Foreword by Eurostat

This collection of contributions is one in a series of publications commissioned for the European Commission's Environment Directorate General and Eurostat, the Statistical Office of the European Communities, under the reference title *Towards Environmental Pressure Indicators for the EU* (TEPI). It should be seen as a first background document to the 'Environmental Pressure Indicators Project', providing a general overview of the main issues covered by the project.

The TEPI series consists of a set of four closely related volumes, aimed at raising awareness of the pressures put on the environment as a result of human activity. This is done through the creation of a framework for the regular production of environmental pressure indicators. These indicators are intended as tools for environmental policy-making at European Union level as well as providing information to the general public. Each volume is split into ten parts, representing each of the policy fields covered by the project, that is, Air Pollution, Climate Change, Loss of Biodiversity, Marine Environment and Coastal Zones, Ozone Layer Depletion, Resource Depletion, Dispersion of Toxic Substances, Urban Environmental Problems, Waste, Water Pollution and Water Resources, based on the themes of the 5EAP.[1] The starting-points of each volume have been the results of two surveys of environmental experts, carried out by Eurostat (see Editors' introduction).

The other volumes in the series are:

1. *Towards Environmental Pressure Indicators for the EU*, first edition 1999[2]
   This is Eurostat's reference publication on pressure indicators. It contains data for the set of 60 core pressure indicators selected by expert survey (see list on page xii and Editors' introduction).
2. *Towards Environmental Pressure Indicators for the EU – Indicator Definition*[3]
   This second background document provides a description of the policy fields and their respective indicators (mainly those identified as core indicators, see (1) above), and proposes recommendations for further research activities.
3. *Towards Environmental Pressure Indicators for the EU – An Examination of the Sectors*[4]

This third background document contains six reports drafted by national statistical offices, describing the links between the indicators and the economic sectors agriculture, energy, industry, tourism, transport and waste management.

The Working Documents, together with Methodology Sheets providing methodological background to the indicators, are available (or are intended to be made available) on the TEPI Web site (http://e-m-a-i-l.nu/tepi/), which provides a comprehensive description of the work done by Eurostat on pressure indicators and gives full contact details of the project team. Another related Web site (http://esl.jrc.it//envind), situated at the European Commission's Joint Research Centre in Ispra (Italy), provides a discussion forum on research aspects of the project.

Recent political priorities have focused on developing indicators on sectoral integration, that is, integrating the environmental dimension into sectors (mainly transport, energy, agriculture and industry). This sectoral aspect was already foreseen in the work on pressure indicators (see (3) above); however, the reallocation of priorities means that some of the future work referred to in these publications, for example the condensation of the indicators into a set of indices, has now moved further down the political agenda, although such a development is not excluded at a later stage.

The reader should be aware that the opinions expressed in these documents do not necessarily reflect the official viewpoint of the European Commission.

NOTES

1. Fifth Environmental Action Programme: Resolution of the Council and the Representatives of the Governments of the Member States meeting within the Council of 1 February 1993 on a Community programme of policy and action in relation to the Environment and Sustainable Development – Towards Sustainability (OJ 93/C 138 of 17.5.93).
2. ISBN 92-828-4978-3, EUR 36 (excl. VAT) from Office for Official Publications of the European Communities, L-2985 Luxembourg (first edition June 1999; second edition to appear in 2000).
3. Availabe as a Working Document (publicity to be provided on the TEPI Web site (http://e-m-a-i-l.nu/tepi/)
4. See note 3.

List of environmental pressure indicators developed by Eurostat in the TEPI publication[a]

Air Pollution	Emissions of nitrogen oxides (NO_x)	Emissions of volatile organic compounds (VOCs)	Emissions of sulphur dioxide (SO_2)	Emissions of particles	Consumption of gasoline & diesel oil by road vehicles	Primary energy consumption
Climate Change	Emissions of carbon dioxide (CO_2)	Emissions of methane (CH_4)	Emissions of nitrous oxide (N_2O)	Emissions of hydrofluoro-carbons (HFCs) (replacing Emissions of CFCs)	Emissions of perfluorocarbons (PFCs) (replacing Emissions of NO_x)	Emissions of sulphurhexa-fluoride (SF_6) (replacing Emissions of SO_x)
Loss of Biodiversity	Protected area loss, damage and fragmentation	Wetland loss (changed from Wetland loss through drainage)	Agriculture intensity: area used for intensive arable agriculture	Fragmentation of forests & landscapes by roads/ intersections	Forest damage (changed from Clearance of nat./semi-nat. forested areas)	Change in traditional land-use practice
Marine Environment & Coastal Zones	Eutrophication	Fishing pressure	Development along shore	Discharges of heavy metals	Oil pollution at coast & at sea	Tourism intensity (replacing Discharges of halogenated organic compounds)
Ozone Layer Depletion	Emissions of bromofluoro-carbons (halons)	Emissions of chlorofluoro-carbons (CFCs)	Emissions of hydrochloro-fluorocarbons (HCFCs)	Emissions of nitrogen oxides (NO_x) by aircraft	Emissions of chlorinated carbons	Emissions of industrially produced methyl bromide (CH_3Br) (changed from Emissions of CH_3Br)

Resource Depletion	Water consumption per capita (incl. ground water abstraction)	Use of energy per capita	Increase in territory permanently occupied by urbanization; infrastructure…	Nutrient balance of the soil (nutrient input/ nutrient output)	Electricity production from fossil fuels (mineral oil, natural gas & coal)	Timber balance (new growth/ harvest)
Dispersion of Toxic Substances	Consumption of pesticides by agriculture	Emissions of persistent organic pollutants (POPs)	Consumption of toxic chemicals	Index of heavy metal emissions to water	Index of heavy metal emissions to air	Emissions of radioactive material
Urban Environmental Problems	Urban energy consumption (changed from Energy cons.)	Non-recycled municipal waste	Non-treated urban wastewater (changed from Non-treated wastewater)	Car share of urban passenger transport (changed from Share of private car transport)	People endangered by noise emissions from urban traffic (changed from People endangered by noise emissions)	Urban land use (changed from Land use)
Waste	Waste landfilled	Waste incinerated	Hazardous waste	Municipal waste	Industrial waste (replacing Waste per product during a n° of products entire lifetime)	Waste recycled/ material recovered
Water Pollution & Water Resources	Emissions of nutrients (changed from Nutrient (N + P) use (eutrophication equivalents))	Ground water abstraction	Pesticides used per hectare of utilized agriculture area	Nitrogen used per hectare of utilized agriculture area	Waste water treatment (changed from Water treated/ water collected)	Emissions of organic matter as biochemical oxygen demand (BOD)

Note: [a] Indicators in parentheses are those developed in the second version to appear in 2000 which have been renamed or are new.