

“Capacity Building and Strengthening Institutional Arrangement / Data Yearbook”

Workshop: “How to produce an Environmental Data Year Book”

Different kind of Environmental Data Yearbook

“The experience of Italy, Spain, Czech Republic, OECD and Eurostat”

**Ms. Mariaconcetta Giunta, Mr. Giovanni Finocchiaro,
Ms. Cristina Frizza, Mr. Luca Segazzi**

APAT

Agency for Environmental Protection and Technical Services

Environmental Data Yearbook

The experiences to comparison



ITALY



**CZECH
REPUBLIC**



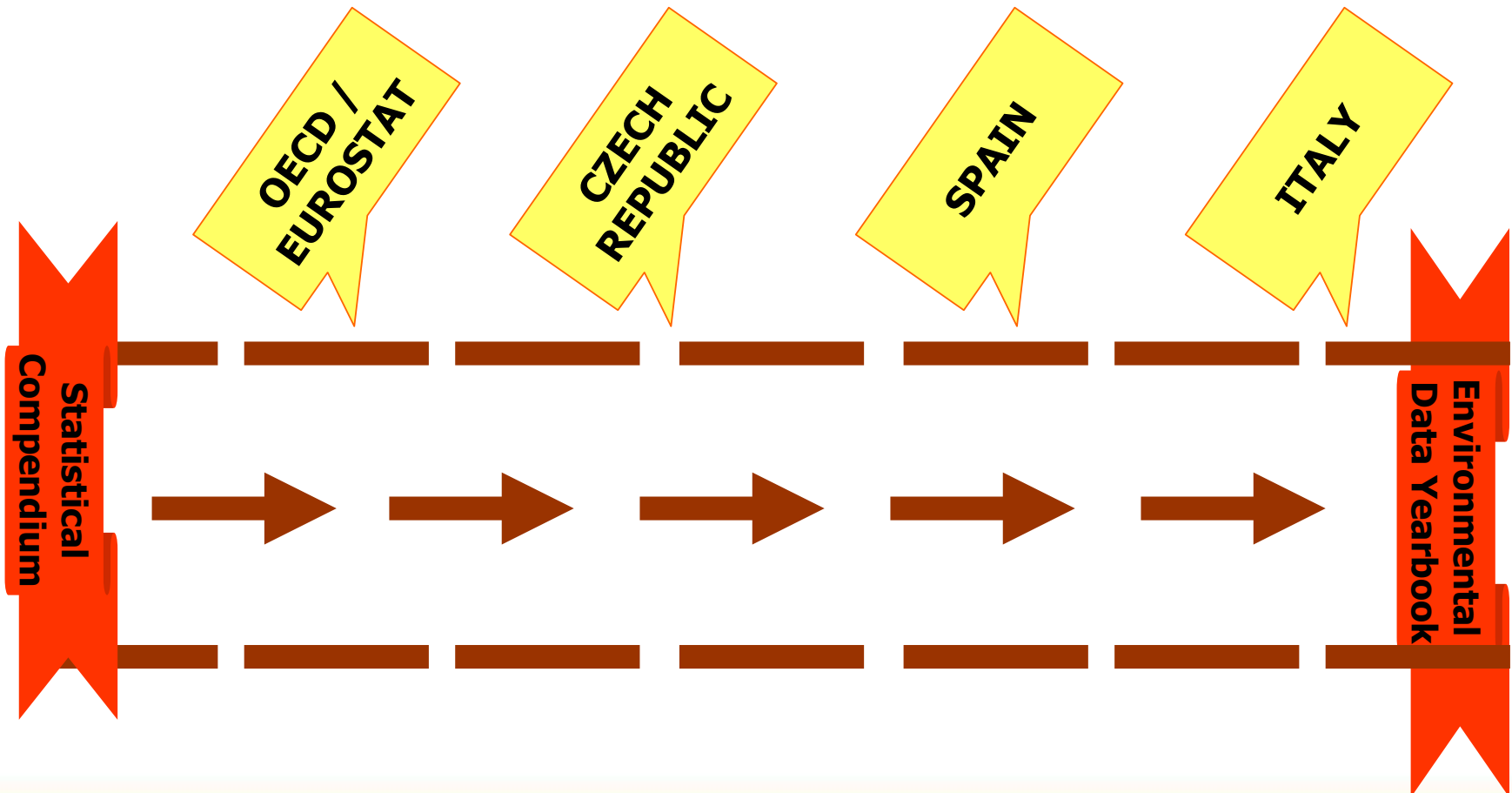
OECD/EUROSTAT



SPAIN

Environmental Data Yearbook

The experiences to comparison



Environmental Data Yearbook

The experiences to comparison

OECD/EUROSTAT Specificity:

- It has an institutional target range
- It does not show fact sheet indicators but show only tables with short comments and no one graphs
- It shows an introduction of the topic area
- It shows a list of tables for each topic area
- It shows an international comparison for each topic area

It is a statistical compendium useful to the international comparison

Environmental Data Yearbook

The experiences to comparison

CZECH REPUBLIC Specificity:

- It has a technical target range (researcher, scientists, etc...)
- It does not show fact sheet indicators but shows only tables with short comments and very few graphs
- It shows a framework of geographic information
- It shows a general framework also with demographic and economic information
- It shows an international comparison in terms of state of environment indicators
- It is realized to bilingual edition (Czech and English)

It is more similar to a statistical compendium than an usual environmental data yearbook

Environmental Data Yearbook

The experiences to comparison

SPAIN Specificity:

- It has a popular target range
- It shows indicators preferring to use graphs than tables
- It shows a framework of geographic information
- It shows a general framework also with demographic and economic information
- It shows a summary of the main conclusion
- It shows headline at the start of every indicators

It is really ready and willing but it has not enough metadata

Environmental Data Yearbook

The experiences to comparison

ITALY Specificity:

- It directs its attention to both the audience (technical and popular)
- It shows indicators using tables and graphs
- It shows real fact sheet indicators with a lot of metadata
- It underlines always the relationship between the DPSIR framework and every selected indicators
- It uses a specifically ranking table to summary the quality of information
- It shows a synthetic Chernoff icon to evaluate the trend of the phenomena and the achieving of the target fixed by law
- It shows a summary framework of evaluations about every topic area

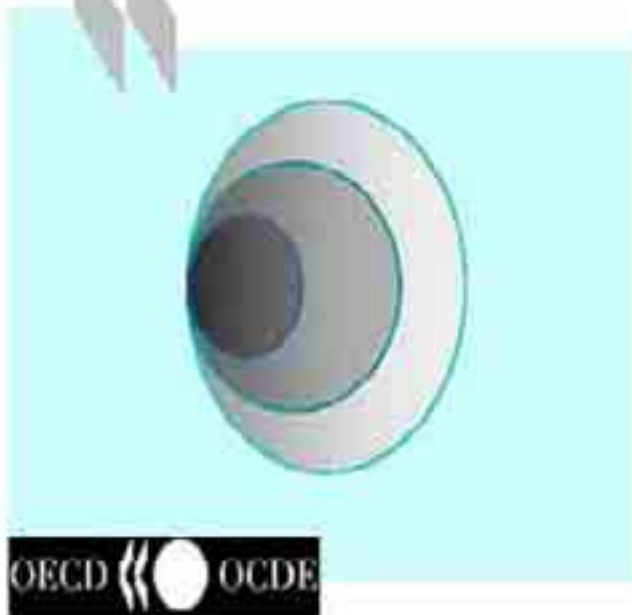
Focusing on metadata it is possible to:

- qualify the environmental context information
- describe the mean of the indicators

OECD Environmental Data

Données OCDE sur
l'environnement

COMPENDIUM 2004



OECD Environmental Data Compendium

2004

OECD Environmental Data

An indicator-based report

The AIM of the Data Yearbook

The aim of the “OECD Compendium of Environmental Data” is to present **the best internationally available data on the environment** and related areas.

It is a unique tool for harmonising environmental data at international level. It provides the basic data sets for the OECD work on environmental indicators and is an indispensable information base for the OECD country environmental performance reviews.

OECD Environmental Data

An indicator-based report

1. Introduction

PART I. THE STATE OF THE ENVIRONMENT (pressures and conditions)

2. Air and climate
3. Inland waters
4. Land
5. Forest
6. Wildlife
7. Waste
8. Risks

PART II. SECTORAL TRENDS OF ENVIRONMENTAL SIGNIFICANCE

9. Energy
10. Transport
11. Industry
12. Agriculture

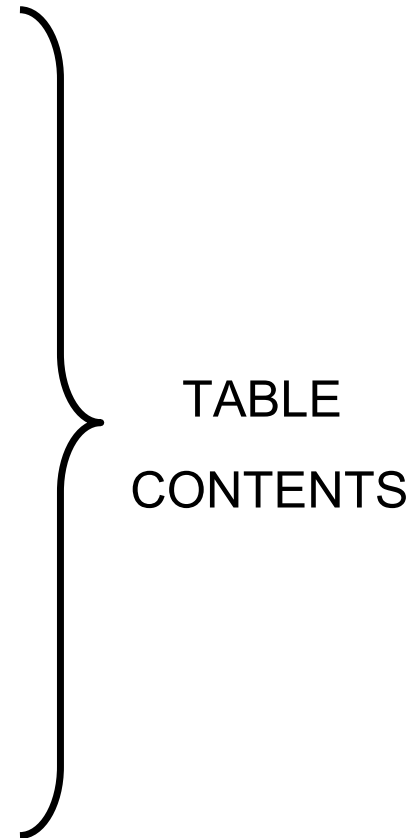
PART III. MANAGING THE ENVIRONMENT

13. Environmental expenditure and taxes
14. Multilateral agreements

15. General data

Annex 1: References

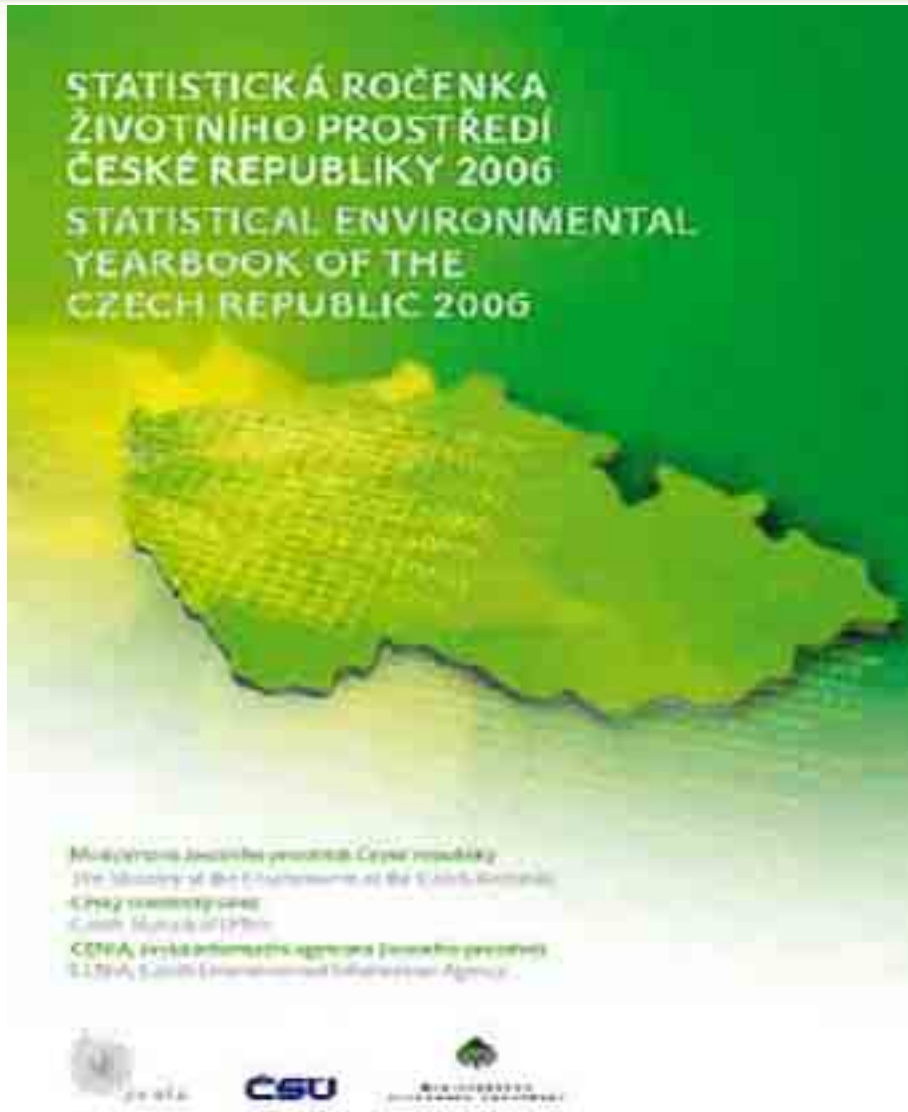
Annex 2: Abbreviations



List of the Members of the OECD Working Group
on Environmental Information and Outlooks

Structure of chapters

Each chapter opens with a **list of tables** present in the chapter and a **short introduction** that describe the contents of the chapter. Every table is anticipate to a **short description of each component** showed in the table.



Statistical Environmental Yearbook of the Czech Republic

2006

Environmental Data Yearbook

The experiences to comparison

CZECH REPUBLIC Specificity:

- It has a technical target range (researcher, scientists, etc...)
- It does not show fact sheet indicators but shows only tables with short comments and very few graphs
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Statistical Environmental of the Czech Republic 2006

An indicator-based report

The AIM of the Data Yearbook

The periodical “Statistical Environmental Yearbook of the Czech Republic”, the sixteenth in succession, appears as a joint publication of the Ministry of the Environment of the Czech Republic and of the Czech Statistical Office. The form of the publication this year is more similar to that of the practical Statistical Yearbook of the CR. In the yearbook, the reader may find concrete data and information on:

Driving forces

Tools

Pressures

Impacts

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Report on the State
of the Environment

analyses of the state of
the environment,
based on these data

Yearly

Statistical
Environmental
Yearbook

comprises data and facts without
comments, containing only a
basic explanation of the creation
of the individual indicators

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Integration of environmental aspects into the policies of the economic sectors

Harmonisation with the European Union

Constitute the main orientation of the state environmental policy

This year's edition also contains an enlarged chapter on international comparison of selected indicators that characterise the state of the environment. New chapters on Old Environmental Burdens and the Integrated Environmental Pollution Register have been included.

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Overview on EDY

- Contents
- Contents Structure
- Editorial format

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Table of contents

5 Sections

A: Environmental Change: Causes and factors

B: State and Trends of environmental components

C: The Environmental and Health

D: Instruments of Environmental Policy

E: Supplementary Information

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Table of contents

1. Authors and Contributors

For each thematic are written the name of “Excerpt and Editing”

2. Introduction

There is a short description of the yearbook and of his aim

3. Geographic Information

Here it is given most important geographic characteristics:

Area; temperature; population; Longest river;

Highest and lowest point; Largest lake etc

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Section A

ENVIRONMENTAL CHANGE

A.1 SETTLEMENT AND POPULATION MIGRATION

A1.1 Territorial Population Pattern

A1.2 Demographic Development

A.2 PRODUCTION AND CONSUMPTION

A2.1 Gross Domestic Product

A2.2 Expenditures of the Population

A2.3 Employment

A2.4 Agriculture

A2.5 Industry

A2.6 Energy

A2.7 Construction

A2.8 Transport

A2.9 Tourism

A.3 WASTE

A.4 CONTAMINATED SITES

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Section B

STATE AND TRENDS OF ENVIRONMENTAL COMPONENTS

B.1 AIR

B1.1 Emission Conditions

B1.2 Air Quality in CR in 2005

B1.3 Operation of Smog Regulation and Warning Systems and Meteorological Conditions in 2005

B.2 WATER

B2.1 Hydrological and Meteorological Conditions

B2.2 Water Quality

B2.3 Water Use, Water Management and Pollution Sources

B.3 SOIL AND GEOLOGICAL ENVIRONMENT

B3.1 Soil

B3.2 Geological Environment

Statistical Environmental of the Czech Republic 2006

An indicator-based report

**STATE AND TRENDS OF ENVIRONMENTAL
COMPONENTS**

Section B

B.4 FORESTS

B.5 WILDLIFE

B5.1 Specially Protected Areas

B5.2 Specially Protected Species

B5.3 Landscape Programs

B5.4 General Protection of Nature and the Landscape

B.6 PHYSICAL FIELDS

B6.1 Condition of the Ozone Layer over the Czech Republic

B6.2 Radiation Situation

B6.3 Radon Risk

B6.4 Noise

B6.5 Nonionizing Electromagnetic Radiation and Electrical and
Magnetic Fields

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Section C

THE ENVIRONMENTAL AND HEALTH

C.1 THE HEALTH STATE OF THE POPULATION

C.2 FOREIGN SUBSTANCES IN THE FOOD CHAIN

Section D

**INSTRUMENTS OF ENVIRONMENTAL
POLICY**

D.1 THE SYSTEM OF CHARGES

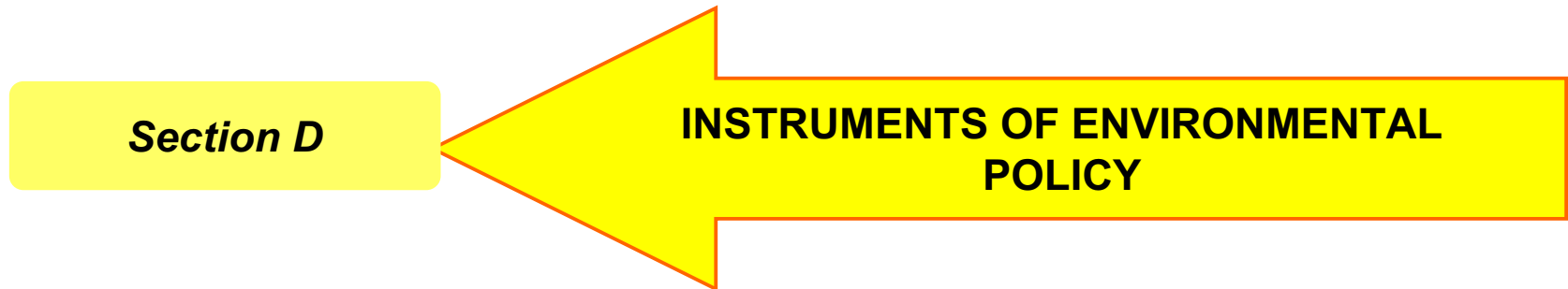
D1.1 Fees for Environmental Pollution

D1.2 Fees for Exploitation of Natural Resources

D1.3 Fines for Infringement of Environmental Laws

Statistical Environmental of the Czech Republic 2006

An indicator-based report



D.2 ENVIRONMENTAL EXPENDITURES

D2.1 Environmental Protection Expenditures from the State Budget, Territorial Budgets and State Funds

D2.2 Investments for Environmental Protection

D2.3 State Environmental Fund of CR (SFŽP ČR)

D2.4 Taxes and the Environment

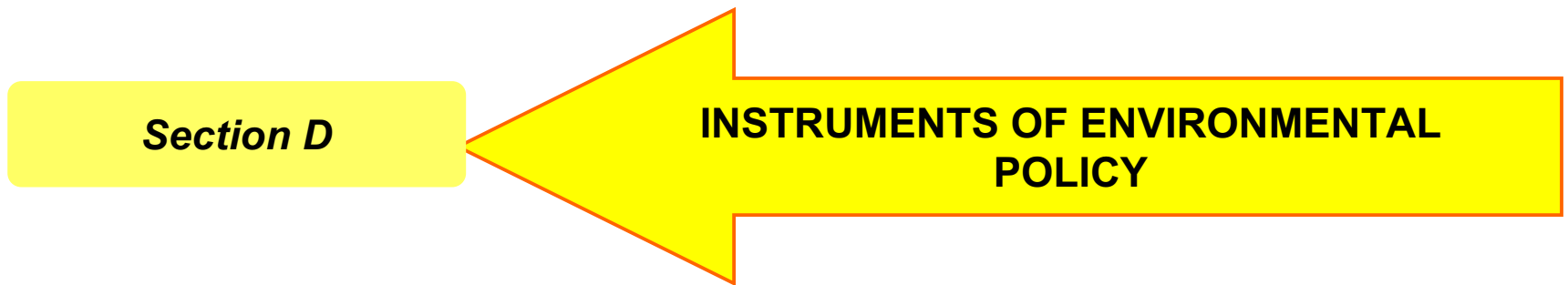
D.3 VOLUNTARY INSTRUMENTS

D3.1 The National Program for Labelling Products with an Ecologically Friendly Product Trademark

D3.2 EMAS, ISO 14 001, Cleaner Production

Statistical Environmental of the Czech Republic 2006

An indicator-based report



**D.4 ENVIRONMENTAL IMPACT ASSESSMENT – EIA/SEA INTEGRATED
POLLUTION PREVENTION AND CONTROL – IPPC**

D4.1 Environmental Impact Assessment – EIS/SEA

D4.2 Integrated Pollution Prevention and Control – IPPC

D.5 INTEGRATED POLLUTION REGISTER – IRZ (IPR)

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Section E

SUPPLEMENTARY INFORMATION

E.1 INTERNATIONAL COMPARISON IN TERMS OF INDICATORS

E.2 INTERNATIONAL COOPERATION

E.3 ENVIRONMENTAL EDUCATION, ENLIGHTENMENT AND PUBLIC AWARENESS

E3.1 Environmental Education and Public Awareness

E3.1.1 Sector of the Environment

E3.1.2 Non-governmental Nonprofit Organizations, Environmental Education, Information and Specialized Facilities

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Section E

SUPPLEMENTARY INFORMATION

E.3 ENVIRONMENTAL EDUCATION, ENLIGHTENMENT AND PUBLIC AWARENESS

E3.1 Environmental Education and Public Awareness

E3.1.3 Selected Events Related to Environmental Education, Enlightenment and Public Awareness and Work with the Public, held in 2005

E3.1.4 Information on Web Sites Related to the Environment

E3.2 Implementation of Local Agendas 21 in the Territory of CR

E.4 PUBLIC OPINION AND ATTITUDES

Statistical Environmental of the Czech Republic 2006

An indicator-based report

Other

LIST OF ABBREVIATIONS

MAP OF CZECH REPUBLIC REGIONS

MAP OF CZECH REPUBLIC DISTRICTS

Structure of chapters

Each chapter opens with **an introduction** that presents the essential characteristics of the sector analyzed and describes the changes, in some case it introduces the related laws and normative. It is divided in three parts.

In *the **first part*** there are the indicators, each indicator is presented by a description and a field called “Note on tables and figures”. In this field there is the list of tables and their descriptions.

In the ***second part*** you find all tables of the chapter.

In the ***third part*** there are the figures and the graphs related each indicator of the chapter.

Example of Chapter (1)

Section

STATE AND TRENDS OF ENVIRONMENTAL COMPONENTS

B1 - AIR

In the sphere of air protection, an entire system of instruments has been created primarily for the purpose of the information base for the pertinent decision-making processes, and is being further developed for objective monitoring and evaluation of the state and trends in air quality within the territory of the Czech Republic:

- recording of the amounts of emissions from air pollution sources,
- the
- the
- means of verifying of air pollution, emission and deposition data: emission and technical data about operating of sources, air pollution and deposition bases integrated in the Air Quality Information System (ISKO - AQIS).

The determining legislative framework providing listed components of air protection information support is Act No. 86/2002 Coll, in the valid version, concerning protection of the air, including complementary measures, Government Order No. 350/202 Coll., in the valid version, concerning limit values and procedures of monitoring, assessment, and quality.

B1.1 Emission Conditions

The national emission balance is based on the Register of Emissions and Air Pollution Sources (REZZO - REAPS) kept systematically since 1980 and operated from 1993, including archived

Chapter

Indicator

Example of Chapter (2)

Notes on Tables and Figures.

Tab. B1.1.1 to Tab. B1.1.3 Overall emissions of principal air pollutants, contributions of the individual regions to emissions and specific emissions

In the framework of the emission part of ISKO, provision is made for storage of annual reported and calculated emission information and related technical data from about 3500 very large and large air pollution sources (REZZO 1) and from more than 29 000 medium-sized sources (REZZO 2), information on the fuel composition of small sources (REZZO 3) and information on municipalities and municipal wards (REZZO 3) and information on emission sources (REZZO 4). Information on emission balances can be found on <http://www.chmi.cz/uoco/emise/embil/emise.html>.

In processing the data for 2005 using the method of determining the composition of automotive fuels and emissions of mobile sources classified under city transport, the consumption of diesel fuel was newly divided between means of transport and other off road mobile sources. The outputs of the up-dated balance of consumption of automotive fuels are related to the substantial reduction in emissions from agricultural and forestry machinery and other off-road vehicles (e.g. construction machinery). In connection with these changes, emissions were recalculated back to 2002.

Specific emissions are emissions of pollutants over a certain period of time, corresponding to a unit area of the territory. The specific emissions for 2005 include the above changes in data on emissions from mobile sources. Recalculation back to 2000 was not performed.

Tab. B1.1.3 Emissions of carbon dioxide and other gases contributing to climate change, 1990–2004

Title of table

Example of Chapter (3)

Tab. B1.1.3 Emissions of carbon dioxide and other gases contributing to climate change, 1990–2004

Skleníkový plyn Greenhouse gas	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	Mt CO _{2eq}							Mt CO _{2eq}							
CO ₂	163,3	145,3	130,5	127,8	122,9	124,3	123,0	133,0	125,6	117,2	122,1	122,0	117,9	122,3	122,4
- z toho CO ₂ emise - of which, CO ₂ emissions	165,1	155,3	140,7	136,7	131,7	132,1	133,9	130,4	129,7	127,1	129,0	129,0	124,0	128,1	127,3
- z toho CO ₂ propady v LULUCF ¹⁾ - of which, CO ₂ sinks in LULUCF ¹⁾	-1,8	-10,0	-9,7	-8,9	-8,3	-7,8	-10,9	-5,4	-3,6	-4,9	-6,9	-7,1	-6,7	-5,7	-4,9
CH ₄	18,6	17,0	15,9	14,8	13,9	13,6	13,5	12,7	12,3	11,6	11,5	11,5	11,4	11,1	10,9
N ₂ O	12,6	10,9	9,6	8,6	8,4	8,7	8,3	8,5	8,4	8,1	8,3	8,5	8,2	7,7	8,3
F-plyny F gases	*	*	*	*	*	0,1	0,2	0,3	0,4	0,3	0,4	0,6	0,5	0,7	0,7
Celkem Total	194,5	173,1	156,0	151,2	145,2	146,7	144,9	154,6	146,6	137,2	142,3	142,5	138,0	141,9	142,3
Mezinárodní letecká doprava International air transport	0,6	0,6	0,5	0,4	0,3	0,4	0,5	0,4	0,2	0,5	0,3	0,4	0,5	0,6	0,8

¹⁾ LULUCF – Land use, land use change and forestry

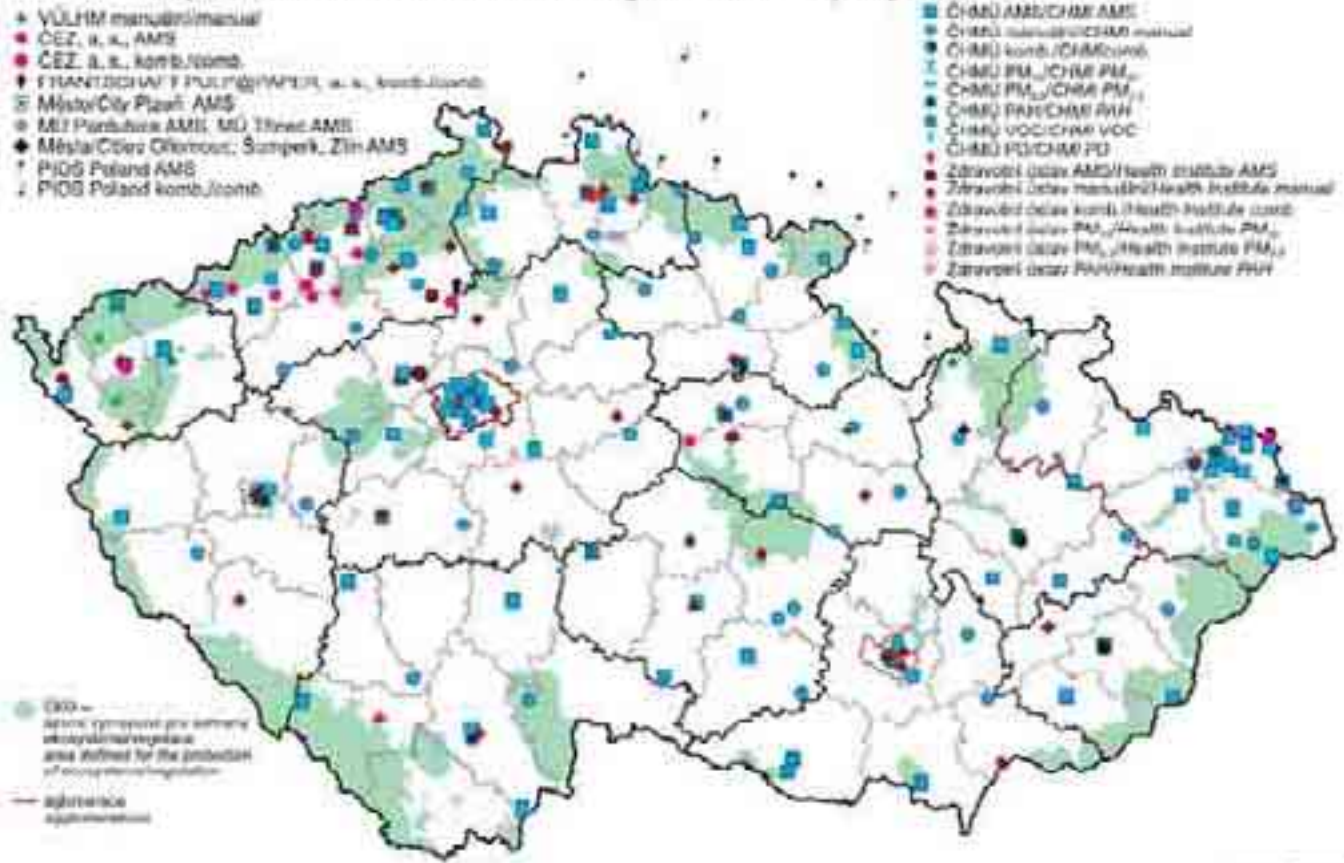
Note: The radiation potential values for individual greenhouse gases according to the valid methodology were used to calculate the aggregate emissions (CO₂)_{eq} (e.g. CO₂ = 1, CH₄ = 21, N₂O = 310). The inventory also includes emission sinks as a consequence of land use change and forestry. Emissions from international air transport are reported separately.

Table

Example of Chapter (4)

Obr. B1.2.1 Významné staniční sítě sledování kvality vnějšího ovzduší v r. 2005

Important station networks for monitoring the ambient air quality, 2005



Figure

Section E

SUPPLEMENTARY INFORMATION

E1 INTERNATIONAL COMPARISON IN TERMS OF INDICATORS

Tab. E1.1 Comparison of the level and trends in phenomena affecting the environment in CR and in selected countries

Comparisons are performed using a set of indicators created on the basis of official reported and published data from OECD, Eurostat, IEA and other international bodies, whose indicators are employed for international statistical comparison. Selected indicators mentioned in this chapter were taken and processed in the framework of a set of indicators administered by the CENIA agency as website indicators (<http://indikatory.env.cz>) where, in addition to information for the CR, a number of externally and internally obtained indicators are available, permitting international comparison. One of the targets of monitoring of these indicators, not only for the area of the environment, in addition to identification of mutual relationships between the individual indicators (or groups of indicators) or the cause of developments and the state of a given indicator, consists primarily in identification of topical areas following from international comparison.

As activities in the sphere of the environment are evaluated in relation to the degree of achieving general and specifically defined targets and plans or fulfilling of the international

to identification of mutual relationships between the individual indicators or the cause of developments and the state of a given indicator, consists primarily in identification of topical areas following from international comparison

Section E

E2 - INTERNATIONAL COOPERATION

Multilateral Agreements

An overview of international agreements is available on the Ministry of the Environment website at www.env.cz.

Official Development Assistance of the Czech Republic

The plan of projects of Official Development Assistance for 2005 was approved by Government Resolution 652 of June 23, 2004 with an overall budget of 600 mil. CZK. A total of 114 bilateral development projects were implemented in 2005, of which the greatest number were in the sectors of the environment (34 + 1 multilateral project), development education and enlightenment (19), agriculture (16), migration and security (12) and industrial development (12). Further projects were implemented in the sectors of education (9), health care (5), social development (4), coordination (2) and transport (1).

A total of CZK 468 838 thousand were allocated in 2005 for implementation of bilateral development projects, of which CZK 395 819 thousand were actually withdrawn. The greatest cause of incomplete withdrawal of funds was the fact that some projects were not implemented or their implementation was postponed to 2006. Official development assistance corresponded to 0.11% of the gross domestic income of the CR in 2005 (ODA/GDP).

We can find an overview of multilateral agreements and the date when the Czech Republic is entered into convention

Section E

E3 - ENVIRONMENTAL EDUCATION, ENLIGHTENMENT AND PUBLIC AWARENESS

The concepts of environmental enlightenment, education and public awareness or work with the public describe the influencing of the general population in providing information, assisting in the building of an appropriate hierarchy of values, favorable attitudes and active approaches in dealing with the environment. This consists of activities supporting sustainable development and implementation of the Agenda 21 basic document under local conditions.

E3.1 Environmental Education and Public Awareness

E3.1.1 Sector of the Environment

Ministry of the Environment (MŽP ČR)

The Ministry of the Environment is the coordinator of the State Program of Environmental Enlightenment, Education and Public Awareness (SP EEEA) in Czech Republic, adopted in Government Resolution No. 1048/2000 (amendment of Government Resolution No. 96/2002, Government Resolution No. 1010/2002 and Government Resolution No. 991/2003), as part of the implementation of Directive No. 90/313 EEC on free access to information, which was replaced by Directive No. 4/2003 in 2003. EEEA is simultaneously incorporated into the State Environmental Policy, adopted in Government Resolution No. 235/2004.

This chapter contains the name of the Agency or of the other corporations that work to spread environmental Education and their programmes

Section E

E4 - PUBLIC OPINION AND ATTITUDES

This chapter contains the results of "Our Society" surveys by the Centre for Public Opinion Surveys of the Institute of Sociology of the Academy of Sciences of CR and the Eurobarometer surveys in 2005. The surveys were carried out regularly each month in the form of standard questionnaires using the quota selection method. The subject of the environment and some related aspects are included in one of these questionnaires.

The selected set always consisted of persons over 15 years of age representing the population of CR above this age. The opinions of the individual groups of the population are analyzed when they are represented by a sufficient number of persons in the set.

Tab. E4.8-12 Results of the Eurobarometer survey related to the environment in the European Union and its Member States

These results are a selection from two regular reports on the state of public opinion in the countries of the European Union, published twice annually, in the spring and in the autumn.

The survey was held by the method of multi-level random selection and respondents consisted of inhabitants aged 15 years or more. The survey was performed by TNS Opinion & Social, a consortium consisting of TNS and EOP Gallup Europe.

**This chapter contains the results of some surveys
Those were carried out regularly each month in the form
of standard Questionnaires**

List of abbreviation

PREHLED HLAVNÍCH ZKRATEK LIST OF ABBREVIATIONS

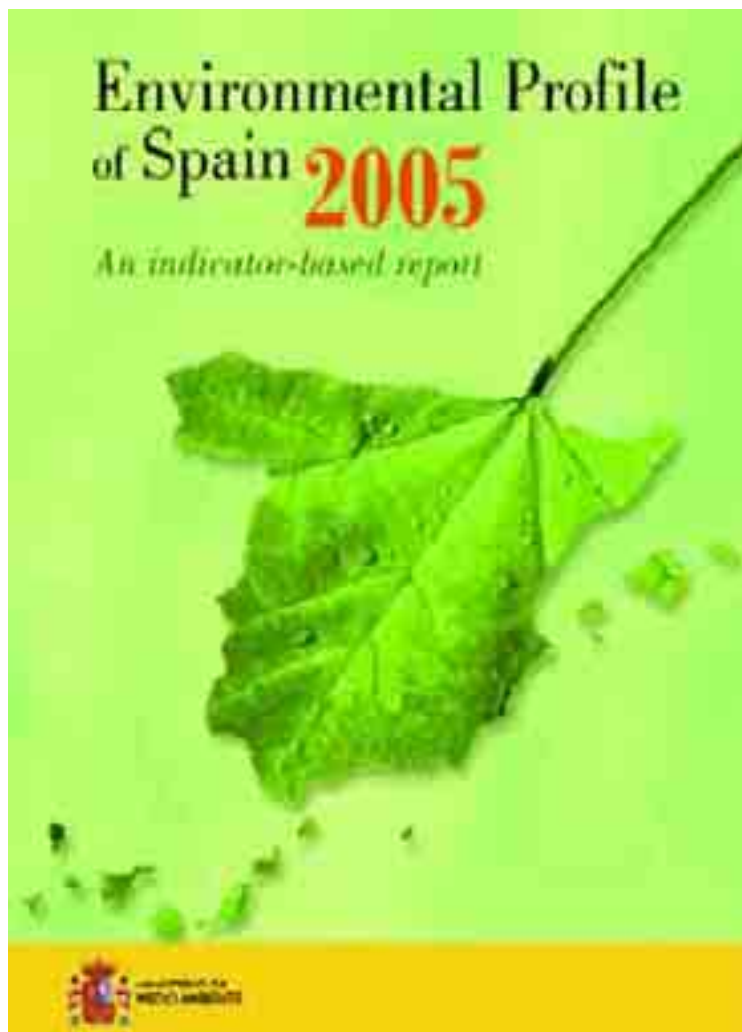
AIM	Automatizovaný imisní monitoring <i>Automatic Air Pollution Monitoring</i>
AOPK ČR	Agentura ochrany přírody a krajiny ČR <i>Agency for Nature Conservation and Landscape Protection of the CR</i>
AOX	absorbovatelné organicky vázané halogeny <i>absorbable organically bounded halogens</i>
AV ČR	Akademie věd ČR <i>Academy of Sciences of CR</i>
BČOV	biologická čistírna odpadních vod <i>biological water treatment plant</i>
BEZK	Brontosauři ekocentrum Zelený klub <i>Ecocentre Green Club of The Brontosaurus Movement</i>
BOD₅	biochemical five-day oxygen demand <i>viz BSK₅</i>
BSK₅	biologická pětidenní spotřeba kyslíku <i>see BOD₅</i>
CBD	Úmluva o biologické rozmanitosti <i>Convention on Biological Diversity</i>
CDV	Centrum dopravního výzkumu <i>Transportation Research Centre</i>

Map of CR Regions



Map of CR Districts





Environmental Profile of Spain An indicator-based report

2005

Environmental Data Yearbook

The experiences to comparison

SPAIN Specificity:

- It has a popular target range
- It shows indicators preferring to use graphs than tables
- It shows a framework of geographic information
- It shows a general framework also with demographic and economic information
- It shows a summary of the main conclusion
- It shows headline at the start of every indicators

It is really ready and willing but it has not enough metadata

Environmental Profile of Spain 2005

An indicator-based report

The AIM of the Data Yearbook

The aim of the “Environmental Profile of Spain 2005”, is to **provide the widest possible audience with useful and up-to-date indicator-based information on the state of Spain’s environment**, its natural resources and the environmental impact of the country’s main productive sectors.

Given the environmental situation, it’s possible to draw general conclusions about the way in which Spain’s environment is evolving and about the effectiveness of the policies implemented, but the aim of this report is **to give all the possible instruments and sources of information available to produce an objective and trustworthy diagnosis**. Nevertheless, the intention is not for this to be the only possible diagnosis; rather it is an open invitation to comparison and debate.

Environmental Profile of Spain 2005

An indicator-based report

Overview on EDY

- Contents
- Contents Structure
- Editorial format

Environmental Profile of Spain 2005

An indicator-based report

76 indicators

4 sections:

A: Summary of the main conclusion

B: Introduction

C: General Framework

D: Environmental and Sectoral Issues (14 chapters)

E: Appendices

Environmental Profile of Spain 2005

An indicator-based report

Section A

Summary of the main conclusion

1.SOCIAL-ECOLOGICAL CHALLENGES

- ✓ Increase in the size of urban agglomerations and in land cover along the coast.
- ✓ Increase in greenhouse gas emissions.
- ✓ Sustainability not being achieved in transport.
- ✓ Ever increasing waste.
- ✓ Threats to terrestrial and marine ecosystems remain.
- ✓ Decrease in fishing fleet capacity.

Environmental Profile of Spain 2005

An indicator-based report

Section A

Summary of the main conclusion

2. VARYING RESULTS ACHIEVED IN THE QUEST FOR ECO-EFFICIENCY

- ✓ Urgent need to increase water use efficiency.
- ✓ Energy use remains inefficient.
- ✓ Inefficient use of synthetic fertilisers and pesticides.

3. HOPEFUL SIGNS

4. GREAT EFFORT STILL REQUIRED

Environmental Profile of Spain 2005

An indicator-based report

Section B

INTRODUCTION

THIS SECTION DESCRIBES IN DEEPER:

- ✓ **OBJECTIVES** *of the environmental yearbook*
- ✓ **STRUCTURE** *of the environmental yearbook*
- ✓ **BACKGROUND** *of the creation of the environmental yearbook in Spain*
- ✓ **ENVIRONMENTAL OVERVIEW OF SPAIN:** **A SUMMARY OF THE COUNTRY'S PROFILE** → *a list of the most relevant environmental issues in Spain, obtained although a survey to the opinion of the environmental experts and managers in Spain.*

Environmental Profile of Spain 2005

An indicator-based report

ENVIRONMENTAL OVERVIEW OF SPAIN:
A SUMMARY OF THE COUNTRY'S PROFILE

Area / Sector	Indicator	
Air	Atmospheric emissions of green house gases	10 MEILLYME 101
Water	Water consumption	
	Wastewater treatment	
Waste	Urban waste generation	
	Urban waste treatment	
Nature and biodiversity	Protected areas	
	Habitat fragmentation due to transportation infrastructure	
Agriculture	Irrigated land area and water consumption	
Energy	Renewable energies	
Natural and technological hazards	Forest fires	
Air	Atmospheric emissions of acidifying and eutrophying gases	10 MEILLYME 101
Waste	Hazardous waste generation	
Agriculture	Eco-efficiency in agriculture	
Energy	Primary energy intensity	
Industry	Eco-efficiency in industry	
Transport	Emissions of CO ₂ from transport	
Urban environment	Urban pressure on land	
	Air quality in the urban environment	
Water	Organic pollution of rivers	12 MEILLYME 101
Waste	Remediation of contaminated land	
Energy	Eco-efficiency in the energy sector	
Transport	Total transport volume	
Land cover	Changes in land use	Added indicator 6 EYES RECYCLING BY EP2004E
	Area developed within a kilometre of the coast	

C: General Framework

General Framework, contains a summary of the information on the various territorial, economic and social issues relevant to Spain provided in greater detail the previous year.

In particular, it describes the situation as regards landscapes, the European commitments derived from the European Landscape Convention (Florence, October 2000), and their repercussions for Spain.





This chapter also examines the impact of the recently witnessed changes in the Spanish population, as recorded in the Census of Population and Housing 2001 carried out by the INE, and the municipal register published by the INE on January 1st 2004, as well as analysing the increase in the immigrant population.

General Framework

- Natural environment
- Economic activity
- Population
- Social welfare
- Spanish attitudes to the environment
- Public participation

D: Environmental and Sectoral Issues

(14 chapters)

 <p>2.1 Air / 51</p> <ul style="list-style-type: none"> • Atmospheric emissions of greenhouse gases • Atmospheric emissions of acidifying and sulphuric gases • Emissions of tropospheric ozone precursor gases • Emissions of ozone-depleting substances • Regional background air quality in Spain by the production of vegetation, SO₂, NO_x and ozone 	 <p>2.2 Water / 71</p> <ul style="list-style-type: none"> • Water consumption • Nitrate pollution of groundwater • Salinization of groundwater • Eutrophication of reservoirs • Organic pollution of rivers • Urban wastewater treatment • Quality of coastal bathing waters 	 <p>2.3 Land / 80</p> <ul style="list-style-type: none"> • Land cover • Area developed within a kilometre of the coast • Land area affected by erosion • Area at risk from desertification • Identification of contaminated land
 <p>2.4 Nature and biodiversity / 105</p> <ul style="list-style-type: none"> • Protected areas • Forest depletion • Endangered species • Habitat fragmentation due to transportation infrastructure • Invasive alien species 	 <p>2.5 Waste / 110</p> <ul style="list-style-type: none"> • Urban waste generation • Urban waste treatment • Glass, paper and cardboard recycling rates • Packaging waste recycling and reuse • Production and use of sewage sludge • Household waste generation 	 <p>2.6 Agriculture / 135</p> <ul style="list-style-type: none"> • Fertiliser consumption • Pesticide consumption • Organic farming • Irrigated land area • Eco-efficiency in agriculture
 <p>2.7 Energy / 150</p> <ul style="list-style-type: none"> • Primary energy intensity • CO₂ emissions intensity • Renewable energies • Eco-efficiency in the energy sector 	 <p>2.8 Industry / 157</p> <ul style="list-style-type: none"> • Atmospheric emissions from industry • Energy consumption by industry • Total industrial equipment • Number of industrial sub-sectors with investment in energy-efficient systems • Eco-efficiency in industry 	

D: Environmental and Sectoral Issues

(14 chapters)



2.9 Fishing / 181

- Number of vessels and capacity of the fishing fleet
- Fishing fleet catches in different waters
- Marine aquaculture production
- Fuel efficiency in the fishing and marine aquaculture sectors



2.10 Tourism / 100

- Number of foreign tourists per resident
- Number of visitors to National Parks
- Urban waste generation attributable to tourism
- Income generated by tourism in terms of GDP and employment
- Eco efficiency in the tourism sector



2.11 Transport / 200

- Total transport services modal distribution
- Emissions of CO₂ from transport
- Air transport
- Motorisation and accident rate
- Investment in road transport infrastructure
- Eco efficiency in transport



2.12 Households / 219

- Number of passenger cars per household
- Urban waste production per household
- Energy consumption per household
- Emissions of CO₂ from the residential sector
- Water consumption per household
- Fuel consumption of households
- Fuel efficiency in the domestic sector



2.13 Urban Environment / 291

- Urban pressure on land
- Air quality in the urban environment
- Ambient noise
- Monumental heritage of Spain's cities
- Local mobility and passenger transport
- Local Agenda 21



2.14 Natural and Technological Hazards / 200

- Health due to natural hazards
- Drought periods
- Forest fires
- Discharge of dangerous substances due to war and civil war risks
- Oil spills due to maritime accidents
- Discharge of dangerous chemical substances due to industrial accidents

Structure of chapters

Each chapter opens with **an introduction** that presents the essential characteristics of the sector analyzed and describes the changes, if any, observed since the “Environmental Profile of Spain 2004”. **The indicators** selected, **their targets** and **the variations** noted *are listed in a table*. The presentation is followed by **analysis of each of the indicators**, beginning with **a headline** that summarizes the variations seen over the year or the trend observed in the indicator. *Graphs are used to show the changes in recent years* and, when the indicator so requires or allows, graphs are also used to show the distribution by Autonomous Region. In general, the report mentions the dimension of each indicator and its distance from or closeness to the goals and targets set, which may consist of either international commitments or those established under Plans approved in Spain.

Structure of chapters

Each chapter then ends with **complementary information that includes notes, the sources of information used and a list of websites** from which further information is available.

The chapters dealing with the *various economic sectors* close with an **analysis of the eco-efficiency of that sector**, representing in graph form how close the sector is to achieving decoupling between economic development and environmental pressure, the target set by the OECD and assumed and developed by the EEA.

Home page Chapter



First information of Chapter

Introduction Environmental and Sectoral Issue

“Agriculture”

List of indicators, their “target” and “trend”

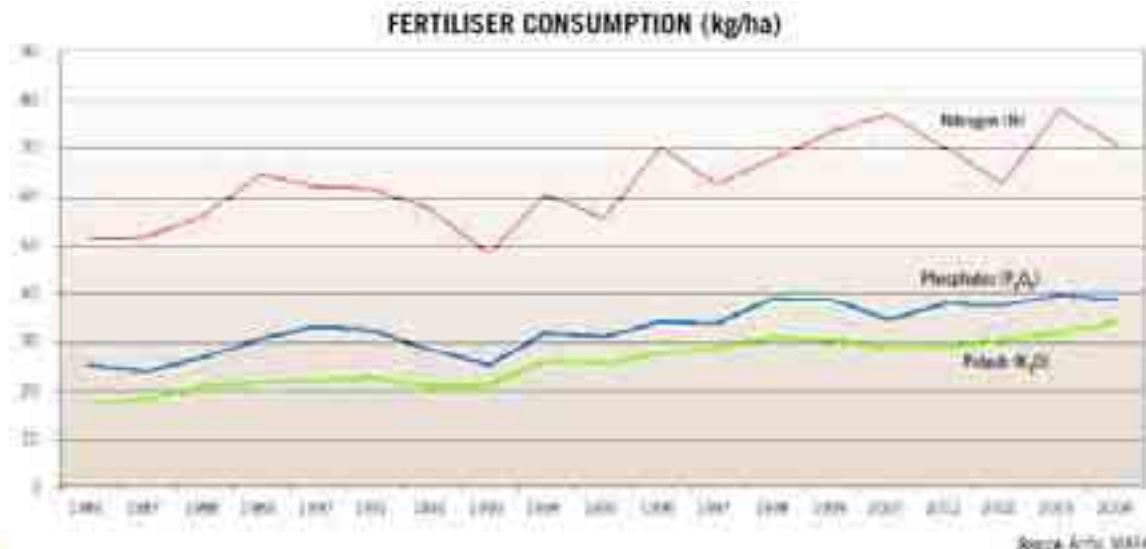
INDICATOR	TARGET	TREND
Fertilizer consumption	Decrease in fertilizer consumption	Increase in consumption in 2003
Pesticide consumption	Decrease in pesticide consumption	Pesticide consumption stabilized in 2003-2004
Organic farming	Increase organic farmland in relation to overall agricultural land	The area of land continues to increase, but there is a fall in the rate of growth
Irrigated land area	Introduction of irrigation systems which are more efficient	Irrigated land area is increasing in some Autonomous Regions and falling in others
Eco-efficiency in agriculture	Increase the economic value of agricultural production, thereby reducing pressure on the environment	GPA is stabilising and the other variables considered are rising, leading to a fall in productivity

Indicator Fact-sheet

“Fertiliser consumption”

Headline: Although a drop in consumption was recorded in 2004, the previous upturn in 2003 means no clear trend is visible.

Graphs:



Indicator Fact-sheet

“Fertiliser consumption”

NOTES:

NOTES

- The data on fertiliser consumption for 2003 and 2004 are provisional. These data, published by the Spanish Ministry of Agriculture, Fisheries and Food, are provided by the Spanish Fertiliser Manufacturers' Association (ANFFE - Asociación Nacional de Fabricantes de Fertilizantes).
- Total fertilised land refers to arable land (less fallow and other unoccupied land), plus natural pastures, according to data provided by the Secretariat General for Agri-Food Statistics, Sub-Secretariat of the Ministry of Agriculture, Fisheries and Food, Spain.

SOURCES

- “Facts and Figures on Agriculture, Fisheries and Food in Spain” (Hechos y Cifras de la Agricultura, la Pesca y la Alimentación). Documentation and Information Department of the Technical Secretariat General, Ministry of Agriculture, Fisheries and Food, Spain, Madrid, 2004.
- Agri-Food Statistics Yearbook 2004, Ministry of Agriculture, Fisheries and Food, Spain.

USEFUL INFORMATION

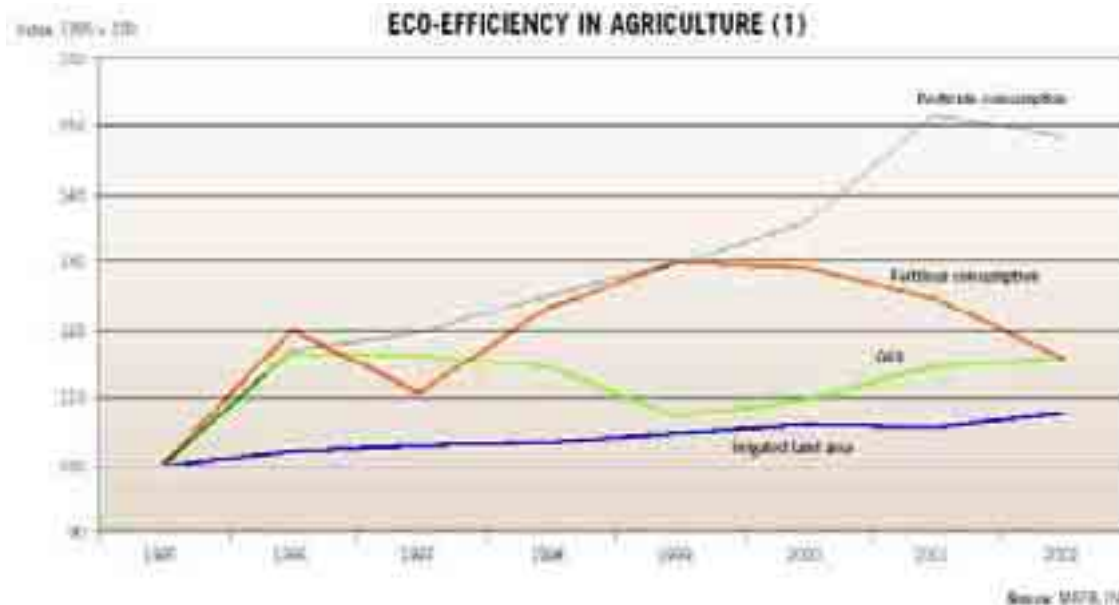
- www.mapa.es

Indicator Fact-sheet

“Eco-efficiency in agriculture”

Headline: There is a contrast between the increase in efficiency by surface area and the inefficiency in the use of fertilisers and pesticides.

Graphs:



Indicator Fact-sheet

“Eco-efficiency in agriculture”

NOTES:

NOTES

- The Gross Value Added figure is that presented by activity by the Spanish National Institute of Statistics (Instituto Nacional de Estadística, INE) at current prices for agriculture, livestock, forestry and fishing.

SOURCES

- Ministry of Agriculture, Fisheries and Food, Spain.
- INEbase Regional Accounts of Spain, Database 1995.
- National Atmospheric Emissions Inventory, Ministry of the Environment, Spain.

FOR FURTHER INFORMATION

- www.mapya.es

E: Appendices

Appendices

- I. List of acronyms and abbreviations
- II. Thematic index of indicators
- III. Alphabetical index of indicators
- IV. EIONET representatives and consultants and other experts who have contributed to this document



Environmental Data Yearbook Italy

2005-2006

Environmental Data Yearbook

The experiences to comparison

ITALY Specificity:

- It directs its attention to both the audience (technical and popular)
- It shows indicators using tables and graphs
- It shows real fact sheet indicators with a lot of metadata
- It underlines always the relationship between the DPSIR framework and every selected indicators
- It uses a specifically ranking table to summary the quality of information

Environmental Data Yearbook

The experiences to comparison

ITALY Specificity:

- It shows a synthetic Chernoff icon to evaluate the trend of the phenomena and the achieving of the target fixed by law
 - It shows a summary framework of evaluations about every topic area
- Focusing on metadata it is possible to:
- qualify the environmental context information
 - describe the mean of the indicators

Environmental Data Yearbook

The experiences to comparison

Overview on EDY

- Contents
- Contents Structure
- Editorial format

250 indicators

4 sections:

A: Introductory elements

B: Productive sectors (D,P)

C: Environmental conditions (S,P,I)

D: Responses (R,I)

23 chapters

10 environmental topic areas:

atmosphere

biosphere

hydrosphere

geosphere

waste

ionising radiations

non-ionising radiations

noise

natural risk

anthropogenic risk

5 product activities:

agriculture

energy

transport

tourism

industry

4 responses:

Environmental quality of organizations,
firms and products

Monitoring and control

Promoting and spreading environmental
culture

Environment and health

40 environmental topics

19 synoptic tables

40.000 meta-information tables

390 figures, 400 tables

Environmental Data Yearbook

Section A

4 chapters

Guide and introduction to the Yearbook

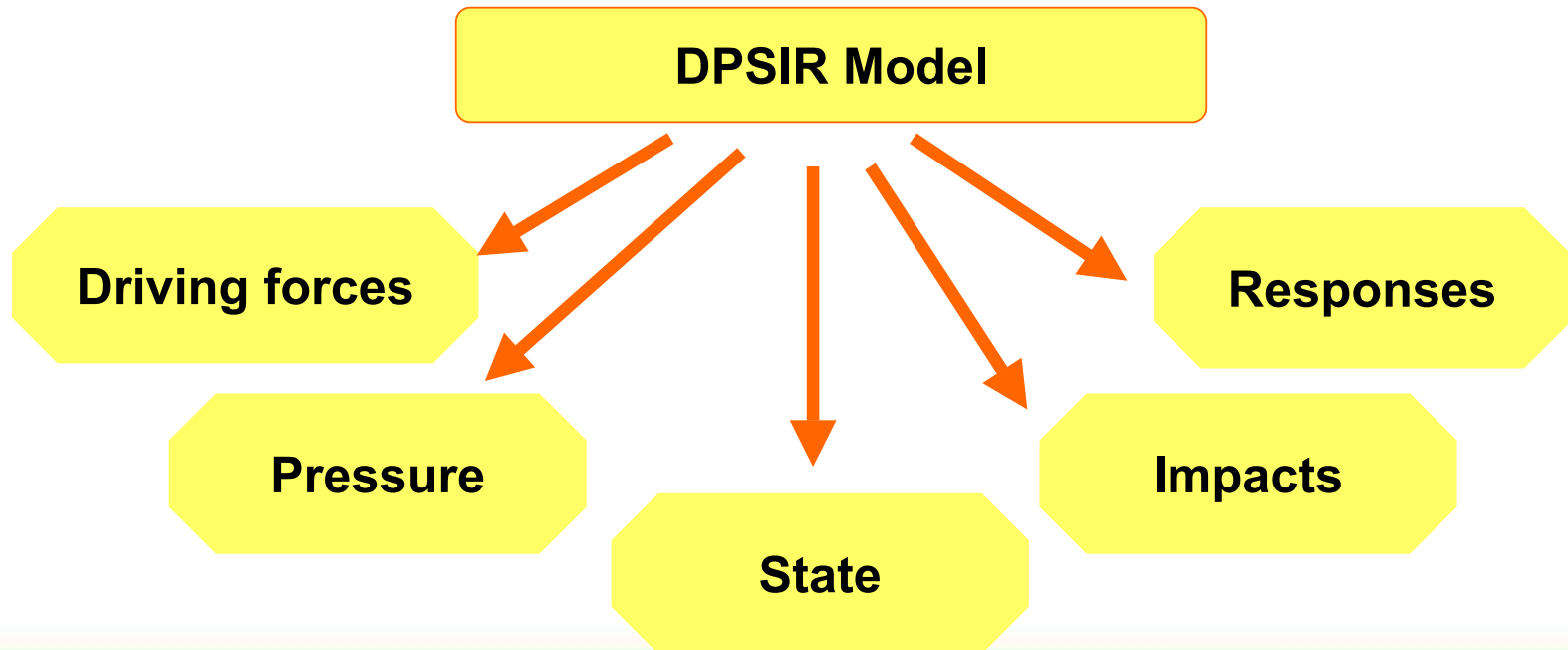
4 chapters:

- I, II: Guideline for reading the Yearbook
- III, IV: Methodological chapters

Environmental Data Yearbook

Sections B, C, D

Information contents (data and metadata) about indicators



Structure of chapters

- Synoptic table
- Introduction
- Table of Assessments
- SINAnet themes
- Bibliography
- Indicator fact-sheets

Home page Chapter



CAPITULO 7

Autori: Jean ALONZI, Antonella AZICINELLI, Paolo BONALDI, Alessandro BIFFONI, Elisabetta COCCARESE, Roberto D'AMICO, Stefania FICO, Eli Giovanni FRACCARANO, Susanna GLOTTI, Nilwale MUMFO, Claudia PICCIP, Barbara SERRA, Yvonne SILLI

Curatori: Giovanni FRACCARANO

Redattori: Claudio PICCIP

2007

Synoptic table of indicators (1)

QX: SYNOPTIC TABLE OF INDICATORS						
SINA net theme	Indicator	DPSIR	Quality Information	Coverage		State and Representation
				<i>S</i>	<i>T</i>	<i>Trend Tables Figures</i>

Indicator name

DPSIR Category

Is the specific topic of the indicator

Quality of information

Quality of information is based on:

- Relevance
- Accuracy
- Comparability in time
- Comparability in space

Ranking Table

Grade	Quality of information	Sum
★★★	HIGH	Between 4 and 6
★★	MEDIUM	Between 7 and 9
★	LOW	Between 10 and 12

Synoptic table of indicators (2)

QX: SYNOPTIC TABLE OF INDICATORS							
SINAnet theme	Indicator	DPSIR	Quality	Coverage		State and Representation	
			Information	S	T	Trend	Tables

Spatial coverage

Level of geographical coverage of data use
to build the indicator




Temporal coverage

Time period of available timeseries

Synoptic table of indicators (3)

QX: SYNOPTIC TABLE OF INDICATORS					
SINAnet Indicator theme	DPSIR	Quality Information	Coverage S	T	State and Representation <i>Trend Tables Figures</i>

State and Trend

	the targets will reasonably be achieved
	the indicator subject-matter is moving in the right direction, but the targets will hardly be achieved within the established timeframe
	all other cases

Introduction to topic area

Description of the topic area and the related environmental problem

Table of assessments

Selection criteria

<i>Trend</i>	Name of indicator	Description
	The most representative among those with positive trend	
	The most representative among those with a stationary trend	
	The most representative among those with negative trend	

SINAnet theme

- Main information
- Table of characteristics


Qxy: TABLE OF THE CHARACTERISTICS OF "SINAnet Theme" INDICATORS

Code of indicator	Name of indicator	Aim	DPSIR	Regulatory references

Bibliography

Documents, publications, reports, links, internet sites related to topic area

Indicator Fact-sheet

NAME OF INDICATOR INDICATOR CODE	
DESCRIPTION	
Detailed description of indicator: methodology of construction, explanation of contents	
UNIT OF MEASURE	
DATA SOURCES	
UPDATING INDICATOR	
Necessary lapse of time to update indicator	

Indicator Fact-sheet

INFORMATION QUALITY

Relevance	Accuracy	Comparability in time	Comparability in space
2	2	2	1

It supplies information on the data quality

★ ★

AIM AND LIMITS

It supplies aim and limits of indicator

TARGETS FIXED BY LAW

It describes national and international targets related to indicator

Indicator Fact-sheet

STATE AND TREND

It explains the reason of determination of Chernoff icon

COMMENTS TO TABLES AND FIGURES

It supplies further tools to read tables and figures



Example of “Synoptic table”

Q10: QUADRO SINOTTICO INDICATORI								
Tema SINAnet	Nome Indicatore	DPSIR	Qualità Informazione	Copertura		Stato e Trend*	Rappresentazione	
				S	T		Tabella	Figure
Emissioni	Emissioni di gas serra (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆): trend e disaggregazione settoriale	P	★★★	I	1990-2002	☹️	10.1-10.7	10.1-10.4
	Produzione di sostanze lesive per l'ozono stratosferico (CFCs, OCL ₂ , HCFCs)	D	★★★	I	1990-2003	☺️	10.8	10.5
	Emissioni di sostanze acidificanti (SO _x , NO _x , NH ₃): trend e disaggregazione settoriale	P	★★★	I R	1980-1985, 1990-2002	☺️	10.9-10.10	10.6-10.13
	Emissioni di precursori di ozono troposferico (NO _x e COMM): trend e disaggregazione settoriale	P	★★★	I R	1980-1985, 1990-2002	☺️	10.11-10.12	10.14-10.17
	Emissioni di particolato (PM ₁₀): trend e disaggregazione settoriale	P	★★★	I R	1990-2002	☺️	10.13	10.18-10.20
	Emissioni di monossido di carbonio (CO): trend e disaggregazione settoriale	P	★★★	I R	1980-1985, 1990-2002	☺️	10.14	10.21-10.22

**EMISSIONI DI GAS SERRA (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆):
TENDI E DISAGGREGAZIONE SETTORIALE**
INDICATORE: 001-001

NAME OF INDICATOR

**INDICATOR
CODE**

DESCRIZIONE DESCRIPTION

L'aumento dell'effetto serra è attribuito in gran parte alle emissioni di gas serra, in particolare di anidride carbonica (CO₂), connesse, per quanto riguarda le attività antropiche, principalmente con la combustione di combustibili fossili. Contribuiscono all'effetto serra anche il metano (CH₄), la cui emissione è dovuta principalmente al settore energetico (principalmente perdite) e il protossido di azoto (N₂O), derivante principalmente da agricoltura e settore energetico (inclusi i trasporti) e da processi industriali. Il contributo generale all'effetto serra degli F-gas o gas fluorurati (HFCs, PFCs, SF₆), è minore rispetto ai suddetti inquinanti e la loro presenza deriva essenzialmente da attività industriali e di refrigerazione. Le emissioni sono calcolate attraverso opportuni processi di stima, secondo la metodologia di riferimento indicata dall'IPCC.

UNITÀ di MISURA UNIT OF MISURE

- CO₂: milioni di tonnellate (Mt);
- CH₄ e N₂O: migliaia di tonnellate (kt);
- F-gas: tonnellate (t).

Le emissioni di gas serra vengono quindi convertite in termini di CO₂ equivalente, moltiplicando le emissioni di ogni gas per il *Global Warming Potential* (GWP), potenziale di riscaldamento globale di ogni specie in rapporto al potenziale dell'anidride carbonica.

FONTE DEI DATI DATA SOURCE

APAT

PERIODICITÀ di AGGIORNAMENTO UPDATING INDICATOR

Annuale

QUALITÀ dell'INFORMAZIONE INFORMATION QUALITY

Rilevanza	Accuratezza	Comparabilità nel tempo	Comparabilità nello spazio
1	1	1	1

L'informazione relativa alle emissioni dei gas serra è rilevante ai fini del rispetto dell'obiettivo nazionale di riduzione delle emissioni previsto dal Protocollo di Kyoto. Le stime sono calcolate in conformità alle caratteristiche di trasparenza, accuratezza, consistenza, comparabilità, completezza richieste dalla metodologia di riferimento.

★ ★ ★

SCOPO e LIMITI AIM AND LIMITS

L'indicatore rappresenta una stima delle emissioni nazionali degli inquinanti a effetto serra e la relativa disaggregazione settoriale per verificare l'andamento delle emissioni e il raggiungimento dell'obiettivo individuato dal Protocollo di Kyoto.

OBIETTIVI FISSATI dalla NORMATIVA TARGETS FIXED BY LAW

Nell'ambito della Convenzione sui Cambiamenti Climatici e in particolare del Protocollo di Kyoto, l'Italia ha l'impegno di ridurre le emissioni nazionali complessive di gas serra nel periodo 2008-2012 del 6,5% rispetto all'anno base (1990 per anidride carbonica, metano e protossido di azoto, 1995 per i gas fluorurati). Il Protocollo stesso prevede complessivamente per i paesi industrializzati l'obiettivo di riduzione del 5,2%, mentre per

I paesi dell'Unione Europea una riduzione complessiva delle emissioni pari all'8%. La Delibera CIPE approvata il 19 dicembre 2002, relativa alla revisione delle linee guida per le politiche e misure nazionali di riduzione delle emissioni dei gas serra, istituisce un Comitato Tecnico Emissioni Gas Serra al fine di monitorare l'attuazione delle politiche di riduzione delle emissioni.

STATO e TREND STATE AND TREND

Le emissioni totali di gas serra, pur non registrando incrementi rispetto al 2001, sono comunque lontane dal raggiungimento dell'obiettivo.

COMMENTI a TABELLE e FIGURE COMMENTS TO TABLES AND FIGURES

Per garantire la consistenza e compatibilità dell'inventario, l'aggiornamento annuale delle emissioni comporta la revisione dell'intera serie storica sulla base della maggiore informazione e dei più recenti sviluppi metodologici. I dati presentati utilizzano la disaggregazione settoriale in riferimento alle Linee Guida dell'IPCC (*Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, IPCC/OECD 1997*).

Tables and Figures: examples

Tabella 10.5: Emissioni nazionali di F-gas (HFCs, PFCs, SF₆) espresse in termini di CO₂ equivalente

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	k100 ₂ eq/a												
HFCs	351,00	355,43	358,78	355,42	481,90	671,29	804,70	1.218,23	2.351,39	3.049,22	4.095,00	5.528,56	7.105,72
PFCs	1.807,65	1.472,39	798,94	630,85	394,77	336,71	243,31	252,08	270,43	256,00	346,30	452,34	410,56
SF ₆	332,82	356,39	358,20	370,40	415,66	601,45	682,56	728,64	804,81	804,51	493,43	795,34	760,22
TOTALE	2.491,47	2.184,21	1.515,92	1.356,67	1.292,33	1.609,45	1.530,56	2.198,95	3.226,63	3.711,72	4.927,38	6.807,27	8.276,52

Fonte: APAT

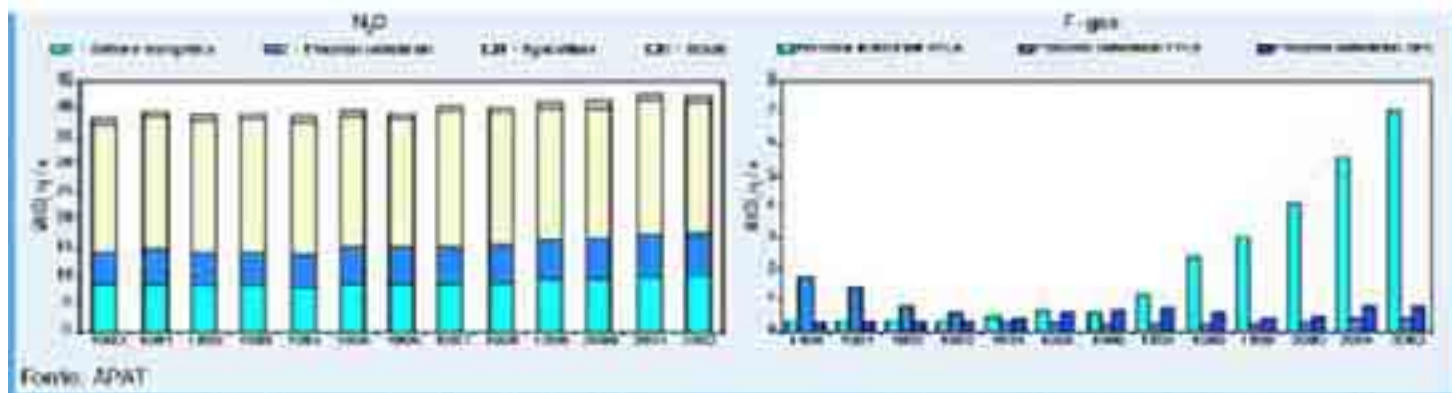
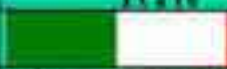





Figura 10.2: Emissioni nazionali settoriali dei gas serra secondo la classificazione IPCC (per gli F-gas è presente solo il settore "Processi Industriali")

	Italy		Spain		Czech Republic		OECD	
								
Target range	Y	institutional and expert	Y	Partner	Y	Expert	Y	institutional
Fact sheet indicators	N	with more data and metadata	Y	with few metadata	Y		F	
Tables and graphs	N	both	Y	only graphs	Y	only tables	Y	only tables
Geographic information	N		Y	synthetic framework	Y	synthetic framework	Y	
Conceptual Framework	N		Y	with institutional sources to describe and synthesize information	Y	with institutional sources to describe and synthesize information	F	
Main conclusion	N		Y	social and ecological challenges and efficiency assessment (extra effort required)	N		F	
DBE - indicators	Y	close relationship with key OECD indicators	Y	Not so a strong relationship	Y	Not so a strong relationship	Y	Not so a strong relationship
Executive message	N		Y	with a strong executive indicator	N		F	
Metadata	Y	A lot	Y	few information	Y		F	
Quality of information	Y	Specifically, reliability	N		N		F	
Agreement of data and trend	Y	synthetic character	N		Y		F	
Single edition	Y	Only in synthetic edition	N		Y	in the same edition	Y	