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**REPORT BY THE ENVIRONMENTAL POLICY COMMITTEE ON
IMPLEMENTATION OF THE 1996 RECOMMENDATION ON IMPROVING
THE ENVIRONMENTAL PERFORMANCE OF GOVERNMENTS**

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FOREWORD

The environmental impacts of the day-to-day operations and decision-making processes of government are important. In February 1996, OECD Member countries agreed that more could be done to improve the environmental performance of governments, and adopted an OECD Council Recommendation to stimulate Member country action [C(96)39/FINAL]. An OECD Council Recommendation is not a binding legal instrument, but represents a commitment by the governments of Member countries to pursue a specific policy area.

The Council Recommendation stemmed from three considerations:

1. A consensus that the environmental impacts of government activities were important, but given relatively low priority -- Member countries wanted to raise the profile of this issue.
2. The existence of a common set of conceptual and implementation issues, and a core set of action areas, which gave the basis for cross-country comparison; and
3. The belief that more progress would be made through cross-country information exchange and benchmarking.

This report summarises the progress made in Member countries in a set of key areas, including: reducing the environmental impacts from day-to-day operations (energy, water, waste, fleet, buildings), improving decision-making processes and staff capacity to manage environmental impacts, generating action at the local and regional government level, implementing comprehensive environmental management systems, and introducing environmental considerations into government procurement policies. The report also describes the current capacity of Member countries to measure and evaluate their progress in each of these areas.

The OECD Recommendation, and the reporting process it initiated, helped promote progress by stimulating national information collection and discussion across governments. A number of countries also credited the Council Recommendation with helping to jumpstart initiatives, or accelerate existing initiatives, that had not gotten off the ground. The process of collating the 24 individual reports has allowed countries to evaluate their actions against those of their peers, and to identify opportunities for future collaboration.

This report has been written by Elaine Geyer-Allély of the OECD Environment Directorate. Carlo Pessa wrote the chapter on Green Public Procurement. The OECD Council agreed to the declassification of the report on 22 April 1999.

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EXECUTIVE SUMMARY

In February 1996, OECD Member countries agreed a Council Recommendation on *Improving the Environmental Performance of Governments* [C(96)39/FINAL]. The Recommendation grew out of a series of international and OECD consultative meetings as a means to stimulate OECD Governments to continually improve their environmental performance. It covers government operations and decision-making processes, but not the environmental impact of government policies. The Recommendation requires a report to the OECD Council in 1999 on Member country implementation of the Recommendation.

Initial results show that OECD countries are moving forward as a group, albeit at varying degrees and speed: while a few countries have several years of experience, the majority have only recently begun to integrate environmental considerations into their government operations and decision-making processes. Most progress made in the reporting countries has been in the areas of energy consumption, waste management, fleet management, buildings policy, environmental management systems (EMS), and greener government purchasing. The majority of countries have also taken measures to improve internal dialogue and consultation between ministries and agencies to share best practice and promote progress across government. A significant amount of greening activity is taking place at the local/regional government level. Nevertheless, in view of the significant impact of government operations and decision-making on the environment, OECD governments have not yet achieved their full potential for improving their environmental performance.

In the majority of OECD countries, greening government actions are essentially limited to direct operational effects. A few countries, however, have designed more extensive greening programmes that by design cover both the direct effects of government operations and facilities and the indirect effects arising from policy related decisions. Greening of government initiatives are generally not the exclusive domain of Environment Ministries or Agencies. Nearly all of the national reports received described initiatives from across the government. In most countries greening government initiatives are essentially decentralised and voluntary, although they may be linked to specific legal provisions or national targets in specific areas (e.g. energy, waste, procurement).

OECD countries identify a common core of motivations for improving the environmental performance of their government agencies, including:

- Improving management performance and resource savings;
- Responding to environmental imperatives;
- Setting an example;
- Public pressure for good governance (modernisation of the public sector, efficiency);
- Building in-house environmental expertise;
- Building credibility with stakeholders; and
- Building a client base for technical government agencies (e.g. energy efficiency offices).

Initiatives to improve the environmental performance of governments have run into a number of institutional, budgetary or cultural obstacles. Some of these can be significant barriers to modifying operational frameworks, for purchasing for example. In general, however, overall experience seems to show that the majority of obstacles are “soft” barriers which can be overcome where there is commitment and a supportive structure.

As part of the information collection for the Council Report, the OECD asked countries to describe how they monitor progress in specific areas of government greening actions. Although several countries provided relatively specific information in selected areas, such as energy consumption or the government’s share of final consumption, the majority of countries have little or no data on their central/federal government agencies. There are a number of reasons why OECD government agencies have little information about their operational and administrative impacts, including: (1) an absence of data at the departmental level; (2) little national aggregation; (3) obstacles to establishing a consistent baseline; and (4) varying cost-benefits of performance measurement. Nevertheless, the majority of countries stated their intentions to strengthen measures of government environmental performance, particularly for key operational areas.

Member countries identified a number of priority areas where greater progress should be made to improve the environmental performance of governments:

- The comprehensive implementation of environmental management systems in government agencies;
- The development of more transparency and accountability in government environmental performance;
- Strengthening of measurement and evaluation capacities; and
- Increasing the effectiveness of environmentally preferable government purchasing, and addressing trade aspects.

Progress in some areas, such as specific energy and water conservation measures, will depend on site-specific strategies developed at the agency or facility level. Similarly, the development of more transparency and accountability in government environmental performance will essentially be derived from local or national public pressure and socio-political culture. However, Member countries have identified a number of areas where further international collaboration would be useful to support local, regional, and national efforts: (1) the development of EMS principles for government agencies; (2) guidance on budgeting and financial mechanisms for government purchasing and investment; (3) methods for measuring and evaluating government environmental performance, and (4) reporting progress.

1. INTRODUCTION

Background and Context

In February 1996, OECD Member countries agreed a Council Recommendation on *Improving the Environmental Performance of Government* (C(96)39/FINAL). The Recommendation grew out of a series of international and OECD consultative meetings as a means to stimulate OECD Governments to reduce the local and global environmental impacts of their day-to-day operations and decision-making processes (Box 1).

Government performance matters. Central/federal governments have potentially significant environmental effects through their day-to-day operations and administrative procedures, and indirectly through their policy decisions, including: energy use and GHG emissions, solid and hazardous waste generation, procurement, water consumption, use of ozone-depleting substances, fleet and travel management, buildings policies, land use, and investment. Regional governments and local authorities throughout OECD countries are also important actors, not only through the impact on the local environment of their operations and administrative procedures, but also through the provision of public services. Taken together, central, regional and local governments have tremendous potential for influencing the environment. Governments can provide a driver of change by other actors not only by leading by example, but also by making available to a wider audience the knowledge and expertise gained by greening their own operations.

The environmental performance of OECD governments is also important for the global community. Public and private sectors combined, OECD countries are the biggest users of natural resources in the world: their consumption and related production patterns have significant environmental, economic and social consequences. Several countries have established targets to reduce GHG emissions from central/federal government agencies as part of their national strategies to achieve commitments made in Kyoto in November 1997. The 1999 session of the UN Commission on Sustainable Development will have production and consumption patterns - including government consumption -- at the centre of its debate.

Finally, the subject of greening of government has particular relevance to the OECD as an institution. The Organisation is in the initial phases of trying to “green” its administrative and operational activities in response to the Council Resolution on *Improving the Environmental Performance of the Organisation* [OECD(96)40/FINAL], also agreed in 1996. Many of the lessons and good practice emerging from Member countries will serve as an example to the Organisation in this process.

Box 1: The “Greening of Government” Agenda in the OECD

1991 Environment Ministerial highlights green government procurement as a tool for influencing the supply of environmentally friendly goods and services.

1994 OECD Sustainable Consumption & Production programme initiated to support OECD country efforts to reduce the environmental impact of consumption patterns, including government consumption.

1995 G-7 Environment Ministerial Meeting, Hamilton, Canada calls to the OECD to provide leadership on greening of government issues
OECD Consultative Meeting organised as a preliminary stock-taking exercise. OECD Council Recommendation and OECD Council Resolution drafted.

1996 OECD Council Recommendation and Resolution Agreed
OECD Workshop on Improving the Environmental Performance of Government

1997 Report of the High Level Advisory Group on the Environment
Green Goods IV: International Conference on Greener Public Purchasing

1998 OECD Workshop on Environmental Management Systems for Government Agencies
Green Goods V: Developing Greener Purchasing

1999 Report to the OECD Council on implementation of the Council Recommendation

Reporting on Progress

The OECD Council Recommendation on *Improving the Environmental Performance of Government* requests a report to the OECD Council in 1999. OECD countries were contacted in June 1998 and asked to describe their principle initiatives and results from 1996 to present. Greening of government efforts predate 1996 in many countries, but in several others, the Council Recommendation has helped to initiate the development and implementation of greening activities.

This report provides an overview of the broad approaches taken in OECD governments agencies to reduce the environmental impact of their operations and decision-making processes. It describes progress on:

- operations related to: energy use, water consumption, waste management; fleet and transport; and buildings;
- the integration of environmental considerations in decision-making and the administrative context, including at the local/regional government level;
- environmental management systems;
- greener government purchasing; and
- monitoring and evaluation.

As of April 1999, reports were received from 23 countries¹ and the European Commission (See Annex 1). In addition to national submissions, the Report also draws on the results of the OECD Workshops on *Environmental Management Systems for Government Agencies* (Stockholm, January 1998) and on *Developing Green Purchasing* (Biel, February 1998).

Overview of Initiatives to Improve the Environmental Performance of Governments

Breadth of Action

The OECD Council Recommendation promotes actions which relate to improvements in government operations and facilities (green house-keeping, eco-efficiency) and in government decision-making processes. It does not address the integration of environmental considerations into sectoral policies. In the majority of OECD countries, greening government actions are essentially limited to these direct operational effects. (Table 1) In these countries, a distinction is generally made between tools to improve the internal workings of government, and environmental impact assessment of policies.

A few countries, however, have designed more extensive greening programmes that by design cover both the direct effects of government operations and facilities and the indirect effects arising from policy related decisions. In Sweden, greening government actions encompass three areas: the direct effects of internal activities, (the green office), the direct effects of external activities (road construction, defence, etc.) and the indirect effects of policies (regulations, permits, funding systems). In Canada, each federal department must identify an action plan for reducing the environmental impact of its internal operations, and external activities and policies, in its Sustainable Development Strategy. The Strategies are audited by Canada's Commissioner for the Environment and Sustainable Development. Finally, following the Cardiff Summit (June 1998) the European Commission strengthened its own decision-making and co-ordination mechanisms in order to improve

Table 1: Breadth of Action

	Operations	Decision-Making	Policy Impacts
Australia	X	X	
Austria			
Belgium			
Canada	X	X	X
Czech Rep			
Denmark	X	X	
Finland	X	X	
France	X	X	
Germany	X	X	
Greece	X	X	
Hungary	X		
Iceland	X	X	
Ireland			
Italy	X	X	
Japan	X	X	
Korea			
Luxembourg			
Mexico	X	X	
Netherlands	X	X	
New Zealand	X		
Norway	X	X	
Poland			
Portugal			
Spain	X		
Sweden	X	X	X
Switzerland	X	X	
Turkey			
United Kingdom*	X	X	X
United States	X	X	
EC	X	X	

* At local level

¹ Australia, Austria, Belgium, Czech Republic, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Spain, Sweden, United Kingdom, United States, the European Commission.

the integration of environmental considerations in its policies. A number of countries also provided examples of greener sector policies, (e.g. transport, urban planning, waste management). This suggests that even where there is no formal framework for extending green housekeeping initiatives to the impacts of sector policies, in practice the boundary between the two is often blurred. Many local and regional governments also take a more comprehensive approach to environmental management by including environmental considerations in the provision of public services (water supply; health services; municipal waste management).

In the majority of countries, greening of government initiatives are not the exclusive domain of Environment Ministries or Agencies. At the central/federal level, nearly all of the national reports described initiatives from across the government. In Sweden, for example, some of the initial EMS pilot agencies included: the National Road Administration; the National Radiation Protection Institute; the Swedish International Development Authority; the National Rescue Services Board; the Police Authority; the National Board for Industrial and Technical development; the National Environment Protection Agency; two County Administrative Boards; the National Food Administration; and two universities. At the Stockholm Workshop it also became apparent that significant progress is being made on environmental management in national Departments of Defence in several OECD countries. NATO's Committee on the Challenges of Modern Society supports these efforts through information exchange and dissemination of good practice.

Driving Factors

OECD countries identify a common core of motivations for improving the environmental performance of their government agencies, including:

- Improving management performance and resource savings;
- Responding to environmental imperatives;
- Setting an example;
- Public pressure for good governance (modernisation of the public sector; efficiency);
- Building in-house environmental expertise;
- Building credibility with stakeholders; and
- Building a client base for technical government agencies (e.g. energy efficiency offices).

These motivations have been explored in previous OECD Reports and will not be developed here.²

In nearly all countries, there is a clear policy and/or legislative context for greening of government initiatives, including government communications or policy statements; legislative mandates, Executive Orders, or directives; model frameworks, principles and guidelines; and national and international environmental targets (Kyoto Agreements, OECD Council Recommendation; evolution of EMAS and ISO 14000 standards). In a few countries, this framework has a strongly compulsory character (Canada, Sweden, Denmark). In the majority of countries, however, greening government initiatives are essentially decentralised and voluntary, although they may be linked to specific legal provisions or national targets in specific areas (e.g. energy, waste, procurement). In another set of countries, generally those in the earlier stages of greening their operations, there are no formal regulations to guide government agencies.

OECD country experience on environmental management systems (EMS) suggests that most progress has been achieved where greening initiatives are compulsory, or where national targets and

² See *Improving the Environmental Performance of Government* (OCDE/GD(97)124), and *Environmental Management Systems for Government Agencies* (ENV/EPOC(98)11/FINAL).

reporting requirements have been established. However, many countries have found that voluntary initiatives are useful in the short-term to build agency buy-in and experience. Several of these same countries, however, note that faster progress could be made if greening government initiatives were mandated.

Major Areas of Progress

Across the OECD, government agencies have been most active in the areas of:

- energy consumption,
- waste management,
- fleet management,
- buildings policy,
- environmental management systems (EMS), and
- green procurement.

It is notable that where national or international targets are in place, such as for energy use and GHG emissions, more concrete actions are in place. In contrast, water conservation for the majority of countries seems to be a lesser priority, or an area where less concrete achievements have been made. In some countries this is due to abundant water supplies and/or because central government consumption is relatively unimportant in environmental terms when compared to larger users in industry or agriculture. In other countries, however, concrete measures to improve water management are hampered by the absence of data, monitoring and reporting (See Section 2.1.2).

The majority of countries have also taken measures to improve internal dialogue and consultation between ministries and agencies to share best practice and promote progress across government. Steering committees, interagency working groups, interministerial committees are common. Less common is the routine identification of core staff with responsibilities for driving greening initiatives and reporting on progress. A significant amount of greening activity is taking place at the local/regional government level.

Barriers

Early initiatives to improve the environmental performance of governments have run into a number of institutional, budgetary or cultural obstacles. Some of these can be significant barriers to modifying operational frameworks, for purchasing for example. In general, however, overall experience seems to show that the majority of obstacles are “soft” barriers which can be overcome where there is commitment and a supportive structure.

In countries in the early stages of greening activities, barriers include securing top management and employee commitment, overcoming institutional and cultural barriers, and identifying initial actions that will prove successful and efficient. Although a number of greening initiatives have been undertaken via behaviour change, and thus at low financial cost, financing more significant greening government initiatives is also a problem in many countries. In response, innovative financing strategies have been developed in some countries, particularly for energy conservation projects. A number of governments are also trying to develop more flexible financing and budgeting mechanisms to allow life-cycle costing and other strategies to facilitate investments with high up-front costs, or longer pay-back terms.

In countries in later stages of greening government initiatives, major challenges stem mostly from the need to manage the changes put in place and to secure continual improvement. Several countries,

including Canada and Sweden, signalled the need for continuing focus on training and awareness building. Typically, strategies to increase employee motivation and commitment focus first on key actors – both the top management officials needed to give direction and authority to greening programmes, and the technical or operational staff required to monitor a new activity or to change their day-to-day behaviour. General staff awareness raising is also given priority. In the medium term, however, these countries are finding that middle managers are often the most difficult to reach, due to their tight time schedules, tight budgets, and the common perception that environmental concerns are not their responsibility.

The OECD's work on EMS and green purchasing has identified additional barriers which are addressed in Sections 3 and 4.

2. REVIEW OF ACTION IN SPECIFIC AREAS

A number of OECD countries have had greening government initiatives in place for several years, generally based on pollution prevention strategies. These initiatives have led to significant reductions in energy and water consumption, an increase in recycling and waste minimisation practices, and reductions in the use and release of hazardous substances. The last three years have seen a strengthening of these initiatives, often in response to international and national environmental objectives (OECD Council Recommendation, Kyoto GHG Agreement, evolution of EMAS and ISO14001 standards) or via the introduction of environmental management systems and/or environmentally friendly procurement guidelines. In a number of other countries, such as Iceland, Hungary, Austria and the Czech Republic, greening of government actions are more recent.

This section of the report describes progress since 1996 in five areas of government operations and three areas of government decision-making and administrative procedures. In section 2.1 *Operations and Facilities*, each sub-section synthesises general trends, provides country examples, and comments on the ability of countries to monitor progress in that area.

2.1 Operations and Facilities

2.1.1 Energy Consumption

Energy consumption is by far the area which has received the most attention in OECD Government agencies. Of the 23 reports received, 17 included information on energy efficiency initiatives. A number of countries have established national energy use reductions targets, in several cases in the context of the 1997 Kyoto agreements to reduce GHG emissions.

A significant proportion of the actions to reduce energy consumption are centred around buildings policies. Programmes in Canada, Greece, Norway, Australia, Finland, Belgium, the UK and the EC promote a range of actions, including building design and construction techniques, energy-efficient lighting and heating installations, improved management and monitoring of energy services in buildings, and changes in user behaviour. Germany also points to the importance of establishing a suitable organisational structure with adequate authority and financial means to ensure energy efficiency improvements are made. In countries with more recent initiatives, such as the Czech Republic, actions are limited to the purchase of energy-efficient computers and office equipment. In a few countries, such as Sweden, Canada, and the UK, energy consumption objectives range more widely to include targets for increasing the percentage of government energy consumption coming from renewable energy sources.

Canada: The Government of Canada has committed to reducing greenhouse gas emissions from federal operations by at least 20% of 1990 levels by the year 2005. At a departmental level, Environment Canada has set its own quantitative targets to purchase 15-20% of its energy from renewable resources by the year 2010. A number of programs are in place to support Departments and Agencies, including the Federal Buildings Initiative (FBI) which helps managers achieve long-term cost savings without up-front capital investments or risk through the intermediary of an external contractor. By October 1997, 4000 Federal

Buildings were involved in the FBI, with an estimated total potential energy savings per annum of CAN\$160 million (nearly 25% of the total annual federal energy bill). By 2010, it is anticipated that 75% of federal government floor space will be retrofitted under the FBI and GHG emissions associated with building energy use reduced by 20.7%.

United Kingdom: The UK government has set a new target of 20% for improving energy efficiency in government departments between April 1991-March 2000. This builds on an original target of 15% achieved between 1991-1996 mainly through (i) improved management, including regular monitoring and the installation of more energy efficient lighting and heating, (ii) specifying energy efficient goods and services; and (3) raising staff awareness. Each UK Government Department has an energy manager. The UK Ministry of Defence has achieved 19.8% energy savings between 1991-96 on top of 40% achieved between 1974-1991. Departments have carried out energy audits, e.g. the Department of Environment, Transport and the Regions has just completed a comprehensive energy survey of three of its main buildings.

Finland: In 1997, the Ministry of Trade and Investment initiated energy-saving contracts with Government real estate units to lower heat consumption in government buildings by 15% of 1995 levels by 2010, and to stop the growth of electricity consumption and turn it around by 2005. 95% of the real estate units have joined the program, which has also now been extended to 6 municipalities.

New Zealand: The Government Energy Efficiency Leadership Programme seeks to reduce energy costs within the public sector and provide a role model for the industrial and commercial sectors to follow. The GEELP secures top management commitment to energy efficiency and helps public sector agencies achieve efficiency improvements through a range of consulting and referral services, seminars and finance. The programme is currently generating a return on investment of 34.6%.

Australia: In November 1997, the Federal Government announced its commitment to reduce GHG emissions from the government's own operations through a focus on energy efficiency. The main requirements of the policy are: energy intensity targets to be met on a portfolio-wide basis by 2002-2003; departmental secretaries and agency heads to be accountable to their Ministers for their performance in improving energy efficiency; all departments and agencies to report annual energy consumption and intensity; a whole-of-government performance report to be prepared and published annually; energy performance contracting accepted and encouraged as a vehicle for achieving energy savings; and a specialist energy advisory unit to be established. Minimum energy performance standards are to be established for new buildings and new office appliances. Fuel consumption targets for the Commonwealth fleet are to apply from 2003.

United States: The US Government has set an overall energy consumption reduction target of 30% for federal agencies and facilities. Comprehensive energy audits of Federal facilities are used to develop reduction plans. Recently, 22 Federal agencies pledged to exceed the goal by purchasing products in the upper 25% of energy and water efficiency or at least 10% more efficient than minimum levels set by Federal Standards.

Belgium: The management of water, gas and electricity distribution in the "Cité Administrative d'Etat" (CAE -- a 5,000-person building complex) is sub-contracted to a private company. Significant energy savings have already been achieved over the last ten years (e.g. 25% in electricity, and 60% in gas consumption). The Ministry for Social Affairs, Public Health and the Environment (MASSPE) has also proposed an action plan for the medium-term (3 years) to address problems related to heating and air conditioning in particular.

Japan: In June 1998, the Special Group of Cabinet Ministers agreed General Principles for the Promotion of Global Warming Countermeasures. These are special actions by the Government for preventing global

warming, including transport-related measures (see Section 2.1.4) and the introduction of solar systems for public facilities such as government and school buildings. Some progress has been made in reducing energy consumption in government buildings.

Netherlands: The Government has set a 17% reduction target for energy consumption in government buildings by 2000 based on 1990 levels. The government building office takes into consideration all energy saving measures with a pay-back period of less than 10 to 15 years for renovation and new buildings. In the private sector, a pay-back period of 3 to 5 years is common for energy saving investments.

France: The Ministry of Public Works has achieved a 13% savings in its energy and water budgets from actions taken since 1996. More recent initiatives in the Ministries of Industry and the Environment, including energy and water audits and water conservation measures, have resulted in 8% savings. The government has provided training and methodological guides on energy management for state managers.

Denmark: An energy saving campaign was launched in 1993 with an objective of reducing energy consumption by 10-15% by 1 January 1996. By September 1998 a reduction of approximately 10% was achieved.

Italy: A few operational agreements between Ministries and the ENEA (National Agency for Energy and Environment) have been implemented to give technical assistance to public administrations on energy efficiency and best available environmental technologies. The State Supply Office attends to the adoption of technical measures for the achievement of energy efficiency and air pollution reduction targets in heating, air conditioning, and lighting facilities.

Measuring Progress -- Because a number of government agencies across the OECD are required to report their progress on achieving national energy reduction targets, governments report that there tends to be better information and monitoring systems in place for energy than for other areas where governments have an environmental impact. Canada and New Zealand have encountered problems, nevertheless, in measuring per capita energy consumption reductions due to the downsizing and restructuring of the public service. Canada is also working to improve models to measure CO₂ emission reductions more accurately. There is no clear picture on the use of energy audits to improve energy management in central/federal government buildings. Although the US reports the comprehensive use of energy audits at Federal facilities, reporting from other countries does not show an extensive use (generally below 20%).

2.1.2 Water Consumption

The attention given to water consumption by central/federal governments varies in OECD countries. This variation is due in part to differences among countries in water availability, the cost of water supply and wastewater treatment, and the relative importance of central government consumption compared to private sector uses. In Norway and New Zealand, for example, water supplies are plentiful, and the costs of drinking water, and the government share of total consumption, are fairly low. In these two countries there are no plans to reduce water consumption in government agencies. In contrast, in the State of Baden-Württemberg, Germany, energy and water management account for 40% of total operating costs, making these central elements of efficiency strategies. As a result, Baden-Württemberg has initiated water conservation strategies that have already achieved water and waste water costs savings of up to 45%.

A few OECD countries have policy and/or general guidelines supporting water efficiency measures, where most specific actions are accomplished on a voluntary basis.

United States: Water and energy use reduction in federal agencies are addressed together in the United States, under the direction of the Federal Energy Management Program in the US Department of Energy. A 30% reduction target has been set for overall water use by the year 2005. As in the area of energy, the Federal Government is instituting comprehensive water audits at Federal facilities in order to develop reduction plans. The Government is also implementing water savings policies in conjunction with other environmentally beneficial landscaping practices at Federal facilities.

Canada: In the 1995 *Directions on Greening Government Operations*, water efficiency is identified as a greening government best practice. Water, however, appears to be a lesser priority for Canadian Federal Departments compared to other issues such as EMS, energy consumption and fleet management. Past audits have pointed to the possibility of achieving potential cost savings of 45% with retrofits that would be repaid in less than eight months on average. The responsibility for implementing water reduction strategies lies with individual departments; no data on results has been gathered on a government-wide basis.

United Kingdom: The UK Government has begun to make concerted efforts to conserve water through guidance manuals for premises managers, dissemination of best practice, case studies, and training seminars. In one project, the Environment Agency's National Water Demand Management Centre reduced water consumption by nearly 60% by fitting waterless urinals on 6 floors of its headquarters building. At the Ministry of Agriculture, Fisheries and Food, leak surveys at premises with a high use of water has led to the detection and repair of leaks and annual savings of £17,000.

European Commission: The EC has renovated one building with water-efficiency fixtures, including rainwater capture, water re-use for flushing, and water-efficient plumbing. In all renovation situations, water-efficient flushing technologies are installed.

France: Water audits, training, and conservation measures taken in 1998 in the premises shared by the Ministries of Industry and the Environment have resulted in a 50% savings in the water budget.

Netherlands: Several water conservation measures are taken in all renovated and new buildings: installation of water-conservation plumbing (low-flow shower heads and toilets; flow restrictors) in accordance with 1995 legislation; full insulation of hot water pipes. Trials of rainwater capture and use and water re-use for flushing are in progress.

Measuring Progress: The absence of effective monitoring systems for water consumption is a significant handicap to action in many countries. At the Agency or Departmental level, many government buildings lack the appropriate infrastructure, including water meters, or separate utility bills for Departments sharing a building complex. In Canada, some government buildings may also have their own well, and do not keep track of the amount of water pumped. In the majority of countries, there is no centralised method for collecting data on water consumption.

2.1.3 Waste Management

A second area covered regularly in the national reports is waste management. Waste management initiatives in a number of countries date back to the early 1990s. Many of these have been strengthened in recent years, and new programmes initiated, through the agreement of national waste reduction targets, and/or the development of guidelines and/or legislation on recycling and procurement practices. In many countries, the rising cost of waste disposal is creating a certain urgency to government efforts. In general, priority areas for government waste management programmes are: paper consumption

reduction and recycling; office equipment; construction and demolition debris; and organic waste. Waste management and purchasing strategies are often pursued in combination.

A few countries have set national waste reduction targets which set a framework for commitments by government agencies. For example, in November 1996, the Australian and New Zealand Environment and Conservation Council (ANZECC) endorsed National Government Waste Reduction and Purchasing Guidelines that provide an agreed framework for setting principles and setting policy for waste minimisation and purchasing. In Australia, the Guidelines are expected to help the Government to fulfil its requirement to develop and implement whole-of-government policy to contribute to national goals of a 50% reduction of waste to landfill based on 1990 levels, and a 5% reduction in government waste at source. In Canada, a national goal was established in 1988 to reduce the volume of solid waste going to landfill by 50% of 1988 levels by 2000. Many Canadian departments have targets to divert solid waste from landfill, including Environment Canada, whose NO WASTE campaign achieved its target of an 80% diversion of solid waste from landfill (based on 1988 levels) in 1997. In contrast, Norway reported that government agencies have no special obligations in national waste management programmes.

No countries reported federal hazardous waste reduction targets. However, some Canadian departments have set their own targets in their Sustainable Development Strategies, and work is underway to legislate federal facilities' hazardous waste collection. The US Government also incorporates into agency operating policies objectives to avoid the procurement of toxic or hazardous chemicals, which could have an impact on toxic/hazardous waste streams. The US Department of Defense has set a 50 percent reduction goal for hazardous waste disposal by 1999.

Across countries, waste management guidelines or directives appear to preserve flexibility for Departments or Facilities to tailor waste reduction strategies and procurement policies to their specific organisational structure and activities. In the ANZECC example noted above, the Guidelines are not prescriptive due to the wide variability in waste streams from different government agencies and their operations. Options for waste minimisation also vary geographically. Central/federal governments are encouraging individual departmental efforts through the creation of supportive policy frameworks, collaborative efforts, identification of best practice, and technical and information support.

Australia: The ANZECC initiative includes collaborative actions between members (research and educational services; collaboration with industry to overcome product barriers; information dissemination on national and international best practice). It also promotes actions that members can pursue in their own jurisdictions, including: waste audits of government operations; creation of regularly updated databases; development of directives and guidelines; preparation of waste management plans, contract arrangements with suppliers of goods and services; environmentally preferable purchasing practices; incorporation of waste reduction principles in building design and construction; education and training; and progress reports.

Canada: Industry Canada, Environment Canada, the Department of Defence, and Public Works and Government Services Canada are working with the Canadian Construction Industry and industry leaders to develop better ways to manage construction, renovation and demolition non-hazardous solid waste, which constitutes 25-30% of all material sent to landfill. A survey of the public and private sector was completed across the country in the Spring of 1998 to identify obstacles and opportunities for reducing the waste stream going to landfills. A joint project to research and analyse best practice in this area is underway and will be followed by recommendations to association members and federal departments on construction, renovation and demolition waste management.

United States: To ensure greater openness on the part of the government, a 1993 Presidential Executive Order required Federal facilities to provide information on the presence, releases and transfers of toxic and hazardous chemicals. US Federal facilities were required by the Executive Order to set a goal of reducing

releases of toxic chemicals to the environment by 50 percent within five years. This goal was achieved in only three years with federal agency releases decreasing from 11 million pounds to 5.4 million pounds by the end of 1996. In 1996, the US EPA extended its voluntary partnership programme with business, "WasteWise", to federal, state, local and tribal governments. Partners in the programme commit to implementing and reporting on waste reduction in three areas: waste prevention; recyclables collection; and the purchase/manufacture of recycled goods. As of August 1998, more than 150 government bodies have joined the programme including local and state governments, tribal governments (Chickasaw Nation), and Federal and quasi-Federal agencies (Maxwell Air Force Base and the US Postal Service). In total these partners employ 430,000 people. A first report on progress is due in March 1999.

European Commission: The EC has had a waste management programme in place for several years, with a particular effort on increasing the use of recycled paper and recycling, and reducing overall paper consumption. Currently 80% of the paper used by the EC is recycled, which allowed the Commission to abandon paper sorting in 1998. Technical discussions are on-going to obtain the EC's objective of a 100% recycled paper stock. The EC also has a programme for the collection and treatment of dangerous substances (medical waste, toner), and plans modifications to procurement specifications to introduce ecological criteria.

Belgium: From January 1997, MASSPE has generalised the use of 100% recycled, chlorine-free paper to all MASSPE administrations, although trends in paper consumption have not declined. The development of an internal computer communication network has been proposed as one means to reduce paper consumption. The Cité Administrative d'Etat is seeking bids from private contractors for a global waste management programme to cover paper, kitchen waste, and other specialised waste.

Czech Republic: Efforts are underway to build the institutional framework for greening of government actions (e.g. directives, guidelines). In the meantime the Czech Ministry of the Environment is pursuing reduced paper consumption through intensive paper reuse, and is recycling cartridges from laser printers and bubble jet equipment.

France: Actions taken since 1996 in the Ministry of Public Works have resulted in a 40% budgetary savings for waste management. Waste audits and training in 1998 in the Ministries of Industry and the Environment have led to a 50% savings.

United Kingdom: The UK Government's White Paper "Making Waste Work" committed Departments to set targets by the end of 1996 for reducing their waste. The UK's Department of the Environment, Transport and the Regions (DETR) issued a "Waste Guide" to all Departments in 1996 and updated it in 1998. Guidance on minimising waste at source was included in DETR's "Green Guide for Buyers" which was issued to all Departments. Recycling schemes operate across the Government estate, e.g. for paper, cans, glass, cardboard and printer/photocopier toner cartridges. Redundant IT equipment and furniture with no further use in some Government Departments is auctioned. DETR worked with the UK Disposal Sales Agency to let a cross-government call-off contract for recycling spent fluorescent tubes in June 1998. The UK's Customs & Excise produced a training and awareness video, "Waste Matters", in 1998 to help premises managers across the Government estate reduce waste.

Netherlands: Waste management is an important component in the EMS of almost all government agencies.

Measuring Progress: Most countries report that they have no centralised mechanisms in place to track the composition and total waste generated by government agencies, even where national targets have been set (as in the case of Canada). It generally falls to individual Departments to measure and assess their own progress. The US *WasteWise* programme notes a number of measures through which waste streams

can be tracked, including examination of purchasing records, hauling records, pilot tests, and surveys. It has also found, however, that individual agencies have difficulty in measuring their results, and is developing support tools to improve monitoring.

2.1.4 Fleet and Transport

Twelve out of the 23 reports describe initiatives to reduce the environmental impact from government vehicle fleets and transport policies. There is wide variability in the level of attention and comprehensiveness with which OECD countries are dealing with the environmental impacts of their fleet and travel policies. In general, this is an area where fewer targets have been set for central/federal government agencies, and where fewer action programmes have been put in place.

The initiatives reported lie essentially in two areas: (1) efforts to increase the percentage of alternative fuel vehicles (AFV) in the vehicle fleet, and (2) measures to reduce total fuel consumption and to increase energy efficiency related to travel. Central governments are supporting action on fleet and travel including through information and tools to help fleet managers, increased awareness raising and reporting on performance, target setting for fuel efficiency, and options to reduce travel (video conferencing; teleworking).

Canada: Canada reports the most detailed programme to reduce the environmental impacts of fleet and travel. The Alternative Fuels Act (1995) requires all Canadian Departments to ensure that 60% of the vehicles which they acquire in 1998-1999, and 75% of those acquired in 1999-2000 and thereafter, operate using alternative fuels (subject to cost and operational considerations). In addition, the Canadian Government has set a 30% reduction goal for GHG emissions from the federal fleet by 2000, based on 1995 levels. The Alternative Fuels Act requires annual compliance reporting which has heightened the responsibilities of department fleet managers. Natural Resources Canada also has a federal fleet initiative, *FleetWise*, to encourage sound fleet management practices and to reduce the costs and environmental impacts of vehicle operations. In 1995/96, 2% of the Federal fleet was using alternative fuels. In the period 1990-97, fleet energy use was reduced by 4.5% through a 9.8% reduction in fleet size and a 6.8% reduction in energy intensity. It is forecasted that *FleetWise* will reduce energy use by 11.1% and GHG emissions by 12.1 by 2010, principally through the reduction in the number of vehicles in the fleet. These estimates take into consideration future government spending patterns, and the influence of the *FleetWise* initiative, which should improve the average fuel economy of new vehicles by 5%, and reduce average on-road fuel consumption (both new and older vehicles) also by approximately 5%.

Australia: The Government is to set challenging, but realistic targets (to be specified in 1999) for the Federal vehicle fleet to apply from 2003, and is taking other steps to improve the fuel efficiency of the fleet. Under the National Greenhouse Strategy (released in November 1998), State and Territory Governments have undertaken to develop similar programmes. (Some States and Territories already have some programmes in place in this area.)

Greece: Greece's report covers a range of government policies and measures to reduce the environmental impact of transport, all sectors combined, including goals to increase the use and efficiency of public transport. In the city of Athens results achieved to date include better operational efficiency, stabilisation of public transport patronage (previous trends were negative), increased revenues from fares, two new metro lines to be operative by the year 2000, and plans to purchase a stock of alternative fuel vehicles, including over 100 compressed natural gas buses and 192 dual-mode trolleys.

Norway: Government agencies have no special goals for government fleet and travel policy, although some government agencies have invested in more environmentally sound vehicles and others, including the Government Administration Services, have purchased video-conferencing equipment to reduce the transport activities of the central government. The Ministry of the Environment has commissioned a report for 1999 from the Norwegian Pollution Control Authority on the possibilities and obstacles for government agencies to buy and use a more environmentally sound vehicle fleet.

United Kingdom: In the UK *Model Framework for Greening Government Operations* the Government has set a target for all HQ buildings and main buildings occupied by Government Departments, Executive Agencies, and Government Offices for the Regions, to have Green Transport Plans by March 1999 and all other key buildings by March 2000. Most Departments are on course to achieve the targets. Moves are also underway to change the mileage allowance and travel and subsistence policy to encourage greener forms of travel. A Guide to Green Transport Plans was issued to all Departments in 1997. Initiatives in this area include video conferencing, flexible working, home-working, reviews of fleet vehicles, introduction of greener fuels (ultra-low sulphur diesel, LPG, CNG) and driver training. Several UK Government Departments are trialling AFVs.

European Commission: A more environmentally sensitive mobility plan is one of the principle objectives of the EC's greening programme. The EC has set a target to achieve a 50% increase in the use of sustainable transport by Commission personnel. A number of specific programmes and pilot projects have been implemented to stimulate the use of public transportation. These include: co-operation with the city of Brussels and the InterBrussels Transport Society to create two bus lines "Les Eurobus" co-financed by the CE for the European section of the city; free use of the Metro during the day by bureaucrats with the Brussels Business Pass; and the promotion of cycling and the gradual installation of cycling facilities in buildings. Other actions on car-sharing and the use of Commission parking lots are in preparation.

Japan: As part of its 1995 Action Plan for Greening Government Operations, the Government of Japan has a quantitative objective to increase the percentage of low emission vehicles to approximately 10% of the government fleet by 2000. However, the absence of special budgets for greening initiatives has kept the actual percentage to a low .1%, making this a priority area for future action. In the framework of the General Principles for the Promotion of Global Warming Countermeasures (see Section 2.1.1. Energy) the government initiated a number of new special actions in June 1998 to reduce government emissions from travel, including the introduction of automobiles with high fuel efficiency and low emissions; the use of bicycles for short distance travel within Kasumigaseki; and the immobilisation of the government automobile fleet on the first Monday of every month. Recommended product brand lists for automobiles were compiled in June 1998 and distributed and explained to central government and local branch purchasers. The use of bicycles in the Government has been a major area of progress.

France: Low-emission vehicles constitute 18% of the vehicle fleet for the central offices of the Ministries of Industry and the Environment and 20% of the vehicle fleet for the Ministry of Public Works. All Ministry of Public Works drivers have received green driver training..

Measuring Progress: Very little information was provided in national reports on methodologies and/or barriers for monitoring government action in the area of fleet and transport. Canadian fleet managers have annual reporting requirements for which they track vehicle and operational data. However, while individual Departments are required to maintain a data base, reporting is not done consistently across the government.

2.1.5 Government Buildings and Facilities

Buildings policies are an important part of environmental improvement programmes in several OECD countries because of the implications of building design and use for energy and water consumption and waste generation. In the seven reports covering government building policies, initiatives cover the broad categories of: improving the design, maintenance and use of government buildings; managing and reducing construction, renovation, and demolition waste; reducing the environmental impact of day-to-day maintenance and use (cleaning products and practices, fire protection (halocarbons), and furnishings); and improving the indoor environment. Greece situates government buildings policies in the wider context of sustainable urban development.

Because building operations and maintenance is dispersed geographically and through different government levels, and because some government premises are leased, no countries have established centralised goals for green building design and use. Both Finland and Canada, however, have developed environmental policy principles for buildings owned or leased by government agencies as well as for new buildings. UK premises managers are required to survey all new buildings and major refurbishments using an assessment method which covers issues from global warming and depletion of material resources to local environmental considerations and health and well-being (see below). To improve the integration of environmental considerations, several countries also have developed modifications to master building specifications for building designers and architects, guidelines for technical staff, and handbooks for non-technical asset and property managers. A smaller number of countries have “eco-building” projects in the area of office renovation and enlargement, and new buildings.

Greece: In the framework of a 1997 law aiming at increased sustainability in spatial and urban planning policies, two government building projects have been initiated to promote sustainable construction and design. A former tobacco industrial building has been renovated into a “bioclimatic” low energy consumption building to house the Ministry of Environment. The building incorporates environmentally friendly materials and processes, including building energy management systems, use of partial ice-storage technology to reduce the consumption of electricity for air conditioning; use of natural gas for fuelling and heating; and the creation of a favourable local microclimate.

Germany: The Federal Ministry for Regional Planning, Building and Urban Development plans to introduce a guide on sustainable construction governing the construction, operation and use of Federal Government Buildings. The guide will outline holistic principles for sustainable (healthy, ecological and economic) planning, construction, operation, maintenance and use of properties and buildings. At the local authority level, an increasing number of building construction projects with ecological characteristics have been initiated via voluntary commitments and obligations on the part of local authority construction companies and independent firms. These projects are also intended to demonstrate that eco-buildings need not be more expensive than conventional buildings.

Finland: The State Real Property Authority (SRPA), which owns approximately 50% of all properties owned by the Government (covering most municipalities) has established environmental policy principles for its entire building stock (primarily high schools (33%), office buildings (33%) and research and other buildings (33%)), as well as for new building construction. The SRPA is also running a project on eco-building construction, including renovation and enlargement of municipal offices.

Canada: Canada provides a number of specific tools to all government departments to encourage more environmentally friendly building design and use. The *National Master Specification*, for use by building designers and architects, is currently under revision to include environmental considerations, including Federal standards related to hazardous and solid waste reduction, and energy and water conservation. *The Green Office Plan* is another Federal tool that incorporates measures to maximise energy and water

conservation, improve indoor air and lighting, and implement sound waste management principles. The Green Office Plan was piloted in Environment Canada by specifying environmental criteria in all facets of the renovation of one office floor: for example, existing components were salvaged, carpet was recycled and scrap drywall placed between wall panels to increase sound insulation. In September 1997, this pilot office floor was the first of its kind in Canada to be certified by Canada's Environmental Choice Programme. Canada is also updating a 1995 handbook on "Environmentally Responsible Construction and Renovation", destined for non-technical asset and property managers, and a 1996 guide for architects on the "Sustainable Design of Office Buildings". Work is also underway to promote greener infrastructure and buildings both nationally and internationally: the *Green Building Challenge '98* is a 2-year international project carried out in partnership with 13 other countries to develop and test a systems framework to assess energy and environmental performance of buildings around the world. Demonstration projects on managing construction, renovation and demolition waste from government buildings has found that highly significant proportions of non-hazardous solid waste (up to > 75%) can be effectively diverted from the waste stream without seriously affecting the building schedule or budget. Finally, Environment Canada is proposing Federal Halocarbon Regulation under the Canadian Environmental Protection Act to promote pollution prevention approaches to ozone-depleting substances and other substances contributing to the greenhouse effect. The Act, which will likely be in place by the end of 1998, would apply to Federal Departments, Crown Corporations, Aboriginal lands, Federal works and undertakings, and cover refrigeration, air conditioning, solvent cleaning and fire protection.

Norway: The Government of Norway's main goal for buildings policy is to ensure environmentally sound solutions within acceptable economic frameworks. Under the Planning and Building Act, all major construction projects, including government building projects, must do an environmental assessment. Emphasis in the future will be given to area efficiency, energy conservation, the indoor environment, and the use of environmentally sound materials. The Directorate of Public Construction and Property, which serves as manager and advisor, has responsibility for minimising the environmental effects over the lifetime of building projects.

UK: The UK Government requires its premises managers to survey all new buildings and major refurbishments using the Building Research Establishment Environmental Assessment Method (BREEAM). BREEAM 98 for Offices was launched in September 1998. It draws together the earlier versions for "new" and "existing" offices to create a much more flexible assessment method that is valid throughout the whole life of the building. It gives greater emphasis to issues of growing environmental importance such as transport, water consumption and construction materials and, for the first time, includes a "Green Guide to Specification: An Environmental Profiling System for Building Materials and Components." The Department of the Environment, Transport and the Regions is producing a "Green Guide to Construction and Refurbishment" for release in Fall 1998. The Guide is designed to help premises managers understand the basic principles of green construction and refurbishment so that they can deal more effectively with designers, builders and other building professionals. For example, the Ministry of Agriculture, Fisheries and Food obtained "excellent" ratings under BREEAM for two new buildings, and "very good" for two others; the UK Environmental Agency has a system in place to ensure that at least 10% of aggregates used are recycled/secondary aggregates; and the National Health Service has carried out surveys on two low energy use hospitals which show that good design and a modest increase in capital expenditure can cut energy consumption by 30% and fuel use by 50%.

European Commission: The EC notes that a major barrier to quick action in the area of buildings policies comes from the fact that the EC's services and installations are spread out over 60 buildings. Nevertheless, the EC's Action Plan requires that currently occupied and new buildings undergo a BREEAM examination to identify areas for possible improvements and develop a plan of action. In 1998-1999 twenty of the most important buildings will be examined.

Belgium: Efforts have focused on energy and water consumption as well as on the environmental impact of cleaning and maintenance products. For the latter, an inventory of existing cleaning products revealed that, contrary to law, product safety sheets often were not included in product shipments. Since 1997, a number of steps have been taken to reduce the environmental impact of MASSPE cleaning operations, including the elimination of very hazardous products (bleach), the replacement of the most common cleaning products with ECOVER products (a registered brand of environmentally-sensitive cleaning products), and the designation of obligatory environmental and safety criteria for purchasing decisions.

Italy: In the examination of projects concerning the renovation of central administration buildings, the following items are always assessed: energy efficiency, waste recycling and reuse technologies and practices, water consumption efficiency, atmospheric emissions minimisation, and noise pollution.

Monitoring Progress: The majority of reports did not specify how progress on sustainable buildings policy is measured. However, in a number of examples the BREEAM is identified as a systematic methodology for evaluating environmental impacts from building design and use. The cases of the UK and EC were noted above. Canada has also developed a manual based on a Canadian adaptation of the BREEAM for evaluating Public Works and Government Services Canada's building stock to establish a baseline against which future progress can be evaluated. The Guide has been applied to over 300 Federal Buildings and will eventually be extended to all facilities under the Department's responsibility.

2.2 Building In-house Capacity and Strengthening Decision-making Processes

2.2.1 Co-ordination and Consultation Mechanisms

In many countries, steps to improve the integration of environmental considerations in government operational and administrative decision-making parallel the creation of consultation and co-ordination mechanism for the strengthening of sustainability considerations in government policies more widely. Although only a few countries explicitly link the two processes, the majority of countries providing information in this area noted the importance of environmental and sustainability assessment mechanisms for national policy processes. The most extensive networks of consultation and co-ordination mechanisms, methods, routines and directives, appear to be in those countries who have taken the greatest strides in implementing environmental management systems. EMS provides a framework, and an objective, for cross-directorate co-operation.

Countries report co-ordination mechanisms at a number of levels in central/federal governments, including: Parliamentary committees, Inter-Ministry/Department committees at Minister and Deputy-Minister levels; and lower level Working Groups on concrete problems and programmes. These co-ordination mechanisms have helped foster awareness and build momentum across the Government for incorporating sustainable development and environmental thinking into the corporate structure. The need to link environmental management of government administrative and operating procedures with processes to modernise government was also raised in this context.

Canada: Canada has a network of committees at the level of Parliament; Deputy Ministers, Assistant Deputy Ministers, and a Federal Committee on Environmental Management Systems (FCEMS) with broad membership across the government to co-ordinate interdepartmental discussions and initiatives at a practical working level. The FCEMS works through Working Groups that exchange information, set priorities, develop common approaches, minimise overlap and duplication, and improve inventories and databases. Canada's Environmental Assessment Agency, created in 1995, oversees the environmental assessment of projects in which the federal government participates. An Interdepartmental Working Group

under the CEAA will be developing common methodologies for conducting environmental assessments of proposed Federal policies and programmes.

Australia: Australia has established a range of consultative mechanisms for environmental issues, including consultative groups for specific policies and programmes for environmental protection as well as on-going committees established to co-ordinate activities in a range of sectors that also address environmental issues. These latter committees include ministerial councils with representatives from all Australian States and Territories and the Commonwealth.

United Kingdom: The new government has amalgamated various existing functions into a new Department of the Environment, Transport and the Regions in order to strengthen integration. A new Cabinet Committee has also been established, chaired by the Deputy Prime Minister, to consider environmental policy issues. The UK's network of Green Ministers has also been strengthened. The Green Ministers are responsible for: overseeing production of new guidance for policy advisers and economists to make departmental environmental appraisal of policy proposals more systematic; regular collective reviews of the quality and scope of such assessments; consideration of ways to build sustainable development into policy formulation at the highest level; and consideration of further targets and policies for ensuring that Departments and their Agencies are operated sustainably (energy efficiency, waste minimisation, sustainable staff travel). The Government has also set up a new Parliamentary Environmental Audit Committee to scrutinise sustainable development policies and actions across Government. This is encouraging a more systematic approach to environmental appraisal and the implementation of sustainable development policies, including on the introduction of EMS in government departments (see Section 3). The UK launched a comprehensive guide to "Implementing Environmental Management Systems in Government" at a seminar in November 1998 drawing over 200 delegates from across Government. The UK has also prepared guidance requiring Government Departments to environmentally assess policies and programmes and issued a model framework for greening government operations (May 1998). The model framework includes a model policy statement and model improvement programme which Departments are free to adopt or adapt to meet their special needs.

Norway: Norway's most important co-ordination and consultation mechanism is the process requiring all Ministries to develop an environmental action plan for their area of responsibility. Under the Norwegian Act of Planning and Building, all major construction projects must undergo an environmental assessment: major government construction projects include new roads, railways, airports, power stations and new government buildings. Norway has also refined the "Environmental Profile of the State Budget".

European Commission: The EC Action Plan for improving the environmental performance of the Commission is directed by a Steering Group headed by the Secretary-General. The Steering Group includes the two General Directors for Administration and Environment and staff members who participate in an inter-directorate/service group to implement day-to-day initiatives. Each action has a list of people assigned to outline deadlines and identify potential financial impacts.

Belgium: Efforts to initiate an EMS pilot project in the MASSPE revealed a number of institutional gaps which the government has addressed by strengthening communication and decision-making structures. A new post of environmental co-ordinator was created, under the direct authority of the Department's Secretary-General, to ensure horizontal and comprehensive coverage. The environmental co-ordinator can also directly address General Directors with proposals for new measures. MASSPE has also strengthened co-ordination with the Building Management Service which manages all major building works. Measures to improve communication with staff have also been taken, after traditional top-down channels were seen to be inadequate due to institutional and spatial organisation: the people most concerned often were not receiving pertinent information. On a wider scale, the Federal State and the three Regions collaborate

together on a Greening of Government Steering Group whose tasks include gathering data, and following international developments in this area.

France: An interministerial steering group was created in 1995 to guide greening of government initiatives at the central, regional and local level including representatives from the Ministries of Public Works, Housing, Transport and Tourism, Finance, Public Management, the Interior, and the Environment. The Government has also created a network of trained managers and resource centres to define priorities and ensure information flow.

United States: On September 14, 1998 the US President introduced an Executive Order requiring federal agencies to comply with specific policy on Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition. Consistent with the demands of efficiency and cost effectiveness, the head of each executive agency must incorporate waste prevention and recycling in the agency's daily operations and work to increase and expand markets for recovered materials through greater Federal Government preference and demand for such products. The Executive Order creates a Steering Committee, a Federal Environmental Executive (FEE), and a Task Force, and establishes Agency Environmental Executive (AEE) positions within each agency, to be responsible for ensuring the implementation of the order. An earlier Presidential Executive order on Pollution Prevention in the Federal Government, required the development of a Code of Environmental Principles (CEMP) for Federal agencies; the CEMP has been publicly endorsed by all major Federal agencies. The CEMP principles require, among other things, that agencies integrate environmental management systems throughout their operations, including funding and staffing requirements.

Netherlands: The integration of environmental policies into sector policies is a guiding principle in Dutch environmental policy-making. Overall environmental policy is laid down in the Third National Environmental Policy Plan (NEPP3), including environmental quality standards which must be attained, particularly by those Cabinet members whose policies are likely to have environmental impacts. Each Minister is responsible for addressing the environmental aspects of his/her own policy; the Ministry for the Environment has a co-ordinating role in addition to its own primary responsibilities. The government is giving priority to extending and developing the Environmental Management Act into a comprehensive and transparent law permitting an integrated approach to environmental problems. In 1994/1995 the Dutch Cabinet launched a special project to improve the quality of proposed legislation with respect to its impacts on business and the environment, as well as its feasibility and ability to be enforced. An interdepartmental working group reviews only legislation with potentially substantive effects; departments are assisted in the review process by a support centre staffed by personnel from the Ministries of Economic Affairs, and of Housing, Spatial Planning and the Environment. As of November 1998, 116 regulations have been tested. In all cases, this process has resulted in more and better information on the effects of the regulation, and in some cases modifications or withdrawal of the proposed legislation.

Italy: In December 1993, the Interministerial Committee for Economic Planning (CIPE), on the proposal of the Council of Ministers, approved the *National Plan for Sustainable Development: Implementing Agenda 21*. An *ad hoc* Committee, established in the Ministry of Budget and Economic Planning, co-ordinates the implementation of the National Plan. 11 Ministries are represented on the Committee. The *ad hoc* Committee co-ordinates and updates the programmes for greening of government operations in individual administrations as well. An "environment department" has been established in a few Ministries (Foreign Affairs, Industry and Energy, Budget and Planning, Finance) with the task of implementing environmental integration.

2.2.2 Staff Capacity Building

Training and awareness building among government staff are cited as central to initiating action to improve the environmental performance of government agencies, and to ensuring continual improvement. Limited information was provided in national reports on specific initiatives, perhaps due to the fact that training programmes are adapted to specific local situations which makes generalisations difficult.

Canada: Training and capacity building have been identified in many Departmental Sustainable Development Strategies as priority areas. Individual Departments are responsible for developing department-specific awareness and training programme. The FCEMS (see Section 3.2.1) has an Environmental Awareness Training Working Group (EATWG) which develops common training and awareness materials and tools to improve environmental performance across the federal government. The EATWG has four objectives, to: (1) determine the current baseline of employee environmental awareness; (2) review, analyse, and categorise existing training material; (3) raise senior management environmental awareness; and (4) raise staff environmental awareness. Environment Canada has developed an environmental compliance guide to help employees in complying with Federal environmental statements and regulations. In addition, Public Works and Government Services Canada has held a number of theme-specific workshops for operational, design and management staff (e.g. Environmental Responsibilities and Liabilities).

Norway: Staff awareness raising, training and capacity building are an important part of the Government's greening of government project. Staff are offered environmental management courses from the Norwegian Pollution Control Authority and GRIP (Norwegian Centre for Sustainable Consumption and Production).

European Commission: The EC has introduced a range of training and awareness raising actions to inform personnel about greening actions undertaken, and to maintain employee interest and good behaviour, including: a competition to design a logo for the green housekeeping programme; seminars on introductory ecology for new personnel; development of a green housekeeping site on the Commission's Intranet; numerous articles in the internal Commission journal; and information posters. Information sessions for target groups are under preparation.

Belgium: Key resource people will be provided training on different themes related to environmental management, including EMS, Agenda 21 and sustainable development, "eco-consumption", waste management and prevention, mobility and transport, rational energy use, and communication. These resource people are expected to transfer pertinent information to their colleagues and to help drive specific actions within their sections.

France: Key elements of the greening of government programme to date have been information dissemination, awareness raising and training for government personnel. In 1996-1997, information dissemination and awareness raising were targeted primarily to central administrations and central and regional managers, and resulted in the identification of priority issues (water, energy, waste, products, buildings construction, vehicle fleet and public land management). The government also developed teaching and methodological tools to help managers to develop an environmental "culture" in their respective services. Theme-specific training sessions were also organised on energy and water consumption. In addition, 6 regional resource centres were established to support the dissemination of information and best practice in regional and local government. In 1998, managers in the Ministries of Industry and the Environment, as well as in 66 decentralised state services and public enterprises received training. It is expected that these managers will use their training to build in-house teams, define priorities, and ensure appropriate training of their staff and general information dissemination.

2.2.3 Progress at Local/Regional Government Level

Examples have been provided throughout the report of initiatives by municipal governments and local authorities to improve their environmental performance. In a number of countries, regional and local governments are far ahead of their central government colleagues in developing and implementing strategies to reduce their environmental impacts. As noted earlier, the line between green operations and decision-making and the external activities of regional/local governments also tends to be blurred, with many examples of EMS applied to local service provision in the areas of health, water, waste, and security.

In OECD countries with a federal structure there are often few formal linkages between the federal, state/provincial and municipal levels of governments in the area of greening government. Even in other OECD countries with more direct links to the local level, little detailed information was provided on the range of greening government activities at regional/local level. As a result, the extent of action at lower levels of government is underrepresented in this report; and the following descriptions can only be considered as partial.

Norway: Action to improve the environmental performance of government at the local level is connected to the Local Agenda 21 process: approximately 25% of local authorities have committed to engaging a LA21 process. Some regional government agencies are part of a wider national “Green Government” pilot project focused on improving environmental impacts from day-to-day operations, including: purchasing; use of material resources and energy; transport; use of information and communication technology to reduce the use of material resources and transport; buildings; and waste management. Participating government agencies must: identify the areas where the activities of the agency result in a negative impact on the environment; develop an action plan with goals and actions; implement concrete actions; strengthen their competence in the environmental field; and work out monitoring and reporting systems.

Sweden: Six municipalities in the Stockholm region have joined forces in a waste-management project called “From Table to Soil”, with financing from the local investment programme. Organic restaurant and household waste is taken to a centre where it will produce biogas for fuel for 2,000-2,500 vehicles, the equivalent of 3.4 million litres of diesel per year. Carbon dioxide emissions are expected to fall by 8,000 tonnes per year while a portion of the waste disposal problem will be solved. A large number of municipalities and county councils are actively introducing EMS (see Section 3). SEK 5.4 billion has been allocated for support to local investment programmes for the period 1998-2000, and a further SEK 2 billion proposed for 2001 for projects, such as the extension of the use of district heating systems; the changeover to renewable energy sources; and the development of better recycling techniques.

Australia: Under the National Greenhouse Strategy (released in November 1998), Commonwealth, State and Territory governments have undertaken to develop programmes to reduce greenhouse emissions from their operations, including building and vehicle operations. (Some States and Territories already have some programmes in place in this area.)

Germany: Local authorities have played a pioneering role in terms of both modernisation process and environmental initiatives. Several Länder and local authorities have produced environmental declarations, eco-reports, or developed model environmental projects. Two-thirds of the EMS developed in Germany are at the local authority level. The Federal government supports local efforts through guidance on purchasing, sustainable construction, and environmental auditing. Several municipalities have implemented innovative transport/mobility strategies to reduce energy consumption and encourage public transport.

Canada: Although the provinces and municipalities, like the Federal government, are committed to sound environmental management, the status of EMS varies considerably across the country based on the local economic, political and social climate. The Federation of Canadian Municipalities, which is a forum to promote strong, effective and accountable government, launched a “20% Club” with the objective of encouraging municipalities to undertake a sustained effort to reduce GHG emissions by 20%. Thirty municipal governments are involved to date. The Canadian National Round Table on the Environment and the Economy influences EMS work nationally by serving as a catalyst. Provincial Round Tables have also been formed to affect work at a more local level. Individual Provincial and Municipal Governments are taking proactive steps in EMS implementation (Manitoba) and on procurement policies (Quebec Government; Metropolitan Toronto). The Government of Canada is working to encourage EMS at provincial and municipal levels by sharing best practice, expertise and tools. Community recycling programmes are also implemented in many municipalities.

United Kingdom: Environmental performance improvements are highly developed at the local level in the UK, not least through the internationally recognised work of the UK Local Agenda 21. 88% of UK local authorities are committed to producing a LA21 strategy by 2000. The Central government co-operates with local authorities on the development of training materials, best practice, and regional workshops. The UK Government is also setting up Regional Development Agencies which will have responsibility for promoting sustainable development. LA-EMAS is being implemented extensively in UK local authorities. There is also greater co-operation between central and local government, e.g. a local government helpdesk on LA-EMAS is being extended to promote EMS in central government.

Netherlands: 80% of municipal governments had implemented an EMS by January 1998.

France: For State agencies, the greening government strategy is grounded by a top-down programme of information, training and assistance from the central administration down to the decentralised agencies across the country. Following an initial seminar in 1997, six departmental resource centres were established on a trial basis in order to finalise the methods to be applied. At the regional and local level (Collectivités Territoriales) there is a constant increase in demand for participation in greening government approaches. In order to encourage the expansion of the strategy, the creation of pilot groups (Groupes de collectivités territoriales ‘pilotes’) is encouraged in each region.

Belgium: In the Brussels Capital Region, the 1992-1997 Waste Plan identified a number of actions to be taken by regional administrations: the development of a code of good practice on eco-consumption and waste management (completed in 1993); the purchase and rational use of products (recycled paper); and waste separation (e.g. paper and hazardous wastes). The new 1998-2002 Waste Plan stipulates that after a 2-year demonstration period, the Region will consider the possibility of mandatory EMAS for regional administrations and waste management businesses. To date, the pilot agencies have conducted an internal audit, developed an environmental declaration, and established a separate service to oversee the implementation of preliminary measures. In the Flemish Region, some public agencies have several years of experience with EMS, although the majority have only recently begun to integrate environmental considerations into their day-to-day activities. Actions taken have been in the areas of energy consumption, fleet and waste management, buildings policy, and greener government purchasing. New initiatives include: the mandatory use of recycled paper by all departments of the central government from January 1999; strategic plans for government buildings, schools and hospitals to overcome major barriers for rational energy use; and a number of specific programs and pilot projects to reduce the number of cars used by personnel of the central government and agencies. The establishment of a comprehensive EMS as part of overall management responsibility is seen to be a necessary next step and the most effective way to ensure progress and results in the long-term.

3. SPECIAL FOCUS: ENVIRONMENTAL MANAGEMENT SYSTEMS

FOR GOVERNMENT AGENCIES

In January 1998, the OECD held a Workshop on *Environmental Management Systems for Government Agencies* in collaboration with the government of Sweden. The report of the Workshop was published in July 1998 (ENV/EPOC(98)11/FINAL). The objectives of the Workshop were to: identify the “state-of-the-art” in environmental management systems (EMS) in OECD governments; highlight innovative and “good practice” strategies for designing EMS; explore barriers to developing and implementing an EMS in government agencies and the strategies being employed to overcome them; and agree policy recommendations to promote further progress in this area.

This Section draws principally on the results of the Stockholm Workshop, but is completed by an update on both action in OECD countries not present in Stockholm and significant developments in initiatives described in the Stockholm Workshop Report.

Overview

The motivations for establishing EMS in government agencies are the same as those for greening government initiatives in general (see Section 1). However, the particular advantage of EMS is that they consolidate and strengthen environmental management initiatives by giving them a routine and comprehensive treatment in government operations and decision-making procedures.

A number of OECD countries have made significant progress in promoting the implementation of EMS in government agencies. Examples from Sweden, Canada, Germany, the US, the UK and others point to the fact that there is no one best approach, although there are many common elements, to efforts to integrate environmental considerations into governments’ day-to-day operations, and decision-making, including policy-making functions. National experiences differ over the value of voluntary over mandatory approaches to developing EMS, and the appropriate scope for an EMS (i.e. covering only direct, or also, indirect effects). These issues have been addressed in Section 1. At the regional/local government level, the conditions surrounding the development of EMS vary significantly between and within countries. In several OECD countries most progress on EMS for government agencies has been made at the local level. Central governments appear to be moving more slowly.

Barriers to EMS Implementation

Countries have identified a number of institutional, budgetary and cultural barriers to the introduction of EMS:

Institutional Barriers:

International (EC) and national procurement rules prevent some countries from introducing environmental clauses into procurement specifications. Similarly, both Germany and Sweden have introduced national legislation to open EMAS to public sector bodies, filling a gap that in many European countries was seen as a barrier to greater uptake of EMS in the public sector. Other institutional barriers include the impacts of down-sizing and decentralisation, which can reduce core staff capacity and morale, increase workloads for remaining managers and employees, and dilute central government power.

Budgetary Barriers:

The majority of countries cite budgetary constraints as a factor slowing the implementation of EMS. Environmental management competes with a number of other administrative programmes for funds: a situation complicated by the fact that some EMS actions may have longer or no pay-back periods. Annual budget cycles, and the difficulties of 'borrowing' against future gains, compound these funding problems. Similarly, the inflexibility of budget lines and categories has made it difficult for some countries to direct funds to new environmental initiatives. A further barrier is the common practice of procuring goods and services on the basis of lowest price, irrespective of environmental considerations. Some countries are considering how to include life-cycle costs in tender evaluation and specifications to broaden selection criteria to include 'best environmental value'.

Management and Cultural Barriers:

EMS, like other performance management tools, require a culture receptive to systematic improvement, competitiveness and accountability. In many countries, EMS forces a change from compliance-based thinking and a reliance on outside environmental expertise, to proactive pollution-prevention approaches and environmental stewardship. EMS also requires that staff become familiar with new terminology and concepts. For EMS to be successfully integrated into regular business planning, several levels of staff require training as well as a generally heightened understanding of the agency's environmental impact. A second type of cultural barrier can stem from the transparency and greater openness an EMS brings to an organisation. For government agencies with little previous exposure to open accountability, this can become a major psychological barrier. Central/Federal government agencies are generally not subjected to the kind of external pressures that drive change in the private sector, or even in local government. Their relative remoteness from citizens, the absence of competition, the lack of direct accountability, amplified by a general absence of performance management systems, may make government agencies hesitant to adopt a formal management and reporting system. Public sector bodies are also usually more averse to taking risks than their private sector colleagues.

Innovative and “Good Practice” Strategies

A core set of good practice strategies is beginning to emerge from the growing experience with EMS in OECD countries. These strategies are noted here, and discussed in full in the Stockholm Workshop Report:

Phase I: Getting Started

- Establishing top management commitment
- Running pilot projects to generate experience and a track record
- Identifying priorities, objectives and timelines for action
- Providing funding and more flexible budgeting and financing mechanisms
- Providing training and evaluation techniques

Phase II: Managing The Change

- Securing continual improvement
- Identifying Champions
- Integrating EMS with existing public management systems
- Increasing the transparency of government’s environmental performance

Regional/Local EMS

At the regional and local government levels many of the motivations for, and constraints to, developing an EMS are common to those of central government. On the whole, however, local governments in many OECD governments have moved faster on this issue, the result of their close, day-to-day contacts with their constituencies, public pressure for efficient government, and the need to demonstrate “best value” for the use of public funds. EMS also provide local governments with a “common language” that makes interaction with central governments and each other easier, and can help local authorities make a contribution to the achievement of local, national, and international environmental objectives (e.g. national air quality standards; contributions to national targets for CO₂ reductions). Although the relationships between central and local governments vary significantly among OECD countries, central governments can take a number of actions to promote the implementation of EMS in local governments. These are elaborated in the full Stockholm Workshop Report.

Update on Progress on EMS

Newly Reported Initiatives:

Finland:

The implementation of EMS and the enforcement of the EMAS regulation is promoted through an EMAS Monitoring Group headed by the Ministry of Environment. Action in State administration has been discussed, but there is no national action plan for implementation yet. Some public administrations have started to apply EMS, and four of these were ISO certified in 1997 and 1998: the Finnish Forest and Park Service, Helsinki City Transport’s Bus Traffic Unit, Helsinki Metropolitan Area Council Waste

Management, and the Defence Force Lievestuore Depot. EMS is also being introduced in other areas, including other garrisons of the Defence Force, the State Railways, the city of Tampere, and the North Savo Regional Environment Centre. The city of Tampere's EMS is a good example of comprehensive coverage of a range of municipal issues: building on a 1994 environmental policy programme and system similar to EMAS, Tampere's EMS covers city transport, electricity and water works, and solid waste management. Operative environmental objectives are also included in the 1997 City Budget and will be made more concrete in 1998. As the system develops Tampere plans to give more attention to the openness in the system in order to allow different interest groups to participate: a Tampere Forum has been established to provide citizens with relevant information and to give them an opportunity to voice their views. Tampere is also part of a project, led by the Finnish Local and Regional Authorities and the Ministry of the Environment, to develop municipal environmental accounting and auditing. Although the municipalities will have different priorities, the general objective is to ensure that environmental considerations are routine elements in planning, budgeting and monitoring activities.

Australia: A number of Commonwealth Government Agencies have, or are developing, EMS, and some are intending to apply for ISO14001 certification. The Department of Environment is also committed to promoting EMS, and is currently developing a system for its central capital city based operations. This project will serve as a pilot to encourage other agencies.

Belgium: The International Commission for Sustainable Development (CIDD), created by law in 1997, includes a Working Group on Environmental Management in Public Agencies. This Working Group seeks to identify on-going initiatives and actions necessary to implement EMS across all federal departments. The first report of the Working Group noted that the majority of federal departments did not yet have complete environmental management systems in place. The Ministry of Social Affairs, Public Health and the Environment (MASSPE) initiated a pilot project in 1996 to develop its own expertise in the development and implementation of EMS, and to transmit this experience to other federal departments. An action plan for 1997-1998 was developed following an environmental audit of the internal activities of the MASSPE building, and lifecycle analyses of major flows (paper, water, energy). The implementation of an EMS has been hampered by the restructuring and fusion of the three principal departments, both in terms of the development of a common corporate culture and the grouping of services in one building. As a result, MASSPE has found it necessary to shift its preliminary focus on technical implementation measures to institutional measures, particularly information and communication strategies, in order to create the conditions for an effective EMS.

Austria: As an initial step in implementing the 1996 Council Recommendation, the Austrian Government created an interministerial Steering Group on Greening of Government, particularly in respect to public purchasing and EMS. This group has developed a set of recommendations on the possibility of introducing EMS in public agencies. The Austrian Council of Ministers voted on 1 October 1998 to include federal, provincial and municipal public institutions into a new ordinance extending EMAS to other sectors on an experimental basis. The Austrian Ministry of the Environment was the first to begin work in this area in October 1998 with an examination of their current situation.

Netherlands: EMS for government agencies has been used since the publication of the National Environmental Policy Plan (NEPP) in 1989. In this context, ministries are expected to have an EMS for their own organisation, and environmental considerations are to be considered as important issues for public purchasing. Municipal governments are required to implement an EMS and are provided with financial support from the Ministry of Environment. In January 1998, 80% had some type of EMS in place. The NEPP3 (1998) states that public enterprises and establishments will have to implement effective EMS (i.e. on an ISO14000 level) to control the environmental impacts of polluting activities.

Italy: An agreement between the Ministry of Environment and the National Research Council (CNR) was signed in 1987 to disseminate the results of research activities on environmental management systems. In the Government Printers and Mint, which are responsible for printing and distribution of official publications, revenue stamps, mintage, paper and forms for State administrations, a special unit of about 20 technicians has been assigned to environmental problems related to the management, processes and products of both plants.

Updates on Initiatives Described in the Stockholm Report:

Sweden : 66 central government agencies, including all 13 Ministries, are already actively developing EMS. This number will be expanded in the Spring of 1999 to include several new agencies. Of the 66 original agencies, 25 have completed environmental reviews of their direct and indirect environmental impacts, and presented an EMS policy, goals and actions plans. These Agencies will now move into the implementation phase. The remaining 41 agencies have completed a review of the direct effects of their administrative activities and will now continue in the Fall of 1998 with a review of indirect environmental impacts from their external activities. EMAS registration is now available for all sectors in Sweden. A large number of Swedish municipalities and county councils are also introducing EMS, and some intend to register under the EMAS. A Swedish hospital is the first in Europe to obtain EMAS registration.

Canada: EMS is an area of major progress for the Canadian Government, and is promoting better prioritisation and effective use of limited resources, which is encouraging Departments to move from a reactive, compliance-based approach towards a proactive, pollution prevention approach to their activities. Since the Stockholm Workshop, the 1998 Report of the Commissioner of the Environment and Sustainable Development was published, providing an assessment of 28 Federal Departments' Sustainable Development Strategies, which include the current status of EMS and define specific targets for environmental liability and opportunity areas. The Commissioner found that most Departments had prepared a strategy consistent with the majority of the basic requirements, but identified a number of weaknesses, two of them fundamental: (1) almost all Departments had failed to establish clear and measurable targets that would allow them and the Parliament to judge whether their strategies were moving towards sustainable development; and (2) less than 50% of the Departments identified specific policy, program, legislative, regulatory or operational change that would result from strategy implementation. The Commissioner's Report has resulted in a call for more, and more focused, EMS within and across Federal Departments. Greening operations is expected to be a good opportunity for increasing federal know-how in the development of practical environmental performance indicators for federal operations.

Mexico: Mexico has a number of pilot EMS projects underway, driven by the need for a more comprehensive approach to promoting environmental performance improvements across the government. The Ministry of Environment, Natural Resources and Fisheries has promoted the creation of an Inter-institutional committee whose mission is to motivate and diffuse EMS within the public administration. Permanent Members include the Ministries of Environment and Finance, the National Bank for Projects and Services, the Federal Electricity Commission, the General Comptroller, the National Institute of Ecology, the National Commission for Energy Saving, and the National Oil Company (PEMEX). Mexico has confronted a number of legal, technical, economic and political barriers to the introduction of EMS, which it is working to overcome through active information dissemination and sharing of experience. To this end, the Ministry of Environment, in collaboration with Environment Canada, the US EPA, and the Commission for Environmental Co-operation convened a major Workshop for Mexican government officials in October 1998, with the objectives of outlining progress on EMS in pilot Mexican agencies and in the wider international community. The Workshop has stimulated additional interest in EMS among government agencies and revealed new areas of progress (National Defense Ministry).

Germany: Germany has a number of pilots running at the federal, state and local levels, which feed both implementation as well as research objectives. Most progress is being made at the local authority level, which accounts for two-thirds of the 30 EMS projects on-going or pending. National legislation in 1998 opened EMAS registration to other sectors, including local authorities. An analysis of EMS projects in the public administration has shown that virtually all are closely based on EMAS.

United Kingdom: Three central government agencies have EMS certified under ISO14001: the Department of Environment, Transport and the Regions Head Quarters Buildings, the Department of Economic Development's Industrial Science Centre in Northern Ireland, and the Scottish Office. In 1995, all UK Departments were required to assess the practicality of developing an EMS, and a 1996 review reported that most were considering ways to improve environmental management. Now, the UK Government may accept a recommendation from the Parliamentary Environmental Audit Committee that all departments should have begun introducing an EMS by the end of 1998 with a view to extending them across their estates. It is also possible that the Government will accept a second recommendation that 75% of the Departments have at least 1 site registered with ISO14001 by 2001.

Switzerland³: In June 1997, the Federal Council agreed a parliamentary motion to introduce environmental management in the federal administration. As a first step, EMS will be introduced in the general federal administration, and previous environmental initiatives will be integrated and strengthened. In 1997, the Office for Federal Buildings, the Federal Office of Energy, the Federal Agency of the Environment, Forests, and Landscape, and the Federal Military Department developed, in co-operation with an external consultant, a detailed sequence of events and initial pilot projects for two federal offices. EMS should be introduced into all government offices by 2002. An initial analysis of the current situation for the Military Department will be finalised by 1998. In addition, both "Swisscom" and "Die Post" are both well advanced in introducing EMS: Swisscom will be ISO14001 certified in 1998. Die Post has achieved the same level of progress but is not seeking formal certification.

United States : The US Environmental Protection Agency (EPA) issued a formal position statement in March of 1998 supporting and promoting the use of EMS, including systems based on ISO 14001. A guidance document has also been issued that establishes categories of information and data to be collected during EMS pilot projects, including environmental performance, compliance with environmental regulation, pollution prevention, environmental conditions, costs/benefits, and stakeholder participation. EMS pilot projects are being conducted by the Department of Defense, Department of Energy (DOE), and US Postal Service. In addition, in May of 1998, EPA and DOE issued an "EMS Primer for Federal Facilities" to assist government agencies in initiating and implementing EMS at their facilities.

3. Information drawn from Switzerland's Informal Report to the OECD Workshop on Environmental Management Systems for Government Agencies (Stockholm, January 1998).

4. SPECIAL FOCUS: GREEN PUBLIC PROCUREMENT

In February 1997 the OECD organised the *first International Conference on Green Public Purchasing*, which was hosted by the Government of Switzerland in the city of Biel. The Conference identified environmentally preferable purchasing as an innovative policy tool capable of providing cost-effective opportunities. Conference proceedings included analysis developed by the OECD Secretariat, and presentations made at plenary and workshop sessions describing the most significant experiences developed within the OECD area. Exactly one year after, a second OECD Workshop was organised in Biel, with the support of the governments of Japan and Switzerland, to identify institutional mechanisms that hinder economically and environmentally sound procurement. The workshop also outlined measures to overcome these barriers and to identify available policy options. Major results are contained in ENV/EPOC/PPC(98)4. In parallel to this activity, work was initiated within the Joint Session of Trade and Environment Experts in order to examine the trade issues raised by the Greening of Public Purchasing (COM/TD/ENV(97)111/REV2).

The following section draws extensively from this work, and has been augmented with information contained in the national submissions for this report. For more detailed and comprehensive descriptions, the documents mentioned above should be referred to.

Overview

In the OECD area, government final consumption of products and services makes up 9 to 25 per cent of total GDP expenditures (private consumption reaches 50 to 60 per cent of GDP expenditures). Public purchasing is extremely diverse and can cover a range of goods and services; from standard items (e.g. pencils to vehicles) to major pieces of capital equipment (e.g. electricity generators, power plants, roads and major defence equipment) and services (e.g. hospitals, education). In the majority of OECD countries, 75% of public purchases are on current consumables goods and services, while the rest is destined to the acquisition of capital goods. These distinctions are important as Member countries assess the scope for procurement to contribute to greening government operations.

Most importantly, all levels of government (central, state, regional and local governments) contribute to public purchasing. For instance, in Canada, in 1994, the Federal government accounted for 23,2% of total expenditures, while the provincial and municipal government spent respectively 44,5% and 23,6% of total. On average across the OECD, central governments account for up to 30 per cent of total public purchases. Public service utilities also account for a considerable portion of government acquisitions, which explains why figures for total public expenditure can vary considerably from one country to another.

These data reflect both differences in government purchasing structures (centralised or decentralised) and the varying concentrations of buying power within government. For instance, on January 1st, 1997, Hungary adopted a centralised public procurement system responsible for supplying 900 government organisations. At the other end of the spectrum, German Federal Government Agencies,

Länders and local authorities are autonomously responsible for their acquisitions. The German Federal Environment Ministry sees its role as a facilitator, responsible for the development of instruments that can assist procurement decisions such as the "Handbook for Environmentally Friendly Purchasing" (FEA, 1993) and the "Guide to Environmentally Sound Construction" (FEA, 1997).

Responding to Public Demand

In all OECD Member countries citizens are intensifying their demand for administrations to adopt an overall "greener" approach. This is clearly shown in the number of environmentally preferable purchasing initiatives that have been developed at the local level in response to specific political demands (a relatively sparsely populated country such as Sweden counts well over 1500 local initiatives). Finland is the only country to report a mismatch between the general statements on intended role of greener procurement and actual implementation.

In most countries, local authorities have created their own network organisations to help each other tackle the many issues encountered as they green their activities. In France, the "Association des Maires pour l'Environnement" (Association of Mayors for the Environment) has established an annual award for the best performing municipality. At the international level, the International Council of Local Environmental Initiatives, ICLEI, co-ordinates over 150 municipalities and organised "Eco-procura" (Hannover, June 1998) the first major trade fair specifically targeting public procurement soon to be followed by a second fair in Bilbao at the beginning of 1999.

Environmental Information and Support Tools for Purchasers

One of the major difficulties encountered at all levels of purchasing is in the scarcity of available and reliable information about the environmental characteristics of products and services. In fact, lack of information is sometimes considered to be the major obstacle to greener purchasing initiatives, because it limits the development of multi-criteria specification of environmental characteristics of products.

Several countries are either using, or plan to use, eco-labelling schemes for public purchasing purposes. For instance, the Czech Republic, Canada, Denmark and Japan suggest that purchasers should look at ecolabels for guidance in selecting their products. Norway, Denmark and Germany recommend that purchasers adopt in their tenders the same criteria (or specifications) adopted for labelling purposes. This allows companies producing goods that qualify for an label, but which have not applied for one, to participate in a tender.

The distinctive feature of eco-labelling schemes is that they have in-built mechanisms to ensure transparency in the selection and establishment of product criteria. Not only are interest groups involved in the expert groups that provide the draft-criteria, but they also participate in the decision-making procedure that finalises these criteria. Even with such mechanisms in place, eco-labelling schemes have raised concerns about their possible effects over trade. In particular the greatest fears stem from the inclusion of criteria on production methods (which is the case for the EU- Eco-label, the Nordic Swan, the Swedish Environmental Choice Programme and French NF-Environnement).

Among OECD Member countries, Austria, Canada, France, Germany, Hungary, South Korea, The Nordic countries (Sweden, Norway, Denmark, Finland), The Netherlands, Japan, United States and the European Union are running multiple criteria environmental certification systems. All the schemes enjoy

governmental support except in Canada, where the national eco-labelling scheme is managed by the private sector on a cost-recovery basis, in the United States, where only a private system is operating along these lines, and Sweden where the Swedish Society for the Conservation on Nature, Sweden's largest environmental organisation, runs a parallel scheme to the official Nordic Swan. Switzerland has not developed an official eco-labelling scheme and has entered negotiations with the European Union to adopt the EU-ecolabel.

In most cases, however, environmentally preferable purchasing operates along single environmental criteria which are relatively easier to develop. For instance, the Czech Republic established a Residential Building energy savings programme which contributed to decreasing CO₂ emissions by 1.64 million tons. The country also privileges the acquisition of energy saving, and waste reducing equipment. Such an approach can be considered as being common to all OECD countries (e.g. Energy Star, or Energy 2000 labelling schemes in the US, Denmark and Switzerland, toner cartridge recycling, recycled paper, etc.). However, such an approach is unevenly spread within countries: and in many cases, such as in the US, France and Belgium it is being promoted through the development of comprehensive pilot schemes. Very similarly, the Netherlands has launched a programme which voluntarily engages different governmental agencies through the signature of declarations of intent.

To assist purchasers, Germany and Ontario (Canada) have also adopted an alternative system. Public purchasers may access all the necessary information through a detailed guidebook, which covers anything from lubricants to building materials and packaging. In the US, one such guidebook was developed by a green consumer organisation. Denmark has prepared a general procurement handbook on environmentally conscious procurement policy which was developed by the Danish EPA in co-operation with Indkobs Service A/S (National Procurement Limited), together with the National Association of County Councils, the National Energy Agency, and the Directorate of Labour Inspection. The handbook is supplemented by a number of product guidelines with environmental recommendations (by 1 January 1999, guidelines for 25 different products were developed). UK's department of the Environment, Transport and the Regions issued a "Green Guide for Buyers" in 1998 which is described in the paragraph on tendering procedures and rules. It also issued a "Guide for choosing environmentally preferable IT" in 1997, and a "Green Claims Code" in 1998 for checking suppliers environmental claims.

Several guidebooks have been developed for the construction sector. Apart from the German Guidebook mentioned earlier, the UK Government has developed a "Green Guide to Construction and Refurbishment" which is meant to complement the "Building Research Establishment Environmental Assessment Method" (BREEAM) which helps managers to operate environmentally preferable solutions. In the Netherlands, construction company associations have worked in close co-operation with the government to develop national guidance on "Sustainable Building in the Netherlands", which includes environmentally preferable building options.

The GRIP centre in Norway produced a general guide which closely follows and examines opportunities offered by the various steps of a professionally correct purchasing procedure. "GRIP Purchasing" suggests ways to attain greater eco-efficiency at all stages of the purchasing process, from the verification of the needs through to the tender development, offer and selection phases right through to the phasing in, use of, and scrapping of the procured good. GRIP will soon be followed by product specific guidelines. Electronic versions of the guidebook are available electronically at www.grip.no.

By providing orientation tools that are adapted to their users, and by introducing new technologies which favour a "virtual" dialogue the available range of solutions is expanding. The Canadian federal government has developed a computer based training course (CBT) on greener purchasing, and the Public Works and Government Services Canada is developing an information system that will improve federal employees' access to environmentally beneficial products and services. As

pointed out while examining the effects of information technologies over purchasing, an increasing number of procurement Internet sites are now available in the US, Canada, Japan and the EU.

Technical Specifications and Standards

An alternative route to those described above, lies in the development of detailed specifications describing the characteristics of the environmentally preferable products that should be purchased. The Canadian National Master Specification (NMS) and "The Green Office Plan" (see Section 2.1.5) are contributing to over 650 specification items and accommodation standards. In absence of either specifications or of a labelling system, a number of public purchasers in Switzerland give preference to companies that have or are implementing environmental management systems. According to some officials such systems are preferable to labelling schemes because they are able to capture the overall behaviour and performance of a company. Thus purchasers would be signalling preference for an overall environmental commitment rather than for the limited advantages achieved by a single product. Such a trend is being reinforced by the request for ISO 14001 certification. For instance Hungary requires that applicants declare whether they are EMS certified as part of the questionnaire that accompanies any tender documentation.

Tendering Procedures and Rules

For off-the-shelf products, greener purchasing is best implemented by facilitating the selection of environmentally preferable items. A clear signal (an eco-label) or a simplified description of a product's environmental qualities can orient the purchaser. But for these as well as for all other purchased goods, the tendering mechanism may assist greener purchasing. In 1998, the United Kingdom's DETR issued a "Green guide for Buyers" which includes two parts. The first deals with "policy and practice", i.e. with this sort of mechanism, and covers topics such as the EC procurement rules, grounds for rejecting suppliers and the importance of reducing waste. Part 2 contains checklists to help buyers specify goods and services that are environmentally preferable.

The following are a few types of practices that are being developed for the purpose of achieving greener purchasing. Purchasing regulations control contracts if their value exceeds certain minimum levels. Below these levels purchasing officers are free to acquire off-the-shelf products thus making their own choices, i.e. an autonomous assessment of the best price versus quality ratio. Above the threshold levels procedures are open, and all interested suppliers may submit a bid, or restricted (also described as "selective" or "limited tendering") and only selected suppliers are invited to submit a bid. This last form of tendering is used in special circumstances such as absence of competition for technical reasons (an extreme case), or for additional deliveries from an original supplier. Because of its discriminatory potential this form of tendering should be avoided. In fact, to anticipate any possible criticism the province of Quebec (Canada) has instituted a "minimum of three bidders" rule that obliges purchasers of greener products to examine at least three different proposals (unless a derogation is agreed to by the purchasing authority).

Table 2. Examples of Products Covered by Selected Greener Public Purchasing Initiatives	
PRODUCTS OR PRODUCT TYPES	INITIATIVE
AUSTRALIA: Purchasing policy calls for environmental factors to be considered in all Government purchasing.	National Government Waste Reduction & Purchasing Guidelines
CANADA: Cleaning products, compost, construction and demolition materials, energy efficient lighting products, engine oil, additives and synthetic oils, paints, paper, plastics, rubber, packaging	Ontario-based GIPPER ³ 's guidelines
DENMARK: Office equipment, office furniture, writing and copying paper, cleaning agents, paints, lighting products, organically-grown foodstuff, transportation equipment, cables	Action Plan for a Sustainable Public Procurement Policy
EUROPEAN UNION: recycled paper (objective 100% recycled rate)	Action Plan 1997-2000
GERMANY: Office equipment (paper, furniture, computers, copiers, printers, batteries); vehicles (cars, buses, trucks, motorbikes, tires, lubricants, fuels); construction and infrastructure materials (isolating materials, windows and window frames, paints and varnishes, materials for road-construction); gardening materials (pesticides, fertilisers, compost); heaters; sanitary equipment; pipes; cleaning products; refrigerators; dish-washers	Handbook on Environmentally-Sound Purchasing (published by the Federal Environmental Agency)
ITALY: Recycled paper (60% of total consumed), "biodegradability" clause for cleaning products, renewal of vehicle fleet, halon-free fire fighting equipment	State Supply Office
JAPAN: Recycled paper, fuels, office automation equipment, washing machines, room air conditioners, vehicles, automatic vending machines, pollution treatment equipment, construction materials	Action Plan for Greening Government Operations
NEW ZEALAND: recycled paper	National Government Waste Reduction and Purchasing Guidelines
SWITZERLAND: Paints, thermal insulation materials, green roofs, radon protection Electronic appliances Batteries, pipes for electric cables Construction and civil engineering materials, vehicles, products for hospitals, cleaning products	Conference of Federal Building Organisations E2000 Program Swiss Telecom PTT Ecological Purchasing Project (Canton of Zurich)
UNITED KINGDOM: Most products covered More specific action on: information technology equipment, recycled paper, fluorescent tubes, wood	Green Guide for Buyers, DETR
UNITED STATES: Paper, vehicular products, engine coolants, lubricating oils, tires, construction products, structural fibreboard, laminated paperboard, carpet, floor tiles, patio blocks, building insulation products, transportation products, traffic control cones, traffic barricades, park and recreation products, playground surfaces, running tracks, landscaping products, hydraulic mulch, yard trimmings compost, non-paper office products, office recycling containers, office waste receptacles, plastic desktop accessories, toner cartridges, binders, plastic trash bags Office equipment (computers, monitors, printers, fax machines, copiers); exits signs, appliances Cleaning products, construction materials, latex wall paints, computer hardware	Buy-Recycled Program [Environmental Protection Agency (EPA)] Energy Star (EPA) Environmentally Preferable Purchasing Program

Tenders can demand that a certain number of conditions be met, for instance they can require that goods be shipped by bulk rather than individually, that empty packaging and the discarded product be taken back by the supplier, that products be delivered in reusable containers, that waste produced during operations or after use be appropriately collected, taken-back, recycled or re-used . They may also require that suppliers give precise information or warranties over a product's expected life-span (Canada, Hungary).

Life-cycle costing (LCC) as a method of economic assessment is widely accepted as offering the most thorough opportunity to provide, over time, the most attractive economic and environmental returns without putting excess responsibility on purchasing officials (New Zealand). The main barrier to its spread is to be found in the "low bid" selection criteria: LCC encourages the acquisition of products which initially cost more but save money over time by reducing energy, environmental, and maintenance costs. Several initiatives in the US , Canada and Switzerland aim at facilitating the use of LCC.

Measuring progress in green procurement

Several attempts have been made at measuring progress in green purchasing. These are relatively successful when, for instance, single products are accounted for. Hence a few organisations can measure progress in the purchase of energy efficient goods (e.g. automobiles) or of products that contain recycled materials. Others have been able to measure savings (on water or energy consumption) achieved through the acquisition of improved products. However, in general, since progress in green procurement has largely qualitative effects (see previous discussions of life cycle costing approaches), improvements are not easily measured through quantitative indicators or a universally acceptable standard.

5. MONITORING AND EVALUATION

Introduction

As part of the information collection for the Council Report, the OECD asked countries to describe how they monitor progress in specific areas of government greening actions. Each of the five sub-sections on government operations described in Section 2.1 notes the general status of monitoring capacities in that area. The OECD also asked countries to respond to a preliminary set of performance indicators intended to outline general characteristics of central/federal governments of Member countries, and key environmental impact indicators (Annex 2). Countries were invited to provide relevant information, where available, and to comment on the preliminary set of indicators. In particular, countries were asked to provide feedback on their government's ability to collect the relevant information, and whether other important indicators should be included in the core set.

Baseline Indicator Exercise: Country Results

The data received on (1) background information on central/federal governments, and (2) core environmental performance indicators generally does not allow for a centralised comparison of Member country governments and their environmental impacts. Although several countries provided relatively specific information in selected areas, such as energy consumption or the government's share of final consumption, the majority of countries have little or no data on their central/federal government agencies. Even in countries with some measuring procedures in place, data generally cover a subset of government agencies or do not distinguish between the public and private sector or between different levels of government (central, municipal, local).

Data at the central/federal level is best where national targets and reporting requirements have been established. A number of countries have firm figures for achievement in energy efficiency, for example. Canada has robust data on the federal fleet. These are areas where data is also easier to collect and aggregate. There are cases, however, where national targets have been set, but central monitoring systems have not been established to measure progress towards them.

There are a number of reasons why Member country government agencies have little information about their operational and administrative impacts:

1. Absence of data at the departmental level:

In the majority of cases, there is a general absence of monitoring and measurement infrastructures at the departmental and agency level. This is consistent with the finding that few Member country government agencies appear to be making comprehensive use of environmental audits (e.g. for energy, water or waste). Many government departments lack the capacity to set

quantitative goals and performance based measures. Barriers include: managers' lack of experience in establishing performance measures; an unfamiliarity among staff with evaluation on the basis of results; and a lack of baseline data to develop sound, quantitative environmental targets. For some areas of government operations, such as procurement, or hazardous waste, environmental performance data does not exist due to the difficulty in defining sound measures and a lack of legal drivers.

2. Little national aggregation:

Where there are department/agency level data, these are generally not aggregated at a national level or are not recorded in a way that makes them easy to obtain. In the bulk of OECD Member countries, greening government initiatives are decentralised and voluntary: departments and agencies are responsible for tracking their own progress. No countries have a centralised management and control function for data collection and reporting on greening government initiatives.

3. Obstacles to establishing a consistent baseline:

Establishing a consistent baseline against which to measure progress has been difficult in countries which have undergone significant downsizing and restructuring of the public sector. The continuing evolution of departmental structures, general turnover in departmental property portfolios (in countries where government tends to lease space), and inconsistency in the types of data collected, or able to be collected, also are obstacles to establishing a common baseline over time.

4. Varying cost-benefits of performance measurement:

Establishing performance measurement systems can be time consuming, costly and difficult. In countries where the environmental impacts of government agencies are perceived to be a lesser priority, or where no national performance targets have been set, it can be difficult to justify the associated costs. Even in countries which have established national targets, the cost-benefit analysis of investing large sums of money into building the necessary infrastructure becomes an important consideration. At both departmental and national levels, decisions have to be made on the relative weight to be given to obtaining baseline data against which progress over time can be measured, versus just moving ahead without quantifying progress.

Country Plans for Measuring and Evaluating Government Environmental Performance

The majority of Member countries stated their intentions to strengthen measures of government environmental performance, particularly for key operational areas. Despite the barriers encountered, countries reported several reasons to develop more systematic monitoring, particularly the need to:

- reveal the gap between an organisation's level of performance and the level of performance specified in goals or targets;
- document the cost-benefit of greening government operations, not only to demonstrate best value for the use of public money, but also to encourage wider implementation of greening initiatives across the government; and

- demonstrate compliance and due diligence.

Sweden: The main responsibility for environmental statistics lies with the Swedish Environmental Protection Agency, which has been asked to present a revised national programme for environmental monitoring and to review with other agencies the accessibility of statistics. If necessary, the Agency will propose new statistics to measure the country's achievement of national objectives for sustainable development and new national environmental objectives. Central government agencies will also review new directives on how to report on their environmental initiatives and results.

New Zealand: New Zealand's progress on energy efficiency is monitored primarily through the use of "Key Performance Indicators" (KPI) rather than quantitative analysis. The KPI monitor the energy management activities of departments in five different areas: energy policy, organisation, information systems, marketing, and investment. Agency performance is rated on the basis of responses to a set of questions that are assigned a score. The KPI facilitates cross agency comparisons and comparison between public sector agencies and private companies.

Finland: Statistics on energy consumption are gathered at the municipal level to stimulate comparisons and energy savings. Measures will be defined by the end of 1998 to improve measuring and auditing procedures.

Canada: The Committee on Performance Measurement for Sustainable Government (CPMSGO), an interdepartmental Working Group that reports to the FCEMS, has engaged constructive work to develop practical indicators of government environmental performance. The CPMSGO held a national workshop in May 1998 to begin work on the development of a common framework for environmental performance measurement of federal government operations. The workshop brought together 16 departments and agencies who developed common performance management frameworks for 10 environmental areas: contaminated sites, hazardous materials/wastes, water efficiency, solid waste management, ozone-depleting substances, fleet management, energy use in federal facilities, green procurement, storage tanks and releases. The Workshop revealed that these 10 areas were at different stages of development and implementation with respect to performance measurement goals. The Workshop also demonstrated the feasibility of having a common framework and measures for sustainable operations among federal departments. The next steps in this process will include: further refinement of the common measures and framework; obtaining senior management "buy-in"; setting priorities for the measures; and testing the proposed measures. It is foreseen that centralised information collection on central/federal government agencies will be strengthened through the functions of the office of the Commissioner of the Environment and Sustainable Development.

United Kingdom: The Department of Environment, Transport and the Regions will produce a working environment report (1997-1998) due in October 1998. Environmental consultants are also assessing the development of a more structured reporting system from 1998/99 onwards. Details on government performance on integrating environment into policies and programmes and in green housekeeping activities are included in government department's annual reports, and progress on energy efficiency is reported in Parliamentary Written Answers. The Government is now considering how progress can be more effectively reported to the Parliamentary Environmental Audit Committee, the Cabinet Committee for the Environment, Green Ministers, staff and other stakeholders. Green Ministers will receive two progress reports a year which will form the basis of an annual environmental report for publication. The development of further benchmarks and targets is expected to facilitate this. UK Government departments have undertaken environmental audits of their operations. For example: DETR is considering, as a pilot study for the rest of Government, the extent to which it can incorporate environmental issues as part of its audit process, including audits on the purchase of goods and services. Environmental audits are seen not

only as a means of ensuring and demonstrating compliance with its policy objectives, but also as an effective way of raising staff awareness.

Germany: The collection of data on environmental performance of government agencies lie with the Länder and local governments. The federal government supports these efforts by offering suggestions on the compilation of data and the monitoring of pilot projects at the central government level in order to identify best practice in order to increase general motivation for, and legitimisation of, greening government initiatives. The German government has also drawn examples of performance monitoring from the private sector in its “Guide to Corporate Environmental Indicators”, which contains a set of indicators designed for a bank.

Japan: Japan was among the first OECD Governments to set quantitative targets for government environmental performance across all central government ministries and agencies. Progress on the achievement of the eleven targets in the Action Plan is reported annually to the Cabinet and to the public for each ministry and agency. This process reportedly helps drive greening of government actions even in the absence of any special budgetary support or staff deployment to promote the Action Plan. A review of actual progress against targets has allowed the Government to identify implementation gaps (e.g. percentage of low-emission vehicles.) Suggestions have been made to improve the evaluation system through more in-depth analysis to clarify each organisation’s efforts.

Netherlands: The State Institute for Health and Environment has developed a set of indicators for monitoring and benchmarking the environmental performance of government.

Poland: The Government is currently working to revise an old system of recording and accounting (energy, water, materials and transport use) into a new performance measurement system.

United States : The Environmental Protection Agency collects Pollutant Release and Transfer Register reports from federal facilities that meet the reporting requirements. These reports collect data on on-site and off-site releases to air, water, land and underground injection. The reports also collect data on transfers off-site for further waste management (treatment, recycling, energy recovery) plus data on further waste management on-site. Through the PRTR, EPA is able to provide facility-specific data, department-level data, as well as an aggregation of PRTR data across the government. In addition, since 1993, the US Environmental Protection Agency has been issuing biennial reports on the “State of Federal Facilities.” These reports monitor, track and report on Federal facility compliance rates under each of the major environmental statutes. Agencies also report recycling rates annually under Executive Order 13101, signed in September 1998. The US EPA has also developed an EMS data collection protocol for EMS pilot projects to help measure environmental improvements at both government and private facilities.

Italy: A study is currently underway at the Corte Del Conti (State Auditors’ Department) for testing a core set of environmental integration indicators within the annual State budget report to the Parliament.

Implications for OECD Work

Based on the 24 reports received on indicators to measure the environmental performance of government operations and decision-making processes, it is not clear whether a meaningful core set of indicators could be developed for cross-country comparisons. Even if national data bases were strengthened, the structure, size and functions of OECD central/federal governments differ so significantly that it would still be necessary to determine whether a common set of indicators for international comparisons could be identified. It should be noted that limited aspects of government consumption activity are covered in new work by the OECD Group on the State of the Environment on Sustainable

Consumption Indicators⁴; these indicators, however, do not go into depth on government operations and administrative practices.

It is clear that a number of OECD Member countries share an objective to define more concrete and comprehensive performance measurement systems for national reporting and management purposes related to greening of government actions. For some countries, the OECD indicator exercise was useful in stimulating and advancing discussion at the national level. While there would be no universal set of indicators for greening government initiatives, it could prove fruitful for countries active in this field to exchange information, experiences, and good practice. Information exchange could help countries identify feasible and useful indicators (quantitative and qualitative), identify the monitoring procedures required to collect the desired data, and identify strategies to overcoming barriers to measuring the environmental performance of government operations and decision-making processes.

4. ENV/EPOC/SE(98)1, and ENV/EPOC/SE(98)1, and ADD1, ADD2, ADD3.

6. CONCLUSION

The Draft Report (ENV/EPOC/PPC(98)17) was sent to Member countries on 4 November 1998 and then reviewed by the Working Party on Pollution Prevention and Control (WPPPC) on 16 November 1998. The WPPPC was asked to review the report for accuracy and omissions and to draw conclusions on: 1) the rate and level of progress achieved to date; 2) priority areas for greater progress; 3) areas for international collaboration, and 4) next steps. The WPPPC's discussion forms the basis of this section.

1. Rate and Level of Progress Achieved to Date

The Report conveys the varying degrees and speed with which OECD countries are implementing "greening of government" initiatives: while a few countries have several years of experience in this area, the majority have only recently begun to integrate environmental considerations into their government operations and decision-making processes. The OECD Council Recommendation has helped to spur action, and to provide an international benchmark for national initiatives. Most progress made in the reporting countries has been in the areas of energy consumption, waste management, fleet management, buildings policy, environmental management systems (EMS), and greener government purchasing. Nevertheless, in view of the full impact of government operations and decision-making on the environment, OECD governments have not yet achieved their full potential for improving their environmental performance.

The Report underrepresents progress made to date in that it does not comprehensively cover action at the regional or local government level. The Report also reports only on a subset of activities included in the Council Recommendation; OECD work on EMS has identified other areas of progress, such as the initiatives taken by Defence agencies in a number of OECD countries. In Mexico, for example, the National Defense Ministry (SEDENA) has achieved results in a number of areas, including reduced energy and water consumption, water reuse (for irrigation), waste to energy transformation, composting, and the introduction of low-emission vehicles. Military personnel also receive training in environmental protection and EMS. Future reports on progress should cover initiatives in these and other areas.

2. Priority Areas for Greater Progress

WPPPC delegates identified a number of priority areas where greater progress should be made in OECD government agencies to improve their environmental performance:

- The implementation of environmental management systems:

The comprehensive implementation of EMS in government agencies was seen to be the most effective way to ensure progress in each of the specific action areas identified in the Council Recommendation (e.g. energy and water efficiency, waste management, transport policies, defence activities, decision-making processes, etc.). Without an EMS, actions risk remaining ad-hoc and sporadic.

- The development of more transparency and accountability in government environmental performance:

Many public administrations are reluctant to commit themselves to concrete actions via EMS or public purchasing which would make them accountable for their environmental performance. Nevertheless, transparency is increasingly seen to be part of good governance. Greater transparency can also help build the government's credibility and open channels for information exchange with the public and with the private sector.

- Strengthening of measurement and evaluation capacities;

Countries in both the early and later phases of greening government activities are facing problems created by the lack of a means to measure and evaluate their progress. Data collection poses a number of resource and methodological problems.

- Increasing the effectiveness of environmentally preferable government purchasing, and addressing trade aspects.

Procurement practices can be improved through the direct involvement of purchasing officers to make environmentally preferable choices, or by providing them with tools, such as life cycle costing, that are going to determine such choices in all circumstances. Improved budgeting mechanisms that would allow, for instance, investments to be spread over several budget years, also offer considerable economic and environmental opportunities. Finally, environmentally preferable procurement can be promoted while avoiding trade distortions, such as those that may be generated by the inclusion of certain types of transport criteria in the tendering process.

3. Areas for International Collaboration

Progress in some areas, such as specific energy and water conservation measures, will depend on site-specific strategies developed at the agency or facility level. Similarly, the development of more transparency and accountability in government environmental performance will essentially be derived from local or national public pressure and socio-political culture. Delegates identified several areas, however, where international collaboration and information exchange would be useful to support local, regional and national efforts:

- development of a set of EMS principles for government agencies;
- guidance on budgeting and financial mechanisms, and opportunities for life cycle costing, for government purchasing and investment; and
- reporting progress.

A number of countries are also actively working on improving their capacity to measure and evaluate the environmental performance of government operations and decision-making processes. While delegates agreed that it was premature to develop related indicators for cross-country comparison, there was interest in an exchange on methodology in order to support measuring and evaluation initiatives for national management needs.

4. Next Steps

The OECD Secretariat will develop the following projects to support Member country efforts to improve the environmental performance of their government agencies.

A. Supporting the Implementation of EMS Systems in Government Agencies

The Secretariat will explore the possibility of developing a guideline document on EMS for Government Agencies, building on the results of the January 1998 Workshop in Stockholm.

B. Developing Greener Public Purchasing

- i) **Public Purchasing for Sustainable Product Policies.** On the basis of information already collected on initiatives taken in the field of life-cycle costing for public purchasing purposes, the Secretariat will develop a paper describing how these have been developed and are being implemented, the difficulties encountered and ways to overcome them. The paper will also review the short term and the long term effects life-cycle costing approaches may have on budget management and overall resource management efficiency. Finally, it will analyse the effects of current budgeting mechanisms and the proposed reformed mechanisms (in the EU and other regions) on the implementation of life-cycle costing with particular attention to the decentralisation of budgets between national and subnational administrations. Altogether the paper will provide a platform for discussion at a workshop convened to advance these issues.
- ii) **Green Public Purchasing Practice among OECD Member Countries** -- The Secretariat will prepare for publication a comprehensive document pulling together all the analysis and information collected to this point.

C. Measuring and Evaluation:

- i) **Indicators** -- The Secretariat will develop a scoping paper for the April 1999 meeting of the Working Party on Pollution Prevention and Control outlining Member country initiatives in the field of indicators of the environmental performance of government operations and decision-making processes, and possible scope for international collaboration.
- ii) **State of the Environment Indicators** -- Monitoring national efforts to measure the environmental performance of government operations and decision-making processes could also be undertaken in the context of existing OECD mechanisms. In particular, Member countries could routinely report on their national activities in this area to the Working Party on the State of the Environment (WPSOE). The WPSOE invites regular reporting by countries on a range of indicator/monitoring work related to the environment and sustainable development.
- iii) **Environmental Performance Reviews** -- Monitoring national progress in greening of government will be systematically covered as part of the second cycle of environmental performance reviews.
- iv) **Reporting on Progress** -- Member countries may wish to consider whether it would be useful for the Secretariat to develop an overview report of progress in this area in another

three years. The OECD will also maintain a Website on Greening of Government, through which Member countries can disseminate information on their progress (<http://www.oecd.org/env/gog/Index.htm>).

ANNEX 1: AREAS OF ACTION REPORTED IN NATIONAL SUBMISSIONS

	FRAME- WORK	OPERATIONS					DECISION-MAKING			EMS	PUR- CHASING	MONI- TORING
		Energy	Water	Waste	Vehicles	Buildings	Coordi- nation	Train- ing	Local/ Reg			
Australia	X	X		X	X		X			X	X	X
Austria										X	X	
Belgium	X	X		X	X	X	X	X	X	X	X	
Canada	X	X	X	X	X	X	X	X	X	X	X	X
Czech Rep		X		X							X	
Denmark	X	X	X			X	X	X	X		X	X
Finland	X	X	X			X			X	X	X	X
France	X	X	X	X	X		X	X	X		X	
Germany	X	X	X	X	X	X		X	X	X	X	X
Greece	X	X	X	X	X	X		X	X			
Hungary											X	
Iceland	X	X		X	X	X		X			X	X
Ireland												
Italy	X	X	X	X	X	X	X			X	X	X
Japan	X					X		X			X	
Korea												
Luxembourg												
Mexico	X	X	X	X	X	X	X	X		X	X	
Netherlands	X	X							X	X	X	X
New Zealand		X									X	X
Norway	X	X		X	X	X	X	X	X	X	X	X
Poland												X
Portugal												
Spain											X	
Sweden	X	X	X	X	X	X	X	X	X	X	X	X
Switzerland										X	X	
Turkey												
United Kingdom	X	X	X	X	X	X	X	X	X	X	X	X
United States	X	X	X	X			X			X	X	
EC	X	X	X	X	X	X	X	X				X

Notes: Switzerland: data from Stockholm & Biel Workshops.

ANNEX 2: INDICATOR EXERCISE

CORE SET OF INDICATORS

I. Background Information On The Central/Federal Government

Please indicate:

1. Number of persons employed in the central/federal government (Note: Please specify breadth of coverage: ministries and agencies; defence agencies; state corporations, etc.).
 - a) Total number
 - b) Percentage of labour force
2. Building stock:
 - a) Owned
 - New
 - Renovated
 - b) Leased
 - c) Total surface area in m² occupied by government agencies and facilities
3. Size and composition of vehicle fleet (total owned and leased)
4. Total land surface under direct management
5. Volume of procurement of goods and services
 - a) Total budget expenditure
 - b) As share of GDP
6. Total Budget

II. Data On The Core Set Of Environmental Performance Indicators For Government Agencies

Please indicate where possible relevant data for the following indicators. Please indicate “No information available” where your Government has no data for the indicator in question.

1. ENERGY

- ◆ Total Energy Consumption
 - Office Buildings [Unit: Mtoe/m²]
 - Other Facilities (please specify) [Unit: Mtoe per year]
- ◆ Percentage of Buildings/Facilities for which energy audits have been made [Unit: % of total building stock]

2. WATER

- ◆ Total Water Consumption
 - Office Buildings [Unit: m³/m² office space]
 - Other Facilities (please specify) [Unit: m³ per year]
- ◆ Percentage of Buildings/Facilities for which water audits have been made [Unit: % of total building stock]

3. PAPER

- ◆ Total Paper Consumption [Unit: tonnes/person]
- ◆ Recycled content in purchased paper [Unit: % of total paper stock]
- ◆ Quantity of paper recycled [Unit: % of total in tonnes]

4. FLEET AND TRAVEL

- ◆ Number of vehicles owned [Unit: total number]
- ◆ Number of vehicles leased [Unit: total number]
- ◆ Total fuel consumption by fuel type [Unit: litres]
- ◆ Stock of alternative fuel vehicles [Unit: total number]
- ◆ Number of vehicle kilometres driven per year
 - Conventional vehicles [Unit: kms/year]
 - Alternative fuel vehicles [Unit: kms/year]

5. WASTE MANAGEMENT

- ◆ Total non-hazardous solid waste generated [Unit: kgs/person/year]
- ◆ Total hazardous waste generated [Unit: tonnes/year]
- (* Please separate data for public hospitals)
- ◆ Percentage of waste to recycling [Unit: % of total in tonnes]

6. PROCUREMENT OF GOODS AND SERVICES

- ◆ Number of purchasing contracts with environmental clauses [Unit: % of total contracts]
[Unit: % of total value]
- ◆ Number of service contracts with environmental clauses [Unit: % of total contracts]
[Unit: % of total value]