <i>National</i> |
| Strategy of liberalisation of energy supply | Economic | Implemented | MSP, MG, President of URE |
| Strengthen competition in the sector, acquisition of investment capital for development and budget and improved customer service | <i>Market reform in power engineering sector, of legal and regulatory character as well as implementation of competitiveness, including TPA</i> | <i>Decided and implemented since 1990 and 1997 (PE); revised in 2000 (PE) and ZPE20. Price regulation since 1999 (electricity) and 2000 (gas)</i> | <i>National</i> |
| <hr/> | | | |
| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
| National Programme for Integration with EU: Establishing of free market principles in power gas engineering sectors | Regulatory | Planned | RM/MG, MSP |
| Improvement of economy and energy efficiency of power engineering companies | | <i>Decision in accordance with the negotiation schedule</i> | <i>National</i> |
| <hr/> | | | |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Strategy of improvement of energy efficiency: policy of rationalisation of the utilisation of fuel and energy; policy of promotion; educational and research and information policy | Regulatory | Implemented | MG, MS, President of URE, MSWiA, UKIE, KBN |
| Lower energy intensity and energetic costs. Improved competitiveness, rational resource management, environmental protection, meeting international obligations and those of integration with EU | <i>ZPE20 recommends legal, regulatory and supporting instruments (of information and education and research character). PE</i> | <i>Decided in 2000 and implemented upon PE since June 2000; no amendment to MG Ordinance, the work on a draft of the Act is</i> | <i>National</i> |

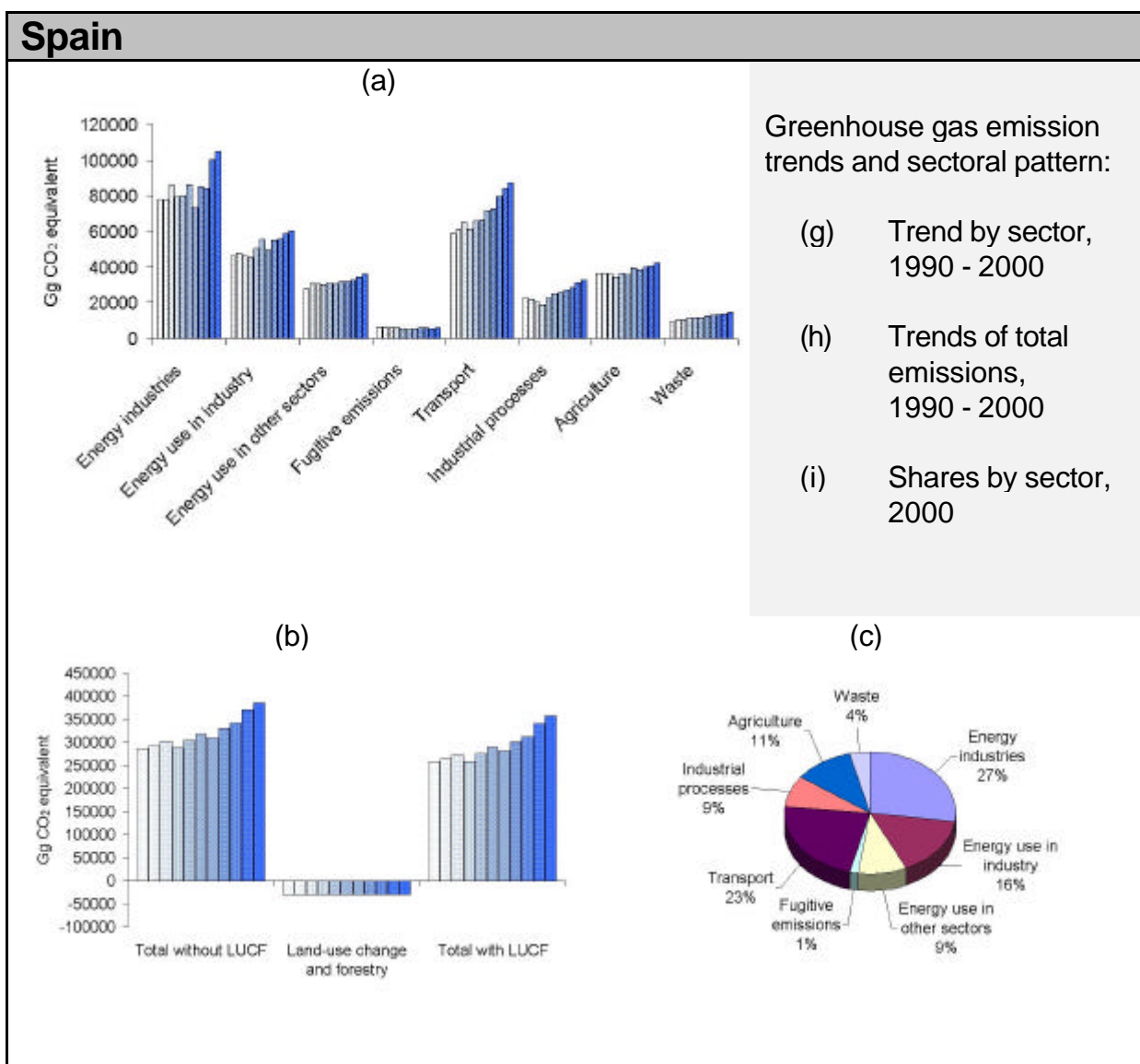
promotes CHP *not continued*

| Sector: Agriculture | Instrument | Status | Implementing Entity |
|--|-------------------|---------------|--|
| Programme for Development of Environmental Agriculture reduce GHG emissions through improving fuel efficiency, livestock management, manure management and management of nitrate fertilizers | Other | Adopted | Ministry of Agriculture <i>national</i> |



| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|---|---------------------------------|-------------|-----------------------------------|
| Implementation of combined cycles | Regulatory | Implemented | Slovak Ministry of Economy SEA |
| Increase in energy efficiency | <i>Regulatory and economic</i> | | <i>National</i> |
| Utilisation of renewable energy sources | Regulatory | Implemented | Slovak Ministry of Economy SEA |
| Decrease in of fossil fuel consumption | <i>Regulatory and technical</i> | | <i>National</i> |
| Treatment of animal excrements to biogas | Other | Implemented | Slovak Ministry of Agriculture SR |
| | <i>unclear</i> | | <i>National</i> |

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|---|---|---------------|---|
| Thermal insulation of buildings Reduction of final energy consumption in sectors MVV & RR | Regulatory <i>Regulatory and technical</i> | Implemented | MVV & RR SR <i>National</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Shifting of services from individual to public transport Decrease in fossil fuel consumption Environmental protection | Regulatory <i>Regulatory and technical</i> | Adopted | Slovak Ministry of Transport, Posts and Telecommunication <i>National</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Reduction of the livestock number Intensification of agricultural production. Harmonisation with EU legislation | Regulatory | Implemented | Slovak Ministry of Agriculture SR <i>National</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| Afforestation of non-forested areas Afforestation | Regulatory | Implemented | Slovak Ministry of Agriculture <i>National</i> |
| Regulation of timber extraction Reforestation | Regulatory | Implemented | Slovak Ministry of Agriculture <i>National</i> |
| Protection of carbon stocks in soils Increase of soil carbon stock | Regulatory | Implemented | Slovak Ministry of Agriculture Slovak Ministry of Agriculture <i>National</i> |
| Sector: Other | Instrument | Status | Implementing Entity |
| Act No. 309/1991 Coll. on Protection of the Air Reduction of emissions of the basic pollutants | Regulatory <i>Regulatory and economic</i> | Implemented | Slovak Ministry of Environment Environmental <i>National</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|--|---------------------|---|---|
| National energy R&D plan | Research | Implemented | Ministry of Economy, Ministry of Science and Technology |
| Promotion of less polluting energy technologies | | | <i>national</i> |
| PASCER: Programme for energy savings, energy efficiency, cogeneration and renewable energy of Castilla and Leon | Economic | Adopted | Government of Castilla y Leon - EREN |
| Energy savings, substitution of fossil fuels, diversification, increase share of renewable energy | <i>subsidies</i> | | <i>regional</i> |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| Bonus system for green electricity production | Economic | Implemented | Ministry of Economy |
| Increase market competitiveness for less polluting electricity production. | <i>Bonus system</i> | <i>Real Decreto de Regimen Especial de la</i> | <i>national</i> |

*Ley 54/1997 del
Sector
Electricidad*

| | | | |
|---|---|--|---|
| Promotion of renewable energy | Economic | Implemented | Ministry of Economy, Ministry of Science and Technology |
| Increase share of renewable energy in electricity production from 6.3% in 1998 to 12% in 2010 | <i>subsidies, tax rebates</i> | <i>FPER: Plan de Formento de las Energias Renovables, abrobado el 20. Dec 1999</i> | <i>national</i> |
| Wind power plan of Castilla and Leon | Other | Adopted | Government of Castilla y Leon - EREN |
| Promotion of wind power | <i>Plan</i> | | <i>regional</i> |
| Solar Plan of Castilla and Leon, Line I | Economic | Adopted | Government of Castilla y Leon - EREN |
| Increase number of thermosolar energy installations by a factor of 38. | <i>subsidies, technical standards, low interest credits</i> | | <i>regional</i> |
| Solar Plan of Castilla and Leon, Line II | Economic | Adopted | Government of Castilla y Leon - EREN |
| Promotion of photovoltaic energy | <i>subsidies</i> | | <i>regional</i> |
| Promotion of renewable energy | Regulatory | Adopted | Ministry of Agriculture and other Departments |
| Increase amount of surface destined for the production of renewable energy from biomass (800,000 - 1,000,000 ha). | <i>Normative-economic</i> | | <i>national</i> |

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|--|--|---------------|---|
| Regulation for building heating systems Improve energy efficiency of heating systems | Regulatory | Adopted | Public Administration <i>national</i> |
| Allocation of expenses to individual users of central heating systems Reduce heating demand in private households | Information/ Education <i>Advisory booklet</i> | Adopted | End consumer <i>national</i> |
| Energy certification of new buildings Reduce energy consumption of new buildings | Regulatory | Adopted | Public Administration <i>national</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Development of the high speed rail system Promotion of rail transport: increase the overall energy efficiency of transport by shifting air travel and road transport towards rail. | Economic <i>Investments</i> | Implemented | Ministry for Public Works, Buildings etc. <i>national</i> |
| Promotion of public transport in urban areas Modal shift of passenger transport from private | Economic <i>Investments</i> | Implemented | Ministry for Public Works, Buildings etc., CCAA, communities <i>national</i> |

vehicles to public transportation

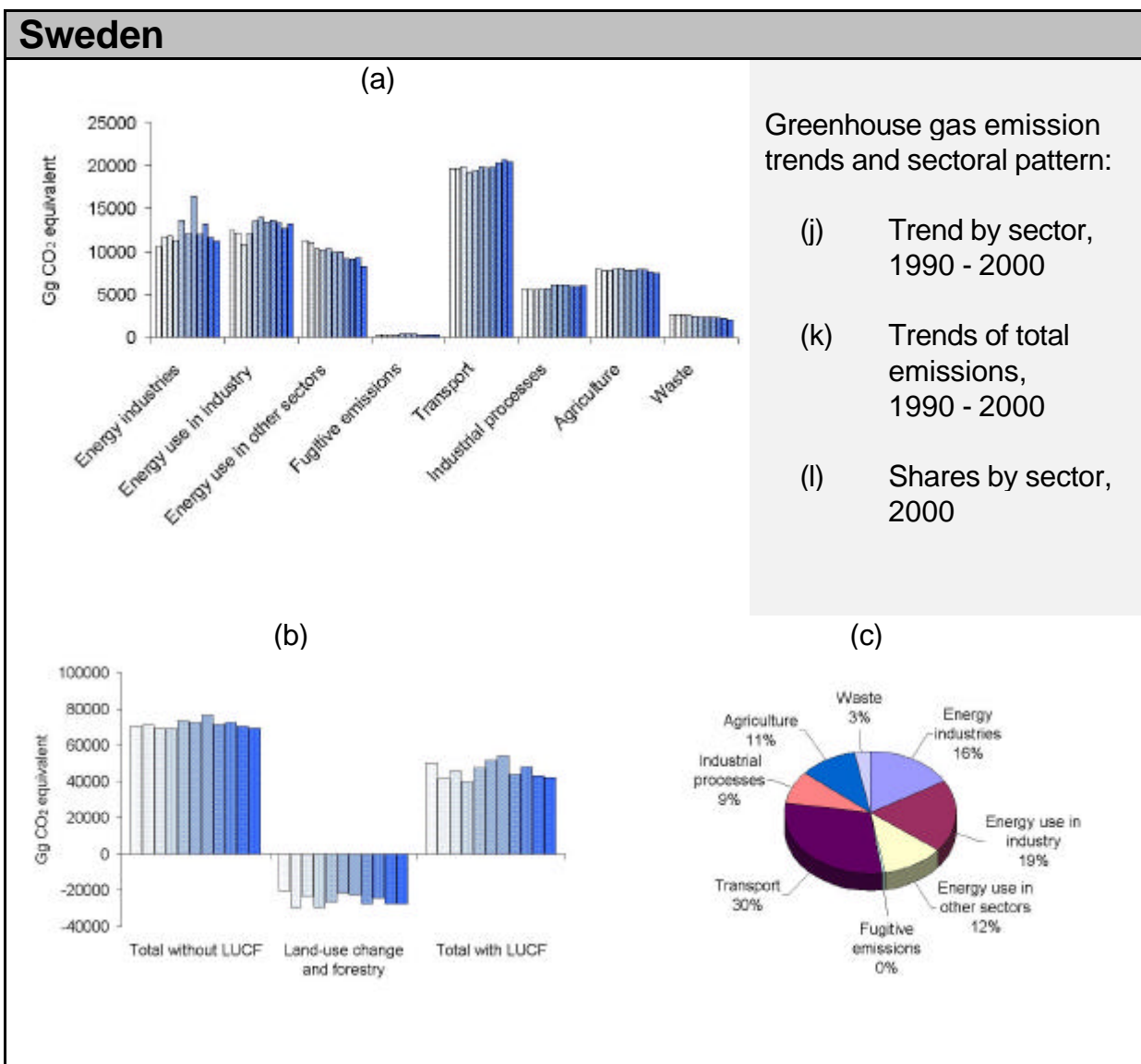
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|---|---------------------------|-------------|---|
| Improvement of vehicle fleet | Regulatory | Implemented | Ministry for Public Works, Buildings etc. <i>national</i> |
| Improve energy efficiency and reduce air pollution in road transport. | <i>Normative-economic</i> | | |
| Improvement of air traffic control systems | Regulatory | Implemented | Ministry for Public Works, Buildings etc., EU <i>national</i> |
| Improve energy efficiency of air travel | <i>Normative-economic</i> | | |
| Modernisation of aircraft fleet | Regulatory | Implemented | Ministry for Public Works, Buildings etc., EU <i>national</i> |
| Improve energy efficiency of air travel | | | |

| Sector: Agriculture | Instrument | Status | Implementing Entity |
|--|---|----------------------------|--|
| Start of action programme in vulnerable areas | Information/ Education | Adopted | General secretariat of Agriculture and Ministry of Environment, coordinated by Ministry of Agriculture <i>national</i> |
| Reduce the use of mineral fertilizer according to good practices in agriculture. | <i>Voluntary agreements</i> | | |
| Agro-environmental standards | Regulatory | Adopted | Ministry of Agriculture <i>national</i> |
| Ban of burning crop residues | <i>Disregard leads to suspension from EU subsidies for farmers.</i> | | |
| Agro-environmental standards | Regulatory | Adopted | Ministry of Agriculture <i>national</i> |
| Maintenance of land set-aside | <i>Disregard leads to suspension from EU subsidies for farmers.</i> | | |
| Rural Development Plan: Reforestation of cultivable land | Regulatory | Adopted | Ministry of Agriculture <i>national</i> |
| Forestation of 22,000 ha/a of cultivable land | | | |
| Coordination of agricultural policy with other | Voluntary Agreement | Adopted | Ministry of Agriculture and other Departments <i>national</i> |
| Substitution of mineral fertilizer with sewage sludge | | | |
| Coordination of agricultural policy with other | Voluntary Agreement | Adopted | Ministry of Agriculture and other Departments <i>national</i> |
| Substitution of mineral fertilizer with solid urban waste | | | |
| Quality improvement of forage for intense livestock farming (digestibility) | Voluntary Agreement | Other | Ministry of Agriculture and Communities <i>national</i> |
| Reduction of methane | | <i>Under investigation</i> | |
| Reforestation | Other | Adopted | Ministry of Agriculture |

and Communities
national

Increase of carbon bound by biomass

| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
|---|---|---------------|---|
| Forestation | Other | Adopted | Ministry of Agriculture and Communities |
| Afforestation / reforestation of agricultural land, forest management | <i>Planned in Spanish Forestry Plan</i> | | <i>national</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Elimination programme, National Urban Waste Capture and use of biogas. | Regulatory <i>Normative-economic</i> | Adopted | Local Administrations <i>local</i> |
| Composting programme, National Urban Waste Use of biowaste for compost production | Regulatory <i>Normative-economic</i> | Adopted | Local Administrations <i>local</i> |



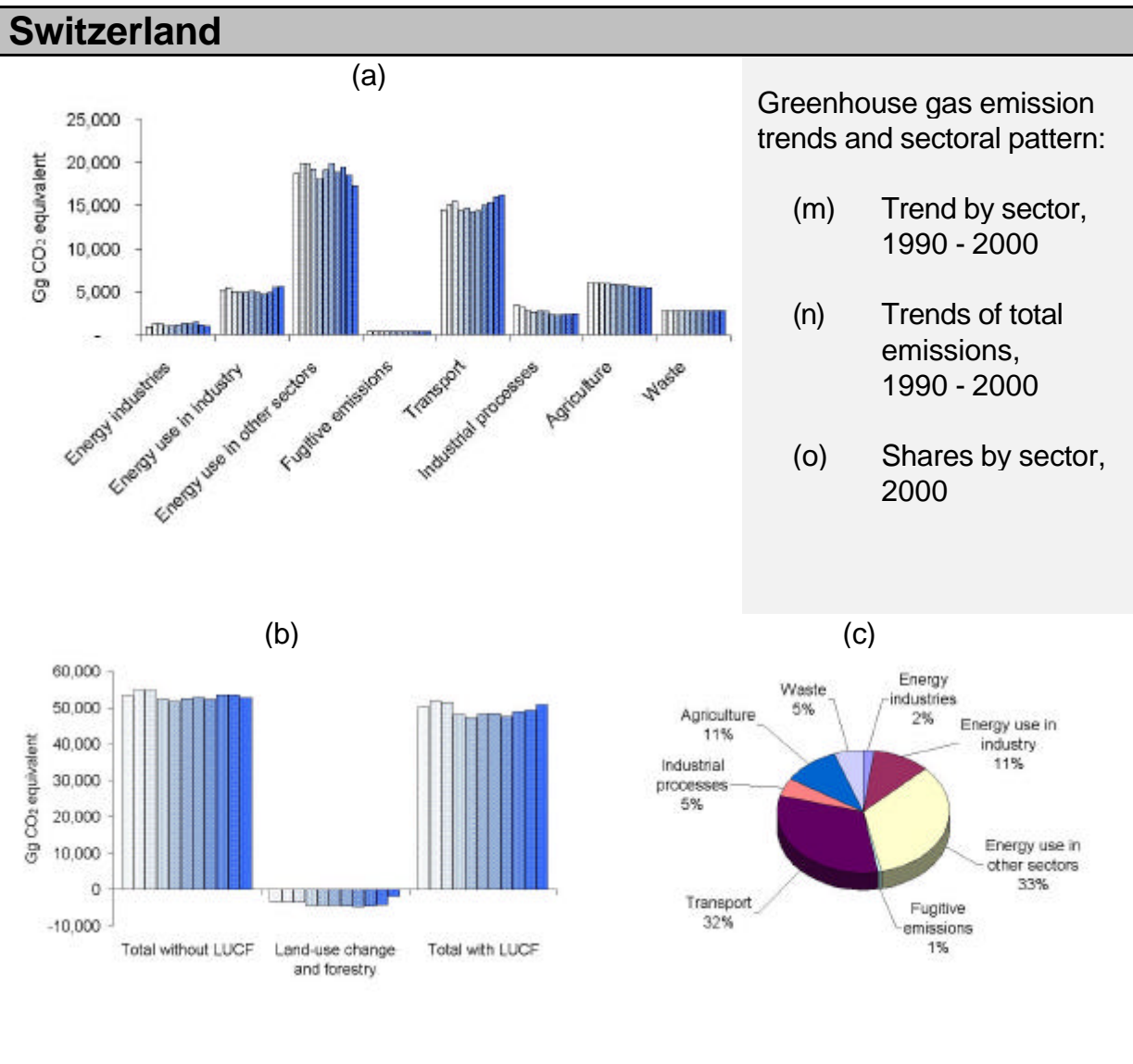
| Sector: Energy | Instrument | Status | Implementing Entity |
|--|------------|---|--|
| <p>Energy tax Affects energy use in all sectors</p> | Fiscal | Implemented <i>since 1957</i> | RSV National Tax Board <i>national</i> |
| <p>VAT on energy</p> | Fiscal | Implemented <i>since 1990</i> | RSV National Tax Board <i>national</i> |
| <p>Reform of the electricity market Makes the electricity market more a part of the market economy and involves joint regulation of the North European electricity markets</p> | Fiscal | Implemented <i>since 1996</i> | STEM National Energy Administration <i>national</i> |
| <p>Procurement of new energy technology</p> | Economic | Implemented <i>from 1998 to 2002</i> | STEM National Energy Administration <i>national</i> |

| Sector: Energy Industries | Instrument | Status | Implementing Entity |
|--|-------------------|---|--|
| Taxes on electricity production | Fiscal | Implemented | RSV National Tax Board <i>national</i> |
| Energy and environmental tax exemption on biomass fuels, inc. peat | Fiscal | Implemented <i>since 1994</i> | RSV National Tax Board <i>national</i> |
| Tax on landfill (described elsewhere in table as part of waste programme) Increase renewable electricity generation | Economic | Implemented <i>from 1998 to 2002</i> | STEM National Energy Administration <i>national</i> |
| Operating subsidies for small-scale electricity generation | Economic | Implemented <i>since 2000</i> | STEM National Energy Administration <i>national</i> |
| Conversion from electric heating to district Reduce energy consumption | Economic | Implemented <i>from 1998 to 2002</i> | STEM National Energy Administration <i>national</i> |
| Measures to develop electric heating supply in southern Sweden Need to compensate for electricity shortfall caused by closure of Barsebäck | Economic | Implemented <i>1998 to 2001</i> | DESS Commission on Energy Supply in South Sweden <i>regional</i> |
| Quota-based trade in certificates Stimulate production of renewable electricity | Regulatory | Planned <i>from 2003 on</i> | STEM National Energy Administration <i>national</i> |
| Planning objectives for wind power production Improve the scope for a dramatic expansion of wind power use in Sweden | Other | Planned | STEM National Energy Administration <i>national</i> |
| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
| Planning, Building and Housing Act Reduce energy consumption etc | Regulatory | Implemented | BoV National Board of Housing, Building and Planning <i>national</i> |
| Reduce energy consumption etc Reduced energy consumption | Regulatory | Implemented | BoV National Board of Housing, Building and Planning <i>national</i> |
| Sector: Transport | Instrument | Status | Implementing Entity |
| Special pilot project exemptions for bio-mass motor fuels Makes biomass fuels more competitive | Fiscal | Implemented | F-dep Ministry of Finance/STEM National Energy Administration <i>national</i> |
| Environmentally differentiated charges for shipping and air traffic | Fiscal | Implemented | N.C. |

| | | | |
|--|---------------------|--|---|
| N.C. | | | <i>since 1998</i> |
| Comprehensive municipal planning Reduce energy consumption by urban and regional planning | Regulatory | Implemented | BoV National Board of Housing, Building and Planning <i>national</i> |
| 'Transport Quality Assurance' and 'Economical Driving' transport projects Reduce fuel consumption etc | Other | Implemented <i>since 2000</i> | VV Volvo <i>national</i> |
| Use of renewable energy to run railways Reduce impact of transport system on climate etc | Other | Other | SJ Swedish Railway company <i>national</i> |
| Greater investment in tramway infrastructure Make trams more competitive | Other | Implemented | Banverket National Rail Administration <i>national</i> |
| Environmental tax on domestic air traffic Reduce emissions of HC and NO _x from domestic air traffic | Fiscal | No longer in place <i>from 1989 to 1996</i> | |
| Tax relief on journeys to and from work Increase the scope for distance working | Economic | Implemented | |
| Regional transport subsidies Alleviate the impact of cost differences for long-distance transport from companies in regional support areas | Economic | Implemented | |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| The Refrigerants Order Governs the use of refrigerants, including halocarbons | Regulatory | Implemented | NV Swedish Environmental Protection Agency <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Start-up grants for energy forests Cultivation of energy forest | Economic | Implemented | SJV National Board of Agriculture <i>national</i> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| Revision of Silvicultural Act and restrictions on N fertilizer use Improved forest management and reduced environmental impacts | Regulatory | Implemented <i>since 1994</i> | SKS National Board of Forestry <i>National</i> |
| Forest Management Certification Sustainable forest management | Voluntary Agreement | Implemented | SKS National Board of Forestry <i>National</i> |
| Sector: Waste | Instrument | Status | Implementing Entity |
| Tax on landfill (described elsewhere in table as | Fiscal | Implemented | |

part of waste programme)

| | | | |
|---|---|----------------------------------|--|
| Waste generation and management | | <i>since 2000</i> | |
| Collection of landfill gas | Voluntary Agreement | Implemented | Kom: municipalities, LS: county administrative boards |
| Reduce methane evaporation | <i>Voluntary or negotiated measures</i> | <i>since 1994</i> | <i>regional</i> |
| Ban on landfill of organic waste | Regulatory | Adopted | NV Swedish Environmental Protection Agency |
| More stable landfills and use of waste as a resource | | <i>no longer in place</i> | <i>national</i> |
| Ban on landfill of sorted burnable waste | Regulatory | Adopted | NV Swedish Environmental Protection Agency |
| Improvement in disposal of all burnable waste | | <i>since 2002</i> | <i>national</i> |
| Waste Tax Act | Fiscal | Implemented | NV Swedish Environmental Protection Agency |
| Reduce the quantity of landfilled waste | | <i>since 2000</i> | <i>national</i> |
| Landfill Directive | Regulatory | Implemented | NV Swedish Environmental Protection Agency |
| Compulsory collection of landfill gas | | <i>since 2001</i> | <i>national</i> |
| <hr/> | | | |
| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
| Carbon dioxide tax | Fiscal | Implemented <i>since 1991</i> | RSV National Tax Board <i>national</i> |
| Trade in emission rights | Economic | Planned | STEM National Energy Administration <i>national</i> |
| Increased use of management by objectives in climate policy | | | |
| Continuing shifts in the emphasis of taxation | Fiscal | Planned | F-dep Ministry of Finance <i>national</i> |
| Increase the effects of the tax system on environmental behaviour | | <i>from 2002 to 2010</i> | |
| <hr/> | | | |
| Sector: Other | Instrument | Status | Implementing Entity |
| Measure-oriented research and development | Research | Implemented | STEM National Energy Administration, FORMAS Swedish Research Council for Environment, Agricultural Sciences and Spatial-Planning |
| New fuels, new technology etc | | <i>from 1998 to 2004</i> | <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--|----------------------------------|--|
| CO₂ Law | Voluntary Agreement | Implemented | Swiss Agency for the Environment, Forests and Landscape |
| Setting targets and timetables for reduction of CO ₂ emissions (combustible fuels and petrol/diesel) | <i>Framework legislation: voluntary, with option for economic incentive tax;</i> | <i>In force since 1 May 2000</i> | <i>national</i> |
| 'Swiss Energy' Action Plan | Voluntary Agreement | Implemented | Swiss Federal Office of Energy, cantons, partners in public sector, partners in private sector |
| 10% reduction of fossil fuel use from 2000 to 2010 | | <i>Implemented since 1990</i> | <i>national, cantonal</i> |

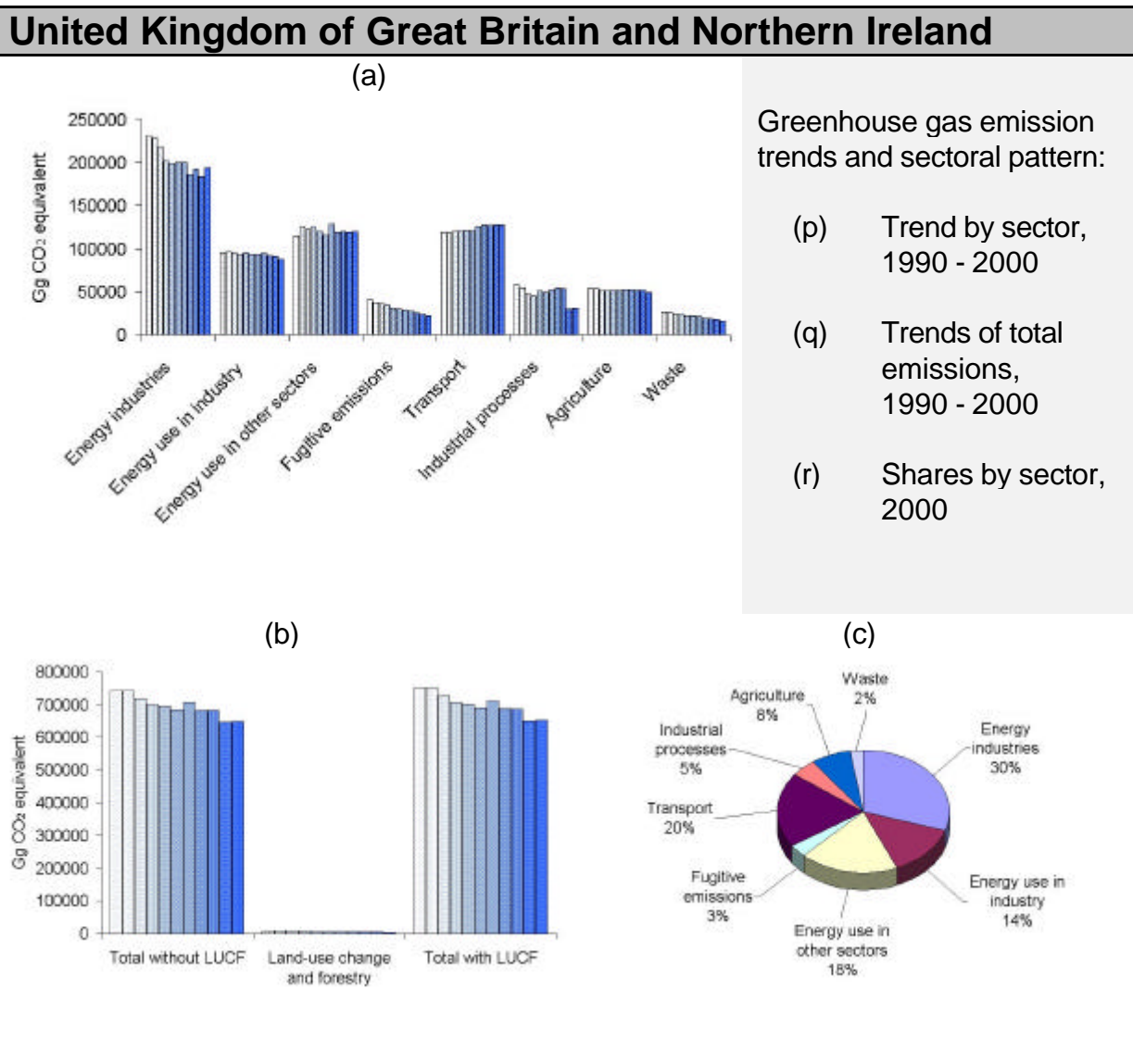
| | | | |
|--|--|--|--|
| Cantonal and communal energy laws | Regulatory | Implemented | Swiss cantons and communal entities |
| Adapt the Swiss Energy Law | <i>Framework legislation: institutional, economic and regulatory</i> | <i>Continuously implemented</i> | <i>cantonal and communal</i> |
| CO₂ tax | Economic | Adopted | Swiss Agency for the Environment, Forests and Landscape |
| Reduction of CO ₂ emissions according to legal requirements | | <i>Adopted in the law on CO₂ reduction</i> | <i>national</i> |
| Ecological tax reform | Fiscal | Planned | Swiss government |
| Shifting tax burdens from labour to energy use | <i>Economic/ energy levy and reduction of wage costs</i> | <i>Possible decision in 2004 together with CO₂ tax</i> | <i>national</i> |
| Sector: Energy Industries | | | |
| Increase share of renewable energy | Voluntary Agreement | Implemented | Swiss Federal Office of Energy, cantons, partners in public sector, partners in private sector |
| Increase of 3 TWh renewable heat production and 0.5 TWh electricity until 2010 by promotion activities | <i>Subsidies</i> | <i>Implemented since 1990</i> | <i>national, cantonal</i> |
| Law on electricity market | Regulatory | Adopted | Swiss Federal Office of Energy |
| Support of renewable energy use on the electricity market | <i>Institutional</i> | <i>Adopted by parliament in 2000; subject to public referendum in 2002</i> | <i>national</i> |
| Sector: Energy Use in Other Sectors | | | |
| Energy efficiency in the building sector | Regulatory | Implemented | Swiss Federal Office of Energy, cantons, partners in public sector, partners in private sector |
| Implementation of Swiss Energy Law (labeling, co-operation, advice) | <i>Institutional</i> | <i>Implemented since 1990</i> | <i>national, cantonal</i> |
| Energy efficiency programmes in the commercial and industrial sector | Voluntary Agreement | Implemented | Swiss Federal Office of Energy, partners in public sector, partners in private sector |
| Models for large-scale consumers to exhaust technical potentials | | <i>Implemented since 1990</i> | <i>national</i> |
| Sector: Fugitive Emissions | | | |
| Energy Law | Regulatory | Implemented | Swiss Federal Office of Energy, cantons |
| Ensure safe energy supply, contribute to rational and | <i>Framework</i> | <i>Implemented</i> | <i>national, cantonal</i> |

efficient energy use

*legislation:
institutional,
economic and
regulatory**since 1998*

| Sector: Transport | Instrument | Status | Implementing Entity |
|--|---|---|---|
| Energy efficiency in the transport sector | Voluntary Agreement | Implemented | Swiss Federal Office of Energy, partners in public sector, partners in private sector |
| Increase efficient use of fossil fuels | | <i>Implemented since 1990</i> | <i>national</i> |
| HGV fee: Road pricing for heavy-goods -vehicles | Fiscal | Implemented | Swiss Federal Office of Customs, Swiss Federal Road Administration |
| Modal shift of goods transport from road to rail, reduction of transalpine road transport | <i>Fee</i> | <i>Implemented since 2001</i> | <i>national</i> |
| Modal split measures in freight transport | Economic | Implemented | Swiss Federal Office of Transport |
| Modal shift of goods transport from road to rail, reduction of transalpine road transport (supporting the HGV fee) through institutional subsidies | <i>Institutional subsidies</i> | <i>Beginning of implementation in 2000</i> | <i>national</i> |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| Ordinances on hazardous substances (Annex 4.16) and spray cans | Regulatory | Implemented | Swiss Agency for the Environment, Forests and Landscape |
| Ban of persistent synthetic GHG (HFCs, PFCs) in fire extinguishing systems and spray cans | | <i>In force since 1995 and 1996, resp.</i> | <i>national</i> |
| NMVOC charge | Economic | Implemented | Swiss Agency for the Environment, Forests and Landscape |
| Reduction of Ozone precursors | | <i>Implemented since 1997, effective since 1999</i> | <i>national</i> |
| Ordinance on environmentally hazardous | Regulatory | Planned | Swiss Agency for the Environment, Forests and Landscape |
| Limitation of production, import, sale, use and emission of persistent halogenated gases | <i>Voluntary Agreement, Institutional</i> | <i>Possible decision in 2002</i> | <i>national</i> |
| Sector: Agriculture | Instrument | Status | Implementing Entity |
| Ecological practices on farms | Voluntary Agreement | Implemented | Swiss Federal Office of Agriculture |
| Reduction in cattle and in the use of mineral fertilizer | <i>Economic</i> | <i>Ongoing implementation since 1993;</i> | <i>national</i> |

| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
|---|-------------------|--|---|
| Education on sustainability and protection of forest areas | Regulatory | Implemented | Swiss Agency for the Environment, Forests and Landscape |
| Sustainable forest management, no reduction of forest area | <i>Education</i> | <i>Ongoing implementation since 1993</i> | <i>national</i> |



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--|---|--|
| <p>Emissions trading scheme (c) All UK companies\ The Government has been working with the Emission Trading Group, involving more than 100 major companies, to develop a UK-wide scheme with the aim to begin trading in 2002. Government made £215 million available over five years from 2003 to help kick start the scheme.</p> | <p>Economic <i>Economic (trading)</i></p> | <p>Implemented</p> | <p>Government <i>national</i></p> |
| Sector: Energy Industries | Instrument | Status | Implementing Entity |
| <p>Non-Fossil Fuel Obligation (NFFO) Electricity generation and supply\ The Non-Fossil Fuel (NFFO) Arrangements in England and Wales and the Scottish Renewables Order require the public electricity suppliers licensees to secure electricity from a specified capacity of renewable electricity generation plant. So far, the NFFO have been one of the main instruments</p> | <p>Regulatory</p> | <p>Other <i>No longer in place</i></p> | <p>Electricity regulator <i>Private</i></p> |

to achieve the 10 per cent renewables target by 2010 set by the UK Government. The NFFO have successfully established an initial market for renewables and driven down the cost. The approach for NFFO will change to reflect liberalization of energy market.

| | | | |
|--|------------|---------|--|
| Renewables Obligation | Regulatory | Adopted | Industry regulator (Ofgem) <i>Private</i> |
| Electricity generation and supply\ The UK government is prepared to place a renewable obligation on all licensed electricity suppliers to supply their consumers with a specific proportion of electricity from renewable sources as a main tool to achieve at least half of the 10 per cent renewable target in 2010. | | | |

| Sector: Energy Use in Industry | Instrument | Status | Implementing Entity |
|--|--|---------------|----------------------------|
| Climate change agreements and IPPC (a) | Voluntary Agreement | Implemented | Government |
| Energy use by energy intensive sectors and those regulated by the EC Integrated Pollution Prevention and Control (IPPC) directive\ Energy intensive sectors complying with the EC IPPC (phased in 1999-2007) can obtain 80 per cent discount from the climate change levy if they conclude agreements with challenging targets for improving of energy efficiency. | <i>Voluntary agreements and regulatory</i> | | <i>national</i> |

| Sector: Energy Use in Other Sectors | Instrument | Status | Implementing Entity |
|---|-------------------------------------|---------------|--|
| Climate Change levy | Fiscal | Implemented | Government |
| Energy use by business and public sectors\ The UK introduced the climate change levy in 2001. It applies to the energy used in the business and public sector. It will be broadly revenue neutral, as the revenues will be recycled via lowering of social security contributions and additional support for energy efficiency measures. Renewable energy and energy from CHP are exempted from the levy. | <i>Taxation</i> | | <i>National</i> |
| Energy efficiency measures under the climate change levy package (b) | Fiscal | Implemented | Carbon Trust |
| Energy use by business and public sectors\ The UK set up the Carbon Trust in 2001 as a non-profit company to recycle around £ 100 million of the climate change levy receipts over three years to accelerate the take up of cost effective and low carbon technologies. | <i>Tax incentive</i> | | <i>private</i> |
| Amendment of Building Regulations (d) | Regulatory | Adopted | Government |
| Energy use in buildings\ The energy efficiency requirements of the Building Regulations were under review in 2002 with the aim to adopt a three stages of amendments by 2008 with the goal to further strengthening of these regulations. | | | <i>national</i> |
| Residential energy efficiency, including Energy Efficiency Commitment (EEC) (a) | Regulatory | Adopted | Government, Industry regulator (Ofgem) and energy supply companies |
| Energy use in homes\EEC is an obligation on the energy utilities (electricity and gas) to assist consumers | <i>Regulatory and fiscal (grant</i> | | <i>national</i> |

to take up energy saving opportunities. Around half of the energy benefits from the EEC are focused on priority households, including those receiving health and income benefits.

assistance)

Community heating (f)

Fiscal

Implemented

Government, various public and private sector bodies.

Energy use in homes\ The UK Government launched a new £50 million Community Energy programme to promote community heating through grants to install new schemes, refurbish obsolete infrastructure and equipment and spread knowledge and good practice. It will add around 130 MW to the UK's CHP target.

Fiscal (grant assistance)

national and private

New Home Energy Efficiency Scheme (HEES) (g)

Energy use in homes\ The new HEES has been designed to provide a comprehensive package of heating and insulation improvements for the most vulnerable poor households. The new HEES for England covers around 800,000 households and has a budget of £613 million for 2000-2004. Similar schemes were launched in Scotland (Warm Deal) and in Northern Ireland (Warm Homes).

Fiscal

Implemented

Government
national

Fiscal (grant assistance)

Appliance standards and labels (h)

Energy use in homes\ The UK Market Transformation Programme works with businesses, the Energy Saving Trust, the Carbon Trust and other programmes to identify cost-effective measures to stimulate business competition and consumer take up of effective appliances and lighting systems. It includes also new regulatory and negotiated measures relating to the energy performance of consumer products.

Regulatory

Implemented

Government
national

Central heating for pensioners and families (i)

Energy use in homes\ The Central Heating Programme was introduced in Scotland in 2001 to provide central heating, advice and other benefits to all council and housing association tenants that lack them and to 40,000 private sector homes with householders aged 60 and over who lacks such systems.

Fiscal

Implemented

Scottish Executive
regional

Fiscal (grant assistance)

Public sector targets (j)

Energy use in public buildings\ A new target was set by the Government in 2000 for on-going CO₂ reduction of 1% per annually compared to 2000 levels. Other targets set included (1) a target to benchmark energy use in all non-office government buildings with more than 50 occupants by 2001; (2) a target for departments to carry out environmental assessment; (3) a target to acquire at least 5% of electricity from renewables, or climate change levy exempt sources by 2003 and at least 10% by 2008; (4) a target for Scotland to purchase 18% from renewable sources by 2010; (5) targeted advice on energy efficient from the Energy Efficiency Best Practice Programme; and (6) a target set by the National Assembly of Wales to reduce

Voluntary Agreement

Adopted

Public sector

Voluntary agreement

national

energy consumption across its estate by 1% annually compared to 2000.

Reform of Building Regulations and public sector targets (i)

Energy use in buildings\ The Scottish executive set a target for energy efficiency for central estate of 5% by 2003 compared to 2000.

Regulatory

Adopted

Scottish Executive

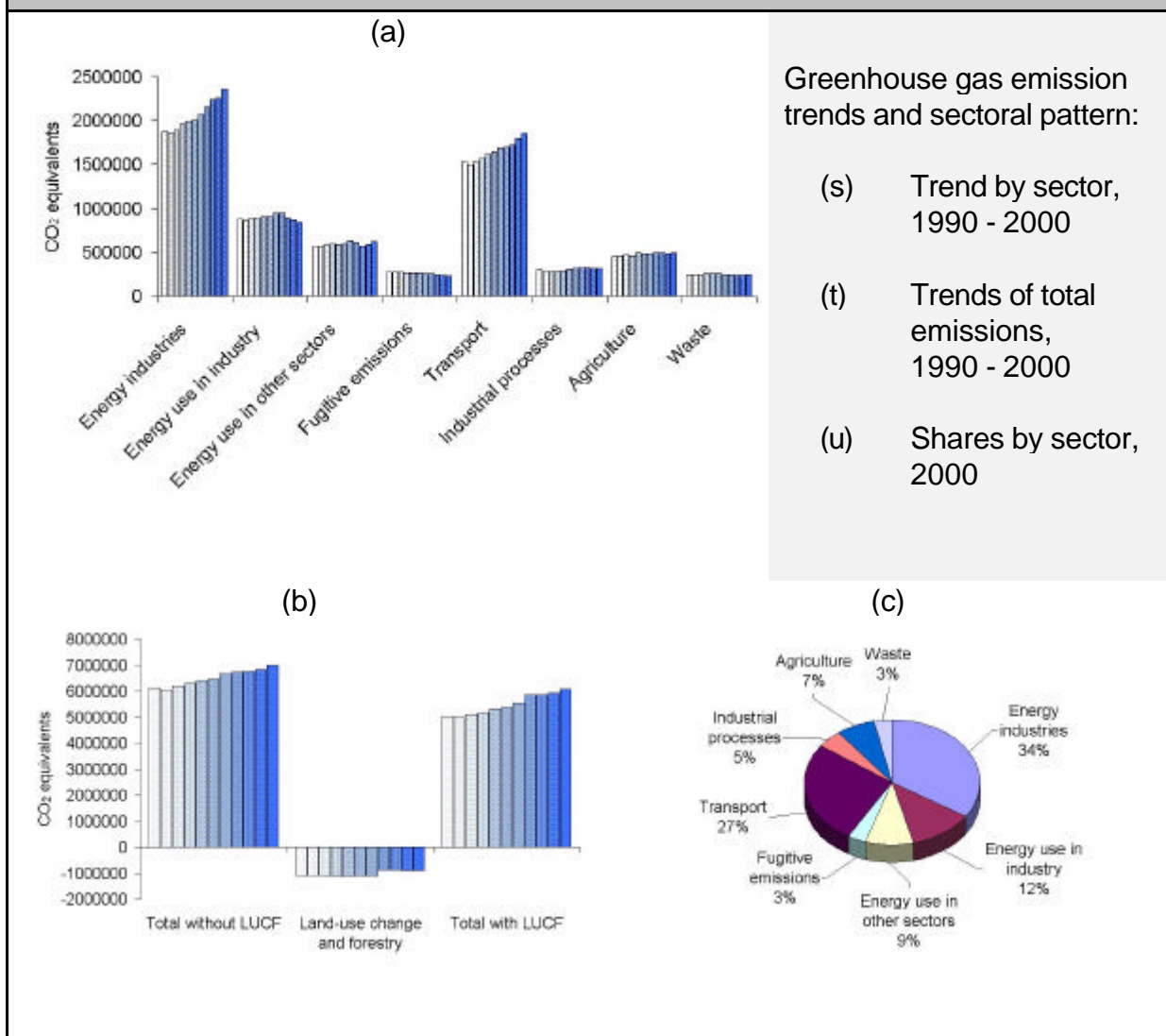
Regulatory and voluntary agreements

regional

| Sector: Transport | Instrument | Status | Implementing Entity |
|--|--|--|---|
| <p>Fuel duty escalator to 1999</p> <p>Transport demand and fuel efficiency\ The fuel duty escalator, annual fuel duty increases above the rate of inflation, was introduced in 1993 at annual rate of 3 per cent above the inflation and then at 5 per cent. As of 1997 it was set at 6 per cent. It was successful as it sent clear signals to all the key players in transport and will bring significant savings by 2010.</p> | <p>Fiscal <i>Taxation</i></p> | <p>Other <i>No longer in place</i></p> | <p>Government <i>National</i></p> |
| <p>EU level voluntary agreements on CO₂ from cars, backed up by changes to company car taxation and vehicle excise duty (k)</p> <p>Vehicle fuel efficiency\ The Government is encouraging a market transformation through a combination of fiscal measures, initiatives to provide cleaner vehicles and the EU CO₂ from cars strategy. The main element of this strategy is the voluntary agreements between the EC and European, Japanese and Korean car manufacturers to reduce average CO₂ emissions from new cars by at least 25% between 1995 and 2008.</p> | <p>Voluntary Agreement <i>Voluntary agreements and fiscal (taxation)</i></p> | <p>Implemented</p> | <p>Implementing Comment: Government, car manufacturers, European Commission <i>national, private and EU</i></p> |
| <p>Ten Year Plan (l)</p> <p>System improvements\ The Ten Year Plan envisages investment of £180 billion to be made in order to transform the Britain's transport system by (1) improvements in the operational and fuel efficiency of the commercial vehicle fleet; (2) 80% growth in rail freight volumes; (3) substantial improvements to local public transport; and (4) 50% increase in rail patronage measured by passenger kilometers.</p> | <p>Fiscal <i>Fiscal (investment)</i></p> | <p>Adopted</p> | <p>Government <i>national</i></p> |
| <p>Sustainable distribution (m)</p> <p>System improvements in Scotland\ The Scottish Executive's Transport Delivery Plan envisages substantial investments in the public transport with the aim to deliver a sustainable, efficient and integrated transport system.</p> | <p>Fiscal <i>Fiscal (investment)</i></p> | <p>Adopted</p> | <p>Scottish Executive <i>regional</i></p> |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| <p>Afforestation (n)</p> <p>Extended forest area since 1990</p> | <p>Fiscal <i>Fiscal (grant assistance)</i></p> | <p>Implemented</p> | <p>Implementing Comment: Government and devolved administrations. <i>national</i></p> |

| Sector: Waste | Instrument | Status | Implementing Entity |
|---|-----------------------------|---------------|-------------------------------|
| Waste strategy and EU Landfill Directive Waste minimization. The 2000 Waste strategy set out a range of policies to reduce waste production and encourage reuse and recycling. The EC Landfill Directive will affect emissions significantly, as it sets targets on the amount of the biodegradable municipal waste that is landfilled (a reduction by 75 per cent of the total amount by 2010, to 50 per cent by 2013 and by 35 per cent by 2020. | Regulatory <i>Fiscal</i> | Implemented | Government <i>National</i> |

United States of America



| Sector: Energy | Instrument | Status | Implementing Entity |
|---|--|-------------|---------------------|
| <p>Commercial building</p> <p>Promotes the improvement of energy performance in commercial buildings. Realizes energy-saving opportunities provided by whole-building approach during construction and major renovation of existing commercial buildings.</p> | Voluntary Agreement | Implemented | EPA |
| <p>ENERGY STAR® for the Residential Market</p> <p>Community Energy Program: Rebuild America</p> <p>Residential Building Integration: Building</p> <p>Promotes the improvement of energy performance in residential buildings beyond the labeling of products. Helps communities, towns and cities save energy, create jobs, promote growth, and protect the environment through improved energy efficiency and sustainable</p> | Voluntary Agreement | Implemented | EPA/DOE |
| | <i>Voluntary, outreach, information, education, research</i> | | |

building design and operation. Funds, develops, demonstrates, and deploys housing that integrates energy efficiency technologies and practices.

| | | | |
|---|---|---------------------------------------|----------------|
| <p>ENERGY STAR®-Labeled Products</p> <p>Label distinguishes energy-efficient products in the marketplace.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary, outreach</i></p> | <p>Implemented</p> | <p>EPA/DOE</p> |
| <p>Residential Appliance Standards</p> <p>Reviews and updates efficiency standards for most major household appliances.</p> | <p>Regulatory</p> | <p>Implemented</p> | <p>DOE</p> |
| <p>State and Community Assistance: State Energy Program; Weatherization Assistance Program; Community Energy Grants; Information</p> <p>Provides funding for state and communities to provide local energy efficiency programs, including services to low-income families; to implement sustainable building design and operation; and to adopt a systematic approach to marketing and communication objectives.</p> | <p>Economic</p> <p><i>Economic, information</i></p> | <p>Implemented</p> | <p>DOE</p> |
| <p>Economic Incentives/ Tax Credits</p> <p>Provides tax credits to residential solar energy systems.</p> | <p>Fiscal</p> <p><i>Economic</i></p> | <p>Planned</p> <p><i>Proposed</i></p> | |
| <p>Industries of the Future</p> <p>Helps nine key energy-intensive industries reduce their energy consumption while remaining competitive and economically strong.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary, information</i></p> | <p>Implemented</p> | <p>DOE</p> |
| <p>Best Practices Program</p> <p>Offers industry tools to improve plant energy efficiency, enhance environmental performance, and increase productivity.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary, information</i></p> | <p>Implemented</p> | <p>DOE</p> |
| <p>ENERGY STAR® for Industry (Climate Wise)</p> <p>Enables industrial companies to evaluate and cost-effectively reduce their energy use.</p> | <p>Voluntary Agreement</p> | <p>Implemented</p> | <p>EPA</p> |
| <p>Financial Assistance: NICE3</p> <p>Provides funding to state and industry partnerships for projects that develop and demonstrate advances in energy efficiency and clean production technologies.</p> | <p>Regulatory</p> | <p>Implemented</p> | <p>DOE</p> |
| <p>Renewable Energy Commercialization: Wind; Solar; Geothermal; Biopower</p> <p>Develops clean, competitive power technologies using renewable resources.</p> | <p>Regulatory</p> <p><i>Research, regulatory</i></p> | <p>Implemented</p> | <p>DOE</p> |
| <p>Climate Challenge</p> <p>Promotes efforts to reduce, avoid, or sequester greenhouse gases from electric utilities.</p> | <p>Voluntary Agreement</p> | <p>Implemented</p> | <p>DOE</p> |

| | | | |
|--|--|----------------------------|------|
| <p>Distributed Energy Resources (DER)</p> <p>Focuses on technology development and the elimination of regulatory and institutional barriers to</p> | <p>Information/ Education</p> <p><i>Information, research, education, regulatory</i></p> | Implemented | DOE |
| <p>Hydrogen Program</p> <p>Enhances and supports the development of cost-competitive hydrogen technologies and systems to reduce the environmental impacts of their use.</p> | <p>Research</p> <p><i>Research, education</i></p> | Implemented | DOE |
| <p>Clean Energy Initiative: Green Power Partnership; Combined Heat and Power</p> <p>Removes market barriers to increased penetration of cleaner, more efficient energy supply.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary, education, technical assistance</i></p> | Implemented | EPA |
| <p>Nuclear Energy Plant Optimization</p> <p>Recognizes the importance of existing nuclear plants in reducing greenhouse gas emissions.</p> | <p>Information/ Education</p> <p><i>Information, technical assistance</i></p> | Implemented | DOE |
| <p>Carbon Sequestration</p> <p>Develops new technologies for addressing cost-effective management of CO₂ emissions from the production and use of fossil fuels.</p> | <p>Regulatory</p> | Implemented | DOE |
| <p>Hydropower Program</p> <p>Improves the technical, societal, and environmental benefits of hydropower.</p> | <p>Information/ Education</p> <p><i>Information, research</i></p> | Implemented | DOE |
| <p>Economic Incentives/ Tax Credits</p> <p>Provides tax credits to electricity generated from wind- and biomass-based generators.</p> | <p>Fiscal</p> <p><i>Economic</i></p> | Planned <i>Proposed</i> | |
| <p>USDA CCC Bioenergy Program</p> <p>Encourages bioenergy production through economic incentives to commodity producers.</p> | <p>Economic</p> | Implemented | USDA |
| <p>Enabling Technologies</p> <p>Addresses the critical technology challenges partners face for developing materials and production processes.</p> | <p>Information/ Education</p> <p><i>Information, research</i></p> | Implemented | DOE |
| <p>Development of Next- Generation Nuclear Energy Systems: Nuclear Energy Research Initiative; Generation IV Initiative Support Deployment of New Nuclear Power Plants in the United States</p> <p>Supports research, development, and demonstration of an advanced nuclear energy system concept. Ensures the availability of near-term nuclear energy options that can be in operation in the U.S. by 2010.</p> | <p>Research</p> <p><i>Research, technical assistance, information</i></p> | Implemented | DOE |

| Sector: Transport | Instrument | Status | Implementing Entity |
|---|--|---------------|----------------------------|
| <p>FreedomCAR Research Partnership Promotes the development of hydrogen as a primary fuel for cars and trucks.</p> | <p>Research <i>Research, information</i></p> | Implemented | DOE |
| <p>Vehicle Systems R&D, Clean Cities, Clean Automotive Technology Promotes the development of cleaner, more efficient passenger vehicles. Supports public-private partnerships to deploy alternative-fuel vehicles and builds supporting infrastructure, including community networks. Develops advanced clean and fuel-efficient automotive technology.</p> | <p>Voluntary Agreement <i>Research, information, voluntary</i></p> | Implemented | DOE/EPA |
| <p>Biofuels Program Researches, develops, demonstrates, and facilitates the commercialization of biomass-based, environmentally sound fuels for transportation.</p> | <p>Information/Education <i>Information, research</i></p> | Implemented | DOE |
| <p>Commuter Options Programs Reduces single-occupant-vehicle commuting by providing incentives and alternative modes, timing, and locations for work.</p> | <p>Voluntary Agreement <i>Voluntary agreements, tax incentives, information, education, outreach</i></p> | Implemented | EPA/DOT |
| <p>Smart Growth and Brownfields Policies Reduces motorized trips and trip distance by promoting more efficient location choice.</p> | <p>Other <i>Technical assistance, outreach</i></p> | Implemented | EPA |
| <p>Ground Freight Transportation Initiative Increases efficient management practices for ground freight.</p> | <p>Voluntary Agreement <i>Voluntary/negotiated agreements</i></p> | Adopted | EPA |
| <p>DOT Emission-Reducing Initiatives Provides funding mechanisms for alternative modes to personal motorized vehicles.</p> | <p>Other <i>Funding mechanisms</i></p> | Implemented | DOT |
| Sector: Industrial Processes | Instrument | Status | Implementing Entity |
| <p>Natural Gas STAR Program Coalbed Methane Outreach Program Reduces methane emissions from U.S. natural gas systems through the widespread adoption of industry best management practices. Reduces methane emissions from U.S. coal mining operations through cost-effective means.</p> | <p>Voluntary Agreement <i>Voluntary agreement Information, education, outreach</i></p> | Implemented | EPA |
| <p>HFC-23 Partnership Partnership with Aluminum Producers Environmental Stewardship Initiative Encourages reduction of HFC-23 emissions through cost-effective practices or technologies. Encourages reduction of CF₄ and C₂F₆ where technically feasible</p> | <p>Voluntary Agreement</p> | Implemented | EPA |

and cost-effective. Limits emissions of HFCs, PFCs, and SF₆ in industrial applications.

| Sector: Agriculture | Instrument | Status | Implementing Entity |
|--|--|--|----------------------------|
| <p>Agricultural Outreach Programs: AgSTAR; RLEP</p> <p>Promotes practices to reduce GHG emissions at U.S. farms.</p> | <p>Information/ Education</p> <p><i>Information, education, outreach</i></p> | Implemented | EPA/USDA |
| <p>Nutrient Management Tools</p> <p>Aims to reduce nitrous oxide emissions through improving by efficiency of fertilizer nitrogen.</p> | <p>Information/ Education</p> <p><i>Technical assistance, information</i></p> | Implemented | EPA/USDA |
| Sector: Land Use Change and Forestry | Instrument | Status | Implementing Entity |
| <p>Conservation Reserve Program: Biomass Project</p> <p>Encourages land-use changes to increase the amount of feedstock available for biomass projects.</p> | <p>Economic</p> | <p>Implemented</p> <p><i>(pilot phase)</i></p> | USDA |
| <p>Forest Stewardship</p> <p>Sequesters carbon in trees, forest soils, forest litter, and understudy plants.</p> | <p>Other</p> <p><i>Technical/ financial assistance</i></p> | Implemented | USDA |
| Sector: Waste | Instrument | Status | Implementing Entity |
| <p>Climate and Waste Program</p> <p>Encourages recycling, source reduction, and other progressive integrated waste management activities to reduce GHG emissions.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary agreements, technical assistance, information, research</i></p> | Implemented | EPA |
| <p>Stringent Landfill Rule</p> <p>Reduces methane/landfill gas emissions from U.S. landfills</p> | <p>Regulatory</p> <p><i>Regulatory</i></p> | Implemented | EPA |
| <p>Landfill Methane Outreach Program</p> <p>Reduces methane emissions from U.S. landfills through cost-effective means.</p> | <p>Voluntary Agreement</p> <p><i>Voluntary agreements, information, education, outreach</i></p> | Implemented | EPA |
| Sector: Cross-Sectoral | Instrument | Status | Implementing Entity |
| <p>Federal Energy Management Program</p> <p>Promotes energy efficiency and renewable energy use in federal buildings, facilities, and operations.</p> | <p>Economic</p> <p><i>Economic, information, education</i></p> | Implemented | DOE |
| <p>State and Local Climate Change Outreach</p> <p>Assists key state and local decision makers in maintaining and improving economic and</p> | <p>Information/ Education</p> <p><i>Information, education,</i></p> | Implemented | EPA |

environmental assets given climate change.

research
