

The Dobris Assessment

Europe's Environment: The Dobris Assessment

An overview

Editors: David Stanners and Philippe Bourdeau

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Europe's environment: The Dobris Assessment - An overview

This publication summarizes the report "Europe's Environment: The Dobris Assessment". The report covers the state of the environment in almost all of Europe's nearly 50 States. This overview has been produced to help make the report accessible.

* Themes:

* Environmental information

Editors: David Stanners and Philippe Bourdeau

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INTRODUCTION

This publication summarizes a major report on the European environment which has been prepared by the EC Task Force for the European Environment Agency in cooperation with the UNECE, UNEP, OECD, Council of Europe, WHO, IUCN and Eurostat, together with the individual countries of Europe. Called Europe's Environment: The Dobris Assessment, the report covers the state of the environment in a Europe of nearly 50 States.

The report is aimed at all those concerned with the environment professionally, as well as those with a more general interest. It is intended to provide an objective basis for planners and developers involved in policy making and programming in environment and sectorial fields. It should also serve to inform and raise awareness generally about environmental problems facing Europe today.

This overview has been produced to help make the report accessible, introducing some of the main findings and results which have been reached.

Background to the report

The United Nations Conference on Environment and Development (UNCED), convened in June 1992, stressed that a new responsibility for environmental protection had to be shared by all countries if sustainable development were to become a reality. UNCED's action plan, 'Agenda 21', outlines the actions needed to halt and reverse environmental degradation and bring about sustainable development in all countries.

These concerns have also been the subject of a series of European initiatives. The Bergen Ministerial Conference (May 1990) on sustainable development in the ECE region emphasized the need to improve reporting on the state of the environment. Prompted by the changes occurring in Central and Eastern Europe, a joint meeting of environment ministers from this region, the EU and EFTA was held in Dublin in June 1990. This meeting produced the idea of holding regular European ministerial conferences to address environmental matters. The first of these 'pan-European' conferences took place in Dobris Castle in the former Czechoslovakia in June 1991. It was at this conference that the present report on the state of the European environment was called for. The second conference was held in Lucerne (1993) and the third is scheduled for 1995 in Sofia, with the aim of adopting an Environmental Programme for Europe (EPE) for which this report is a basic input.

Form of the report

The report is presented in several parts. Part I introduces the context and the reporting techniques used. Part II assesses the state of the environment in eight different fields. Part III examines the pressures which impact the environment and Part IV describes the sources of these pressures - human activities - in eight different sectors. Part V summarizes twelve major environmental problems in Europe. The major highlights of the report are concluded in Part VI, summarizing for each theme important findings, responses and policy options, information strengths and gaps. A statistical compendium to the report is published separately by Eurostat.

THE CONTEXT

1 Reporting on Europe's environment

Explains how the report has been developed and organized and the functions it fulfills. The coverage, constraints, information selection and assessment methods used are presented and discussed. The report model (see illustration) shows the analytical structure of the report and specifies the interrelationships between environmental assessment, policy making and implementation.

2 Environmental changes and human development

Provides the context for the assessment of Europe's environment where human action is now altering the global environment on an unprecedented scale. The interactions between environment and development are examined in relation to changes in human induced interferences with biogeochemical cycles. Demographic and economic growth are key to understanding human-induced pressures on the environment, and sustainability and carrying capacity are important concepts against which to analyse these problems. Europe often plays a disproportionate role in contributing to environmental change.

- . in the past 100 years, world population has tripled, the world economy has grown 20 times, fossil fuel consumption has increased by a factor of 30 and industrial expansion by a factor of 50 since the 18th century 6 million km² Of the world's forest — an area larger than Europe — has been cleared
- . world-wide as much sulphur and nitrogen is cycled by human activities as by natural phenomena

3 Europe: the continent

Europe is the second smallest continent, comprising little more than 7% of the Earth's land area. The continent is surrounded by nine major seas, including the world's two largest land-locked seas, the Caspian and the Black Sea. The area includes 46 States, of which 19 are in the EU and EFTA area, 21 in Central, Eastern and South-eastern Europe, four < small continental States and two are small island territories. The continent spans three climatic zones: the circumpolar, the temperate and the subtropical. The chapter discusses these, and the geological and biogeographic factors that give the continent its soil and vegetation patterns. It concludes with an account of landuse in Europe.

- . the proportion of European land devoted to agriculture varies from less than 10% in Finland, Sweden and Norway, to more than 70% in Hungary, Ireland, Ukraine and the United Kingdom
- . forest cover varies from 6% in Ireland to 66% in Finland
- . each decade 2% of agricultural land is lost to urbanization
- . Europe is two to three times more densely populated than the United States and Africa, but only half as much as Asia

The Assessment

The environment is assessed following the usual media breakdown; - air, water and soil - as well as in more integrated functional units of assessment: landscapes, nature and wildlife and urban. A summary of human health in Europe completes the picture

4 Air

Presents an overview of the state and trends of the air in Europe, examining sources, impacts and responses for air pollutants on local, regional and global scales. Although air quality is improving in some respects (SO₂), in others it is deteriorating. The impacts of air pollution on human health and the environment are major European problems and require regulations and conventions to set limits on emissions

- . short-term air pollution exceeds WHO Air Quality Guidelines at least once a year in most large European cities
- . short-term summer peak levels of ozone affect more than 100 million Europeans
- . critical loads for acidification are exceeded in more than 60% of Europe's area
- . globally, stratospheric ozone depletion and increased concentrations of greenhouse gases are looming problems

5 Inland waters

Reviews the state of groundwater, rivers and lakes, evaluates water quantity and quality trends, and relates both the state and the trends to natural processes and human activities. Where possible, the results highlight the condition of inland water in each European country and provide comparisons of the magnitude of water issues in different areas of Europe. The data were obtained from many sources, including national water resource surveys, as a result of EU legislation, state of the environment reports and the scientific literature, and from the results of a specially prepared questionnaire.

- . on average 15% of Europe's renewable water resources is abstracted every year, but there are large regional variations
- . industry withdraws about 53%, agriculture 26% and the domestic sector 19% of the total

- . 65% of the population is supplied from groundwater; in many areas, groundwater is overexploited and its quality under threat
- . estimated nitrate and pesticide levels in soil water exceed EU drinking water guidelines over much of the continent
- . eutrophication of rivers and lakes is widespread
- . acidification is a severe problem in a large part of Nordic countries

6 The seas

Evaluates the scale of a series of problems common to each of Europe's nine major seas - Mediterranean, Black Sea, Caspian Sea, White Sea, Barents Sea, Norwegian Sea, Baltic Sea, North Sea, North Atlantic Ocean. The problems are: lack of effective catchment management; coastal zone pollution; eutrophication; conflict of uses in the coastal zones; introduction of non-indigenous species; lack of control of offshore activities; over-exploitation of resources; and sea level rise as a result of global warming.

- . all seas, except for sub-arctic ones, face eutrophication problems. Nitrate has increased two to threefold in some coastal areas of the Black Sea and the Sea of Azov
- . insufficient control of offshore activities is creating pollution problems in the Black, North and Caspian seas
- . introduction of non-indigenous species had severe ecological impacts on the Black Sea
- . in the Mediterranean, endemic species, including the monk seal, are endangered
- . the Caspian Sea level has risen by 1.5 metres since 1977

7 Soil

Highlights the major role of soil in the functioning of ecosystems and the importance of soil protection for the maintenance of a healthy environment. The functions so performs and how they are affected by human activities < reviewed and assessed. The most severe soil degradation processes are overviewed. For each threat, the main cause magnitude, impacts and remedies are presented. Since the little quantitative information on soil degradation, most the assessments are qualitative. Some important quantitative assessments were calculated from updates of available maps or derived from case studies.

- . soil erosion in Europe affects 115 million ha causing loss of fertility and water pollution
- . critical loads for acidification are exceeded in 7; million ha of Europe's forest soils

- . widespread over-application of fertilisers result leaching and runoff and leads to eutrophication

8 Landscapes

Provides an overview of the values and functions that characterize cultural landscapes. Thirty major European landscape types are differentiated and the geographical locations presented on a map. Typical landscape stresses are illustrated with case studies. A portrait of legal and strategic measures for landscape conservation is given.

- . European landscapes are undergoing changes or disappearing because of agricultural intensification and abandonment,
- . urban expansion and the development of infrastructure and transport
- . 6% of Europe's land area is under landscape protection, but with generally a weak legal status

9 Nature and wildlife

Brown bear

Brown bears live in deciduous and coniferous woods in mountain areas and in plain taiga. In mountain areas they have a seasonal vertical migration up to altitudes of 3000 m. Despite their reputation as predatory carnivores, bears feed mainly on plants, berries, insects, small vertebrates and eggs. They are generally active at night and live in relatively small areas with a home range of 500 2500 hectares. Brown bears used to live in all parts of Europe, from Britain and Spain in the west to the Urals in the east. Today, they have completely disappeared from most Western and Central European countries. In the Pyrenees, the Alps and the north of Greece, only very small isolated populations are left. Brown bears were generally considered a danger to domesticated livestock and were persecuted everywhere. However, loss of habitat (large and coherent forest areas, free of disturbance) is another main reason for their decline (Council of Europe, 1989).

Analyses consecutively the states of ecosystems, fauna and flora, and nature conservation measures. The main habitat types are described and the ecological functions of and environmental threats to eight natural (or quasi natural) major ecosystem types are examined. The geographic distribution, management qualities and prevailing stresses are analysed and illustrated. Data for this assessment derive from a review performed by an expert network. The assessment of Europe's fauna and flora deals with seven groups of species. Special attention is given to threatened species according to Red Data lists. For both ecosystems and species, a number of case studies portray typical examples and give detailed information to illustrate the overall findings. Existing as well as potential legal and strategic measures in nature conservation are reviewed on national and international scales.

- . forests, that once covered 80-90% of Europe, now account for 33% of land cover
- . bogs, fens and marshes have disappeared in large numbers in Western and Southern Europe - Spain has lost 60%

- . between a third and half of all fish, reptiles, mammals and amphibians in Europe are under threat
- . the total area of European protected sites has trebled since 1972, but most are small and fragmented, and lack funds and staff for effective protection

10 The urban environment

Examines the quality of the urban environment in Europe and the impact of cities on the regional and global environment. Experimental urban environmental indicators are used to identify major problems in selected European cities. The assessment focuses on urban environmental quality, flows and patterns. The chapter stresses the need for an integrated approach to urban areas and examines planning and management strategies for improving the urban environment.

- . two-thirds of Europeans live in urban areas covering 1 per cent of the total land area
- . urban air quality has improved but is still frequently unsatisfactory in large cities
- . a city of 1 million inhabitants consumes daily an average of 11 500 tonnes of fossil fuels, 320 000 tonnes of water and 2 000 tonnes of food, and produces 25 000 tonnes of CO₂, 1 600 tonnes of solid waste and 300 000 tonnes of wastewater
- . urban water supply is neither allocated nor managed efficiently

11 Human health

Summarizes the main issues related to the health status of Europeans and the links between health and the environment. The review is based on the results of a contemporaneous assessment of environment and health performed by WHO Concern for Europe's Tomorrow. The simplest indicator of health is the self-assessment, which shows that of 14 European countries the residents of Norway and Sweden are most satisfied with their health. Other indicators of health are examined, including life expectancy and infant mortality, and the major causes of death in Europe - circulatory diseases, cancers, respiratory diseases, communicable diseases, and injury and poisoning - are reviewed. It concludes with a review of the major environment-related health problems in Europe.

- . of all air pollutants, suspended particulate matter poses the greatest problem to health, provoking asthma and obstructive airway disease
- . bathing water contamination results in more than 2 million cases of gastrointestinal diseases annually in Europe
- . life expectancy at birth is several years lower, and the infant mortality rate higher, in Central and Eastern Europe than in the rest of the continent

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Full Report

<http://reports.eea.europa.eu/92-826-5409-5>

Europe's environment : the second assessment

Published on 23 Jun 1998

<http://reports.eea.europa.eu/92-828-3351-8>

Europe's environment: the third assessment

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