

The Mediterranean in 2020

Statistics in focus

ENVIRONMENT AND
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Contents

A regional common good to be conserved	1
Environmental Statistics: Need and Investment.....	2
Informing the 2020 Strategy	2
Challenges and the Way Forward	5
MEDSTAT II.....	5



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At the Barcelona Summit in November 2005, celebrating the 10th anniversary of the Euro-Mediterranean partnership, the partners made a commitment to “develop a realistic road map for de-polluting the Mediterranean by 2020, while providing adequate financial and technical assistance to this end”.

The main objective of “Horizon 2020”, the initiative to de-pollute the Mediterranean is to reduce the pollution in the region by identifying and acting on its major sources by 2020.

Pollution does not stop at national borders, so all of the countries on the shores of the Mediterranean are concerned: the Member States of the European Union, actual and potential candidates for accession and partners from the southern shore of the Mediterranean covered by the European Neighbourhood Policy (ENP).

A regional common good to be conserved

Key figures for the 22 Mediterranean countries and territories in 2000¹

The shores of the Mediterranean account for:

- 5.7% of the world's land mass, including large desert and mountainous areas,
- 427 million people, or 7% of the world's population (stable share),
- 13% of world GDP (shrinking share).

But they also account for:

- 60% of the world's “water-poor” population and 8.3% of global carbon dioxide emissions (increasing share).

The Mediterranean environment is recognised both as one of the richest and of the most vulnerable in the world. The region's biodiversity is very specific. It is home to 10% of known species of plants, with only 1.6% of the world's land surface, and 7% of marine species, with less than 0.8% of the world's ocean surface. Increasingly strong pressures have exacerbated the fragility of the region's environment.

The 46,000-kilometre coastline host, either by obligation or by choice many industrial and tourist activities. Consequently, there is a high concentration of urban population (64%) and tourism. The region's coastal areas attract 25% of the international tourist trade, with 175 million visitors each year.

Marine and coastal environments are subject to a combination of pressures: 80% of the pollution in the Mediterranean comes from the land;

- more than half of the urban areas with populations of over 100,000 do not have wastewater treatment plants;
- 60% of the wastewater produced by urban areas with populations over 100,000 is dumped into the sea untreated;
- more than 80% of the landfill sites in south and east Mediterranean countries are not subject to supervision.

The Mediterranean Sea hosts 30% of international shipping traffic. Hydrocarbon pollution (whether accidental or not) is a very serious problem. The Mediterranean shipping fleet is subject to little supervision, while it carries dangerous cargoes (20% to 25% of hydrocarbon shipping traffic).

The World Bank has estimated that the annual cost of environmental damage on the south and east coasts of the Mediterranean range between near 3% of GDP in Tunisia and 5% of GDP in Syria, Algeria and Egypt².

¹ Sources: Eurostat and UNEP/Plan Bleu « A Sustainable Future for the Mediterranean, The Blue Plan's Environment and Development Outlook», 2005, Earthscan.

² Source: World Bank “Assessing the Costs of Environmental Degradation in the Middle East and the North Africa Region”. *Environment Strategy Note No. 9*. April 2004.

Environmental Statistics: Need and Investment

While much research work has focused on environmental issues, the need to integrate and implement sophisticated instruments in national policies requires inter-governmental negotiations and agreements. The contribution of official statistics and the guarantees that they provide in terms of reliability, comparability and sustainability of production advocate for promoting their development. Yet, a distinctive characteristic of environmental statistics is that they rely on a multitude of information producers.

The European Union has just taken measures to optimise its environmental information system by setting up "Environmental Data Centres" and sharing responsibility for different themes among them. The European Environment Agency is responsible for the Data Centres for air, climate change, water, biodiversity and land use, the European Commission's Joint Research Centre is responsible for the Data Centres for soil and forestry, and Eurostat is responsible for the Data Centres for waste, natural resources and integrated product policy.

The National Statistics Offices (NSOs) of the Mediterranean partner countries (MPC) have been collecting and producing statistics on major environmental issues since 1999, as part of the MEDSTAT statistical cooperation project (see page 6).¹

The statistical information made available through the MEDSTAT project is broadly comparable because it has been produced and collected by adapting the questionnaire on the state of the environment used by

the OECD and Eurostat to the specific features of the countries. The information is collected at the national level, and sometimes at the infra-national level from air quality or water quality measurement stations.

The capacity building activities carried out as part of the MEDSTAT project's environment component have made it possible to create and consolidate environmental units in each MPC. They produce and disseminate a fairly large volume of data compared to other countries in the world. The new phase of the project called MEDSTAT II will build on the progress made to date and support the tasks that the MPCs would deem crucial in view of their national and regional policies and priorities.

As part of the "Horizon 2020" initiative, the European Environment Agency, Eurostat, the Mediterranean Pollution Monitoring and Research Programme (Mediterranean Action Plan – Regional Activity Centre - MEDPOL) and the Euro-Mediterranean Water Information System (EMWIS) will work together to develop indicators and scoreboards to measure changes in the level of pollution in the Mediterranean. MEDSTAT II can contribute to this monitoring by providing official statistics that are tailored to the priority themes.

This issue of *Statistics in Focus* aims in identifying the current statistical coverage and its limits and explores potential ways of improving the production of official environmental statistics.

Informing the 2020 Strategy

Most of the pollution in the Mediterranean comes from the land or from shipping traffic. Acting on these sources of pollution calls for due consideration of all of the pressures that come into play. The five-year work programme adopted at the 10th anniversary Euromed Summit defined urban waste, urban wastewater and industrial emissions as priority sectors. The figures on these three priority sectors are now available for most of the MPCs.

Urban Waste

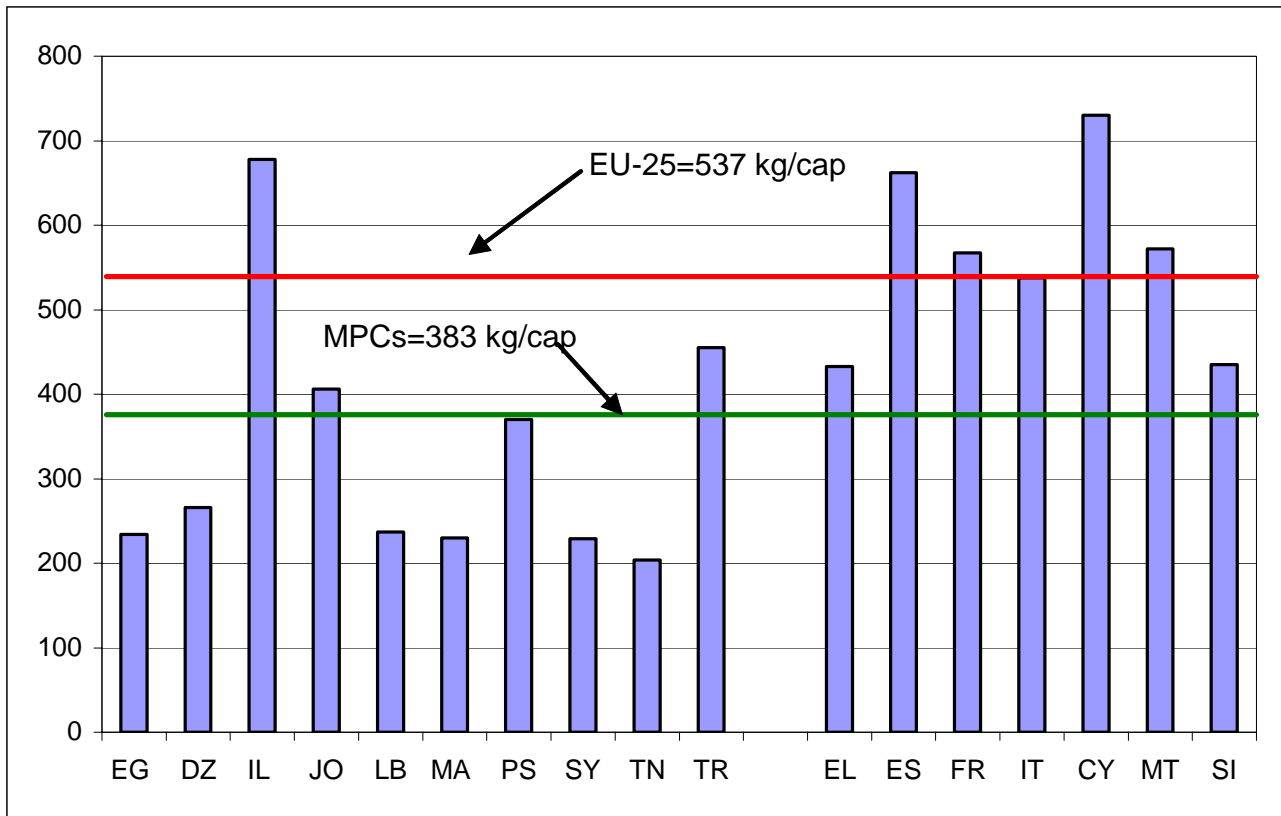
The availability of data about urban waste, which is the first theme under the initiative, depends on the geographical level of aggregation. The existing data collection system does not incorporate the notion of

urban waste. The statistics collected only deal with municipal waste and industrial waste. Estimates can be made on the basis of detailed knowledge about the structure of major urban areas.

Little is known about the volumes of waste produced, because there are no surveys or reliable estimation tools. Industrial waste is not covered by periodic statistics, there have been a few occasional surveys but they do not make it possible to analyse trends or estimate the penetration of technologies reducing the volume of waste produced. The best statistical coverage deals with waste collected by or on behalf of municipalities (see Chart 1).

¹ Since May 1st 2004, Cyprus and Malta do not form any more part of the Mediterranean partner countries. By preoccupation with a continuity of the activities, their participation in the second phase of MED-Environment was maintained.

Chart 1: Municipal waste produced per capita (kg/cap/yr, 2004)



Notes: 2004 except EG ; MA 2000 ; SY 2001 ; DZ, IL, JO 2003; LB 2005
Sources: NSOs of MPCs, Eurostat.

Municipal waste includes waste produced by households and similar waste produced by commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings). Municipal household refuse collection services do not cover whole countries and large quantities of waste are dumped directly into the natural environment with no supervision or control.

Efforts are continuing to improve knowledge on the volumes of the different components of the waste produced, particularly for recyclable packaging waste, but this knowledge remains limited. This information is critical for implementing national waste management strategies. Some of the waste produced is sorted (this primarily concerns municipal waste) and put into a recycling system. However, much of the recycling activity is informal and it is not captured by the official statistics.

The existing figures about waste are often estimates made by NSOs on the basis of ad hoc surveys to establish a specific daily per capita production figure, as is the case for Egypt, Algeria, Jordan, the Palestinian Authority and Tunisia, or by statistical extrapolation, as is the case in Israel. The high cost of the relevant surveys or research mean that few time series are available; most of the data reported are for a reference

year and thus no comparisons or trend analyses can be made. It is also difficult to evaluate the flow of waste that is not handled by municipalities or industries.

The number of waste treatment and disposal sites is known, but detailed statistics about the infrastructures per se, their location (seaside locations increase the risk of marine pollution), their actual processing capacities (especially for industrial waste, such as heavy metals, toxic waste and persistent organic pollutants), and treatment and disposal procedures are rarely available or complete.

At present, waste from shipping activities (operating waste and waste from accidents) is not covered by the collection of environmental statistics, but by Transport statistics. An effort should be made to find synergies between these two sectors in order to cover this important aspect of the pressures brought to bear on the environment in the Mediterranean. There is a questionnaire to collect information about the marine environment, but it needs to be completed with the help of specialised institutions and organisations. With the exception of Algeria and Turkey, none of the countries has completed this marine environment questionnaire so far.

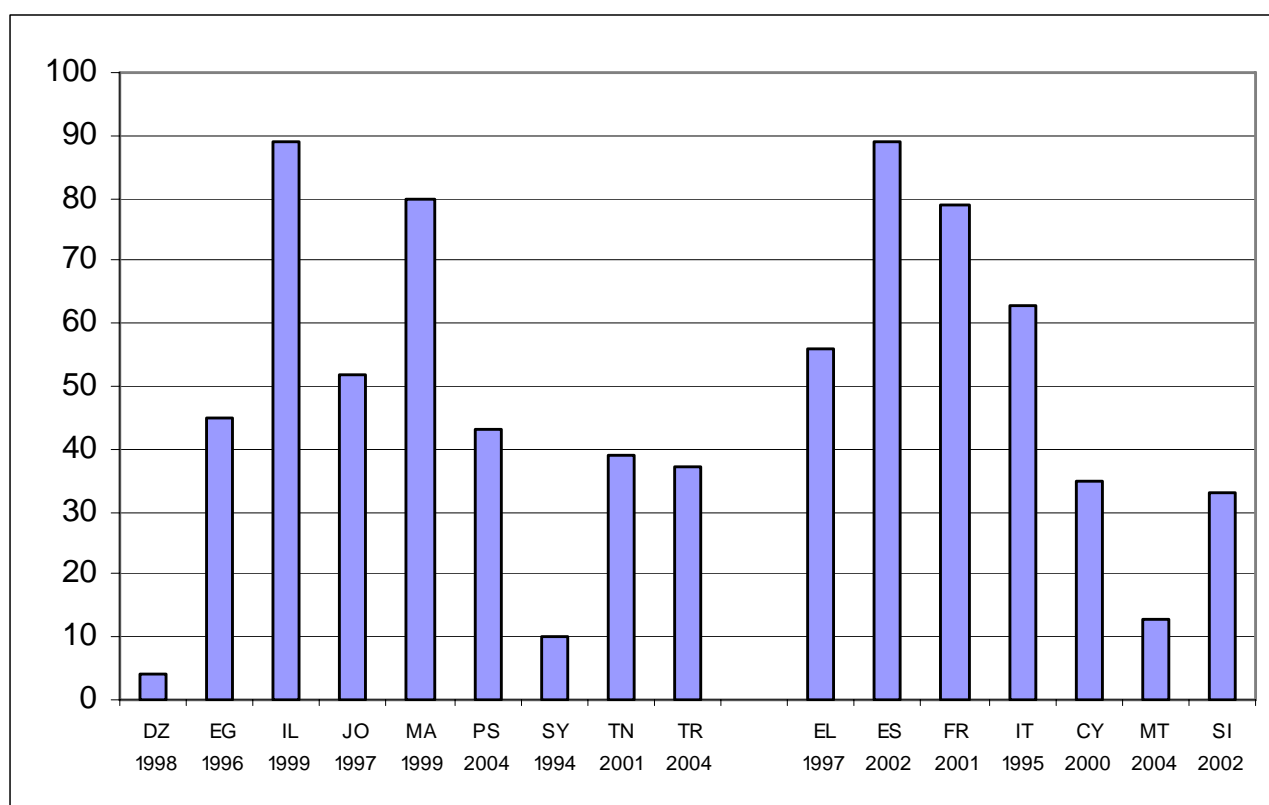
Urban Wastewater

The official statistics provide fairly good coverage of urban wastewater (waste water produced by urban agglomeration), the second theme of the initiative and a major component of pollution from land. However, the quantitative and qualitative assessment of wastewater discharged into the natural environment is still a problem in most countries because of the small proportion of the population connected to wastewater collection systems and, more importantly, wastewater treatment systems (See Chart 2).

The number of wastewater treatment plants is fairly well known, but there is a lack of statistical information about their operating conditions, capacities and treatment procedures. Not much progress has been made in tracking the production and disposal of wastewater sludge either.

A network of measuring stations, more or less representative, tracks the quality of waterways and lakes at the local level.

Chart 2: Percentage of the population connected to a wastewater treatment system, (data from latest available year)



Sources: NSOs of MPCs, Eurostat.

Industrial Emissions

Industrial activities are often located on coastlines to facilitate transportation and communications. The volume of waste produced, including heavy metals, toxic substances and persistent organic pollutants, makes industry a major source of soil, air and water pollution.

There is no specific survey of industrial emissions, but information can be retrieved from the more general questionnaires on industrial activity produced by the NSOs. This is the case for wastewater and waste.

However, the high cost of such surveys means that they are not conducted systematically or regularly and that they sometimes fail to cover all branches of industry. In these cases, the data are supplemented by information gathered from partners, such as the Environmental Protection Agency, the Water Management Agency and the National Waste Management Agency.

International agreements and rules, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, make it possible to monitor the production of dangerous waste using a harmonised classification. The Basel Convention secretariat monitors six of the 10 partner countries (Algeria, Egypt, Israel, Morocco, Tunisia and Turkey) by means of periodic reports.

Official statistics still provide only partial coverage of industrial wastewater and industrial waste. They cover

only a few years, or a few branches of industry, making it impossible to calculate aggregated regional figures. Technical support and harmonisation under MEDSTAT II should eventually make it possible to develop the tools needed to overcome these problems.

The current statistical questionnaire does not deal with infrastructures or technological, legal or tax tools implemented to clean up industrial production.

Challenges and the Way Forward

The bulk of environmental statistics are not produced by national statistics offices directly. They come from bodies and institutions that are directly involved in environmental issues (Ministry of the Environment, specialised agencies, etc.), which means that sustainable partnerships have to be created between statistical offices and other institutions producing statistics to ensure a genuine transfer of knowledge and skills. This represents a major challenge for ensuring regular statistical production.

Another challenge is to expand the supply of statistics and to better adapt it to users' needs. The examples above show that statistics are often available for only one or a few years, and that there is a lack of harmonisation. The NSOs' often lack the human and financial resources to develop new surveys. Any improvement in the availability of information will require more regular surveys, but this often entails higher costs. Some sectors are covered by occasional surveys carried out with one-off external financing (survey of industrial waste, composition of household waste, etc.) This situation is not always favourable for the development of properly run systems for periodic data collection.

Possible ways to move forward in this area include using estimation methods to complete time series, adding questions to existing surveys, integrating environmental statistics into other statistics (transportation, energy, trade and social statistics), and bringing national classifications into line with international standards.

From the thematic point of view, the bulk of the NSOs' efforts are focused on statistics relating to pressures on the environment and very little effort is made concerning statistics on the responses made to these pressures. This means that very little information is collected about the economic aspects of the environment, such as the cost of environmental damage or expenditures and income related to environmental protection. All of the Mediterranean NSOs have highlighted this aspect as a critical area for work in coming years.

Other important areas for future work include sharing best practices with European countries and between Mediterranean countries, networking, and creating synergies between sectors and with other donors.

MEDSTAT II

The European Union's policy with regard to the Mediterranean region is governed by the Euro-Mediterranean Partnership (called the Barcelona Process), which was initiated following the 1995 Barcelona Conference.

The Member States of the European Union and the Mediterranean partners stepped up their statistical relationships through the MEDSTAT regional statistical cooperation project, which is financed by the MEDA programme. MEDSTAT I ran from 1996 to 2003 and had a budget of 20 million euros. MEDSTAT II was initiated in 2006 and will run for three years with a budget of 30 million euros.

MEDSTAT is intended to meet the requirements set out in the Association Agreements with regard to free trade, sustainable development, including environmental sustainability, and social development. It provides access to statistical information that is helpful for tracking progress made in Euro-Mediterranean cooperation.

The objective of the project is to bring statistical methodology into line with European and international standards and to improve data consistency in the Mediterranean partner countries, as well as comparability with statistical data from the EU countries.

The MEDSTAT project is also intended to improve the quality of the services that the national statistics offices and other partner organisations involved in the production of statistics provide to users. Up-to-date, reliable, relevant and high quality data are critical for political decision-making and good governance.

MEDSTAT II builds on the qualitative work already accomplished by organising training sessions and providing technical resources for the information systems of national statistics offices and other statistics producers in the Mediterranean countries.

Close attention is being given to data consistency, harmonisation and dissemination in 9 statistical sectors: trade in goods and services, transportation, migration, tourism, the environment, national accounts, social statistics, energy and agriculture.

The project is currently working with ten partners: Algeria, the West Bank and the Gaza Strip, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia and Turkey.

MEDSTAT II, Environment Sector

After seven years of uninterrupted work and sustained collaboration between the statistical systems of the Mediterranean partner countries and the European Commission, the activities in the environment sector of the new phase of the MEDSTAT project are aimed at building on the previous accomplishments (see the list of national and regional publications on page 7), and also meeting the needs that the countries have expressed in the guidelines set out for the environment sector.

The NSOs of the partner countries were invited to set out their national guidelines for the six main tasks under the project: data collection and sharing, transfers of knowledge and best practices, harmonisation,

development of synergies with other sectors of the MEDSTAT project and with other MEDA programmes, dissemination, and meeting users' needs.

In addition to the themes covered in the past, such as water, waste, land use, forestry, emissions of atmospheric pollutants, biodiversity and environmental indicators for sustainable development, the partners attending the Final Forum held in Amman, Jordan in June 2006 selected environmental accounts as the framework for assessing and improving their production of environmental statistics. Implementation will be based on guidelines defined for each country and through the organisation of training sessions, study visits and technical support for the information systems of national statistics offices and their national partners. Operational synergies, at least with the SMAP programme (Short and Medium-term Priority Environmental Action Programme) will be developed.

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Data sources: The data presented in this publication were provided by the national statistics offices of the 10 partner countries in the MEDSTAT II project. The data for the European Union countries bordering on the Mediterranean are taken from the Eurostat database.

Geographical coverage and codes: the figures presented in the charts cover all of the Mediterranean rim countries, which are the 10 MPCs (DZ, EG, IL, JO, LB, MA, PS, SY, TN and TR), 6 European Union countries and 5 countries in the eastern Mediterranean. The charts only track countries for which data are available.

Mediterranean Partner Countries and NSOs:

DZ (Algeria): Office National des Statistiques
EG (Egypt): Central Administration for Public Mobilization and Statistics

IL (Israel): Central Bureau of Statistics

JO (Jordan): Department of Statistics

LB (Lebanon): Administration Centrale de la Statistique

MA (Morocco): Direction de la Statistique

PS (West Bank & Gaza Strip): Palestinian Central Bureau of Statistics

SY (Syria): Central Bureau of Statistics

TN (Tunisia): Institut National de la Statistique

TR (Turkey): Turkish Statistical Institute

Other Mediterranean countries:

EL: Greece

ES: Spain

FR: France

IT: Italy

CY: Cyprus

MT: Malta

SI: Slovenia

HR: Croatia

BA: Bosnia-Herzegovina

CS: Serbia and Montenegro

AL: Albania

Acronyms:

ENP: European Neighbourhood Policy

NSOs: National Statistics Offices

MEDA: The MEDA Regulation is the main instrument for economic and financial cooperation under the Euro-Mediterranean partnership. This partnership involves the countries listed above, along with Cyprus and Malta until their accession to the European Union.

MPCs: Mediterranean Partner Countries

Definitions:

Per capita municipal waste: the definition of solid waste varies from country to country, but it can be said that this waste is primarily material that no longer has any use and that must be discarded. This waste has no commercial value for the producer, even though other players may derive value from it. It corresponds to the production of municipal solid waste measured by weight at the production site and compared to the population. It is expressed as kilograms per capita and per year.

Percentage of the population connected to a wastewater treatment system: This is the percentage of the population from which wastewater is collected by a system of pipes that collect and carry urban wastewater. Such systems are often run by the government or by semi-public associations. Industrial wastewater is not counted in this category.

Reference publications :

Priority issues in the Mediterranean environment, EEA Report N°5/2005, European Environment Agency, Copenhagen, 2005

A Sustainable Future for the Mediterranean, The Blue Plan's Environment and Development Outlook, UNEP, Plan Bleu, Earthscan, 2005.

Priority issues in the Mediterranean environment, EEA Report N°4/2006, European Environment Agency, Copenhagen, 2006

Regional Publications Produced as Part of MEDSTAT - Environment

Environmental Statistics in the Mediterranean Countries: Compendium 2005, KS-74-06-823-EN-C, European Commission, Luxembourg, 2006.

Air pollutant emissions in the Mediterranean region – Statistics in Focus No.9/2006, European Commission, Luxembourg, 2006.

National Publications Produced as Part of MEDSTAT - Environment

	<i>Environment Statistics 2006</i> , Statistical Service of Cyprus, Nicosia, 2006. ISBN 9963-34-423-2		<i>Compendium statistique national 2006</i> , Administration Centrale de la Statistique, en collaboration avec le Ministère de l'Environnement, Beyrouth, 2006
	<i>Compendium national sur les statistiques de l'environnement</i> , Office national des Statistiques, Alger, 2006. ISBN 9961-792-01-7		<i>Environment Statistics 2006</i> , National Statistics Office of Malta, Valletta, 2006. ISBN-13 :978-99909-73-40-2(2006).
	<i>Environment Data Compendium Israel</i> , Jerusalem, Central Bureau of Statistics, 2006. ISBN 965-90423-7-X		<i>Statistiques Environnementales au Maroc</i> , Direction de la Statistique, Rabat, 2006.
	<i>National Compendium on Environment Statistics Jordan</i> , Department of Statistics, Amman, 2006		<i>Statistiques de l'environnement de la Tunisie, compendium 2005</i> , Institut national de la Statistique, Tunis, 2006.
			<i>Environment Statistics compendium of Turkey II</i> , Turkish Statistical Institute, Ankara, 2006.

Further information:

Data:

[EUROSTAT Website/Home page/Environment and energy/Data](#)

 **Environment and energy**

-  **Environment**
-  Land use
-  Air pollution/climate change
-  **Waste**

[EUROSTAT Website/Home page/General and regional statistics/Data](#)

 **General and regional statistics**

-  European and national short term indicators
-  Regions
-  Urban audit
-  **Non EU countries**
-  **Mediterranean countries**

[EUROSTAT Website/Home page/Environment and energy/Tables](#)

Sustainable Development indicators

Climate change and energy

Global partnership: Resource management

- CO2 emissions per capita in the EU and in developing countries

Management of natural resources

- Population trends of farmland birds

- Groundwater abstraction

- **Population connected to wastewater treatment systems**

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European Statistical Data Support:

Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

Their mission is to provide help and guidance to Internet users of European statistical data.

Contact details for this support network can be found on our Internet site: <http://ec.europa.eu/eurostat/>

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