

Global Information Analysis

Republic of Lebanon

Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

Ms. Randa Nemer
Capacity 21 Coordinator,
Ministère de l'Environnement.
Antelias
LEBANON

الجمهورية اللبنانية

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مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

Dear Ms. Nemer,

Subject: Report on organization of the Ministry of Environment

I am pleased to enclose the following information for your consideration.

- A Summaries about the ministries of the environment (MOEs) in other countries;
- B Further ideas for the proposed consultation process as per the terms of reference for the first mission.

Supporting documentation has been assembled by consulting the 'Home pages' of the MOE's and governments of several countries around the world. These summaries are printed as an attachment.

I apologize for the delays associated with this report. I had hoped to have produced these earlier, but have been travelling most of the time since October 1995. I also wished to ensure that the product met the demands of the terms of reference and of the MOE.

Let me ensure you that I remain most interested in further involvement. I look forward to your comments and will be speaking to you shortly.

With best regards,

الجمهورية اللبنانية

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مركز مشاريع ودراسات القطاع العام

Yours sincerely,

Richard Labelle



Richard Labelle

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References from searching the Internet

World Wide Web - WWW

Various resources on the Internet were queried. These resources allow searching over a million computers connected through the WWW. Several search engines were used to survey the holdings of these computers and of the WWW pages or 'home pages' they hold.

One search engine, that of the Digital Equipment Corp. retains 33 gigabytes of data.

On the basis of these searches, summaries for the following countries were found:

- Canada
- USA
- the Netherlands
- Japan
- Italy
- United Kingdom
- Denmark
- Thailand
- Singapore
- Malaysia

A summary was also found for Indonesia, but it was in the local language, Bahasa Indonesia. No summaries were found for the following Arab countries: Jordan, Egypt, Tunisia and Morocco.

Organizational structures of ministries of environment in selected countries

Introduction

Increased and relatively recent environmental awareness and the Stockholm Conference on the Environment in 1972 lead to the creation of environmental management entities in many countries. As a result, Ministries of Environment (MOEs) are a relatively new phenomenon in public management systems.

Environmental management poses a challenge to public administrators because it requires an integrated and multi sectoral approach. Lessons learnt from experiences to date suggest that coordinating and consultative mechanisms need to be part of management and organizational solutions in the public sector.

Different organizational models exist. In some cases, the Ministry of Environment is a central government structure. Other models pay particular attention to the cross cutting or horizontal nature of environmental matters. In these cases, organizational structures and management practices that focus on coordination mechanisms are important.

Combined approaches where a central authority is responsible for overseeing federal or central government policies, laws and regulations may co-exist with local or regional structures responsible for implementation. National and local needs, management styles and practices and circumstances dictate the approach most appropriate. Decision making practices that are hierarchical and the rely on centralizing structures will require different approaches than those that are more open and consultative by nature.

Some basic ingredients are necessary to ensure that ministries of environment can fulfil their mandate: political commitment, public awareness and support, adequate funding, strong laws and especially trained and motivated staff.

Ease of access to government decision makers and to government information, the role of public opinion, the ease with which governments involve non-governmental entities from other public and private sectors, are also factors to be taken into consideration in assessing the appropriateness and effectiveness of environment institutions, regardless of the organizational structure adopted.

In most jurisdictions, the constituencies supporting 'sound' environmental issues are weaker than other more mainstream government ministries or departments. In many countries, governments may be less influenced by public concerns than political or trade or tourism related matters (for example air pollution in Athens) or those obligations mandated by treaty (especially those dealing with transboundary environmental issues) or international agreements (including especially the United Nations Conference on Environment and Development - UNCED and UNCED follow-up activities and/or

conferences).

In many cases, there is no tradition of stakeholder participation in the work of the Ministry of Environment or its equivalent.

Turf wars between ministries dealing with land, water and air for example and the ministry or department responsible for environmental matters are not uncommon. The need to find ways to involve central planning authorities, those responsible for economic and financial planning as well as local or municipal authorities have challenged administrations around the world. Different jurisdictions have responded to this situation in a variety of ways, including:

- 1 The creation of strong central government structures, such as a Ministry of Environment with a mandate and powers to act and broad public support to do so (the Netherlands is a good example);
- 2 By focusing on creating inter-ministerial coordination structures;
- 3 By including consultative mechanisms or management practices that involve stakeholders or counterparts outside of government as a result of regional, federal and/or other shared or decentralized mechanisms of governance;
- 4 By dealing with environmental issues through a combination of approaches building on central and local strengths.

In a recent report on developing environmental capacity produced by an OECD task force made up of donor representatives, the restructuring and strengthening of environmental institutions, and especially Ministry of Environment was considered as follows:

... Two issues dominate the issue of organisational restructuring and strengthening at the central level. The first is that of **horizontal co-ordination**. Governments can chose a number of options including a super ministry of sustainable development (as in Bolivia), a central ministry or department of the environment, a distribution of environmental functions to sectoral ministries like water or agriculture or finally, cross-sectoral boards or commissions linked to central agencies such as planning commissions as in the Philippines. Governments can also establish regional bodies like river basin commissions that combine responsibilities for regional development and environmental protection. A good deal of donor assistance goes into this type of organisational restructuring especially with respect to the establishment of central departments and planning units. Supporting the integration of environmental issues into sectoral policies is a donor priority as well as the strengthening of mechanisms for inter-organisational co-ordination amongst central agencies.

The second group of issues include **decentralisation and privatisation**. Governments can go through various forms of restructuring in which functions are decentralised to central field units, deconcentrated and delegated to regional or local authorities or in effect, left to the private sector, both the profit and voluntary, to provide the services. The end objective is the development of capabilities that effective environmental protection requires - decentralised planning, the engagement of non-state actors and the private delivery of public services'. (OECD. 1995).

Given the history, customs, geography, laws and constitution of given states, one encounters more or less consultation and devolution of power to regional and even local authorities and bodies, including citizen groups, NGOs and other elements of civil society.

In this report, the organization of Ministries of Environments or their equivalents in selected jurisdictions from around the world are described. Where relevant, examples of how participatory processes have been built into the organization and work of the MOE/DOE in these countries is illustrated.

The objective is to compare the approaches in selected jurisdictions that illustrate some of these ways of dealing with the management of environmental matters by autonomous states.

Organizational structures and environmental performance

Organizational structures are not in themselves the answer to sound environmental management or the pursuit of sustainable development. Various constraints have to be overcome.

Some of these include: lack of political support, lack of public awareness (both are linked), bureaucratic battles, lack of technical information (certainly the case in Lebanon), lack of trained staff, and a general lack of case studies of 'sound management practices' for structuring and managing environmental organizations (OECD. 1995). There is no rule that can be applied to the management of the environment, just examples that can be cited from jurisdictions around the world.

Some examples

Examples are chosen that are deemed relevant to the Lebanese situation or to provide insight and/or because they are innovative.

European Union

The Netherlands

NB. The following has been adapted from the publication of the Commission of the European Communities published in 1993: 'Administrative Structures for Environmental Management in the European Community'.

The Netherlands is considered to be at the forefront of integrated environmental planning for a variety of geographic and socio-economic reasons. These are the 'country's small size, high population density, combined with an intensive agricultural sector, an energy intensive bulk chemicals industry, high car density and vulnerability to water-related problems'.

Environmental issues are dealt with by vertical and horizontal coordination at the national, provincial and local levels. Comprehensive environmental legislation was introduced in 1970. The environment and the economy are considered of equal importance to the goal of sustainable development. Environment is now the responsibility of the Minister of Housing, Physical Planning and Environment (VROM). The National Environmental Policy Plan (NMP) was accepted as national policy.

The Minister of Housing, Physical Planning and Environment

The Ministry of Housing, Physical Planning and Environment (VROM) and the Ministry of Transport and Water Management are the ministries with the greatest responsibility for developing and implementing environmental policy, with the former performing a coordinating role. The execution of environmental policy is often decentralised to provincial, or transferred to specialised public bodies with national sectoral roles, especially as regards water management.

The Directorate General of Environment

The VROM employs 8000 people and comprises several departments, of which the Directorate General of Environment is responsible for developing and ensuring proper implementation of the country's environmental policy. This is a central role, given the importance of the NMP as a framework for action for a number of administrations. The Director General of Environment, which includes an Inspectorate for Environment, bears primary responsibility for implementing and enforcing measures to do with chemical waste, protection against radiation, and hazardous substances. Within this DG, the Department of Strategic Planning plays a specifically coordinating role consulting with other ministries on the revised plans and implementation programmes it develops.

The Environment Inspectorate supervises the enforcement of environment legislation. It enforces statutory regulations, advises government agencies, advises and informs the VROM, deals with criminal proceedings, undertakes research on request and provides general services such as information, briefings, education and handling complaints.

The NMP is government policy. All ministries must be involved to some degree in carrying out its goals. Consensus planning is essential. Conflicts too serious to be settled by interministerial discussions are referred to the Cabinet.

Several other ministries also have environmental responsibilities: Health and Cultural Affairs; Agriculture, Nature Conservation and Fisheries; Foreign Affairs; Social Affairs; Economic Affairs; Finance; Development Cooperation.

Implementation of environmental policy rests largely with provincial and local authorities.

The Dutch approach calls for strong administrative integration in all phases of planning and implementation. The implications were set out in 1990 in the 1989 in the National Environmental Policy Plan (NMP) and adopted as national policy... The Dutch aim to reach a good level of enforcement by 1995 and to 'internalize' the environment by 2010, reaching every sector of society.... Taken to its logical conclusion, full integration would obviate the need for any increase in the number of formal structures.'

'Because the National Environmental Policy Plan is government policy, all ministries must be involved in carrying out its goals. Consensus planning is therefore crucial to the Netherlands policy. In the event a conflict is too serious to be settled by interministerial discussion, it will be referred to the Cabinet.'

'The Directorate General of Environment (DGE) is responsible for developing and ensuring proper implementation of the country's environmental policy. The DGE is part of the Ministry of Housing, Physical Planning and the Environment (VROM). Within the DGE, the Department of Strategic Planning plays a specifically coordinating role, consulting with other ministries on the revised plans and implementation programmes it develops. The Environment Inspectorate is also part of the DGE and enforces statutory regulations, monitors compliance, advises jurisdictions at all levels and reports contravention of statutory regulations as a preliminary step to criminal proceedings.

United Kingdom

Like the Netherlands, the United Kingdom seeks to integrate 'environmental protection considerations in other areas of policy...'. The department of the Environment (DOE) is responsible for national policy in the broad area of development, and by extension of planning and of pollution control.

The United Kingdom has a very complex administration. Many actors have a role to play and consultation is open and involves many specialized public and private organizations, as well as the public.

The Department of the Environment (DOE) is responsible for national policy, planning and

pollution control. In the United Kingdom, the DOE answers to a larger group of political representatives than in any other country of the European Community. The DOE is headed by a Secretary of State who is a cabinet minister and by a number of ministers of state with particular portfolios.

A Permanent Secretary has overall management responsibilities and is supported by five deputy secretaries dealing with the following:

- environmental protection;
- planning, rural affairs and water;
- local government and finance;
- housing and inner cities;
- construction.

The environmental protection deputy secretary deals with five directorates: the Inspectorate of Pollution; air, climate and toxic wastes; pollution control and wastes; policy and analysis, statistics and reporting; and energy efficiency.

Planning includes the Water and Drinking Inspectorate; rural affairs including nature conservation; planning and development control; and planning services.

Several other ministries have environmental responsibilities: Agriculture, Fisheries and Food; Trade and Industry; Transport; Employment and Office of Science and Technology.

Local government and local actors have an important role to play in environmental management in the United Kingdom. Local authorities for instance remain the principal level of executive authority. They have powers and structures that make them important instruments of environmental protection.

Local governments have elected councils.

Coordination structures

Recent policy seeks to ensure the integration of environmental protection issues in other areas of policy. Implementation of this is monitored by an interdepartmental group of officials. In each government department, a minister is nominated to be responsible for considering environmental implications of departmental decisions and activities.

there are few formal coordination structures with local authorities or with other regional or sectoral bodies. A set of working practice however have been evolved to bring the different parties together. Various local government associations are involved.

An 'Advisory Committee on Business and the Environment' has been established to gather

input from the private sector at the earliest stage of policy planning and implementation and of the project cycle.

Consulting procedures

These are ensured in a variety of ways, and especially during environmental impact assessments.

Lobbying groups

Several groups influence government policy and actions: public sector bodies, such as research institutes, which have been given autonomy; private sector organizations; and the voluntary sector, including NGOs for example, such as conservation organizations such as the National Trust.

Ministries of Environment in Latin America

(Taken from: K.P. Rogers, the Director, Dept. of Regional Development at the Organization of American States (OAS).

Latin America has had experience with environmental planning since the 1970s. With the assistance of the OAS, valuable lessons have been learnt.

Peru began in 1970 to develop its national policy on environmental management. A law was drafted on the conservation of renewable natural resources which strengthened the coordinating role of the National Agency for Evaluating of Natural Resources and broadened its mandate. However, a lack of linkage with the national budget proved a limitation. Based on this experience and experience gained elsewhere on the Continent, the OAS believes that policy recommendations must be framed in 'accordance with the government budget when they direct government agencies to take specific actions'.

Today, along with helping to formulate policies, 'part of the effort is focused on helping the government to formulate investment projects to obtain loans and other kind of financing to implement the recommendations'.

In Latin America, unlike Lebanon, 'systematic inventories of natural resources involving the use of modern technologies of aerial photographic interpretation began to be compiled in the early 1960s and, by the end of that decade, an integrated approach to the evaluation of land resources was widely accepted in the region'.

However, the greater availability of this information still requires, among other things, 'more effective incorporation' of environmental data 'into the development decisions taken by economists and planners'. While high technology dependent solutions are useful if the

capacity to use them can be provided through technical assistance, 'simpler techniques using existing data should not be overlooked'.

Institutional arrangements: the latin American experience

Several options have been attempted (adapted from Rodgers):

- Setting up a task force of national agencies to prepare plans and disbanding the task force when the plan is complete. This does not serve implementation very well.
- Assigning responsibilities for preparing environmental plans to a major sectoral ministry or agency which work under the aegis of the national planning agency. The effectiveness of this approach is constrained by the limits of the sectoral agency's mandate.
- Placing the responsibility for preparing plans in the hands of agencies specialized in renewable natural resources or environment. Few of these agencies have financial or political power and some have legal mandates that put them at odds with other sectoral agencies.
- Designating a regional development corporation or a similar institution as the agency responsible for the integrated plan. When adequately funded, this can prove to be one of the best of all institutional arrangements. There are few such agencies in Latin America.
- Establishing a national or regional independently funded study team that can evolve into a regional development or resource management institution when the study is completed. This usually involves an initiative of the national planning agency, a substantial budget commitment by the government and the tentative decision to establish a new institution'.

Some of the other lessons learnt in Latin America that may have applications to the organization and operation of the MOE in Lebanon include:

An integrated and multisectoral approach is required for environmental management. Rodgers believes there are two basic methods to achieving this:

- A Developing co-ordinating mechanisms at the national level, and
- B Decentralizing management responsibilities to local levels where co-ordination occurs more readily when there are fewer actors and horizontal communication and interaction is easier

For A to work, the Latin American experience according to Rogers 'is that team work and multi-agency coordination can be brought about if there is the political will to do so and if the work is adequately funded and supported in 'subtle' ways.

For decentralization to the local level to work, local institutions must be granted authority over the management of natural resources or are financed with part of the revenue generated by those resources.

Table 1 shows the location of public sector environmental agencies within the governments in Latin America and the Caribbean (from Rodgers).

East Asia

The rapidly industrializing economies of Thailand, Indonesia, Taiwan, the Republic of Korea and Japan have responded to environmental challenges in different ways. All have placed an overriding priority on growth, and all have had marked success in improving economic well being. However, only Japan was able to achieve significant growth rates while maintaining strong environmental regulations and sizeable investments in pollution control technologies in the 1970s (O'Connor, 1994).

Human health hazards from environmental mismanagement and pollution, as well as the power of economic ministries such as Japan's Ministry of International Trade and Industry (MITI) initially forestalled any change in all of these jurisdictions.

However, it was the intervention of strong local citizens groups in Japan, supported by 'prefectural and municipal governments advocating stronger environmental controls' that prevailed even over MITI. International influences such as that of US environmentalists played an 'important role in catalysing Japanese policy makers into action'. Likewise the Organization for Economic Cooperation and Development (OECD) issued 'principles and policy guidelines have also shaped the direction of Japanese environmental policy'. Japan adopted Polluter Pays Principle (PPP) in 1972 on this basis and it has since become widely accepted. Export markets have also had a significant impact, with the US Cleaner Air Act forcing the Japanese car makers to develop appropriate technological responses in 'combining fuel efficiency with sizeable emission reductions'. Similarly, Korean car makers have had to meet US emission standards 'which has meant fitting their cars with catalytic converters'.

In Taiwan and Korea, local governments have not been successful in countering the power of central economic ministries. 'Having postponed investment in pollution control, East Asian governments now face large costs of environmental clean-ups'. 'Increasingly educated and economically secure citizens' have become aware of the social and economic costs of environmental laissez-faire.

In Thailand and Indonesia, it appears that 'environmental protection has been accorded a high priority in government policy making at a relatively early stage in their development'. Similarly, the economic ministries in these two countries do not seem to have the clout that they have had in the Republic of Korea and Taiwan.

As countries like the Republic of Korea and Taiwan open up to democratic processes, they are made more accountable, and can no longer avoid environmental issues and problems as a result.

In Korea, the national assembly enacted a new set of environmental statutes, including PPP and elevated an existing body to the status of Ministry of Environment. The MOE in the Republic of Korea is media oriented: water, land, air and soil. Cross cutting issues such as pollution from one medium to another tended to be neglected. Similarly, regulatory enforcement agents of the MOE have no 'judicial authority'.

In Indonesia, the dependence on the natural resources base and the intervention of the first minister of the Ministry of State for Population and Environment (KLH), Emil Salim, a pioneer in environmental protection were factors motivating strong initial concern for sound environmental management. The government adheres to PPP principles, requires an environmental impact assessment (EIA) for projects with environmental implications and has devolved executive powers over provincial environmental matters to provincial governments.

The KLH was conceived as 'a formulator of environmental policies, a co-ordinator of environmental activities across government departments, and a raiser of public environmental awareness'. However, KLH had no enforcement authority. A new Environmental Impact Management Agency (BAPEDAL) was created in 1993 to implement 'legislation and regulations for pollution control, hazardous waste management, and environmental impact assessment'. The head of BAPEDAL reports directly to the President. In 1993, environmental was assigned its own ministry, with responsibility over policy formulation, including global environmental issues.

Details of the Thailand and Japanese Ministries of Environment are appended.

Richard Labelle
14 April 1996

Proposed consultation process
for the Ministry of Environment,
Government of Lebanon

Introduction

These comments augment the report prepared for the Ministry of Environment (MOE) by Richard Labelle in 1995. A consultative process was initiated, but not concluded. Some stakeholders were identified at that time and discussions took place with some of these groups and their representatives. That process of discussion was far from complete. The recommendations that follow suggest a continuation of this consultation, but by placing it partially in the public sphere, i.e. by having a national or at least open conference / workshop on the needs for environmental management - sustainable development in Lebanon.

Goals of the consultation process

The goal of consultation processes is to include representatives of all stakeholder¹ groups, and especially the key stakeholder groups, in the work of the Ministry of Environment (MOE) and in formulating solutions to real or perceived problems. How to achieve this is the subject of this short communication.

Key stakeholders for the environment and sustainable development in Lebanon include groups most influenced by the work of the MOE and or most interested by or committed to the work of the MOE. There is a clear distinction because not everyone is interested in the environment for the same reasons.

Among key stakeholders, we can include:

- The private sector, and especially industrialists, small and medium sized enterprises and large manufacturing enterprises.

The private sector is the main source of pollution in most industrialized societies. This is especially so in a free market economy. The private sector is also responsible more than anyone else for solving pollution and related problems. Sometimes, there may be a need to provide incentive and inducements to do so, and to create a space where this can happen. The MOE has a role to play in this matter.

- Local and community groups

¹ Stakeholders are those groups or communities that are effected by development, and also those groups that stand to benefit from development

Experience from other jurisdictions around the world has shown it! Building local ownership and fostering appropriate management of the environment at the community level has a greater chance of succeeding than other approaches. This applies to nomadic herders such as the Maasai of Kenya and Tanzania as it does to other groups.

The local and community groups in question can range from local or municipal governments, local nature groups, local businesses who can gain materially (as well as the other groups mentioned) and land users and managers in general (such as small scale farmers, herders or even the Maasai as above). Local tourist operators and ecotourism in general, have benefited from this approach in many countries.

- NGOs

Special interest groups can have a significant impact by drawing attention to special environmental resources and by publicizing and promoting issues nationally and regionally. They are often well connected and can draw of support from a variety of sectors.

- The government

The cross cutting and multisectoral nature of environmental matters brings together many government departments, institutions, etc. Government at all levels may be involved: local, provincial, national, regional and otherwise if applicable. Key here is to get the involvement of the strong government bodies or departments, and especially the strong and active coordinating bodies of government, such as the Cabinet, or the Conseil du Président du Développement et de la Reconstruction (CDR).

- The research and academic community

The research and academic community has special knowledge and interest in environmental issues in Lebanon. Given the dramatic lack of background information and of benchmarking in Lebanon, they have lots of knowledge, experience and insights to contribute.

- Politicians

Political groups have an important role to play and are key power brokers who need to be involved in decision making. High level representatives of the people and of key power brokers, at all levels, and across the country need to be involved.

- The media

There is a major knowledge and awareness gap in Lebanon about the state of the environment. Little hard environmental data exists and benchmark data is largely absent. Little public awareness is evident. Yet, the MOE must co-opt the public and influence attitudes if it wishes to change public behaviour, as well as the behaviour of the private sector.

The media could be important allies in this process. Involvement of key members of the professional associations of journalists (or the equivalent) for example, could be most helpful. Journalists can give voice to the people and help communicate to a larger audience. Journalists can also help sound out public opinion and provide an informal meter of public concern.

- Educators and student groups

Children and young people have to be made more sensitive to environmental issues and choices that they are going to have to face and make as they grow older. Now is the time to influence them. Working with professional and other associations of teachers, parents and students, as well as local and community groups, can be important.

- Religious leaders

Religious leaders can find common ground over the issue of sound environmental management. They should be involved.

Recommendations

Proposed consultation process

Principles

The participatory process proposed should build support, be transparent and open, should be facilitated by an impartial interlocutor initially. This could help ensure the guidelines are clearly understood and that participation is fair and equitable.

First steps

Creating the right environment for a participatory process

The MOE should ask for input into this process if it has not already done so. But first, the MOE should have an idea of what it hopes to achieve and some suggestions of its own to

raise debate.

It is recommended that the MOE obtain feedback from the monthly consultations that had been taking place in 1994-1995 at the ministry offices and involving mostly NGOs and some members of the media it appears. Most of all, the MOE has to ensure high level backing from the Cabinet and the Prime Minister. The Prime Minister should be involved and probably launch this process.

A national workshop

A national workshop and conference could be called for, to launch the process. The workshop would bring together key players from all levels of society and all sectors of the economy. Local groups should be encouraged to participate. The Cabinet should be involved and the workshop should be part of a broader strategy to heighten awareness of the state of the environment in the country, as well as an opportunity to publicize the participatory process. Planning the conference / workshop should be done on a consultative basis.

Whether a national conference / workshop is appropriate depends on local the situation. It would be appropriate to call for such a workshop if it helps to raise awareness, involves key stakeholders, and especially the private sector and key government representatives and power brokers. It would be helpful to achieving the goals of sustainable development and of the consultation process suggested here if it has lots of media coverage and comes up with realistic and workable options for the MOE and for the government.

An advantage of an open workshop is that it could help involve key players and help provoke some debate and, eventually, one hopes, some consensus around the issues and between the actors. On the basis of the performance of the representatives of key stakeholder groups involved, and using the glare of publicity to state the problem and elicit a statement of concern and of action, possibly get some stakeholders to take positions publicly, it could help foster action and help identify champions for the cause. These 'champions' could be co-opted to be part of a consultative committee to advise the MOE.

For those not keen on getting involved, such an event could be an opportunity to let them know that there is concern and that appropriate behaviour regarding the husbanding of environmental resources is needed in Lebanon like everywhere else.

Such an event could help gauge public interest and support, as well as help identify other allies and possible hurdles to be overcome. It could be a first step in deciding what other steps to take and how to go about it.

If there is a need (as I believe there is in Lebanon) for bringing together groups such as the private sector, NOGs, local and community groups, and others, this could be a useful

event. One option to consider, is to promote such an event under the aegis of the UNDP in order to create a neutral space for the event.

A national conference / workshop on the problems of the environment in Lebanon would involve sessions on the state of the environment (SOE), input from other relevant national and regional planning events (including the Mediterranean Environmental Technical Assistance Program - METAP), etc., a discussion of achievements and progress to be made, the role of the MOE in this process and of how MOE hopes to implement its plans (or develop them if they are not all ready), possibly some information about related developments around the world, and especially around the Arab world and in the region.

The event could take place along with a related regional or international event, and involve special guests. By placing the event on such a scale, it could help raise awareness.

Outputs of a national consultation on the environment

The results of such a conference would be used for national planning efforts for sustainable development in the country (such a conference may already have happened) and would serve to update the national report to the United Nations Conference on Environment and Development (UNCED) that took place in 1992.

A national conference would be a media event that could serve to highlight issues of national concern and the need to allocate sufficient resources to getting the job done.

On the negative side, it may be that the MOE is not ready or prepared to organize such a conference. This then could be an opportunity for MOE to show that it is prepared to work with others. Planning a national conference / workshop on the environment and doing so in a participatory manner would show the MOE is prepared to work with others that can bring resources and initiative to bear. Involving the private sector and helping them showcase appropriate environmental management technologies and practices could be especially interesting. Given the significance of the environmental industry around the world, it would be an opportunity for Lebanese companies with skills in these sectors to show off their wares. However, it should not be made into a trade conference or it may lose its focus.

Planning such an event would require support and participation from: the Cabinet, NGOs, the private sector, the universities and the research and academic communities, key government departments and ministries, as well as others mentioned previously.

Government and business consultative groups.

Bringing the private sector on board may require establishing the right contacts. Quite possibly, many of the right contacts are already in place. In the United Kingdom, the

government established a 'Advisory Committee on Business and the Environment'. Several government departments were involved. The committee was useful for developing contacts. It also served to obtain advice on policy and implementation procedures at the earliest stages.

Round Table meetings involving representatives from the business sector could be undertaken periodically. They could be opportunities for looking at issues and achievements and agreeing on areas of collaboration. More practically, they could be working groups making direct recommendations for the consideration of the MOE.

A Round Table on the Environment and the Economy has had a great impact in Canada in formulating a response to UNCED. Round Tables exist at all levels, nationally, provincially and at the local and community level. They can be useful models of public participation in the environmental planning process under the right circumstances, i.e. where consultation is a matter of course.

These consultative procedures could be used periodically to secure involvement and to ensure that high level and working level contacts are maintained.

What may work in other countries may not be apparent in Lebanon. Our recommendation is to start with the national workshop while at the same time exploring more discrete consultative mechanisms where small groups of key stakeholders can be implicated under the leadership of the MOE and others.

Intergovernmental coordination mechanisms

The documentation included with the summary of ministries of environment in other countries shows some options for engaging collaboration among government departments. Again, the need for a national framework, strong support from the highest levels of government, i.e. the President and the cabinet especially, are prerequisites for success. Coordinating departments and ministries that are not directly under the authority of the MOE is difficult enough in any jurisdiction. It will be especially so in Lebanon where the MOE is a newly established ministry carving out a space for itself.

In Lebanon, the most appropriate coordinating mechanism for government still needs to be determined. I believe that more effort needs to be put into this aspect of the consultative processes that can be considered. An evaluation of existing mechanisms, their strengths and weaknesses, a review of case studies and especially of success stories is necessary before being precise about a recommendation. More information is needed.

However, in the meantime, the information about how other jurisdictions approach this problem and get around it needs to be considered more closely.

In many jurisdictions, inter-ministerial consultation takes place at the Cabinet level once

a agreement has been reached that environmental issues are important enough. This is the case in the Netherlands where a national plan has been agreed and adopted as national policy. There a Cabinet Sub-Council which deals with all issues involving environmental policies proposes actions that are 'accepted by the Cabinet without debate'.

For Lebanon, it is important to develop a national plan and to get high level approval. This will help strengthen interministerial consultative mechanisms.

International consultations

Lebanon has been a party to international and regional agreements and processes related to a variety of issues, including environmental management (the Barcelona Convention, UNCED, Unesco' Programme on Man and the Biosphere - MAB, etc.).

Many international conventions require consultation with member countries or signatories. The procedures employed could be useful as models for Lebanon.

At any rate, Lebanon needs to be present at these international venues and to express its views based on its own strategy for environmental management.

Input from other stakeholders can be assisted by including them in official government delegations with the freedom to express their views.

Richard Labelle
14 April 1996


NB. I would be pleased to answer any questions and look forward to receiving your feedback.

Who We Are and What We Do ... Environment Canada Home Page



Environment
Canada

Environnement
Canada

 Français

Environment Canada

Environment Canada is committed to supporting Canadians in their efforts to sustain the environment to ensure that a positive environmental legacy is passed on to future generations. The Department delivers measurable benefits to Canadians through its key Program Activities (namely, Atmospheric Environment, Environmental Protection and Environmental Conservation) in the areas of:

- improved human and environmental health, through pollution prevention initiatives;
- wealth and employment generation, through improved understanding of sustainable productivity and use of ecosystems; and
- health and safety through weather, pollution and ecosystem health warnings.

Partners : In carrying out its mandate, Environment Canada's core strategy is to enhance the capacity of the many public and private partners who share the goal of sustaining Canada's environment for the enjoyment of present and future generations. Success in building towards an effective, efficient and affordable Environment Canada for the year 2000 will depend on the Department's ability to renew these partnerships while focusing on sustaining Canada's global environmental leadership, the integration of the environment and the national economy, and on the health and sustainability of nationally significant ecosystems. The following are some of Environment Canada's key partners :

- Federal Departments and Agencies :** Environment Canada works closely with many federal departments to address science, policy and service delivery issues which have implications for the environment and the economy. The Department also provides technical advice to other government departments to help make their operations more environmentally friendly. Environment Canada's commitment to sustainable ecosystem management will continue to require close cooperation of federal departments working with all sectors of Canadian society.
- Provincial and Territorial Governments :** The environment transcends political boundaries; it is important for Environment Canada, the provinces, the territories and aboriginal people to work together closely toward common goals. Formal efforts to harmonize federal and provincial environmental management activities are ongoing under the auspices of the Canadian Council of Ministers of the Environment.
- Business :** Business has an important interest in the development of sound environmental management in Canada. Environment Canada works with all sectors, fosters environmentally sustainable economic growth and a competitive Canadian environmental industry.
- Labour :** Through representation on key departmental advisory bodies, such as the Advisory Committee on Environmental Protection, and active participation in the development of pollution prevention partnerships with industry, labour unions are also active contributors to Environment

Canada's consultations agenda.

- **Communities and Citizen-based Organizations** : Community groups and voluntary organizations active in the environmental field contribute significantly to the realization of environmental goals. Representatives of these organizations work with Environment Canada and provide input into ongoing operations and programs as well as into the development and implementation of policies, regulations and programs.
- **The Education Community** : Environment Canada's collaborative relationship with this sector is important for promoting environmental research and encouraging individuals, organizations and communities to improve the quality of their environment.
- **National and International Bodies** : Environment Canada remains closely involved with many of the activities of the National Round Table on the Environment and the Economy and maintains an ongoing working relationship with other national and international bodies, such as the International Institute for Sustainable Development, the World Meteorological Organization, the Organization for Economic Cooperation and Development, the United Nations Environment Program, the Canadian Standards Association, and the International Standards Organization.
- **Media** : Largely through the media, Environment Canada provides Canadians with a broad range of environmental information including daily meteorological information, air quality and other environmental data of interest to Canadians.

Mandate

The Department of Environment Act was created in June of 1971 following proclamation of the *Government Organization Act (G/OA, 1970)*. The Department was created by combining various entities within the federal government that were responsible for the natural environment. Numerous organizational adjustments have been made since its inception. One of the most significant occurred in 1993, when the Canadian Parks Service was transferred to the new Department of Canadian Heritage.

The duties, powers and functions of the Minister of the Environment include:

- all matters over which Parliament has jurisdiction not otherwise assigned to other federal departments, boards and agencies relating to:
 - the preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
 - renewable resources, including migratory birds and other non-domestic flora and fauna;
 - water;
 - meteorology;
 - the enforcement of rules or regulations made by the International Joint Commission, relating to boundary waters and questions arising between the United States and Canada, insofar as they relate to the preservation and enhancement of the quality of the natural environment;
 - the coordination of federal policies and programs regarding the preservation and enhancement of the quality of the natural environment; and
- other matters over which the Parliament of Canada has jurisdiction relating to the environment and that are by law assigned to the Minister.

The *Department of the Environment Act* recognizes that preserving and enhancing the environment is not solely the responsibility of the Minister of the Environment. It gives the Minister broad advocacy responsibilities to promote and encourage practices that lead to environmental health, and to cooperate with others having similar objectives.

The Department's mandate includes the administration of 15 Federal Acts as well as specific responsibilities provided for in Acts assigned to other departments and agencies (see page 148)

Objective

Environment Canada's objective is to foster a national capacity for sustainable development in cooperation with other governments, departments of government and the private sector that will result in a safe and healthy environment and a sound and prosperous economy by:

- undertaking and promoting programs to augment understanding of the environment;
- supporting environmentally responsible public and private decision-making;
- warning Canadians of risks to and from the environment; and
- engaging Canadians as partners in measurably beneficial action to conserve, protect and restore the integrity of Canada's environment for the benefit of present and future generations.

Our Vision

At Environment Canada our vision is of a Canada

- where people make responsible decisions about the environment; and
- where the environment is thereby sustained for the benefit of present and future generations.

Our Values

At Environment Canada we value :

- our environment and its vital importance to the identity and well-being of present and future generations;
- the contribution of the natural and social sciences to environmentally responsible decision-making;
- the exercise by all Canadians of a shared responsibility for our environment;
- the contribution of our leadership to the achievement of sustainable development;
- the dedication and teamwork of our people and integrity, trust and mutual respect in our working relationships; and
- the provision of quality service to the public.

The Government's Sustainable Development Agenda

The Government recognizes that:

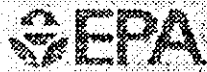
- sustainable development is a key component of a coherent, integrated approach to overall public policy;
- realizing sustainable development means adopting economic and environmental agendas that are aligned;
- preventative environmental care is a wise public investment; and
- environmental protection is both a responsibility and an opportunity.

From : The 1993 Speech from the Throne.

KEY PROGRAMS

- ☐ **Atmospheric Environment** : provides meteorological and hydrological warnings and forecasts to reduce risk to life and property, and develops information on weather, climate, air quality, ice and hydrology designed to sustain Canadians' social and economic benefits while providing understanding of the impact of human activity on the atmospheric environment;
- ☐ **Environmental Protection** : leads in the development of shared, long-term strategies (including policies, technologies, and regulations) for pollution prevention and effective environmental stewardship, while continuing to develop response strategies to national pollution issues, to control pollution from existing sources, and to assist in remediating existing polluted sites;
- ☐ **Environmental Conservation** : leads in building shared sustainability strategies for Canada's biodiversity and large, nationally significant ecosystems, while continuing to develop information on the linkages between human activity and environmental sustainability, assess the environmental quality results associated with individual and institutional decision-making, and discharge the Federal Government's statutory and constitutional responsibilities for the conservation of wildlife, water and wetland resources;

[Who We Are and What We Do ... Environment Canada Home Page](#)

[Home Page](#) [Comments](#) [Search](#) [Index](#)

EPA Mission, Background and Organization

Mission

The U.S. Environmental Protection Agency is charged by Congress to protect the Nation's land, air, and water systems. Under a mandate of national environmental laws, the Agency strives to formulate and implement actions that lead to a compatible balance between human activities and the ability of natural systems to support and nurture life.

The Agency's priorities include emphasizing flexibility and innovation, working in partnerships with private and government groups, and encouraging sound science and engineering. For example, under the "Common Sense Initiative" the Agency looks at pollution industry-by-industry, rather than by using the pollutant-by-pollutant approach of the past. Everyone concerned with a given industry--from manufacturers to community organizations--works together to fashion new strategies to emphasize preventing pollution.

EPA works in partnership with state, county, municipal, and tribal governments to carry out its mission. State and local standards may exceed federal standards, but they cannot be less stringent. EPA works with states and municipalities so they can carry out federal standards consistently but flexibly. The Agency also makes extensive efforts to involve the public in environmental protection. Some laws specifically invite public monitoring; others allow individuals to sue polluters or to notify environmental agencies of violations.

Through research, development, and technical assistance, EPA generates and disseminates sound science and engineering to support its missions. These efforts provide the data that the Agency needs to set and address priorities in identifying, assessing, and managing serious risks to public health and the environment. EPA's research combines the in-house expertise of Agency scientists and engineers with complementary research by universities and nonprofit organizations under a competitive, peer-review extramural program.

Background

The U.S. Environmental Protection Agency was formally established as an independent agency in the Executive Branch on December 2, 1970, under Reorganization Plan Number 3. The Agency incorporated 15 components from five executive departments and independent agencies, including air and water pollution control, solid-waste management, pesticide regulation, a program for monitoring radiation, and the drinking-water program.

The enactment of major new environmental laws and amendments to older laws in subsequent years greatly expanded the scope of the Agency's work. Today, EPA administers 11 comprehensive environmental protection laws: the Clean Air Act; the Clean Water Act; the Safe Drinking Water Act; the Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund"); the Resource Conservation and Recovery Act; the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic

Substances Control Act; the Uranium Mill Tailings Radiation Control Act; the Lead Contamination Control Act, the Ocean Dumping Ban Act, and the National Environmental Education Act.

Organization

The Agency is directed by an Administrator and a Deputy Administrator, both appointed by the President with the advice and consent of the Senate. Nine Assistant Administrators, the Agency's General Counsel, and its Inspector General, also are named by the President and are subject to Senate confirmation.

The nine Assistant Administrators manage specific programs, such as those protecting the air, water, and land of Americans, or direct other Agency functions, such as enforcement of environmental laws.

Three Associate Administrators are named by the Administrator to carry out programs for public affairs, congressional and legislative relations, and regional, state, and local relations. Ten Regional Administrators work closely with state and local governments to carry out the Agency mission.

Office of Water

The office administers the Safe Drinking Water Act, establishing national limits on maximum contaminant levels for pollutants in drinking water, such as fluoride, mercury, PCBs, lead, and radon. The states are primarily responsible for enforcing the standards, but get financial assistance from EPA. The act authorizes EPA to protect aquifers against contamination from the disposal of wastes by injection into deep wells. (An aquifer is an underground geological formation, or group of formations, containing usable quantities of groundwater that can supply wells and springs.) Some states have assumed responsibility for managing underground injection control programs as they develop their own regulatory systems.

In addition to guarding drinking water from pollutants, EPA carries out an extensive program to protect the health of our water bodies, including our rivers, lakes, and beaches. Its pollution prevention program is based on the Clean Water Act. This act requires each state to set water-quality standards for every significant body of surface water within its borders. It also requires that all publicly owned municipal sewage systems provide secondary treatment of wastewater (a biochemical process) before it is discharged. To ensure that communities meet treatment requirements, sewage facilities must secure permits specifying the types and amounts of pollutants that may be discharged under the National Pollutant Discharge Elimination System.

Industries discharging pollutants into waterways or publicly owned sewage systems are also subject to controls, with an ultimate goal of completely eliminating the discharge of pollutants into the Nation's waters. Nationwide discharge standards are established by EPA for categories of industries, with requirements tailored to the availability and economic feasibility of control technology.

Standards also have been established for stormwater discharges from pipes separate from sewage systems. Stormwater discharges transport large quantities of pollutants to waterways and have been linked to one-third of all evaluated degradations of surface-water quality nationwide. Sources of contaminated stormwater include urban runoff, runoff from farms and lawns, industrial activities, construction, mining and other types of resource extraction, and various commercial activities.

The Clean Water Act also is implemented through two programs operated jointly by EPA and the U.S.

Army Corps of Engineers. Under the dredge and fill system, waters are protected against degradation caused by disposal of dredged spoils or fill

The two agencies also jointly protect and restore critical and productive wetlands, which filter pollutants, slow flood waters, and recharge vital aquifers. Wetlands are the basis of many thousands of jobs, and contribute billions of dollars to the economy. For example, in the Southeastern United States, over 90 percent of the commercial catch of fish and shellfish depends on coastal wetland systems.

Under another program for water protection, the Ocean Dumping Ban Act of 1988 prohibits the dumping of sewage sludge and industrial waste. The act regulates private companies, the Army Corps of Engineers, and port authorities. The program applies mainly to dredged material, of which 60 million cubic yards are disposed of in the ocean every year.

Additionally, water quality is protected by nearly all of the laws EPA administers. Air pollution controls, for example, keep harmful pollutants from entering the water from the atmosphere. Laws governing radiation, toxic substances, and pesticides also safeguard water quality. In addition, a major Agency objective is to prevent contamination of groundwater and surface waters by seepage of harmful substances from solid-waste disposal sites.

The office administers the Safe Drinking Water Act, establishing national limits on maximum contaminant levels for pollutants in drinking water. The states are primarily responsible for enforcing the standards, but get financial assistance from EPA. The act authorizes EPA to protect aquifers against contamination from the disposal of wastes by injection into deep wells. (An aquifer is an underground geological formation, or group of formations, containing usable quantities of groundwater that can supply wells and springs.) Some states have assumed responsibility for managing underground injection control programs as they develop their own regulatory systems.

Great progress has been made in improving surface water quality and ensuring safe drinking water, but many of the Nation's waters remain impaired. One of the largest threats to aquatic resources is diffuse, nonpoint-source pollution--pollution that is diffuse or otherwise difficult to trace to a single point of discharge, such as agricultural and some kinds of urban runoff.

Addressing today's major threats to the Nation's waters requires more than the traditional command-and-control approach. It must encompass the entire watershed of streams and lakes that drain from an area into a larger body of water, such as a bay) and it must be community-based. Such an approach will enhance public health and conserve ecosystems through flexible and cost-effective programs.

Office of Air and Radiation

This office enforces the Clean Air Act, which sets limits on how much of a given pollutant is permitted in the air anywhere in the United States. This is designed to ensure that Americans in every state will enjoy the same basic health and environmental protection

The law allows individual states to impose stronger pollution controls, but none is allowed to be weaker than those set for the whole country. States must develop state implementation plans (SIPs) that explain how each will clean up polluted areas. EPA must approve each SIP, and if a SIP is not acceptable, EPA can take over enforcement of the Clean Air Act in that state.

Another important function of the office is setting Ambient Air Quality Standards (NAAQS), specifying maximum acceptable levels for pollutants in outdoor air. These standards are based on medical and scientific evidence of a pollutant effects on health and the environment. "Primary standards" are designed to protect public health, including such sensitive populations as children, the elderly, and people with respiratory disease. "Secondary standards" protect public welfare by reducing the impact of air pollution on vegetation, materials, and aerial visibility. A geographic area that meets or does better than the primary standard is called an attainment area, areas that fail the primary standard are called "nonattainment areas." Despite major improvements in the quality of air over the past 25 years, many urban areas are classified as nonattainment for at least one air pollutant.

The Clean Air Act also regulates air toxics, those pollutants known to cause or suspected of causing cancer or other serious health effects, such as birth defects and reproductive disorders.

Besides carrying out regulations, the Office of Air and Radiation encourages businesses to make choices on the best way to reach pollution cleanup goals. Such flexible approaches, designed to clean up air pollution as inexpensively as possible, are called "market" or "market-based" approaches. The acid-rain program, for example, offers businesspeople a range of choices as to how they reach their pollution reduction goals, and includes emission allowances that can be traded, bought, and sold. (Acid rain is formed in the atmosphere from emissions of sulfur and nitrogen compounds and other substances through a complex chemical process.)

The acid-rain program works this way: if a facility reduces its sulfur emissions below its level of allowances (that is, does better than it is required to under the law) it will have leftover emission credits. It can transfer them to another facility that it owns, bank them for future capacity expansion, or sell them. Normal market forces will set the price of such sales. By allowing utilities to sell excess allowances to utilities with higher control costs, total emission reductions are achieved in the most cost-effective manner for all.

The Office of Air and Radiation also develops protection criteria, standards and policies and works with other programs within EPA and other agencies to control radiation and indoor-air-pollution exposures. It also provides technical assistance to states through EPA's regional offices and other agencies having radiation and indoor-air-protection programs, directs a program that monitors environmental radiation, responds to radiological emergencies, and evaluates and assesses the overall risk and effect of radiation and indoor-air pollution.

Office of Solid Waste and Emergency Response

This office protects the environment through several laws: the Resource Conservation and Recovery Act (RCRA) of 1976, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "Superfund") of 1980, the Emergency Planning and Community Right-to-Know Act of 1986, and the Oil Pollution Act of 1990.

Congress passed RCRA because it was concerned about the management of hazardous waste, the careless disposal of which we now have learned can lead to the contamination of whole communities. At Love Canal in New York for example, hazardous waste buried over a 25-year period contaminated ground and water and finally forced the evacuation of an entire neighborhood. EPA's major emphasis under RCRA has been to develop a "cradle-to-grave" system to ensure that hazardous waste is managed

in a manner that protects human health and the environment from generation through its storage, transport, treatment, and ultimate disposal. The RCRA program includes oversight of underground storage tanks for petroleum or such hazardous compounds as benzene. EPA also regulates current and future waste-management and disposal practices.

Congress established the Superfund program in 1980 to deal with the legacy of abandoned waste sites or emergencies created by spills or other releases of hazardous substances. A Trust Fund was set up to pay for the cleanup of these sites, financed mainly by taxes on the chemical and petroleum industries. The Superfund program has been effective in developing new technologies for more effective cleanups.

EPA has already removed almost 24,000, or about two-thirds of the sites from the Superfund Inventory. These sites were screened and determined to require no more federal review. Removal of these properties from the national inventory is the first step in opening the way for property to be brought back into productive community use.

In response to the growing concern for the potential for accidents involving extremely hazardous substances, Congress enacted the Emergency Planning and Community Right-to-Know Act. This law makes citizens full partners in preparing for emergencies and managing chemical risks. The provisions of the Community Right-to-Know Act allow the public to obtain information about the presence of hazardous chemicals in the community and their release into the environment.

The Oil Pollution Act (OPA) of 1990 was passed largely as a result of the Exxon Valdez incident in 1989. The Exxon tanker Valdez dumped 11 million gallons of crude oil into Alaska's Prince William Sound. OPA was designed to improve the Nation's ability to respond to marine and inland oil spills. It amended section 311 of the Clean Water Act of 1972, which addresses pollution from oil. The Oil Pollution Act has provisions in areas of prevention, preparedness and response, liability, and research and development. EPA is responsible for regulating facilities and responding to inland spills while the Coast Guard is responsible for marine spills.

Office of Pollution Prevention, Pesticides, and Toxic Substances

This office carries out a broad pollution-prevention program as well as regulates pesticides and toxic substances. Prevention is a top priority for EPA, and is supported by the Pollution Prevention Act of 1990. It is a common-sense, cost-effective approach to protecting the health of our communities. For instance, EPA's 33-50 program provides incentives to lessen industrial output of 17 toxic substances--by 33 percent in 1992 and 50 percent in 1995. Since 1991, over 1300 companies have joined and committed to reductions of 355 million pounds of toxic waste. The goal is to eliminate more than 740 million pounds of pollutants by the end of 1995. Under another voluntary program, Natural Gas Star, natural gas producers are encouraged to adopt practices that can profitably reduce emissions of methane, the main component of natural gas. Under the Wave program, or Water Alliances for Voluntary Efficiency, hotels and motels are encouraged to install water-saving techniques and equipment.

Besides pollution prevention, the office has been entrusted with the responsibility to safeguard Americans and the environment from risks posed by pesticides. Pesticides are used in a remarkably diverse array of products, from insect repellents to crop weed killers, household disinfectants, and swimming pool chemicals. They are likely to be found in nearly every home and business in the United States. While pesticide use has contributed to increased agricultural production and improved public health through control of disease-carrying pests, acute and chronic human health and environmental risks also can be

associated with use of many of these chemicals. In determining whether to permit the marketing of a pesticide and how to regulate its use, EPA balances the potential risks against the benefits to be gained. The Agency has developed an array of programs to perform such evaluations.

At the core of these programs are efforts to regulate the use of pesticides and residues that may remain in food. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA "registers" new pesticides to ensure that, when used according to label directions, they will not cause unreasonable adverse effects to human health or the environment. No pesticide may be sold for use in the United States unless it is registered by EPA and bears an EPA-approved label.

Pesticides are used in a remarkably diverse array of products, from insect repellents to crop weed killers, household disinfectants and swimming pool chemicals. They are likely to be found in nearly every home and business in the United States. Pesticides kill disease-causing organisms in food, water, and other settings, but given their risks, EPA has developed an array of programs to evaluate and reduce risks and promote safe use.

At the core of EPA's programs are efforts to regulate the use of pesticides and the amount of pesticide residues that may remain in food. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA registers new pesticides to ensure that, when used according to label directions, they will not cause unreasonable adverse effects to human health or the environment. No pesticide may be sold for use in the United States unless it is registered by EPA and bears an EPA-approved label.

Under the Federal Food, Drug, and Cosmetic Act (FFDCA), EPA establishes "tolerances", or maximum limits, for pesticide residues in food or animal feed. These tolerances are enforced by the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA). FDA and USDA monitor both domestically produced and imported foods in interstate commerce.

Another major program within OPPTS is carrying out the Toxic Substances Control Act (TSCA), intended to identify and control chemicals that pose an unreasonable risk to human health or the environment through processing, commercial distribution, use, or disposal. Most chemicals do not endanger our health or the environment if used properly. Some are so toxic, however, that even in minute amounts they can cause death, disease, genetic damage, or severe environmental harm. Toxic substances include a number of manufactured chemicals, as well as naturally occurring heavy metals and other materials. Some toxic substances, such as lead, asbestos, and polychlorinated biphenyls (PCBs), have caused serious health problems.

One of the office's major regulatory tools under TSCA is the premanufacture notification process, under which manufacturers are required to notify the office at least 90 days before producing or importing a new chemical substance. This notification enables the Agency to assess the risk of a new chemical before manufacture begins. If a chemical substance is suspected of posing an unreasonable risk, but key data are missing, EPA may require manufacturers to test the substance for toxicity, cancer-causing potential, reproductive effects, or other characteristics. In addition, an Interagency Testing Committee of government experts advises EPA if some chemicals should be tested. Those deemed to be harmful may be regulated.

Office of Enforcement and Compliance Assurance

This office enforces hundreds of regulations safeguarding our air, water, and land. The term

"enforcement" covers all efforts to encourage compliance with environmental laws. "Compliance" refers to the condition that exists when a person or company fully obeys the law. Enforcement responses could take the form of warning letters, fines, and even imprisonment in such criminal actions as "midnight dumping" of toxic substances.

The office provides case preparation and investigative expertise through the National Enforcement Investigations Center to Agency headquarters, regions, and states. The center's combination of laboratory, investigative, and engineering skills is often instrumental in developing evidence for civil and judicial proceedings. The office also oversees the National Enforcement Training Institute, which directs the development of a curriculum that addresses the training needs of all members of the enforcement and compliance team (i.e., investigators, inspectors, regulators, prosecutors, and support personnel).

In addition, the office manages the National Environmental Policy Act and directives regulating the environmental actions of other federal agencies.

Office of Research and Development

This office, referred to as ORD, conducts the scientific and engineering studies needed by the Agency for effective, forward-looking policymaking. ORD consists of three National Laboratories, two National Centers, and three Headquarters Offices. This structure deploys the office's expertise and resources to closely reflect the Agency's need for new data, methods, technologies, and risk assessments to reduce uncertainties about complex environmental problems and address areas of highest concern. These major areas of study involve exposure of people and the environment to pollutants and other stressors, the effects of pollutants and other stressors, and assessment and management of environmental risks.

Through formal strategic planning that includes input from other parts of EPA and other stakeholders, ORD develops and conducts research projects and programs that help such Agency offices as the Office of Water and regions address current and future environmental concerns. These efforts involve the work of the Agency's own scientists at 12 laboratory facilities across the United States. This in-house research is complemented by a competitive extramural program that enlists the talents of universities and nonprofit organizations.

ORD maintains a rigorous peer-review program to ensure the scientific soundness of its work, and collaborates with other Federal research agencies to pool resources for addressing issues of mutual concern.

Office of Policy, Planning, and Evaluation

The main functions of the office are policy analysis and evaluation, regulatory management and evaluation, and strategic planning. Policy analysis includes economic evaluations of Agency programs, policies, and standards and studying such emerging issues as global climate change. Regulatory management and evaluation includes evaluating Agency standards, regulations, guidelines, and information collection activities. Strategic planning includes establishing Agency goals and planning, tracking, and evaluating program accomplishments. The office also gathers and analyzes environmental statistics for management decision-making.

Office of Administration and Resources Management

This office establishes policy and procedures for resources management, human resources, environmental health and safety for EPA employees, facilities management (including Agency and federal recycling), formulation and execution of the Agency's budget, administrative services (such as the comprehensive EPA libraries in headquarters and the regions and the Public Information Center), organization and management analyses, systems development, information management services, automated data processing systems and procurement through contracts and grants.

In carrying out these functions and responsibilities, the Assistant Administrator represents the Administrator in communications with the Office of Management and Budget; Office of Personnel Management; General Accounting Office; General Services Administration; Department of Treasury; and other federal agencies prescribing the conduct of government budget, fiscal, management, and administrative activities.

Office of International Activities

This office leads the Agency's international programs. Providing management and coordination on behalf of the EPA Administrator, the office works closely with EPA program (e.g., air, water, and waste) and regional offices, other federal agencies, international organizations, and foreign governments to achieve U.S. environmental objectives overseas. This role assures that the Agency speaks with one voice on international policy. It mobilizes the vast scientific and technical expertise at EPA in a more cost-effective manner.

International cooperation serves important U.S. economic, foreign policy, and national security interests. EPA's technical assistance programs overseas, for example, have led to commercial opportunities for U.S. environmental businesses, thereby improving the U.S. trade balance and creating high-wage jobs for American citizens.

Office of Communications, Education, and Public Affairs

This office educates the public about environmental issues and environmentally responsible behavior and carries out the requirements of the National Environmental Education Act. The office maintains contact with environmental groups, unions, and businesses concerned with toxics, tourism, recreation, agriculture and environmental justice and the right of people to have a say in the location of hazardous sites in their communities.

The office's most widely known publication is the EPA Journal, a quarterly magazine on environmental themes such as public health or global warming. The office also reviews and coordinates public information materials submitted from other parts of EPA.

The Press Services Division carries out daily contact with the news media, and provides reporters with news releases, audio and film materials, and other types of information. The division also advises EPA officials and program staff on media relations, monitors news media coverage of EPA and the environment, provides background information to reporters, and drafts responses to editorials and articles.

The Multi-Media Services Division oversees the production of multi-media (radio, television, text, exhibit, graphic and video) and interactive programs to support OCEPA's external and internal communications program.

Another division within the office, the Environmental Education Division, carries out the National Environmental Education Act. The goals of the office are to promote partnerships between public and private sectors, educate youth to protect the environment, encourage environmental careers, educate adults to increase environmental literacy, and disseminate information across international boundaries. Primarily, the division coordinates federal initiatives for environmental education and provides leadership to the public and private sectors.

The division's largest and most well-known program is environmental education grants. These are awarded by EPA to promote excellence and innovation in environmental education at the grassroots level. Each year, universities, schools, nonprofit organizations, and state, local, and tribal agencies compete across the Nation to receive \$3 million to support local initiatives. In 1995, about 250 EE grants were awarded, with much of the funding directed into small grants of about \$5,000.

Office of Congressional and Legislative Affairs

This office coordinates the Agency's relationship with Congress and serves as the Agency's legislative counsel. The office keeps the EPA Administrator informed of Agency activities that relate to Congress and of congressional activities that may affect the Agency.

The office coordinates meetings between Agency staff and Congress, testimony of Agency staff, and citizen requests for information made to Capitol Hill offices. The office answers questions posed by members of Congress and their staffs and accompanies program staff to hearings and other meetings on Capitol Hill. The office lawyers draft Agency testimony and legislation, and analyze pending legislation before Congress to determine its potential effect on the Agency programs.

Office of Regional Operations and State/Local Relations

This office maintains liaison between and among state and local elected officials, environmental directors, and representatives of national associations.

The office serves as the primary link between the Administrator and the regions. It ensures that the Administrator's policies are effectively communicated to the Regional Administrators, and that the Administrator is alerted to potential regional problems, and that the Administrator is assisted in managing regional issues.

[[EPA Home Page](#) | [Comments](#) | [Search](#) | [Index](#)]

Carol Morgan, Office of Communications, Education and Public Affairs

Revised February 15, 1996

<http://www.epa.gov/docs/Welcome/EPA.html>

Japan: Mechanics of Environmental Policy

National Authority

The Environment Agency (EA), established in 1971, is responsible for coordinating national environmental policy, which covers pollution control and nature conservation. The agency is headed by a director-general who is a member of the cabinet. The EA is responsible for the implementation of all national laws, such as the Air Pollution Control Law or the Nature Conservation Law. It also conducts research, gathers statistics and sets environmental quality standards. Under the 1967 Basic Law for Environmental Pollution Control, the EA is charged with developing policies for regional pollution control programs.

The Environment Agency has expanded several times since its founding in 1971 and is now divided into six sections:

- Planning and Coordination Bureau
- Nature Conservation Bureau
- Air Quality Bureau
- Water Quality Bureau
- Environmental Health Department
- Global Environmental Department

The Agency's authority also covers the National Institute for Environmental Studies.

Sector-specific environmental policy is sometimes implemented by the responsible ministries and agencies. The most important of these are the Ministries of Health and Welfare, Agriculture, International Trade and Industry, International Trade and Industry (MITI), Transport, and Construction, and the Economic Planning Agency.

Intra-Governmental Coordination

The EA interfaces with other parts of government through its director-general. He or she, for example, holds the title of Minister in Charge of Global Environmental Problems in the Council of Ministers for Global Conservation. This body, established in 1989, draws its membership from 19 of Japan's 21 ministries. The director-general is also empowered to make direct recommendations to the heads of other ministries, though this authority is seldom used.

Governmental bodies do not always coordinate their work on environmental policies. Rather, each develops its own strategic goals. An example is the different approaches to global warming. The Economic Planning Agency advocates "environmentally-harmonious" production and consumption, while the Environment Agency recommends changes in lifestyle and consumption patterns. The Ministry of International Trade and Industry, meanwhile, supports technological remedies and has developed a 100-year technology plan to meet the problems. Cooperative measures are improving. Originally, the EA

developed its Long Term Environmental Plans (in 1977 and 1986) without consulting other sectors of government. The 1993 Basic Law on the Environment was sponsored by the Ministry of International Trade and Investment.

Consultation Process

To date, public access to environmental information has been limited. While the 1993 Basic Law for the Environment charges the government with providing necessary environmental information, there are no specific guidelines for distributing this information to the public.

Within governmental agencies, however, there are several measures to spread information and support environmental education. On the national level, the Environmental Agency collaborates with the Ministry of Education to produce teaching materials, educational seminars and video programs. On the local level, the EA grants money to Regional Environmental Protection Funds that support local governments in environmental education.

Trade unions are some of the strongest environmental advocates in Japan. The Japanese Trade Union Confederation, which represents 8 million members, has national influence. It has drafted a policy document on the environment and advocated the use of environmental impact assessments and the right to environmental information.

The lack of access to environmental information is one factor limiting the power of NGOs to influence policy. Another is that NGOs do not have the legal standing to bring environmental court cases. Finally, their funding is limited because membership is relatively small and few organizations qualify for tax deductions on donations.

Governmental Review

Since 1968, the first year following the Basic Law for Environmental Pollution Control, an annual "White Paper" on the environment has been presented to the Diet. The report, entitled "Quality of the Environment in Japan," is prepared through consultations between the Environmental Agency and other relevant government bodies. Developing this document provides a framework for policy coordination that has been praised by the OECD as a model for other countries.

More thorough studies are conducted every five years. In accordance with the 1972 Nature Conservation Law, a "National Green Census" reviews such areas as the country's topography, geology, species distribution, habitat, and scenic areas. The most recent survey was completed in 1992.

Local Government Authority

Local governments have considerable power in Japan's environmental policy. This is supported by the nation's decentralized structure, a result of the 1947 Local Government Law. The law entitled municipalities to pass their own ordinances, and large cities used this authority to address pollution in the 1950s and 1960s. Local governments have also achieved environmental goals by concluding voluntary agreements on pollution control with industry. These agreements often pre-empt or exceed national actions.

Environmental standards are often set at both the national and local levels. The general pattern has been for the national government to set ambient standards, while local governments set specific emission and effluent standards. Since 1970 local governments have also been entitled to set standards more stringent

than those of the national government. Many also require the use of environmental impact assessments

for development projects, although these are not specifically required by the national government.

Local governments are charged with environmental monitoring. The prefectural governors are responsible for monitoring air and water quality, and may further delegate this task to the mayors of municipalities.

[[Concerns](#) | [Development](#) | [Principles](#) | [Mechanics](#) | [Instruments](#) | [Economics](#) | [International](#)]

[| [World](#) | [Asia](#) | [Japan](#)]

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Japan: Development of Environmental Policy

Local initiatives are crucial to the structure and development of environmental policy in Japan. Generally, the municipal and prefectural governments have been the first to act on policy and have prompted action on the national level. The power of local governments is rooted in the 1947 Local Government Law. Governments used this authority to act on pollution problems in large urban centers such as Tokyo, Osaka and Yokohama in the 1950s and 1960s.

National measures were first instituted in the 1960s when the Ministry of International Trade and Industry (MITI) and the Ministry of Health and Welfare each established their own pollution control divisions. The economic aspects of environmental compliance were also addressed in the 1960s when the Diet (legislature) founded the Pollution Control Services Corporation to provide industry with long-term, low-interest loans to finance pollution-control measures.

The national legal framework was initiated with the passage of the Basic Law for Environmental Pollution Control (BLEPC) in 1967. The BLEPC is a broad measure covering environmental research, emission levels, land use, and planning. It also delegated responsibility between national and local governments and between the public and private sectors. A burst of legislation {link to Instruments-Legisl page} followed in the 1970 session of the Diet (the so-called "Pollution Diet"), in which 14 laws were enacted or amended. Along with pollution control, nature conservation is another primary element of Japanese policy. The legal capacity in this area was set by the Nature Conservation Law in 1972.

Bureaucratic restructuring came in 1971 with the establishment of the Environmental Agency, which consolidated the environmental duties of 13 different ministries. The Environmental Agency was charged with full implementation of the BLEPC and the coordination of public measures on pollution control.

Little new legislation was enacted in the 1980s. Instead, the government was occupied with specific pollution problems, and with developing monitoring and assessment mechanisms. Among these were measures for air and water pollution and the formulation of environmental impact assessment (EIA) procedures. Due to its greater global importance, Japan also became more involved in international environmental cooperation during the 1980s.

New initiatives were undertaken in the 1990s. Among these was the revamping of environmental legislation in 1993 under the Basic Law on the Environment. In addition, the concepts of sustainable development and global responsibility were integrated into economic policy in Japan's latest Five-year economic plan (released in 1992). In addition, the Ministry of International Trade and Industry has developed a plan for the development of environmental technologies entitled "New Earth 21."

[[Concerns](#) | [Development](#) | [Principles](#) | [Mechanics](#) | [Instruments](#) | [Economics](#) | [International](#)]

[| [World](#) | [Asia](#) | [Japan](#)]

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3.1 Subsidies

In general, subsidies have not been highly effective in reducing pollution or increasing efficiency. An example is the program for energy saving: Studies showed that fluctuating energy prices was the main factor affecting behavior and that subsidies had little influence. One positive impact of subsidies is the focus they gave to particular environmental issues. A subsidy program to reduce use of PCBs, for example, had some direct impact, but also prompted industry to better analyze the PCB issue and its costs.

3.2 Charges

Charges have been very successful -- much more successful, in fact, than had been expected. The main purpose of charges had been simply to fund environmental programs, not to change behavior. In 1994, for example, revenue from charges provided Gld 4.3 billion of the total Gld 7.4 billion spent on the environment by public bodies. (OECD, Environmental Performance Review 1995, p. 126)

The water effluent charge is a good case study of the effects charges have had on behavior. The **Pollution of Surface Waters Act** of 1970 required a huge expansion of the country's sewage treatment capabilities. To cover the costs of this expansion, the water boards were allowed to levy charges on effluents. The required expansion of services was very costly, and the charges were correspondingly high (totaling, for example, 2.795 million ECU in 1990). (OECD, Applying Economic Instruments 1994, p. 157) Studies show that these charges were a powerful incentive in reducing effluents; in fact, they were more effective than the regulatory approaches designed for this purpose. For example, between 1975 and 1980 oxygen-consuming organic pollution decreased by 27% and heavy metal effluent decreased by about 50%. (OECD, Applying Economic Instruments 1994, p. 158)

3.3 Taxation

Tax policies have also been effective, and will probably play a larger role in the near future. Two successful examples are tax policies on automobiles and gasoline in 1989. The government altered the sales tax on new cars so that those equipped with catalytic converters would be the same price as those without. Initially this was applied to cars meeting future European standards, but soon afterwards the government also extended the program to cover the cost of three-way catalytic converters designed to meet the more stringent U.S. standards. Furthermore, the government adjusted gasoline taxes to make unleaded less expensive than leaded fuel. Within two months, unleaded gasoline had completely overtaken regular gasoline in popularity at gas stations. (OECD, Applying Economic Instruments 1994, p. 156) The government is preparing to increase gasoline prices again to offset higher public transit fees.

The taxes on fuel are an example of the first real "green taxes" in the Netherlands -- that is, taxes designed primarily to change behavior, not to raise funds for environmental expenditures. New green taxes in development cover waste disposal, groundwater use, and uranium. Parliament seems interested in further shifting of taxes onto undesirable practices, and has requested a study on green taxes designed not to add to the overall national tax burden.

The first of these is a new regulatory tax on small-scale energy consumption which took effect in early 1996. The tax will eventually raise Gld 2.1 billion annually by the time of full implementation in 1998 and will result in a 1.5% reduction of the country's CO2 emissions by the year 2000 (VROM, Proposed Regulatory Tax 1995, p. 2) Exemptions are included for extremely low usage by low-income individuals and for environmentally-beneficial practices, such as district heating, cogeneration, and use of renewable energies. The proceeds of the energy tax will be "recycled" into reductions for personal and corporate income taxes, thus slightly shifting the tax burden from productive behavior to resource consumption.

3.4 Financial Liability and Incentives

The costs of victim compensation can also be considered an economic instrument. The Dutch liability scheme resembles one of strict liability, and court decisions against polluters seem to be having an impact. Dutch insurance companies have created an insurance pool to cover liability for sudden or gradual pollution.

The government is creating preferential terms for environmental investment. Certain approved investments, for example, are entitled to early depreciation of costs. Investment in designated "green funds" are exempt from taxes, and the government is considering lowering value-added tax rates for environmentally friendly activities.

4. Enforcement

The NEPP placed a higher priority on environmental enforcement, which had traditionally been lax in the Netherlands. Action is largely guided by the 1992 **National Enforcement Program**. Priority areas for this program in 1995 are cadmium and ammonia pollution, CFCs, water depletion, and "serious environmental misdemeanors."

Mechanisms for action have been improved at both the national and local levels. Within VROM, action is controlled by the **Inspectorate for the Environment**. The responsibilities of provincial and municipal authorities are determined by a **National Coordinating Committee for the Enforcement of Environmental Legislation**. The committee deals with serious crimes through its "Serious Environmental Misdemeanors" project team.

Legislation, higher funding, and improved governmental coordination have strengthened enforcement considerably. The **EMA**, for example, sets procedures for dealing with damages from environmental accidents. Enforcement personnel has increased: Police officers have been specially trained in environmental enforcement, and the number of environmental prosecutors has grown. From 1991 to 1992, the number of enforcement officials rose by 32% and prosecutions increased by 33%. (VROM, *Toward a Sustainable Netherlands 1994*, p. 18) In addition, the Netherlands is working on the establishment of a European enforcement network for international environmental crimes.

One important area of action is enforcement of licensing for facilities. In 1990, for example, 78% of operations requiring licenses were operating without any. By 1992 the rate had dropped to 41%. Full legalization of businesses is expected to be completed by the end of 1995. (OECD, *Environmental Performance Review 1995*, p. 122)

[[Concerns](#) | [History](#) | [Principles](#) | [Development](#) | [Implementation](#) | [Economics](#) | [International](#)]

[[World](#) | [Europe](#)]

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Section III.

Policy Development

This section discusses how environmental policies are developed in the Netherlands. It considers the different societal actors which provide input or coordination for policy development, as well as mechanisms for evaluating and modifying policies. Specifically, it breaks the development process into the following areas: National Authority and Intra-Governmental Coordination, Consultation Process, Monitoring, and Regional and Local Government Authority.

National Authority and Intra-Governmental Coordination

Consultation Process

Monitoring

Regional and Local Government Authority

1. National Authority and Intra-Governmental Coordination

1.1 The Ministry of VROM

The Dutch Ministry of Housing, Spatial Planning and Environment (known by its Dutch acronym VROM) was established in 1982. It replaced an earlier environment ministry that had been established in 1971. (OECD, environmental Performance Review 1995, p. 26) Among the various ministries, VROM has the greatest authority over environmental policy and is responsible for coordinating government action on the environment; there are, however, aspects of policy that do not fall directly under VROM's jurisdiction.

1.2 Coordination under the National Environmental Policy Plan

In the early and mid-1980s, VROM's work was directed by three-year plans developed within the ministry. Following the release of the environmental indicators report *Concern for Tomorrow* in 1988, VROM pursued a cooperative approach with other ministries to develop the country's National Environmental Policy Plan (NEPP). (For more information, please see Section IV., Policy Implementation)

NEPP was developed and jointly signed by VROM; the Ministry of Economic Affairs; the Ministry of Agriculture, Nature Management and Fisheries; and the Ministry of Transportation, Public Works and Water Management.

The environmental competencies of the non-environmental ministries are as follows:

- The Ministry of Economic Affairs is responsible for energy issues, and jointly responsible with VROM for the integration of environmental policy into economic policy.
- The Ministry of Agriculture, Nature Management and Fisheries is responsible for general nature policy, including nature conservation legislation.
- The Ministry of Transportation, Public Works and Water Management is responsible for

traffic and transport policy and has jurisdiction over all state waters (including large rivers, canals, coastal waters, and estuaries). This includes jurisdiction over water policy for both freshwater and ocean resources.

- The Ministry of Foreign Affairs coordinates the international aspects of Dutch environmental policy and controls about 10% of all government environmental funds (OECD, Environmental Performance Review 1995, p. 174) For further information on the international aspects of Dutch environmental policy, please see section VI., International Aspects.

All the above-mentioned ministries, except foreign affairs, have produced their own sectoral plans for environmental management which are consistent with the goals of the NEPP and even exceed them in some cases.

1.3 Integration of Environmental Policies

An important goal of the NEPP is to fully integrate environmental policy into government actions. Thus, all government bodies, in addition to those mentioned above, are charged with environmental responsibilities. Integration is achieved by means of various intragovernmental committees and through the budgetary process. For example:

- The minister of VROM is answerable to a parliamentary "standing committee on the environment," which can amend VROM's proposals.
- VROM has created special positions for "facilitators" who act as liaison between different branches of the ministry to improve internal communications. (AtKisson 1995, p. 5)
- Policy decisions related to the NEPP are made by a consultative council composed of various ministries such as VROM, agriculture, transport, finance, economic affairs, foreign affairs, and the prime minister's office.
- The cabinet is advised by a **National Environment Commission** composed of senior members from most ministries.
- Environmental policy is drafted by various consultative councils, such as the **Environmental Management Council** and the **Socio-Economic Council**.
- The government recently established an environmental examination committee and an environmental test for all sectoral policies and government actions.
- Government departments must report on the environmental implications of their budgets, so that environmental issues enter the general budgetary debate in parliament.

1.4 Scientific Backing

Research and technology development related to the NEPP are handled by several independent public bodies. The most important of these is the **National Institute for Public Health and Environmental Protection (RIVM)**, which produced the original report *Concern for Tomorrow* that established the framework for action under the NEPP. RIVM continues to support environmental policy by establishing the "critical loads" needed to set *NEPP* targets and by evaluating general environmental conditions. It also publishes "*National Environmental Outlook*" documents, successors to *Concern for Tomorrow*. The latest edition, published in 1994, covers the period 1993-2015. Other public research bodies include the **Organization for Scientific Research** and the **Council for Research into Nature** and the

2. Consultation Process

The NEPP gives very high priority to cooperation between government and other sectors, such as businesses, nongovernmental organizations, and citizens. In fact, the government considers it impossible for the public sector alone to implement policy. As a recent summary of NEPP 2 stated:

"Implementing the objectives of the NEPP depends on a major devolution of responsibility to non-government actors and regulatory control may often be inappropriate at this point. The plan therefore lays the foundation for an incentive structure which encourages and requires all groups in society to take decisions that will reduce adverse environmental impacts." (VROM. Towards a Sustainable Netherlands 1994, p. 11)

2.1 Target Groups

The target group approach requires consumers and industry to be involved in environmental policy development. The private sector is encouraged to devise its own strategies for meeting the government's environmental goals.

Dutch businesses have recognized that it is in their best interest to cooperate; by working with the government, they have a voice in setting long-term goals. Essentially, they have agreed to more vigorous environmental protection in exchange for a guarantee of consistent, long-term policies and the freedom to devise their own strategies for meeting national targets.

The government's first step was to designate 15 industrial sectors that were responsible for 80% to 90% of all pollution. Each sector was asked to organize itself into a target group to be represented by a single trade association. Scientists then set 25-year environmental goals to be achieved by each target group, and asked the groups themselves to design credible strategies for meeting these goals. The main business target groups are:

- Agriculture
- Traffic and Transport
- Industry
- Energy and Refineries
- Construction
- Environmental Production (such as waste disposal or water supply)

2.2 Covenants

Civil agreements between government and business associations, called **covenants**, specify that businesses will design their own implementation strategies to meet government goals, as an alternative to less flexible and more costly government-imposed solutions. However, both government and business recognize the importance of maintaining the legal and regulatory framework within which the covenants operate, and enforcement measures against environmental violators are strict. Please see Section VI.

Policy Implementation, for more detailed information on covenants

2.3 Expanding Public Outreach

The experience of NEPP shows that cooperation with clearly recognizable and organized target groups can be achieved. Some groups, however, such as consumers, motorists, and medium-sized businesses, have diffuse membership and are much more difficult to reach. NEPP 2 recognizes such target groups as a special concern and includes new strategies to reach them. The government has invested and will continue to invest heavily in public awareness and education. (Please see the "References" section of this report for a partial list of publications by the Dutch government.)

The government has been aggressive and innovative in its dissemination of information in all formats, from glossy brochures and full-text versions of the NEPP (translated into many languages) to MTV-style commercials. These efforts have had some real success; for example, the government's slogan "A better environment begins with you" is reported to be more widely recognized than the nation's most popular beer. (AtKisson 1995, p. 7) Environmental education in schools is also strong; the Dutch Institute of Environmental Protection states that environment has been fully integrated into primary and secondary education. (OECD, Environmental Performance Review 1995, p. 131)

The direct approach of public education, however, has not fundamentally changed personal behavior, as the government had hoped. NEPP 2 recognizes the need to influence non-industrial target groups indirectly, using economic measures such as taxes, subsidies, and levies, and cooperative measures with nongovernmental organizations such as the Dutch Motorists' Association (ANWB) and the National Association of Retail Traders.

2.4 Non Governmental Organizations (NGOs)

A solid foundation already exists for cooperation with nongovernmental organizations. Environmental NGOs in the Netherlands have more than 2 million members, and the largest organizations are consulted on environmental policy through bimonthly meetings with VROM. This is more than just a polite gesture; NGOs can have real influence. For example, the organization Milieudefensie (the Dutch affiliate of Friends of the Earth) first introduced the concept of environmental space in response to the first NEPP; that concept was later incorporated into NEPP 2. The government sees NGOs as valuable players -- so much so that it funds NGO projects in the amount of Gld 15 million annually.

Two broad-based consultative bodies are the **Central Council for Environmental Policy** and the **Platform for Sustainable Development**. The purpose of the Central Council for Environmental Policy is to advise the government on policy decisions from a broad-based social perspective. Members of the council include employers' associations, unions, environmental groups, consumer groups, and local governments. The Platform for Sustainable Development is an association of social groups established in 1993 to affect the policy debate through campaigns targeted at politicians and the general public.

3. Monitoring

The Netherlands utilizes two types of environmental review. The first, "**environmental monitoring**" measures data such as emissions or environmental quality. The second, "**performance monitoring**," measures the effectiveness of environmental policy and reports on its economic aspects.

Environmental monitoring is largely the responsibility of RIVM, which publishes "National Environmental Outlook" at the midpoint of each four-year NEPP program to evaluate the current policies

and make recommendations for the next NEPP. RIVM has developed environmental indicators based on the themes in *Concern for Tomorrow* and the NEPP. Indicators are weighted by their absolute importance to the environment and aggregated to show precisely how far the Netherlands is from achieving sustainability, overall and for each theme.

Environmental policy is regularly adjusted based on performance monitoring. VROM publishes a yearly "Environmental Program," which assesses the current NEPP (including forecasts for the next three years) and accompanies the ministry's budget. The country's basic environmental law, the Environmental Management Act (EMA) requires four-year Policy Evaluation Exercises of the current NEPP and recommendations for its successor plan. The first Policy Evaluation Exercises, conducted in 1992, determined the structure of NEPP 2, which was approved in 1994.

4. Regionall and Local Government Authority

Under the NEPP, environmental policy is formulated mostly at the national level and implemented largely at the regional and local levels. Regional and local authorities responsible for implementation are the 12 provinces, 625 municipalities, and 120 water boards. VROM and local government organizations agreed on a basic division of duties in 1990, and they jointly produce an annual Inter-Provincial Program, which delegates specific actions. Currently, the program recognizes about 75 NEPP actions suited for the provincial level. A special steering committee representing several national ministries evaluates local and regional policies to assure their compatibility with the NEPP. VROM also developed an "implementability and enforceability test for environmental policy and regulation," which it submitted to Parliament in 1994. The purpose of the test is to help design national policies that can be implemented well at sub-national levels. (VROM, Environmental Program 1995, p. 16)

4.1 Sub-National Delegation

The breakdown of responsibilities for the environment is as follows:

- **4.1a Provinces:** The Environmental Management Act (EMA) requires provinces to develop long-term environmental plans. Provinces are primarily responsible for the implementation of environmental laws in their jurisdictions; they also supervise the work of constituent municipalities and water boards.
- **4.1b Municipalities:** The EMA does not require municipalities to draw up environmental plans, but the government does provide funding for those that are produced. Municipalities are responsible for the licensing of smaller industrial plants, aspects of soil cleanup, and services such as sewage, refuse collection, and recycling. Some smaller municipalities are combining efforts to provide regional environmental services.
- **4.1c Water Boards:** these institutions, first created in the Middle Ages, were traditionally responsible for water management in low-lying areas, primarily for protection against flooding. In the second half of this century many have taken on additional authority for protecting against water pollution. The water boards are governed by a committee appointed by the Crown and a council elected by local property owners.

4.2 ROMs

The Dutch have set up special cooperative dialogues for regional policy issues, which are known as "ROM" projects. ROMs convene all stakeholders, such as regional and local government authorities

local businesses, and environmental organizations, to reach consensus on complex environmental projects. Of the 11 ROMs currently in progress, five are already implementing their action plans. Examples are the inclusion of water management and conservation priorities into the expansions of Schipol Airport and Rotterdam-Rijnmond Harbor

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Section IV.

Policy Implementation

Section VI explains how environmental policies are implemented in the Netherlands. It discusses the specific legislation and plans that determine actions, as well as specific instruments and tools used in implementation.

Legislation and National Environmental Policy Plans

Regulatory Instruments

Economic Measures

Enforcement

1. Legislation and National Environmental Policy Plans

1.1 Legislative History

Initially, the Netherlands followed the pattern of most other developed nations in creating environmental legislation. It first pursued environmental issues under general laws, then created measures to address specific problems. Since the late 1980s, however, the Dutch have been consolidating their various laws into unified, integrated legislation.

Environmental issues were first handled under general laws such as the **1875 Nuisance Act** or provisions of the **Criminal Code** and **Civil Code**. Starting in the 1960s, a body of law for specific media or general government authority took form. Some examples are:

- Forestry Act of 1961:** Regulates forest production and conservation and multiple use of forests. It assures that forested areas remain forested.

(OECD, Environmental Performance Review 1995, p. 98)
- Spatial Planning Act of 1965:** Established requirements for all levels of government -- central, provincial, and local -- to create plans for their jurisdictions.
- Nature Conservation Act of 1967:** Established reserves on both public and private land.
- Pollution of Surface Waters Act of 1969:** Dealt with surface water quality. Effluent is regulated by a permitting and funding system.
- Air Pollution Act of 1970:** Prohibited pollution that can cause nuisance or damage human health, animals, plants, and goods.
- Environmental Protection (General Provisions) Act of 1979:** The first act to promote coherence among various media-specific policies.
- Water Management Act of 1989:** Applied "integrated water management," which considers whole water systems, including the water, beds, banks, and shores, and which also considers the biological components of water.

(OECD, Environmental Performance Review 1995, p. 43)

- 1. **Soil Protection Act of 1994:** Made polluters and owners of polluted sites responsible for the investigation and cleanup of contamination.

Environmental protection is also provided for in the Dutch Constitution. Article 21 states, "Government care concerns the habitable quality of the country and the protection of the environment." (OECD, Environmental Performance Review 1995, p. 29)

1.2 The National Environmental Policy Plan

The National Environmental Policy Act (NEPP) of 1989 radically altered the orientation of Dutch environmental law by emphasizing the need for comprehensive, unified legislation. The NEPP is not a law per-se, yet it is the authoritative document guiding virtually all aspects of Dutch environmental policy. The NEPP is renewed every four years, (NEPP 2 is currently in force) and each NEPP must be approved by parliament. The NEPP's identification of environmental **themes**, **target groups**, and **scale** of environmental issues has provided the framework for subsequent environmental legislation. (Please see the Section II., Environmental Principles for more information.)

1.3 The Environmental Management Act

A significant move toward an integrated and systemic body of environmental law was the passage of the 1993 **Environmental Management Act (EMA)**. The EMA unified and simplified environmental legislation by replacing numerous laws, such as the Waste Substances Act, the Environmental Protection Act, and much of the Air Pollution Act. It also provides that future laws will be streamlined by establishing uniform rules for environmental plans, programs, and enforcement, as well as for environmental quality requirements. The regulatory process is simplified by the introduction of a single environmental permit covering all facility operations (except those controlled by the 1969 Pollution of Surface Waters Act).

All environmental regulations will eventually be brought under provisions of the EMA. By early 1995, this had been completed for 16 of the act's 22 chapters. (OECD, Environmental Performance Review 1995, p. 15)

The EMA's chapters include:

International Affairs	(Chapter 3)
Formulation of Environmental Objectives	(Chapter 4)
Adoption of Environmental Quality Standards	(Chapter 5)
Environmental Impact Assessment	(Chapter 7)
Substances and Products	(Chapter 9)
Water Substances	(Chapter 10)
Financial Measures	(Chapter 15)
Enforcement	(Chapter 18)
Access to Information	(Chapter 19)
Reporting and Evaluation	(Chapter 21)

2. Regulatory Instruments

Environmentally harmful activities are controlled by a mixture of traditional regulation and cooperative agreements between government and business. Whenever possible, the government is seeking to streamline its duties through cooperation. As the 1995 Environmental Program Summary explains: "The implementation of Dutch environmental policy lies largely in the hands of businesses, other organizations and consumers. The government erects the framework within which target groups can do this." (VROM, Environmental Program 1995, p. 4)

2.1 Licensing

Traditional regulation is increasingly performed through licensing of facilities. Provincial and especially municipal governments are responsible for this function. Until the 1990s, licensing had not been managed very effectively or comprehensively by local governments, and VROM stepped in to strengthen their programs.

2.2 Covenants

The NEPP and the EMA have improved environmental regulation by simplifying the permit process and encouraging less bureaucratic "voluntary" agreements, called covenants. The Dutch government enters negotiations with "target groups" made up of the industries responsible for particular environmental problems. Essentially, the government informs these groups of its intentions and offers them two options. The first is the traditional command-and-control form of regulation (which is generally more restrictive and expensive). The second, and preferred, option is a **covenant**, a civil contract giving industry more control over the interim goals and measures used to fulfill the government's targets. Under covenants, government specifies required results by a certain deadline (for example a particular percentage reduction of emissions by a particular year), but allows industry to choose the mix of technological, economic, and planning measures it will use to achieve the result. This approach is generally appealing to industry, since it can choose the most efficient measures and can integrate environmental modifications into its long-term business planning.

Over 100 covenants have been established, and negotiations are in process in all sectors. Some examples

are:

- **Control Strategy for Emissions of VOCs (1989):** Industry adopted a plan to reduce volatile organic compound emissions 58% by the year 2000 (over base year 1979 amount).
- **CFC Action Program (1990):** A plan between government and industry to phase out CFCs and other substances that destroy atmospheric ozone. A joint CFC monitoring committee was also established.
- **Electricity Industry Covenant on SO₂ and NO_x (1990):** For the year 2000, electricity producers agreed to reduce annual SO₂ emissions by 18 million kilograms and NO_x emissions by 30 million kilograms.
- **Packaging Covenant (1990):** The Packaging Foundation agreed to reduce volume by 10% and achieve a packaging recycling rate of at least 60% by the year 2000.
- **Primary Metals Industry (1993):** The Association of the Primary Metals Industry, individual companies, and central, provincial, and local authorities signed a declaration of intent to remedy the industry's environmental impacts.
- **Chemical Industry Covenant (1993):** The Association of the Dutch Chemical Industry signed a declaration of intent with central, provincial, and local governments and committed Gld 10 billion to environmental investments between 1993 and the year 2000.

(OECD, Environmental Performance Review 1995, p. 227-231)

2.3 Encouraging the Right Behavior

The Dutch government also promotes new business practices that improve environmental performance. Under the **product policy**, industry has primary responsibility for a product's environmental impact throughout its production, consumption, and disposal. This responsibility requires industry to adopt the "integrated life-cycle principle" which requires it to rethink all aspects of operations, from the choice of raw materials to recycling and disposal issues. The government has also encouraged most enterprises to adopt internal environmental management systems such as company policies and plans and environmental auditing.

3. Economic Measures

The Netherlands has been applying economic instruments to environmental protection since the early 1970s; it produced its first policy document on environmental levies in 1979. The effectiveness of economic measures has varied considerably, depending on the type chosen. These types include:

- 1) subsidies for environmental investments
- 2) charges, or user fees for pollution treatment services
- 3) taxes and tax adjustments for preferred products or actions
- 4) policies that create financial liabilities or incentives

Italy:

Mechanics of Environmental Policy

National Authority and Intra-Governmental Coordination

Until 1986 responsibility for environmental protection was divided among several national institutions, and the body of environmental law was far smaller than today. In 1986, Law 349 established a separate **Ministry of the Environment** and consolidated most environmental responsibilities under its authority. Its areas of concern are:

- Air
- Water
- Waste
- Soil
- Noise and industrial risk
- Protection of nature
- Environmental impact assessments

The ministry's specific responsibilities differ for each of these areas, but may include preparing legislation, permitting, long-term planning, law enforcement, research and reporting. The ministry is most influential in the preparation of the regular Three-Year Environmental Management Programs, which set the framework for policy developments and intra-governmental coordination.

Environmental research and supervision is to be conducted by the newly formed national **Environmental Protection Agency (ANPA)**. The agency, created in 1993, will be under the Ministry of the Environment's authority and will function as its field liaison by gathering data, supervising compliance and providing technical support in setting environmental standards. This responsibility was previously delegated to the Local Health Units, which are primarily responsible for medical issues and are thus poorly-equipped to handle environmental responsibilities. The establishment of regional environmental protection agencies is also under discussion.

The greatest weakness of the Ministry of the Environment is its minimal resources. With only 164 full-time employees, it lacks the numbers and expertise to fulfill its huge task. Some effort has been made to improve the situation, and employees have been seconded from other ministries. Even with these additional people, however, the ministry's staff in 1993 amounted to only 450 people.

Other ministries and national agencies are still responsible for many environmental matters in their sectors. Bodies with some jurisdiction over environmental matters include the ministries of Agriculture, Food and Forest Resources; Budget and Planning; Civil Defense; Cultural and Environmental Heritage; Education; Foreign Affairs; Health; Industry, Trade and Crafts; Interior; Merchant Marine; Public Works; and Transport.

The Ministry of the Environment is responsible for coordinating environmental policy with other government bodies, and heads an inter-ministerial committee charged with this task. This duty has been

difficult because of the need for frequent consultation, the potential for disagreements, and the Ministry of the Environment's minor standing among the older and larger ministries.

Consultation Process

Polls show that the level of public concern for the environment in Italy is consistently above the European average. The government frequently consults with the public via NGOs, trade unions, and referenda. However, mechanisms for sharing information with the public are not well developed and may fail to meet European Union guidelines.

If recognized by the government, NGOs receive special rights and play distinct roles in the policy-making process. One-hundred twenty-six NGOs have applied for recognition and 17 organizations, with a total membership of 1,525,000, have been accepted. These groups sit on consultative committees and assist in public information duties. Some also receive government funding to conduct projects for the Ministry of the Environment.

According to a questionnaire from the 1994 conference of the **International Network of Green Planners**, {link to ??} the following are the key NGOs involved in environmental policy: Legambiente, WWF-Italy, Friends of the Earth, Italia Nostra and Agenza di Protezione Ambientale. These groups often have substantial duties. Legambiente publishes a regular report on the Italian state of the environment, for example, and WWF-Italy manages more than 40 protected areas.

Workers unions are also involved in environmental policy consultations and are especially active in areas directly related to the workplace. In 1986, unions were represented on local committees studying environmental crisis zones. They also took part in consultations for developing the current Three-Year Environmental Management Plan. Union delegates are involved in risk management programs in individual companies. (Issues of chemical risk, for example, are handled at the factory level.)

Referenda have played an important role in environmental policy development in Italy. In 1987 a five-year moratorium on further development of nuclear energy was established by referendum. This may have derailed nuclear development indefinitely. A 1993 referendum removed environmental responsibilities from Local Health Units, precipitating the establishment of the national **Environmental Protection Agency**.

Though the public's right to information is officially recognized, an infrastructure to disseminate this information is not in place. The 1990 EU directive on freedom of access to public information has not been fully implemented.

Governmental Review

Environmental impact assessments may become an increasingly powerful review tool in Italy, their use is likely to expand in the future as more projects require review. Their provisions for public input may also expand the role of citizens in environmental decision-making.

The country's capacity for collecting and processing environmental data is improving. The 1986 law establishing the Ministry of the Environment requires that the ministry produce a bi-annual report on the state of the environment, the first of which was issued in 1989. The first Three-Year Environment Program includes a provision for a National Environmental Information and Monitoring System. The system will unify environmental databases and help to address gaps in existing information.

Regional and Local Government Authority

Below the national level, Italy is divided into 20 **regions**, 103 **provinces** and 8,102 **communes**. The regions and provinces may play important roles in environmental policy, though their powers vary. Five regions and two provinces are highly autonomous. In 1989, the river basin was recognized as the basis of land and water management. Thirty-eight **river basin authorities** of national, regional or inter-regional jurisdiction have been established.

In general, standards and policy frameworks are set at the national level, while specific implementation plans are developed by regional governments. Permitting, monitoring and provision of services are the responsibility of provincial and local governments. The 1988 Industrial Air Pollution Law, for example, delegates implementation duties to regional governments. Regions are charged with developing plans to survey and clean up their jurisdictions (according to national standards), setting air quality values and preparing annual air quality reports to the ministries of Health and Environment.

Funding is under tight central control. Ninety-six percent of all tax revenue in Italy is collected by the national government, which then transfers the money to regional and local governments. These transfers are primarily guided by the Three-Year Environmental Management Programs.

[[Concerns](#) | [Development](#) | [Principles](#) | [Mechanics](#) | [Instruments](#) | [Economics](#) | [International](#)]

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Italy:

Instruments of Environmental Policy

Important Legislation

Legislation is initiated by the national parliament and government, and by regional authorities. Legislation may also originate as **Decreto Legge** (decree laws), which are emergency measures passed by the president, the council of ministers or an individual minister. Decrees take effect without parliamentary action, but must be confirmed by parliament within 60 days.

Italy's body of environmental legislation is complex. National laws can be very general, only providing a basic framework which depends on further legal and regulatory texts at the national and regional levels. This nested structure, dubbed the "Russian dolls" system, results in many vague laws without adequate practical measures. The high autonomy of regional governments in implementing environmental law is also problematic. Communication between the national and regional governments is inadequate, and national implementation of policy often fails. Furthermore, the diligence of local governments on environmental matters varies considerably from region to region.

Action is being taken to better organize the legal structure. In 1993 the government established a commission to review all legislation. The commission's directive is to re-work the entire structure by clarifying vague provisions and harmonizing contradictory laws.

Following are some of Italy's major environmental laws:

- The Clean Air Law** (Law 615, 1966) was the first legislation to deal specifically with air pollution. It delegates responsibilities to local governments for setting standards, permitting and monitoring.
- The Water Pollution Control Law** ("Merli Law," 1976) controls discharges of industrial and municipal wastes into surface waters.
- The Waste Law** (1982) covers municipal waste and conforms to several European Union directives. It requires legal authorization for any waste handling, processing or disposal.
- Law 349, Legge Istituitiva del Ministero per l'Ambiente** (1986), established the Ministry of the Environment. It is considered by the government to be the key legal framework for environmental policy.
- The Industrial Waste Law** (1988) aims at reducing harmful waste by encouraging clean technologies, recovery and recycling. It also established a register requiring producers to report the quantity of special, toxic and noxious wastes they generate each year.

The Framework Law on Protected Areas (1991) defined the distribution of responsibilities between the national and local government levels for management of protected areas. It also aims at consolidating the network of protected areas nationwide and increasing their area to 10% of the country's total area. Future protected areas are also identified.

- Law 36** "(Gali Law", 1994) consolidates management of the water cycle, both fresh water supply and waste water treatment. It restructured the regional management of water resources and allows

local governments to set user charges, which will likely be more representative of the real environmental cost of water use.

Law 61 (1994) established the national Environmental Protection Agency

Regulatory Instruments

Italy generally relies on strict environmental regulations, which are called for in national policies but defined and implemented mostly by regional and, to an extent, provincial governments. The country has been very aggressive in using police to enforce environmental laws.

Cooperative approaches between the government and industry are also often utilized. Voluntary agreements were first introduced in the 1970s when the region of Emilia Romagna negotiated agreements with the chemical industry on the phosphate content of detergents. "Contact programs" have been developed between the government and industry to identify specific environmental goals and to plan their implementation. Contact programs have been conducted, for example, with the national railways and Fiat on air emissions, and with the oil industry regarding the benzene content of fuels. The "Responsible Care" program, which was proposed by the European Chemicals Industry Confederation, now has approximately 100 Italian firms as members.

Economic Measures

Italy uses many economic measures to promote environmental goals, including some environmental taxes, fees on effluent, and financial assistance for environmental research and development. The polluter pays principle is strictly enforced in certain legislation.

Taxes for road fuels are especially high -- among the highest in the OECD -- yet they have not been as environmentally friendly as they could be. In the early 1980s, for example, the tax structure encouraged high consumption of diesel fuel; this was corrected in 1986. Also, the price differential between leaded and unleaded gasoline is too low (only 18% of total gasoline sales are unleaded). The Ministry of the Environment has proposed additional taxes to cover effluent, plastics, ozone-destroying substances, carbon dioxide, agriculture and mineral extraction. None of the existing taxes are used to finance the administrative costs of environmental protection.

Fees are levied on such environmental harms as effluent, urban waste, used batteries and airplane noise. They are not, however, levied on air pollution or waste disposal, and there is no deposit system for beverage containers.

Financial support comes in the form of subsidies and special interest rates. The government supports research and development, clean technologies and conservation. Projects to conserve energy and materials may be subsidized for up to 35% of total costs.

Italian law mandates application of the **polluter -pays principle**. The Finance Law of 1993 states that "Whoever damages the environment is obliged to restore it to its original condition and, moreover, to pay adequate compensation." After the Seveso incident involving the export of hazardous waste, Italy required that any exporter provide a financial guarantee to the government to cover any possible costs resulting from negligent handling. In recent years the amount of hazardous waste exported from Italy has decreased considerably.

Enforcement and Evaluation Tools

Italy is especially aggressive in enforcing environmental regulations. The complexity of Italian law and the structure of Italian industry, however, have hindered enforcement.

The carabinieri (federal police) established an "Operational Ecology Unit" (NOE) in 1986. The NOE is in the service of the Ministry of the Environment. Legal action has been taken on most violations, but court backlogs have considerably delayed the resolution of cases.

The NOE's work is complicated by the number and ambiguity of environmental laws; the government has responded by publishing a manual on enforcement. In addition, collection of data on firms is made difficult by their number; Italy has an especially high proportion of small and medium-sized firms.

Italy has put considerable work into developing a system for environmental impact assessments (EIAs), but guidelines on when to utilize them must be improved. In 1989 the Ministry of the Environment set up a special committee to review EIAs. According to European Union directives, EIAs should first apply only to large facilities such as refineries and chemical installations. In 1993 an Italian bill proposed extending EIA requirements to oil pipelines, high-tension wires and many facilities threatening surface water. EIAs do not have a clear role in local planning and thus have not been applied to problems of urban expansion.

The Ministry of the Environment has not yet developed a list of environmental indicators, however, a document on indicators has been produced by the Legambiente, Italy's largest environmental organization.

[[Concerns](#) | [Development](#) | [Principles](#) | [Mechanics](#) | [Instruments](#) | [Economics](#) | [International](#)]

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The Department's Responsibilities

The Department of the Environment is responsible for a wide range of policies and activities:

- Housing - including private ownership and renting, the Housing Corporation, housing associations and local authorities;
 - Construction and Property & Buildings - including industry sponsorship, building regulations and the Building Research Establishment (BRE);
 - Energy Efficiency - including environmental technology;
 - Regeneration - including inner cities, new towns and the European Regional Development Fund;
 - Countryside and Wildlife - including the quality of life in rural areas and the protection and conservation of the countryside and its wildlife;
 - Environmental Protection - including the water environment, the water industry and the British Waterways Board (a nationalised industry);
 - Local Government - including its structure and finance;
 - Planning - including land use planning guidance and the Planning Inspectorate (PINS); and
 - Property Holdings and Other Services to Government - including the Government Office Estate, the Queen Elizabeth II Conference Centre, and The Buying Agency.
- 11 The Secretary of State for the Environment is supported by three Ministers of State and two Parliamentary Under Secretaries of State. The average number of staff employed in the Department's HQ, Government Offices for the Regions, Property Holdings and in the Department's five Executive Agencies in the first nine months of 1994-95 was 7,531 (the figure for the first nine months of 1993-94 was 7,808).

Priority Aims

- 11 To promote sustainable development and, in doing so, to ensure that there is effective protection for the environment at home and abroad and that environmental concerns are reflected in all areas of policy, working through the market wherever it can provide an effective alternative to regulation.
- 11 To guide the development, use and reclamation of land in a way which gives appropriate weight to economic, environmental and social factors.
- 11 To improve the quality of life in urban areas through economic, social and environmental regeneration.
- 11 To improve the quality of life for people who live and work in rural areas and the facilities for enjoyment of the countryside, while protecting and enhancing its diverse flora, fauna and landscapes.
- 11 To bring a decent home within reach of every family by promoting home ownership, widening choice for tenants and promoting the private rented sector; securing better value for money in the subsidised rented sector, and targeting expenditure more effectively towards those in greatest housing need.
- 11 To help all sectors of the UK construction industry to succeed in the domestic, European and world markets, and to be an advocate within Government and the EC for the industry
- 11 To promote a system of local government that can respond effectively to the needs of local taxpayers and citizens
- 11 To manage the Government's office estate so as to provide accommodation for Departments economically, efficiently and effectively

The above information has been taken from the Department of the Environment's Annual Report 1995, published by HMSO (ISBN 0 - 10 - 128072 6)



Ministry of Environment and Energy Search

The Ministry of Environment and Energy

The Ministry of Environment and Energy is in charge of administrative and research tasks in the area of environmental protection, energy and planning, and possesses extensive knowledge in the area.

In Denmark the administration at state level is managed by the the Ministry of Environment and Energy. At regional and local level, much of the administrative responsibility has been delegated to local governments in counties and municipalities.

The Ministry of Environment and Energy consists of a secretariat with a spatial planning department, four agencies, three research institutions and two appeal boards.

The Department

The Department of the Ministry of Environment and Energy advises the Minister and assists in the preparation of decisions and in setting priorities and controlling the collected sphere of the Ministry. The Secretariat has the overall responsibility for the legislative work and assists the Minister in his or her contact with the Danish Parliament.

The Spatial Planning Department

The Spatial Planning Department which is a department under the Ministry administers the Spatial Planning Law and functions as the State's professional advisory unit for physical planning.

Picture of the Ministry of Environment and Energy, Højbro Plads 4.

Vision ans Strategies around the Baltic Sea 2010

Ministry of Environment and Energy
Højbro Plads 4
1200 Copenhagen K
Phone: +45 33 92 76 00
Fax: +45 33 32 22 27

Miljøbutikken, Information & Books

Nature protection, the environment, energy and planning are issues of concern to a growing number of people. That is why "Miljøbutikken, Information & Books" was established

You may contact us by phone, letter or the Internet

Miljøbutikken, Information & Books
Læderstræde 1

DK-1201 Copenhagen K
Denmark
Phone (information): +45 33 92 76 92
Phone (books): +45 33 93 92 92
Fax: +45 33 92 76 90
E-mail: butik@mem.dk
HTTP://www.mem.dk

Danish Environmental Protection Agency

The role of The Danish Environmental Protection Agency is to ensure that the water, ground and air are protected against pollution.

The Agency also administers subsidy schemes for cleaner technology, recycling and environmental grants to Eastern and Central Europe, to developing countries and the arctic region.

Within the framework of the Agency are international cooperation on environmental protection, the export of know-how and collecting knowledge and information about environmental issues.

Danish Environmental Protection Agency Organization Chart

Danish Environmental Protection Agency
Strandgade 29
DK-1401 Copenhagen K
Phone: +45 32 66 01 00
Fax: +45 32 66 04 79

The National Forest and Nature Agency

The National Forest and Nature Agency manages state tasks within forestry, nature protection, the protection of historic landmarks, the preservation of buildings, obtaining of raw materials, outdoor leisure activities, hunting and game management.

The National Forest and Nature Agency also manages state-owned forests and other nature areas. The Agency is organized around a central unit in Copenhagen and 25 state forest districts all over the country. Also the Tree Improvement Station and the Danish School of Forestry are affiliated to the National Forest and Nature Agency.

InterSAVE - International Survey of Architectural Values in the Environment.

Describes a system of evaluating buildings and urban structures from a preservational point of view.
Nature Trails in State Forests

The National Forest and Nature Agency
Haraldsgade 53

DK-2100 Copenhagen O
Phone: +45 39 47 20 00
Fax: +45 39 27 98 99

The Mineral Resources Administration for Greenland

The Mineral Resources Administration for Greenland (MRAG) manages the central administrative tasks concerning mineral resources in Greenland

Mineral Resources Administration for Greenland
Kompagnistræde 15
DK-1208 Copenhagen
Phone: +45 33 92 75 00
Fax: +45 33 13 30 17

Danish Energy Agency

The Danish Energy Agency carries out technical and administrative tasks concerning energy. The Agency also manages relations to national and international interested parties in the energy area. The Danish Energy Agency advises the Minister, the Government and other ministries on issues pertaining to energy.

The role of the Danish Energy Agency is to ensure that the Danish production, supply and consumption of energy are developing in a responsible and viable way in terms of social concerns, security and the environment.

The Agency also manages relations to national and international interested parties in the energy area.

9TH EUROPEAN BIOENERGY CONFERENCE & 1ST EUROPEAN ENERGY FROM BIOMASS TECHNOLOGY EXHIBITION 24 - 27 JUNE 1996 COPENHAGEN, DENMARK

Danish Energy Agency
Landemærket 11
DK-1119 Copenhagen K
Phone: +45 33 92 67 00
Fax: +45 33 11 47 43

The National Environmental Research Institute

The National Environmental Research Institute (NERI) provides technical advice, supervision and applied and strategic research in the area of environment and nature protection

The institute carries out environmental and nature protection assignments on a contractual basis for private firms, municipalities, other public authorities and foreign clients.

The NERI headquarters are in Roskilde. In addition, there are divisions in Copenhagen, Silkeborg and on Kalo

NERI WWW homepage National Environmental Research Institute

P.O. Box 358

Frederiksborgvej 399

DK-4000 Roskilde

Phone: +45 46 30 12 00

Fax: +45 46 30 11 14

Danish Forest and Landscape Research Institute

The Danish Forest and Landscape Research Institute carries out research, development and communication to the benefit of forestry, including the growing of decorative greenery and Christmas trees and the administration of parks and landscapes.

In its work, the Institute places emphasis on promoting a varied use of forests and landscapes and on environmental issues

International Union of Forestry Research Organisations has a WWW-server with database, information and conferences.

Danish Forest and Landscape Research Institute

Hørsholm Kongevej 11

DK-2970 Hørsholm

Phone: +45 45 32 00

Fax: +45 45 32 33

Geological Survey of Denmark and Greenland

The Geological Survey of Denmark and Greenland (GEUS) is a research institution advising the Ministry of Environment and Energy and other ministries in the solving of tasks that presuppose geological knowledge.

GEUS carries out strategic and applied research in the energy and environmental sector and is responsible for collecting, treating and disseminating geological information which is important to the management of Denmark's, Greenland's and The Farao Islands' geological resources.

GEUS carries out environmental and energy assignments for private firms, counties, municipalities, other public authorities and foreign clients on a contractual basis.

GEUS profil in danish.

Geological Survey of Denmark and Greenland

Thoravej 8
DK-2400 Copenhagen NV
Phone: +45 31 10 66 00
Fax: +45 31 10 68 68

Geological Survey of Denmark and Greenland
Øster Voldgade 10
DK-1350 Copenhagen K
Phone: +45 33 11 88 66
Fax: +45 33 93 53 52

The Appeal Boards

Two independent boards of appeal are affiliated to the Ministry.

The Environmental Appeal Board

Kampmannsgade 1, 4th floor
DK-1604 Copenhagen V
Phone: +45 33 12 59 00
Fax: +45 33 93 00 60

The Nature Protection Board of Appeal

Vermundsgade 38 B
DK-2100 Copenhagen Ø
Phone: +45 39 47 27 50
Fax: +45 39 47 27 59

Return to Ministry of Environment and Energy [ENGLISH](#) or [DANISH](#) homepage.

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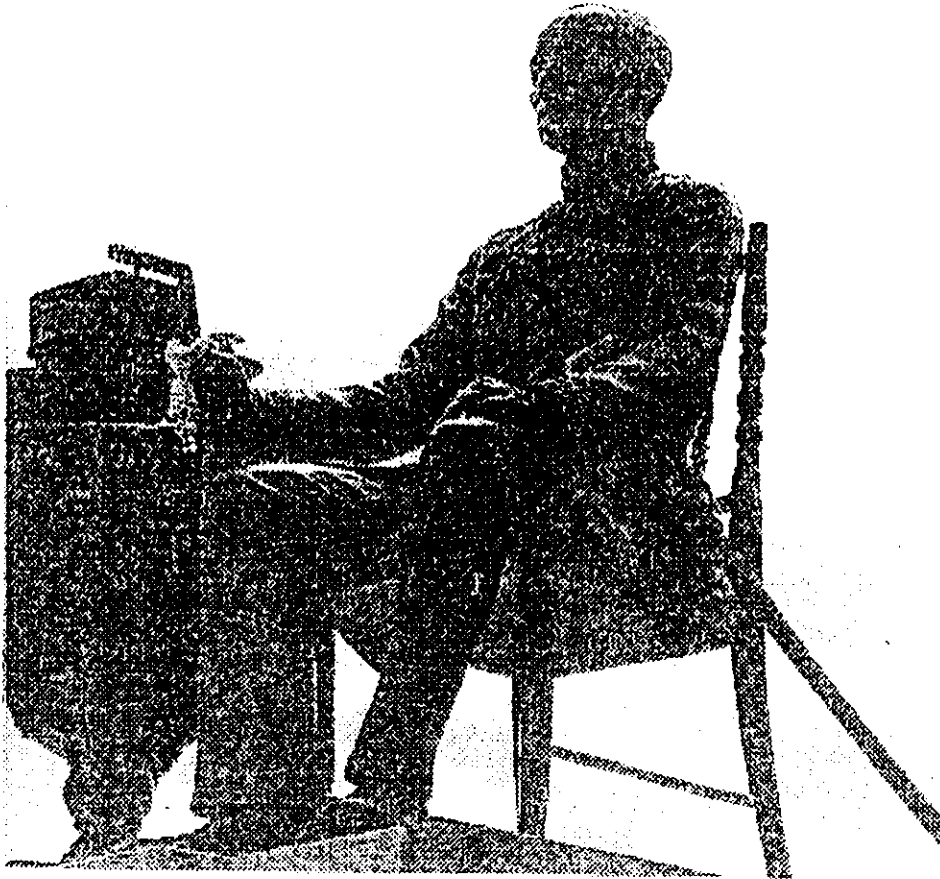
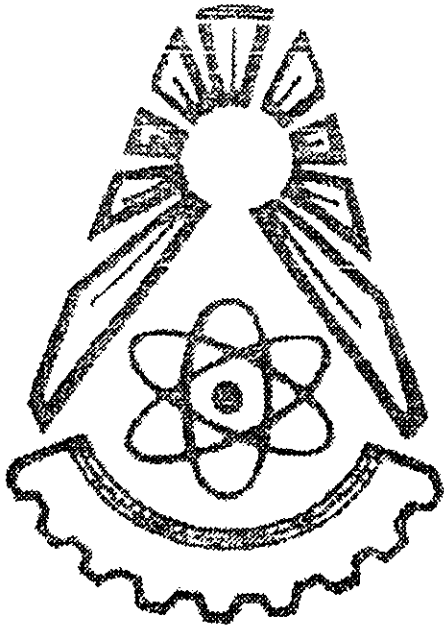
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HER MAJESTY QUEEN RANIA IS AL-GHURAYBI
RECTOR OF SCIENCE, TECHNOLOGY AND ENVIRONMENT

MINISTRY OF SCIENCE, TECHNOLOGY AND ENVIRONMENT

MINISTRY OF SCIENCE, TECHNOLOGY AND ENVIRONMENT

His majesty King Rama IV, known to foreigners as King Mongkut, had devoted his spare time studying astronomy and was able to predict the occurrence of the total solar eclipse, at Wa Ko sub-district in Prachuab Khiri Khan province on August 18, 1868, - over a century ago so well as if he were well equipped with modern scientific equipment. In 1982, the Bangkok Bicentennial Anniversary Year, the Thai Government had designated him the 'Father of Science of Thailand'. The Thai scientists are all grateful to him for his pioneering spirit in introducing modern science to national development. Therefore, they all reached a consensus to name August 18 of the year as the 'Thai National Science Day'.

Overview

Ministry of Science, Technology and Energy was established on March 24, 1979 under the amendment Act of the Proclamation of Revolutionary Party No. 216 dated September 29, 1972 and announced in Royal Gazette Vol. 96 dated March 23, 1979. Before the establishment of Ministry of Science, Technology and Energy, Science and technology activities were independently and un-coordinately carried out by many agencies, thus resulting in overlapping in functions, operations and plans. Moreover, there existed neither effective plans nor policies designed as proper guideline for science and technology development. Which, therefore, gave rise to many problems such as the lack of continuity of the activities and waste of many human resource, budget and equipment. Aiming at the remedy of such problems, the Ministry of Science, Technology and Energy was established by the recommendation of National Research Council Meeting for the objectives to Formulate, operate and develop science and technology work. Science and technology is the prime mover of the economic and social development of the nation, as well as provides the basis of a better life for its people. In addition, it has always been the key to man's greatest achievement and the answer to his dreams of a better world. Science and technology plays the vital role in various production processes. Since Thailand possesses limited amount of natural resources which now becomes deteriorated pertaining to the poorly-conceived exploitation, the the productivity improvement should therefore be regarded as a mean of rehabilitation rather than an end of the sources. To enhance such goal and thereby ensure stable, long-term growth of Thai economy and steady improvement of national life, it is crucial that Thailand positively promotes the development of science and technology, not only for the sake of the nation prosperity but also encouragement of the product of wisdom and innovation of the Thai people. Ministry of Science, Technology and Energy has changed its name to Ministry of Science, Technology and Environment by virtue of the Improvement of Ministries Act (No. 6) B.E. 2535 announced in the Royal Gazette Vol. 109 dated April 3 B.E. 2538 (1992).

FUNCTIONS

- To lay out policy, plan, scheme and project related to science, technology, energy and environment
- To control, conduct, coordinate and reform the works related to science, technology, energy and environment along the policy, plan, scheme and project for the efficient working and good coordination which will bring the most socio-economical benefit and the national stability.
- To perform the working plan, follow up and evaluate the works related to science, technology

energy and environment.

- To improve the plan, scheme and project concerned to be always appropriate and modern
- To develop technology within the country towards the production and marketing. To provide service and promote both the internal and external technology transfer.
- To study, analyze, research and provide the significant data for science, technology, energy and environment.
- To collect, compile and propagate the outcome of the research and the development related to science, technology, energy and environment.

ORGANIZATION

The Ministry of Science, Technology and Environment constitutes 9 Departments, 1 State Enterprise and 1 Agency as follows:

1. Office of the Secretary to the Minister
2. Office of the Permanent Secretary
3. Department of Pollution Control (DPC)
4. Department of Energy Development and Promotion (DEDP)
5. Department of Science Service (DSS)
6. Department of Environmental Quality Promotion (DEQP)
7. Office of the National Research Council of Thailand (NRCT)
8. Office of Environmental Policy and Planning (OEPP)
9. Office of Atomic Energy for Peace (OAEP)
10. Thailand Institute of Scientific and Technological Research (TISTR)
11. National Science and Technology Development Agency (NSTDA)

OFFICE OF THE SECRETARY TO THE MINISTER

Rama VI RD., Ratchathewi Bangkok 10400 Thailand TEL. 246-0064, 246-1382-6 Telex: 20838
MINSTEN TH CABLE: MINSTEN BANGKOK 10400 FAX NO. 66-2-2468106

FUNCTIONS

- To be responsible for political and general affairs of the Minister.
- To control, inspect and carry out the works according to the policy of the Prime Minister and the Minister.
- To coordinate routine works with political and parliamentary works of the offices within the Ministry, among the Ministries and other offices concerned
- To collect, consider, analyze and research data as well as provide new recommendation or project to the Minister
- To perform, follow up and evaluate report with a view to solve various problems

- To receive for consideration and remedy the petition from the people before submitting to the Minister.
- To make appointment, handle reception party, prepare meeting agenda, do reports etc.
- To carry out and control general affairs, correspondence work, working system management, statistical data collection, etc.

OFFICE OF THE PERMANENT SECRETARY

Rama VI RD., Ratchathewi Bangkok 10400 Thailand TEL. 246-0064, 246-1382-6 Telex: 20838
MINSTEN TH CABLE: MINSTEN BANGKOK 10400 FAX NO. 66-2-2468106

FUNCTIONS

- To be responsible for the general administration of the Ministry.
- To coordinate and render services concerning science and technology information and technology transfer.
- To lay out, conduct and follow up the policy, plan and project for the development of manpower, science, technology, energy and environment according to the national social and economic development plan.
- To coordinate with foreign agencies for exchanging expert & expertise concerning science, technology, energy and environment and raising fund for development.
- To render computerized services and perform data processing for scientific and technological information.
- To publicize scientific and technological information, news and research works by press release and so on.
- To search for new technologies and provide such information to Thai agencies and private sectors.
- To coordinate with Thai scientists, technologists Working abroad and to be participants in conferences, seminars, meetings and so on.
- To seek foreign assistance in order to develop science, technology, energy and environment works.
- To act as an agent in the selection and negotiation of foreign technologies as well as salesman for locally developed technologies.

DEPARTMENT OF POLLUTION CONTROL

66/1 Soi Phibun Wattana 7 Rama VI Road, Bangkok 10400 Tel. 279-7180-9 Fax: 279-0672

FUNCTION

- To Submit opinion for the formulation of policy and plans to promote and conserve national environmental quality pollution control
- To make recommendation for the formulation of environmental quality standards and pollution

control standards from sources.

- (1) To formulate environmental quality management plan and measures to control, prevent and prevent and mitigate environmental problems caused by pollution
- (2) To monitor and to prepare a report on the state of the pollution.
- (3) To develop systems, scheme and appropriate methodologies for the application in the management of water quality, air quality, noise, hazardous substances and solid waste.
- (4) To perform functions stipulated in the Improvement and Conservation of National Environmental Quality Act concerning pollution control.
- (5) To take actions on the petition concerning pollution.
- (6) To perform other functions as may be designated by law to be those of the Department or as may be entrusted by the Ministry or by the Council of Ministers.

DEPARTMENT OF ENERGY DEVELOPMENT AND PROMOTION

Kasat suk Bridge Bangkok 10330 Tel. 223-0021-9 , 222-4103-8,223-2593-5 Fax. 226-1416

FUNCTIONS

- (1) To investigate, compile, analyze, experiment and examine data related to energy sources, production, transformation, Transportation and distribution and utilization.
- (2) To study, plan and formulate projects related to energy and energy related activities. To design, construct and maintain of energy production facilities as well as facilities for energy transformation including transportation and distribution and utilization systems such as electricity generation from new and renewable surces of energy, fuel production from biomass and water pumping by electricity.
- (3) To lay down regulations and standards related to production, transformation, transportation and distribution, utilization and conservation of energy resources and regulate and oversee the enforcement of such regulations and standards.
- (4) To establish ratte for energy supplied by Department of Energy Development and Promotion
- (5) To secure, control, construct, buy, sell, rent, loan, transfer or receive energy production, transformation, transportation and distribution system and to issue permits for energy production or expansion of energy facilities
- (6) To provide energy technology transfer, promote energy audit training and disseminate energy issues related to energy production transformation, transportation and distribution, utilization and conservation as well as being coordination centre for cooperation on energy and related activites.

DEPARTMENT OF SCIENCE SERVICE

Rama VI Road, Ratchathewi, Bangkok 10400 Tel. 246-0064, 246-1382-6 Fax: 247-9468

FUNCTIONS

- To be government's scientific and technological laboratories.
- To provide chemical, physical and biological analysis services to governmental and private organizations
- To carry out research works on the utilization of the nation's natural resources and industrial and agricultural wastes for economic benefit.
- To provide analysis and testing services in order to control and certify the quality of industrial products, food and beverage.
- To provide consult and trouble shooting service for industry.
- To offer analytical chemistry training for university students and personnel of the various governmental and industrial laboratories.
- To render services concerning scientific and technological information.
- To establish, maintain and disseminate the national measurement standards in science and technology.
- To provide calibration, training and other related measurement services to industries and other agencies.

DEPARTMENT OF ENVIRONMENTAL QUALITY PROMOTION

60/1 Soi Phibun Wattana 7 Rama VI Road, Bangkok 10400 Fax : 278-3950

FUNCTIONS

- To provide public education and liaise with media on environmental protection.
- To collect and establish database on environmental information and technology
- To provide environmental knowledge to other government agencies and the private sector.
- To perform other functions specified by law.

OFFICE OF THE NATIONAL RESEARCH COUNCIL OF THAILAND

196 Pahnon Uothin Road, Chatuchak Bangkok 10900 Tel. 579-1370-9 Fax : 561-3035

FUNCTIONS

To advise the National Research Council policies and research programmes which are suitable to recommend to the Cabinet.

- To consider the establishment of scientific branches and recommend accordingly to the National Research Council
- To consider ways and means of obtaining funds for research and to advise the National Research Council on the acquisition of such funds.
- To submit to the National Research Council an annual report on the results of research.
- To promote and instigate research and research institutes.
- To Coordinate research in various branches of sciences.
- To promote and encourage government and private research.
- To maintain a register of research workers and persons qualified in various branches of sciences.
- To assign the conduct of particular research projects to assignees.
- To consider the preparation of a budget for research.
- To allot research grants and awards.
- To make contact and to promote cooperation with research institutes and research workers abroad
- To carry out any other matters which the law determines to be the functions of the National Research Council or the office of the National Research Council.

In addition, there are presently three research centers under the coordination of the office of the National Research Council of Thailand namely,

1. Thailand Satellite Remote Sensing Receiving Station : The Station is situated 40 km east of Bangkok in the Lad Krabang District. The reception area of the station covers most countries in South and Southeast Asia including the Philippines, Indonesia, Malaysia, Sri Lanka, Nepal and Bangladesh. The ground facilities are equipped with data processing and reproducing systems to enable the production of landsat, SPOT, MOS-1 data. These data products are then distributed to domestic and foreign users upon request. The application of satellite remote sensing data to natural resources survey in Thailand includes forestry, irrigation, land use, geology, water and mineral resources.
2. Sakaerat Environmental Research Station : This is a center for research in agriculture, forestry, land development, plant species conservation, plantation of softwood trees, changes in forest environment, prevention of shifting cultivation and meteorological data collection.
3. National Biological Control Research Center : This is a research center for activities in the prevention and control of blight including insects, plant and animal diseases, by means of biological processes rather than chemical agents.

OFFICE OF ENVIRONMENTAL POLICY AND PLANNING

60/1 Soi Phibun Wattana 7 Rama Vi Road, Bangkok 10400 Tel. 279-7180-9 Fax : 279-0672

FUNCTIONS

- To prepare the national policy and plan for enhancement and conservation of environmental quality in accordance with other national policies as well as to follow up and evaluate the policies
- To coordinate the preparation of environmental quality management plan according to the

enhancement and conservation of national environmental quality act.

- To monitor and prepare the report on a natural resources profile of problem/situation
- To coordinate the natural resources management according to the national policy and plan for enhancement and conservation of environmental quality, the national policies on socio-economic development plan ; and the environmental quality management plan.
- To provide guidelines, Term of References and review any government, and non-governmental program/project, which may cause a deterioration to the environmental quality.
- To initiate and provide guideline, role also to cooperate among various countries in the international environmental obligation.
- To make recommendations on policy and guideline as well as to coordinate in the administration and management of the administration environmental fund, including raising-fund campaign for environmental fund in accordance with the enhancement and conservation of national environmental quality act.
- To coordinate the management of regional environmental issues/program and project.
- To perform other functions as may be provided by authority of the Office of Environmental Policy and Planning, the Ministry, and/or the Cabinet.

OFFICE OF ATOMIC ENERGY FOR PEACE

16 Vibhavadi Rangset Road, Chatuchak Bangkok 10900 Tel. 579-0138, 579-5230 Fax : 561-3013

FUNCTIONS

The responsibilities of the Office of Atomic Energy for Peace (OAEP) are to initiate, promote and coordinate studies and research on the utilization of atomic energy, to lay down rules and regulations to ensure safe uses of atomic energy and radiation, to advise the Thai Atomic Energy Commission (Thai AEC) on permits for import, export and uses of radioisotopes, radioactive materials and special nuclear materials. The OAEP is an operative body of the Thai AEC which advises the Government on the national policies related to atomic energy. These policies are carried out and coordinated by the OAEP. The OAEP is also the official body responsible for international relations in the field of atomic energy. In addition, it represents Thailand at the International Atomic Energy Agency (IAEA), of which Thailand is a member.

THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH

169 Phahon Yothin Road, Chatuchak Bangkok 10900 Tel 579-1121, 579-5515, 579-0160 (30 lines) Fax 579-0180

FUNCTIONS

- 1. To initiate and conduct research and to provide scientific and technological services to state agencies and private enterprises for economic and social development of the country.
- 2. To conduct scientific and technological research in order to promote the utilization of natural resources appropriate to the economic conditions, environment, health and welfare of the people.
- 3. To improve productivity in accordance with the Government policies by propagating the results of scientific and technological research to benefit the country in agriculture, industry and commerce.
- 4. To train scientific and technological researchers.
- 5. To provide for the testing and measuring services and other scientific and technological services.

NATIONAL SCIENCE AND TECHNOLOGY DEVELOPMENT AGENCY

6th Floor, Jaran Insurance Building 401 Ratchadapisek Road, Bangkok 10310 Tel. 276-1314, 279-1325
 Fax : 276-1326

FUNCTIONS

The National Science and Technology Development Agency (NSTDA) is a funding and research organization established under the Science and Technology Development Act of B.E. 2534 (1991) on December 30, 1991. NSTDA is an autonomous organization operating under policy guidance of its own board, chaired by the Minister of Science, Technology and Environment. This special organization outside the normal framework of state-enterprise and civil service enables NSTDA to undertake a broad-based systematic approach towards developing and marshaling the whole S & T system of the country in support of national economic and social development. The newly-established NSTDA is comprised of a project and the three national centers formerly under the control of the Ministry of Science, Technology and Environment.

Those are :

1. Office of the science and Technology Development Board (STDB)
2. National Center for Genetic Engineering and Biotechnology (NCGEB)
3. National Metal and Materials Technology Center (MTEC)
4. National Electronics and Computer Technology Center (NECTEC)

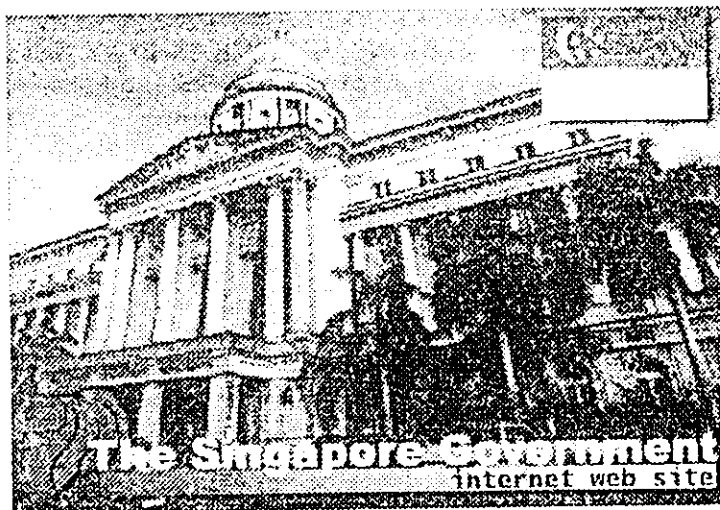
SIGNIFICANT ROLES OF NSTDA :

Science and Technology Development Enhancing scientific and technological knowledge and capabilities to increase the ability in production and in provision of services as well as to raise the level of economic and social development of the country, inclusive of the development of the capacity for assimilating and transferring technology both within the country and from other countries for national development in all aspect.

Research, Development and Engineering Analytical work(s) and study(ies) aiming at applying the

results to improve products or processes of industrial and agricultural production as well as service or other related activities, and analytical work(s) and study (ies) leading to new products, new processes, new services or new activities, including dissemination of the results and their further development towards the stage of commercial production.

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Singapore is a republic with a parliamentary system of government. The organs of state - the executive, the legislature and the judiciary - are provided for by a written constitution.

The Head of State is the President. The administration of the Government is vested in the Cabinet headed by the Prime Minister. The Prime Minister and the other Members of the Cabinet are appointed by the President from among the Members of Parliament. The Cabinet is collectively responsible to Parliament.

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MINISTRY OF THE ENVIRONMENT



The ministry is responsible for protecting and improving the environment. Its mission is to develop Singapore into a model Green City -- a city with a clean and healthy environment, and an environmentally-conscious and responsible people as well as a focal point for regional and international environmental activities.

Areas of Responsibility

Sewerage; Industrial Water Production, Drainage; Solid Waste Management; Public Cleansing, Licensing and Control of Public Swimming Pools, Funeral Parlours, Food Establishments, Offensive Trades, Hawkers, Markets and Food Centres; Abatement of Insanitary Conditions and Public Health Nuisances; Quarantine and Epidemiology; Vector Control; Control of Sale of Food; Burials, Cremations and Exhumations; Training and Environmental Health Education, Environmental monitoring and management; Air and Water Pollution Control; Control of Environmentally hazardous chemicals and wastes; Transboundary and Global Environmental Issues; Environmental strategies and research; Promoting waste minimisation and resource conservation and recycling of waste.

Departments

Finance & Administration Division:

- 1) Personnel and Administration Department
- 1) Finance and Development Department
- 1) Public Affairs Department
- 1) Computer Information Systems Department
- 1) Legal Department
- 1) Centre for Environment Training

2. Environmental Public Health Division:

- 1) Staff Inspectorate Unit
- 1) Environment Health Department
- 1) Hawkers
- 1) Quarantine & Epidemiology Department
- 1) Vector Control & Research Department
- 1) Food Control Department
- 1) Public Education Department
- 1) Waste Minimisation Department

Environmental Engineering Division:

- 1) Sewerage Department
- 1) Drainage Department
- 1) Engineering Services Department

Environmental Policy & Management Division

- Pollution Control Department
- International Environment & Policy Department
- Strategic Planning & Research Department

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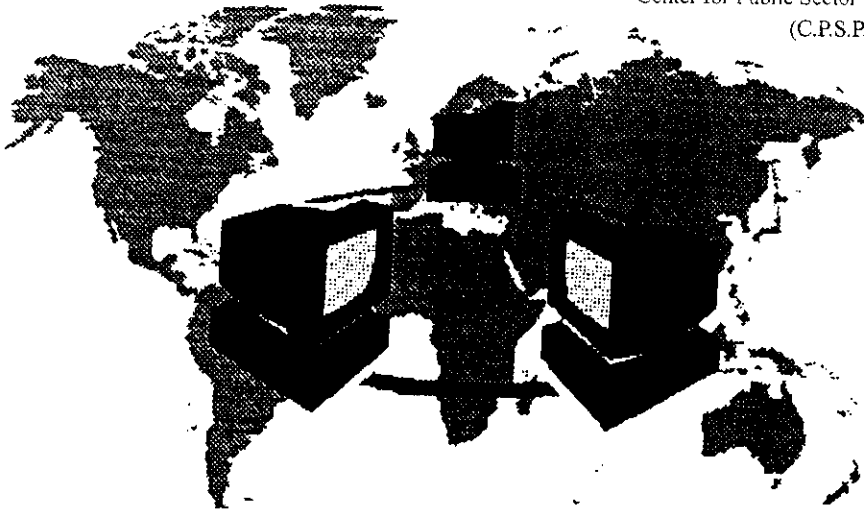


Department of Environment
Ministry of Science,
Technology and the Environment
Malaysia

Republic of Lebanon

Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

World
Wide
Web
Page



Welcome,

I would like to take this opportunity to welcome you to the Malaysian Department of Environment's World Wide Web page. This department, under the Ministry of Science, Technology and the Environment, monitors the state and quality of the environment and regulates the laws that are relating to the environment quality in Malaysia. We have branches in every state for this purpose.

This World Wide Web server's aim is to provide clear information of the environment in Malaysia and pointers to other resources relating to the environment within the region and the world. Every year, this department issues a Environmental Quality Report, summarizing the state of the environment in various areas and the environmental activities that are relating to those areas. This report is based on information gathered by the department regularly, amongst them, the Malaysian Air Quality Index. This report is essential to understand the true picture of the environment in Malaysia, especially for investors who are concerned about investing in Malaysia. There are rules and requirements concerning the environment that must be met in order to ensure that industry does not adversely effect the environment. For the responsible investors who wish to invest in businesses in Malaysia, we have produced a Investor's Guide to help you keep Malaysia a beautiful and clean place.

In closing, as the awareness of the environment grows worldwide and a movement for proper utilization of natural resources gains momentum, the Department of Environment will continue to be at the forefront of this movement by actively promoting awareness and to bring about the Caring and Responsible Society in line with our the Malaysian Vision 2020.

Ir Tang Meng Leng

Director-General of Environmental Quality,

Malaysia

الجمهورية اللبنانية

مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام