

Please find enclosed the technical specification and other annexes which you requested following the publication of call for tender EEA/IAR/003/01 in the Official Journal of the European Communities (N° S 122) of 28.06.01.

Should you wish to make an offer, please submit a tender in triplicate by 20 August 2001 to the following address:

Reply to call for tender EEA/IAR/003/01  
Mr Peter Bosch  
European Environment Agency  
Kongens Nytorv 6  
DK-1050 Copenhagen K  
Denmark

You may submit your tender:

- either by registered mail, posted not later than 20 August 2001;
- or by delivery (in person or by an authorised representative or by private courier service) to the address above to arrive not later than 16.00 hours on 20 August 2001. Should you choose to submit your tender by delivery, a receipt must be obtained as proof of submission, signed and dated by the official of the Agency who received the delivery.

The tender (in triplicate) must be placed inside *two sealed envelopes*. The inner envelope, addressed to Mr Peter Bosch must be marked *Invitation to tender - not to be opened by the Agency's internal mail service*. If self-adhesive envelopes are used, they must be sealed with self-adhesive tape, and the sender must sign across the tape.

The submission of a tender implies acceptance of the terms specified in the *General terms and conditions applicable to contractors*, a copy of which you will find enclosed. This covers all matters not governed by the invitation to tender and implies a waiver of your company's own terms of business.

The tender will be valid for a period of 12 months from 20 August 2001.

You will be informed in writing whether your tender has been accepted or not.

Yours sincerely,

David Stanners (Dr.)  
Programme Manager  
Integrated Assessment and Prospective Analysis

Attachments: Technical specifications of tender EEA/IAR/003/01 and 6 annexes

.....  
Instructions to access the on-line tender documentation

Go to:

For the 'Kiev report writers' project (EEA/IAR/003/01):

<http://eea.eionet.eu.int:8980/Members/irc/eionet-circle/kienvriters/home>

When you are asked for your user name and password, type in:

user name: kiev

password: aarhus (case sensitive)

Select 'Library' from the toolbar at the top of the page and you will enter a directory with the relevant documents.



**Open call for tender EEA/IAR/003/2001  
TERMS OF REFERENCE**

***Development of indicator fact sheets and writing of chapters for the  
Kiev report***

**1. Introduction**

*1.1 Background*

According to the European Environment Agency Regulation (1210/90/EEC, amended in EC/933/1999), the European Environment Agency is required to provide objective, reliable, and comparable information on the state of the environment. One of the vehicles to communicate this information is State of the Environment reports, of which the Agency has published until now four<sup>1</sup>. These reports are intended to support strategic environmental planning, and are linked to important steps in EU or European policy processes.

In addition, the EEA produces a regular indicator-based report, which is intended to become the tool for making regular environmental performance reviews. The second edition, Environmental signals 2001, was published in May 2001<sup>2</sup>

In June 1998, at the pan-European conference of Environment Ministers in Aarhus, the European Environment Agency launched its second report on the state of the environment in the whole of Europe: “*Europe’s Environment, the Second Assessment*”. The report went together with a separate executive summary booklet and a “Data pocketbook to the second assessment” aimed at communicating the key numbers behind the report. Eurostat has published a statistical compendium to the Second Assessment report.

In the Ministerial declaration of the Aarhus conference, the European Environment Agency was called upon to regularly update the information in the Second Assessment report and to present the findings based on indicators to the future ministerial conferences to support decision-making.

With the next ministerial conference planned for May 2003 in Kiev, the EEA has included in its workprogramme the production of a special report for this occasion. As the Ministers requested in Aarhus an indicator-based assessment, the intention of the EEA is to produce a pan-European indicator based report. The working title is: “The Kiev report”.

Moreover, during the discussions that followed the presentation of the Second Assessment report, several ministers mentioned the need for prospective analyses (‘outlooks on

---

<sup>1</sup> These are: (i) *Europe’s Environment: the Dobris Assessment* (1995); (ii) *Environment in the European Union 1995*, report for the review of the Fifth Environmental Action Programme (1995); (iii) *Europe’s Environment: The Second Assessment* (1998); and (iv) *Environment in the European Union at the Turn of the Century* (1999). (see <http://reports.eea.eu.int>, from which individual chapters can be downloaded).

<sup>2</sup> (see <http://reports.eea.eu.int/signals-2001/index.html>).

environmental quality’) in next reports. Profiting from ongoing projects, the EEA intends to include in some chapters the results of these forecasting studies.

Half a year before the Kiev Ministerial conference the UN World Summit on Sustainable Development (RIO+10) conference will be held in South Africa. The EEA intends to use the material produced for the Kiev report to support the European Institutions and the Member states in their preparation for this conference. The timing of the RIO+10 conference means that the indicator fact sheets produced for the Kiev report will be the main vehicle for this support.

### *1.2 Envisaged size and contents of the Kiev report*

Annex IV gives a first indication of the envisaged contents of the Kiev report. As a consultation process with stakeholders is still ongoing, and ideas on the report ripen, some changes can still be expected. The final report should be around 150-200 pages, containing ca. 100-150 indicators/diagrams. In addition the report will contain around 10 to 15 maps.

The Kiev report will have a larger geographical coverage than its predecessors reflecting better the membership of the UNECE: it will cover all countries in Europe up to the Ural mountains, plus the whole of the Russian Federation and the central Asian states (Mongolia excluded).

### *1.3 Organisation*

According to the declaration of the Aarhus Ministerial Conference the EEA is responsible for producing the Kiev report in co-operation with countries and other international organisations. The UNECE Committee for Environmental Policy (the body preparing the next ministerial conference) has established a Working Group on Environmental Monitoring (WGEM) to support this process. The WGEM will be used as a sounding-board during the preparation of the report.

Co-operation with a number of other international organisations (like UNEP) for the Kiev report is being formalised. For this call for tender the co-operation with AMAP is the most relevant. AMAP is producing a *Second assessment of the Arctic Environment*, which will appear in 2002. For the nuclear part of the chapter on ‘Natural and technological hazards’ in the Kiev report, it has been agreed that the expert groups working for AMAP will produce an indicator based assessment on this topic for the Kiev report.

In co-operation with data-providers ‘Guidelines for Data-collection for the Kiev report’ are being prepared. This document will guide the many experts involved during the data collection phase. It specifies the sources of the data used in the assessment.

The data-collection and data-compilation that will follow on the preparation of the Guidelines will be executed by different organisations depending on the type of data. The larger part of

the socio-economic data will be captured from databases of international organisations, such as FAO, UN, with some additional work to fill gaps. At the EEA a data warehouse is installed for storing these statistics, which will be available to all writers of the report by Internet. During the report compilation this data warehouse will have an important function as central repository for socio-economic data.

The European Topic Centres of the EEA will organise a large part of the environmental data collection. In addition separate data-collection exercises can be organised to compile specific data not yet collected by any international organisation.

The analysis of the data and the writing of indicator fact sheets and later the chapters will be done by the European Topic Centres of the EEA for most of the chapters on environmental issues. For some of the other chapters consultancy is sought.

The European Environment Agency will be responsible for the overall co-ordination of the process and the editing of the final report.

The indicator fact sheets will be reviewed by the countries, the draft chapters will be subject to wider consultation, including peer-review.

In all these processes (from data collection to review) a key role is given to the formal National Focal Points in the EEA network (the EIONET<sup>3</sup>, the European Environmental Observation and Information Network linked to the EEA) and the informal national contact points in the NIS and other non-member countries.

## 2. Purpose and contents of the contracts

It is expected that this call for tender result in the conclusion of a number of contracts. The call for tender is divided into 11 lots, 10 each concerning one chapter of the Kiev report. The 11<sup>th</sup> is an overall task.

Lot number	title	notes
1	Energy	
2	Industry	
3	Agriculture	
4	Forestry	
5	Fisheries and mariculture	
6	Transport	
7	Tourism	
8	Production, use and dispersion of chemicals	
9	Technological and natural hazards (excluding radioactivity)	The radioactivity part will be provided by AMAP
10	Progress in managing the environment and sustainable development	
11	Comparison of the Kiev report indicators with world figures	

### LOTS 1 to 10

The aim of each of these is to provide a draft chapter or a number of chapters for the Kiev report for those topics not covered by EEA's European Topic Centres.

Consequently the contractor is entitled with the following tasks:

- analysis of factual information on all countries included in the Kiev report for which the basic data will be provided by the EEA

<sup>3</sup> See our homepage for more details on the organisation of the EEA and the European Information and Observation Network (EIONET) <http://www.eea.eu.int>.

- contribute to the data collection with examples and case studies
- assessing the main developments
- documenting the indicators, the analysis, the assessment, sources and gaps in data and knowledge in indicator fact sheets (see annex VI)
- processing of country comments on the indicator fact sheets, and documenting reasons for changing/not changing in a separate document
- writing a draft chapter, according to specifications for length and set-up provided by the EEA
- discussing the chapter with EEA staff.
- processing of comments on the chapter, and documenting reasons for changing/not changing in a separate document

For Lot 1 to 10 proposals are requested for the drafting of an indicator based chapter. Proposals are requested from experts in the field of analysis and integration of environmental information with specific knowledge of the situation in Central and Eastern Europe. Proposals should sketch the approach to the task.

**Lot 11** is different, it includes the following tasks only which serve to support the information for the RIO+10 conference:

- to search international databases (for example: <http://www.worldbank.org/data/>, [http://earthtrends.wri.org/searchable\\_db/index.cfm?theme=6&CFID=1926&CFTOKEN=32224868](http://earthtrends.wri.org/searchable_db/index.cfm?theme=6&CFID=1926&CFTOKEN=32224868), <http://apps.fao.org/>, etc.) for statistics on the global level for the relevant indicators included in the Kiev report.
- to provide a summary comparison of the EU and European data in a world context, showing some main features, such as EU/European contribution to world totals, per capita comparisons, etc. and a short assessment text per indicator where the comparison was feasible and useful. An attempt should be made to come to policy relevant conclusions out of the comparison. As far as possible use should be made of the indicator fact sheets for the Kiev report produced by the ETCs and other consultants.

**NOTE:** Proposals covering more than one lot should clearly separate the offer, including the estimate of person-days and the financial offer, per lot. The evaluation of offers will take place per lot.

### **3. Location of work**

The work can be executed from the contractor's offices, with regular contacts with the EEA Project Manager responsible for the Kiev report. Several one-day visits to the EEA in Copenhagen or to another country in Europe should be counted on for attending meetings with all chapter writers or with EEA staff. The EEA will organise a kick-off meeting with all chapter contributors.

### **4. Time schedule**

The work should start within three weeks of signing the contract. In practice progress with the data collection may determine the starting data of the contract, which will then be decided on three weeks in advance by the EEA and the consultant. The consultant(s)

should be available for processing comments and producing the final draft, which is scheduled to happen at latest in November 2002.

## **5. Reports and documents to be submitted**

For Lot 1-10, the project will result in two concrete products:

- a) fact sheets for the indicators in the chapter  
see annex VI for the model to be used.
- b) a draft chapter

Results should be delivered in a condensed and indicator-based text of about 15 pages A4, including maps and figures (see list of contents document). The text should follow the structure decided by the EEA. In the text only graphs and maps with high value and significance will be published.

The product shall be written in English, in a very clear and concise style, which should facilitate translation work.

For Lot 11 only:

- c) A technical report containing all the comparison sheets for the relevant indicators in the Kiev report.

All documents and reports should be made available to the Agency in 5 paper copies (simple format to be used as temporary working material) and on floppy disk (in Word format). If databases are developed during the project they should be delivered on floppy disk in a format compatible with Microsoft Excel or Access.

The project manager will communicate to the consultant the version of the computer programme according which any files should be submitted.

## **6. Payment**

- 30 % within 60 days of signing of the contract;
- 40 % within 60 days of acceptance of the final fact sheets for LOT 1-10, and of the draft report for LOT 11;
- 30 % within 60 days of acceptance of the final product.

In drawing up the bid, the tenderer should bear in mind the provisions of the standard contract (Annex I) and General Terms and Conditions Applicable to Contracts Awarded by the European Environment Agency (Annex III) attached to this invitation to tender.

The tender must include all the information and documents required by the authorising department for the appraisal of tender on the basis of the selection and award criteria set out at points 10 and 11 and the price in accordance with point 8.

## **7. Contract**

The replies to this call for tender can be used for concluding one or more contracts to be issued by the EEA and/or other authorities involved in the production of the Kiev report,

which contract(s) may cover the whole or part of the geographical area to be included in the Kiev report.

The consultant that wins the bid will receive a service contract with duration of 12 months.

This contract can be renewed according to the original conditions. Renewals can be made within a period of two years from the signature of the first contract.

## 8. Prices

- Prices must be fixed amounts in EURO; apart from a total offer for the services, daily rates (in EURO per day) according to the expertise offered and levels of experience (i.e. senior and junior consultant) should be provided.
- Travel and subsistence expenses likely to be incurred in the course of execution of the contract are not covered by daily rates. Estimated travel and subsistence expenses must thus be indicated separately. (Travel and subsistence expenses will not be taken into account when deciding who to award the contract to.)
- Travel and subsistence expenses shall be reimbursed in accordance with the rules and conditions relating to the payment of missions expenses in force at the Agency.
- However, if necessary, for periods of intra muros work at the EEA's premises in Copenhagen (more than 14 consecutive days), daily rates as calculated by the consultants, shall cover both fees and travel/subsistence costs

The estimate of costs should be based on Annexes I/III/IV of these specifications and include any travel required to meet representatives of the Agency. In any event it should include the maximum amount of travel and subsistence expenses payable for the services provided

9. Tenders from **consortiums** of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member or group.

## 10. Selection Criteria

Tenderers must provide evidence of their identity, financial and economic standing and professional and technical qualifications by means of the following documents:

- an identification sheet (name or business name, legal status, contact person, etc.). Please use Annex II;
- where applicable, references of inscription in the VAT-register;
- where applicable, references of inscription in the trade register;
- evidence of tenderer's financial standing shall be furnished by extracts from financial statements for the past 3 years;
- detailed curriculum vitae of the candidate(s), including information of the candidate's working languages
- a workplan showing a time schedule and expected number of days of effort per activity



- breakdown of expected costs

### **11. Contract awarding criteria**

The contract will be awarded to the tenderer whose offer is the most advantageous in this working area, taking into account the following criteria:

- the consultants' experience in integrated environmental analysis, environmental indicators, state of the environment reporting
- the consultants knowledge and experience in the topic of the chapter
- the consultants' experience in Central and Eastern Europe
- the consultants' writing capabilities
- the approach suggested in the proposal
- the record of the consultant in timely delivery of high-quality work in similar areas
- price - price will be considered in the award decision to determine the best value for money when selecting between technically comparable bids.

### **ANNEXES**

Annex I	Standard Service Contract
Annex II	Identification Sheet
Annex III	General Terms and Conditions Applicable to Contracts Awarded by the European Environment Agency
Annex IV	Reimbursement of Travel Expenses
Annex V	Draft contents of the Kiev report
Annex VI	EEA standard indicator fact sheet model

**SERVICE CONTRACT**

**CONTRACT REF No. XXXX/BXXXX.EEA.XXXX**

**The European Environment Agency**, hereinafter called "the Agency", which, for the purposes of the signature of this contract is represented by Mr. Domingo JIMENEZ-BELTRAN, Executive Director of the Agency

on the one part

and

whose official address is:

VAT Nr :

represented by

hereinafter referred to as "the contractor"

of the other part

have agreed as follows :

Article 1 - Subject

In the framework of this contract, the contractor hereby undertakes, subject to the conditions laid down in this contract and the annexes thereto, which form an integral part thereof, to perform the following tasks :

- 

The programme of work is set out in Annex I which, with the other annexes, forms an integral part of the contract.

Article 2 - Duration

This contract will take effect from the date of signature and will end months after the date of signature of the contract.

The task entrusted to the contractor shall be completed at the latest months after the date of signature of this contract.

Article 3 - Financial dispositions

1. In consideration of the services performed under this contract, the Agency shall pay to the contractor a maximum amount of **EUR** , **VAT excluded**.

It is agreed that the said amount shall cover all expenditure incurred by the contractor in the performance of this contract, including a maximum amount of **EUR** for travelling expenses.

Article 4 - Payment conditions

1. In derogation from article 10, paragraph 2 of the General Conditions applicable to contracts awarded by the European Environment Agency, this amount will be paid as follows:

<b>FEES</b>	<b>EUR</b>
<b>EUR</b>	payable within 60 days after presentation of an invoice, following the signature of the contract <b>(30%)</b> .
<b>EUR</b>	payable within 60 days after presentation of an invoice, and acceptance by the Agency of the 1st Interim report <b>(40%)</b> .
<b>EUR</b>	payable within 60 days after presentation of an invoice, and acceptance by the Agency of the Final report <b>(30%)</b> .

TRAVEL EXPENSES <sup>1</sup>	EUR (MAXIMUM)
EUR	payable within 60 days after presentation of one or several invoices with all supporting documents. <ul style="list-style-type: none"> <li>• Reimbursements will be made in accordance with Annex IV of this contract (Reimbursement of travelling expenses).</li> <li>• Invoices for travelling expenses must be issued at the latest within two months after the expenses were incurred.</li> </ul>

2. Payments shall be made within 60 days of receipt of the invoice and shall be deemed to have been made on the date on which they are debited to the Agency's account. All payments will be done upon presentation of an invoice.

The Agency may, however, after giving notice to the Contractor, defer payment if the services covered by the request for payment are contested by the Agency or if the vouchers in support of the invoice are incomplete. Where payment is so deferred, the Agency shall not be liable to pay interest or indemnities of any kind.

All requests for payment and any complaints shall be sent to the following address :

The European Environment Agency  
 To the attention of: The Budget and Finance Department  
 Kongens Nytorv 6  
 DK - 1050 Copenhagen

The Agency shall be bound to comply with payment periods only if requests for payment are presented at the above address.

3. The payments shall be made to account no.

in the name of

with

bank identification code (BIC code):

---

<sup>1</sup> Only applicable if travel expenses have been incurred

#### Article 5 - General conditions and applicable law

1. This contract shall be governed by the General terms and conditions applicable to contracts awarded by the European Environment Agency as laid down in Annex III to this contract, which the contractor hereby declares to have read and agreed to.
2. This contract shall be subject to Danish law.
3. The Agency and such persons whom are authorised for this purpose by the Executive Director shall be entitled to carry out audits and controls, have access to all books, documents, papers, records and files kept by the Contractor relating to expenditure incurred in performing the contract during the contractual period and for a period of five years after such period.

#### Article 6 - Non-performance or delayed performance

1. Of any of the obligations arising from this contract, and regardless of the consequences provided for under the law applicable thereto, the beneficiary shall forthwith inform the Agency, with the relevant details, of any event that is liable to prejudice or delay the performance of this contract. The parties concerned shall agree together on the measures to be taken.
2. If no agreement can be reached concerning the delayed performance or/and the non-performance by the beneficiary the Agency may automatically terminate the contract without recourse to any legal proceedings, where no action is taken by the beneficiary within one month of receiving formal notice by registered letter.
3. Furthermore, without prejudice to such termination, the Agency may require reimbursement of all or a part of the amounts paid, having regard to the nature and the scale of the work carried out, before the date of termination of the contract, as well as the interest incurred on overdue payments at the rate in force on the exchange market in the country of the beneficiary or failing that, in Denmark, for three month's deposits in euros, starting the day when the amounts to be reimbursed were received by the beneficiary. The amount due shall be notified to the contractor by registered mail and reimbursed to the Agency within two months of the notification, failing which the rate of interest on the amounts to be reimbursed shall be raised by 2 % points.

Article 7 - Jurisdiction

Any dispute between the Agency and the contractor or any claim by one party against the other under this contract which cannot be settled by the contracting parties out of court, shall be brought before the Copenhagen courts.

Article 8 - Administrative provisions

1. Any amendment to this contract, the annexes thereto or the general terms and conditions applicable to contracts awarded by the European Environment Agency shall be the subject to a supplementary written agreement on the same terms as the contract; a verbal agreement shall not be binding on the contracting parties.
2. The reference number indicated on the first page of this contract as well as the subject of the contract mentioned in article 1 must be mentioned in all relevant reports. For all letters and financial documents with reference to the performance of this contract, only the reference number is compulsory.
3. Any communication with reference to the performance of this contract shall be in written form and shall be sent to the following address :

For the Agency:

EUROPEAN ENVIRONMENT AGENCY

For administrative and financial matters to the attention of :

The Budget and the Finance Department

For technical aspects only, to the attention of :

Kongens Nytorv 6  
DK - 1050 Copenhagen K

For the contractor, to the attention of :

Article 9 - Tax

1. The Agency shall, in respect of its financial interest in the contract, be exempt from duties, levies and taxes, including value added tax, pursuant to Article 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities and to the Headquarters Agreement between the European Environment Agency and the Government of Denmark of 17 August 1995.
2. The contractor **is/is not** subject to VAT The VAT number of the contractor is XXX.
3. The VAT number of the European Environment Agency is: **DK 18 13 98 39.**

For the purposes of the application of Article 3 and 4 of the said Protocol, the Contractor shall comply with instructions of the Agency.

Article 10 - Annexes

1. The following are annexes to this contract:

<b>Annex I</b>	Technical annex
<b>Annex II</b>	Reports and documents
<b>Annex III</b>	General terms and conditions applicable to contracts awarded by the European Environment Agency.
<b>Annex IV</b>	Reimbursement of travelling expenses <sup>1</sup>
<b>Annex V</b>	VAT exemption form

2. In case of conflict between dispositions of the annexes and those of the contract, dispositions of the contract will prevail.

Done at Copenhagen on  
in three copies, in the English language.

For the contractor:

For the Agency:

D. JIMENEZ-BELTRAN  
Executive Director

---

<sup>1</sup> Only applicable if travel expenses have been incurred

**ANNEX II**

**INFORMATION REQUIRED FOR CONSULTING TASKS (per task)**

Reference number: \_\_\_\_\_

Company name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone/fax: \_\_\_\_\_

Director: \_\_\_\_\_

Consultant(s): \_\_\_\_\_

VAT N°: \_\_\_\_\_

Bank details (address, \_\_\_\_\_

account no and BIC

code: \_\_\_\_\_

Stamp and signature: \_\_\_\_\_

\_\_\_\_\_



**GENERAL TERMS & CONDITIONS APPLICABLE TO CONTRACTS AWARDED  
BY THE EUROPEAN ENVIRONMENT AGENCY**

---

---

**Article 1 - Performance of the contract**

- (1) The contract shall be performed in such a way as to exclude the possibility of the Contractor or his staff supplying services under conditions identical to those governing the supply of services by a member of the European Environment Agency's staff. The Contractor and his staff may not be members of the European Environment Agency's staff.

**Article 2 - Secondary obligations of the Contractors**

- (1) The Contractor to the European Environment Agency undertakes to perform the tasks assigned to him according to the highest professional standards. In performance of the contract, the Contractor is required, depending on the circumstances, to use only his own highly qualified, professional staff.
- (2) The Contractor to the European Environment Agency undertakes to provide the Agency with any information it may request for the management of the contract. If the Contractor is a natural person, he shall be required to provide proof of his status either as a self-employed person or an employee for the duration of the contract. To this end, he shall provide the Agency with information about his occupation.
- (3) In the event of termination of the contract for one of the reasons referred to in Article 7 of these terms and conditions, the Contractor to the European Environment Agency shall undertake to send the Agency all information and documents in his possession on the tasks assigned to him.

**Article 3 - Confidentiality**

- (1) The Contractor undertakes not to make use of and not to divulge to third parties any facts, information, knowledge, documents or other matters communicated to him or brought to his attention during the performance of the contract or any matter arising therefrom. He shall continue to be bound by this undertaking after the expiry of the contract.
- (2) If the Contractor uses his own staff in the performance of the contract, he shall obtain from each staff member a written undertaking that they will respect the confidentiality of any information brought to their attention during the performance of the work and that they will not divulge to third parties or use for their own benefit or that of any third party any document or information not available publicly, even after completion of their assignment. A copy of the undertaking shall be sent to the European Environment Agency.

#### **Article 4 - Permits and licences**

- (1) The Contractor shall be solely responsible for taking the necessary steps to obtain any permit or licence required for the performance of the contract under the laws and regulations in force at the place where the tasks assigned to the Contractor are to be performed.
- (2) The European Environment Agency may terminate the contract without notice if the Contractor is unable, through his own fault, to obtain any permit or licence required for the performance of the contract.

#### **Article 5 - Spread of risk**

- (1) The Contractor shall not be entitled to payment if he is prevented by force majeure from performing the tasks assigned to him. Part performance only of any such task shall result in part payment. Provided it is specified in the contract, the above provisions shall not affect the Contractor's entitlement to reimbursement of travel and subsistence expenses and of costs for the shipment of equipment incurred in the performance of the contract.

#### **Article 6 - Liability of the contracting parties**

- (1) The European Environment Agency may not under any circumstances or for any reason whatsoever be held liable for damage sustained by the Contractor himself or by his staff during the performance of the contract. The European Environment Agency shall not accept any claim for compensation or repairs in respect of such damage.
- (2) Except in case of force majeure, the Contractor shall be required to indemnify the European Environment Agency for any damage they may sustain during the performance, poor or otherwise, of the contract.

#### **Article 7 - Termination of contract**

- (1) Each contracting party may, of his own volition and without being required to pay compensation, terminate the contract by serving formal notice two months in advance. If the contract is terminated by the European Environment Agency, the Contractor shall be entitled to payment for the part performance of the contract only.
- (2) In the event of a serious failure by the Contractor to the European Environment Agency, duly noted by the European Environment Agency, to fulfil his obligations under the contract, the contract may be terminated at any time by registered letter without formal notice or payment of any compensation whatsoever by the European Environment Agency. This provision shall not affect the application of Article 6(2) of these General Terms & Conditions.

### **Article 8 - Termination of the contract and services to third parties**

- (1) The Contractor to the European Environment Agency shall not, without the prior and explicit approval of the European Environment Agency, assign the rights and obligations arising out of the contract in whole or in part or sub-contract any part of the contract to third parties.
- (2) Even where the European Environment Agency authorises the Contractor to sub-contract part or all of the work to third parties, he shall nonetheless remain bound by his obligations to the European Environment Agency under the contract.
- (3) Save where the European Environment Agency expressly authorises an exception, the Contractor shall be required to include in any sub-contracts for all or part of the work such provisions as enable the European Environment Agency to enjoy the same rights and guarantees in relation to the sub-contractors as it enjoys in relation to the Contractor himself.

### **Article 9 - Ownership**

- (1) Any result or patent obtained by the Contractor in the performance of the contract shall belong to the European Environment Agency which may use them as it sees fit.
- (2) Copyright and any other rights of ownership in respect of manuscripts or parts thereof shall belong exclusively to the European Environment Agency except where copyright or other property rights already exist.
- (3) On the date of acceptance of the manuscripts and subject solely to the exception referred to in paragraph (2) above, all rights in respect of manuscripts, including amongst others the right to use, print, publish and sell all or part thereof in any manner and in any language whatsoever, shall be acquired by the European Environment Agency which may transfer all or part of such rights to third parties on its own terms.
- (4) The Contractor shall specify any parts of manuscripts, including illustrations, maps and graphs, in which copyright or any other right of ownership already exists and hereby affirms that he has obtained permission to use such parts from the titular holder(s) of such rights or from his or their legal representatives. Any cost for which the Contractor may become liable for such permission shall be paid by him. Save as otherwise provided for in paragraph (2), the Contractor hereby affirms that he is entitled to transfer the copyright or other rights of ownership in respect of the subject matter of the manuscript.
- (5) The European Environment Agency shall not be required to publish manuscripts or documents supplied in the performance of the contract. If it is decided not to publish the manuscripts or documents supplied, the Contractor shall not have them published elsewhere without the written approval of the European Environment Agency.

## **Article 10 - Methods of payment**

- (1) Payments shall be made in EURO.
- (2) At the request of the Contractor, the Agency may pay him an advance equal to 30% of the amount due on completion of the contract. In addition to the requirement of the second paragraph of Article 45 of the Financial Regulation applicable to the Budget of the European Environment Agency, payment of the advance may be made conditional upon the furnishing by the Contractor of proof that he has lodged a deposit equal to the amount of the advance. The advance shall be deducted from subsequent payments in such a manner that it is fully recovered on exhaustion of the funds provided for such payments.
- (3) In the event of termination of the contract under Article 7 of these General Terms & Conditions, no payment shall be due except for services actually rendered up to the date of termination. In such an event, the amount due shall be calculated after deducting any payments already made. If the payments made prior to termination exceed the sum finally due, the additional amount shall be repaid by the Contractor to the European Environment Agency within 60 days of receipt of a request for repayment. If payment is not made within this period, the sum owed by the Contractor shall start to bear interest at the EURO rate applied by the European Monetary Co-operation Fund on the last day of the period allowed for repayment, as published in the C series of the Official Journal.
- (4) Reimbursable travel and subsistence expenses shall be paid, where appropriate, on production of supporting documents including receipts, used tickets and boarding pass.
- (5) Payments shall be made within 60 days of the due date.
- (6) The Contractor, whose registered office or place of abode shall be situated within the territory of one of the Member States of the European Environment Agency, shall be required to name a bank within the territory of his country of domicile for the payment of the sums due to him under the contract.

## **Article 11 - Provisions relating to taxation**

- (1) If the tax laws to which he is subject require the Contractor to pay VAT on fees received under the contract, the amount of VAT shall be included in the sums paid by the Environment Agency in return for services rendered.
- (2) The Contractor shall be responsible for complying with the national tax laws applicable to him in respect of revenue received under the contract with the European Environment Agency.

(3) Tax laws:

For Belgium

Direct exemption for transactions of 5.000 Bfr or more. The invoices shall be marked "*Exemption from VAT, Article 42, Paragraph 3.3 of the Code, Circular No. 2/1978*".

For the Grand Duchy of Luxembourg

Services rendered in the Grand Duchy of Luxembourg for 10.000 Flux or more for official purposes of the European Environment Agency shall be granted exemption from Value Added Tax. The invoices shall be marked "*Articles 8 and 9 of the Regulation of the Grand Duchy of 19 December 1969, Article 47 of the law of 5 August 1969 (Recueil de Législation A - No. 66 of 24 December 1969)*".

For the Netherlands

Services rendered in the Netherlands for official purposes of the European Environment Agency shall be zero rated (cf. *Resolution of 14 March 1969 No. 69/1649 - Wet op de Omzetbelasting 1968*).

For Italy

Services rendered in Italy for 100.000 Lires or more inclusive of tax for official purposes of the European Environment Agency shall benefit from direct exemption. The invoices shall be marked "*Decrees of the President of the Republic No. 687 of 23 December 1974 - Italian Official Journal No. 338 of 28 December 1974 - and No. 288 of 2 July 1975 - Italian Official Journal No. 183 of 11 July 1975*".

For France

Services as referred to in Article 259B of the "Code général des Impôts" rendered outside France for official purposes of the European Environment Agency shall be granted exemption from Value Added Tax (note of the "*Ministère de l'Economie et des Finances of 29 July 1980, Official Bulletin - Direction Générale des Impôts, note No. 201 of 18 November 1980*").

For the other Member States

If the Contractor is required, under the fiscal laws to which he is subject, to pay VAT on the sums paid under this contract, the amount of the tax shall be included in the sum referred to in Article 4 of the contract.

The contractor shall, at the request of the European Environment Agency, make available to the latter all vouchers which it might require in order, where necessary, to apply for reimbursement by the fiscal authorities of levies and taxes which have been paid in execution of this contract, pursuant to Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities.

**Article 12 - Amendments or additions to the contract**

- (1) The provisions of the contract and the annexes thereto may be amended or supplemented only by means of an additional agreement signed by each of the parties or their authorised representatives.
-

**REIMBURSEMENT OF TRAVEL EXPENSES**

The reimbursement of travel & 'per diem' expenses occasioned by a convocation of a Contractor to the European Environment Agency is paid in Euro at the rate of exchange in force against the Euro for the month in which the liquidation is effected (rate from Infor Euro of the European Commission). All accounts must be in the currency in which they were paid.

**a) Travel expenses**

by train: First class fare (used ticket with claim),  
 by air: Economy class where available (used ticket with claim),  
 by car: The equivalent of 23 EURO per 100 kilometre.

**b) Transfer of professional materials or non-accompanied luggage**

Subject to prior approval by the Agency.

**c) Daily allowance**

The daily allowance payable shall be based on the mission allowances for Officials of the European Environment Agency in grades A4 to A8 and B multiplied by the number of days and half-days on the mission. These allowances are subject to periodic revision and the rate applied will be that operating on the date of the mission.

This daily allowance is to include **all** expenses relating to:

- accommodation;
- meals;
- local transport including taxis.

**NOTES:**

Taxis are not chargeable.

For information only:

The current daily allowances (from 28/VII/91) are as follows (\*)

Belgium	:	4.690 BFR	Denmark	:	6.120 BFR
France	:	4.300 BFR	Germany	:	4.225 BFR
Greece	:	2.880 BFR	Ireland	:	5.235 BFR
Italy	:	5.615 BFR	Luxembourg	:	4.435 BFR
Netherlands	:	4.955 BFR	Portugal	:	4.150 BFR
Spain	:	5.230 BFR	United Kingdom:		5.755 BFR

(\*) Rates are decreased with 25% when the mission exceeds 4 weeks.

Discussion paper by the European Environment Agency

## **Draft list of contents**

### ***the Kiev report***

#### ***an indicator-based assessment of Europe's Environment***

27-04-2000

# **The Kiev report: an indicator-based assessment of Europe's Environment**

## **Draft list of contents**

### **Introduction**

The European Environment Ministers at their "Environment for Europe" conference in Århus in 1998, asked the European Environment Agency (EEA) to produce, together with existing national and international networks, a report based on indicators for the next ministerial meeting in Kiev, in order to support decision-making. This will be the third pan-European report published by the EEA under this process<sup>1</sup> and the Agency has accepted this task under its overall reporting strategy. The working title of the report is: "The Kiev report".

The European Environment Agency publishes regularly an indicator-based assessment for the EEA member countries, called '*Environmental signals*'. It is expected that this report series will play a major role contributing to the yearly reporting on sustainable development to European Councils (meetings of heads of state of EU countries) each spring. The production of the indicators for the Environmental signals report will form the backbone of the indicator production for the Kiev report. Many of the existing indicators will thus be produced with an extended geographical coverage for the Kiev report, according to the available extra financing. Linking the Kiev report with the Environmental signals production is expected to introduce some consistency in indicator reporting across Europe.

The EEA is co-operating with UNEP to maximise the efficiency of the production of the Kiev report on the one hand, and of the European part of UNEP's GEO3 report and UNECE's input for the RIO+10 conference on the other. These reports differ, however, because they address different policy processes. The Kiev report is made specifically to support the 'Environment for Europe' process.

The 'Environment for Europe' policy process includes the development of UNECE conventions and is important for agenda setting for other meetings and activities, including those of the International Financing Institutions. At the time of writing little is known yet about the agenda for the Kiev conference (scheduled for spring 2003). Nevertheless, preparations for producing the Kiev report have had to be started already so as to be able to present it by the end of 2002 in time to play a role in the preparation of and lead up to the conference.

The present document presents a proposal for the possible contents of the Environmental signals 2002/Kiev report. It is based on an earlier draft, which has been circulated for comments to all European UNECE countries (either through the national focal points of the EEA, or directly through the UNECE secretariat). The EEA would like to thank all those who contributed with comments. After discussion by the WGEM<sup>2</sup> and eventual modifications, the list of contents will be used as a starting point for preparing the Kiev report.

---

<sup>1</sup> Previous reports were: Europe's Environment: the Dobris Assessment (1995, for the Sofia-conference) and Europe's Environment: the Second Assessment (1998 for the Århus-conference).

<sup>2</sup> The UNECE Working Group on Environmental Monitoring



## **Geographical Scope**

The Kiev report will cover all European UNECE countries. That means all UNECE members excluding USA, Canada and Israel (see annex 3).

## **Co-operation with other organisations**

In the detailed list of contents, which is included below, reference is made to inputs of various international organisations and networks. With a number of organisations (e.g. WHO, UNEP, AMAP) discussions have started on their contribution to the reporting process. As soon as the list of contents is finalised as a working basis, a wider circle of organisations will be contacted to ensure a proper and efficient use of existing material (statistics, performance reviews, etc) in the report.

## **Chapter overview**

To answer the request of the Århus conference for an indicator-based report to follow progress in the Environment for Europe process, a few elements are important:

- 1) The chapters dealing with environmental issues will focus on the assessment of the implementation of international conventions, or (in the absence of international agreements) on the identification of progress in environmental management for each of the topics. These chapters will answer the general question on progress since the 1991 Dobris Castle ministerial conference on the European and national level. Where appropriate comparisons will be made with the *Dobris* and *Second Assessment* reports.
- 2) With the growing interest in integration of environmental policies in sectoral and other policies, a number of sector chapters will be included. These should include the main information that is needed for a proper problem analysis in each of the sectors.
- 3) The main political event that will influence the socio-economic sectors and the environment in the coming period will be the accession of a number of countries to the European Union. One of the recurring themes throughout all chapters will be this accession process and its effects on all countries in Europe.
- 4) An evaluation of the use of policy tools in environment and sector policies, and of progress during the last decennium will serve to answer the question 'what are commonly used tools and solutions' and 'where are the shortcomings' to help Ministers co-ordinate future approaches.
- 5) As the Kiev report will be issued a few months after the RIO+10 conference, the assessment of policy progress mentioned under (4) will have to be written in the perspective of implementing the RIO+10 conclusions.

Compared with *Europe's environment the second assessment* the report will contain less text and more diagrams, thus giving it more the character of an indicator-based report. Although some background information cannot be fully avoided in a pan-European report, the number of diagrams/indicators giving background information will be limited: the focus will be on showing developments over time or identifying places/regions for possible priority action.

Annex 1 lists in details the analyses to be included in each of the chapters and the indicators that will accompany these. Annex 2 gives an outline of the planning.

Chapter overview table:

	<b>Chapter title</b>	<b>Indicative chapter length in print</b>
<b>1</b>	Introduction	<b>4</b>
<b>2</b>	Developments in socio-economic sectors	<b>4-page summary</b>
<b>A</b>	Energy	<b>8</b>
<b>B</b>	Industry	<b>4</b>
<b>C</b>	Agriculture	<b>8</b>
<b>D</b>	Forestry	<b>2</b>
<b>E</b>	Fisheries and mariculture	<b>4</b>
<b>F</b>	Transport	<b>8</b>
<b>G</b>	Tourism	<b>4</b>
	Prominent environmental problems	<b>4-page summary</b>
<b>3</b>	Climate change	<b>12</b>
<b>4</b>	Stratospheric ozone depletion	<b>5</b>
<b>5</b>	Air pollution	<b>12</b>
<b>6</b>	Production, use and dispersion of chemicals	<b>10</b>
<b>7</b>	Waste generation and management	<b>10</b>
<b>8</b>	Water stress (inland and marine)	<b>16</b>
<b>10</b>	Soil degradation	<b>12</b>
<b>11</b>	Technological and natural hazards	<b>10</b>
<b>12</b>	Biological and landscape diversity	<b>12</b>
<b>13</b>	Progress in managing the environment and sustainable development	<b>14</b>
<b>14</b>	Information needs	<b>4</b>
<b>Annex 1</b>	Country comparison tables	<b>6</b>
<b>Annex 2</b>	International agreements	<b>2</b>
	<b>Estimated total report length</b>	<b>Ca 180-200 p.</b>

# ANNEX 1

## Draft list of contents of the Kiev report in detail

### *1. Introduction*

Describes the Environment for Europe process, and the role of indicator-based progress reporting. Includes a reading guide to the report, and details on country groupings. It contains a text box summarizing the scenarios that have been used in UNEP's GEO3-outlook report and their environmental implications.

### *2. Developments in socio-economic sectors*

The general model for the sectoral chapters will be:

1. an overview of the environmental pressures caused by the sector (either as a box text or illustrated with one or two indicators);
2. the development of the sector (changes in size and structure)
3. the use of specific policy tools to change in a more sustainable direction

#### *2a. The energy sector*

Includes a text box with environmental impacts of the energy sector.

##### **Indicators:**

- Energy related emissions of carbon dioxide, sulphur dioxide and nitrogen oxides
- Nuclear waste generated.

##### Analysis 1st paragraph *How is the energy sector developing:*

- (a) Energy consumption: Do we consume more energy? Why? Of what type? (sector analysis).
- (b) Choice of fuels: How is the dependence on fossil fuels developing? What is the role of local (poorer quality coal, peat) fuels – in relation to increased energy prices? What is the role of nuclear energy, what is the state of affairs in closing and upgrading nuclear power plants?

##### Analysis 2<sup>nd</sup> paragraph *Energy efficiency*

How has the energy efficiency of final energy users/sectors and of electricity generation and other energy transformation industry developed? Give attention to Combined Heat and Power generation. What has been the progress since Århus? What is the potential for energy saving measures per country?

##### Analysis 3<sup>rd</sup> paragraph *Renewables*

*Western Europe:* What is the distance to target for renewables? What is the speed of uptake of 'high profile' renewable energy (mainly wind and solar) in the various countries (success story box).

*Eastern Europe:* What has been the progress in increasing the share of renewable energy? What are the (economic) potentials?

(Price signals in Chapter 12)

##### **Presented indicators:**

- Total primary energy supply by fuel (needed for analysis: total primary energy supply by sector)
- Total primary energy supply vs. GDP (national energy efficiency)
- Power plant energy efficiency
- Percentage of energy supply from renewable sources

## ***2b. The industry sector***

Include text box with environmental impacts of the industry sector.

Analysis: Restructuring of the industry sector in East and Western Europe has delivered environmental advantages. What are the elements of an industry policy that builds on and extends these achievements? What have been successful instruments so far?

### **Presented indicators:**

- Index of industrial production
- Emissions of major air pollutants by industry

## ***2c. Agriculture***

Include text box with environmental impacts of the agricultural sector.

Analysis 1st paragraph: *In what direction is European agriculture developing?*

*Pan-European, but split up in regions:* effects of privatisation (farm size, amounts and quality of animals); intensification (farm size, herd size). Possible effects of enlargement of the EU.

Analysis 2<sup>nd</sup> paragraph *Relations with the environment:*

*Pan-European, but split up into regions:*

Developments in:

- environmental pollution (nutrients, pesticides, ammonia and GHG emissions);
  - use of Resources (water use);
  - maintenance of the landscape: agricultural habitats;
- all linked with the possible effects of EU enlargement.

### **Presented indicators:**

- Number of livestock
- Fertiliser consumption
- Consumption of pesticides

## ***2d. Forestry***

Analysis: *Effects of transition on the forestry sector:* Many of the CEEC and NIS have more forest than required for domestic demand. Export of timber and timber products can be important support to the foreign trade balance. The development of private forestry might lead to a growing felling intensity.

### **Presented indicators:**

- Total felling (and if possible as % of annual increment)

## ***2e. Fisheries and mariculture***

Include text box with environmental impacts of the fisheries and aquaculture/mariculture sector.

Analysis: *Overfishing*

In “Europe’s Environment, the second assessment” over-fishing of several species in several seas was reported. Progress in taking measures and the current status with regard to over-fishing will need to be reported. Box on mariculture and link with fisheries through feedstock. Also give attention to the situation in large inland water bodies (box).

**Presented indicators** (to be defined further):

- Indicator on fishing effort: tonnage of the fishing fleet (by main target stock?)
- Spawning stock and landings or catches

## ***2f. Transport Sector***

Analysis: trends in western Europe show that the growing amount of transport is outweighing improvements in environmental performance of the sector (engine efficiency, etc...). Greater policy impetus is required to reduce the coupling between transport demand and economic growth.

In central and eastern Europe the increased transport demand following the accession process, together with increased trade movements and GDP growth raises concern (explosion of the volume of transport, infrastructure building and modal shift towards road transport). Do have the countries capacity to manage mobility in an environment-friendly way and, at the same time, improve access for people to services, education, goods and work? Possibly include a text box on pan-European transport network (TEN+TINA) and its role in shaping Europe in 10-20 years time. Role of investment decisions by international financing institutes.

While at present transportation systems have overall less adverse implications for the environment in these countries (relation private/public transport), the twofold issue of modernisation of public transport systems and rapid development of private transport (cars) and goods transport is at stake. Such an analysis is relevant in particular with regard CO2 emissions (Kyoto target), air pollutant emissions and human health (CLRTAP and EU targets) and nature (fragmentation and other impacts).

A regional comparison (western/ central (accession)/eastern) will be run on the following basis:

1. Is the environmental performance of the transport sector improving?

**Indicators:** text box and air and greenhouse gas emissions from transport

2. Are we getting better at managing transport demand and at improving the modal split?

**Indicators:**

- Passenger transport by mode
  - Freight transport by mode
3. Are spatial and transport planning becoming better coordinated so as to match transport demand to the needs of access?

**Indicator:**

- Number of passenger cars; and box on accessibility
4. Are we moving towards a better-balanced intermodal transport system?

**Indicator:**

- Investment in infrastructure
5. Are we moving towards a fairer and more efficient pricing system, which ensures that external costs are recovered? (see also chapter 14)

**Indicator:**

- Transport fuel prices (only scattered data available in eastern Europe)
6. How rapidly are improved technologies being implemented?

**Indicator:**

- Share of cars with catalytic converter, uptake of unleaded petrol, maybe (energy) efficiency indicator.

## ***2g. Tourism***

Identification of areas with a high growth in tourism, and initiatives towards more sustainable tourism (including their success). Link with the transport chapter regarding tourism related transport

**Presented indicator:**

- International tourist arrivals, by means of transport

REQUIRED for the sectoral chapter: data collection, state-of-action and assessment NIS and CEE statistics:
--

## ***Environmental issues:***

### ***Climate change***

Paragraph 1 Analysis: signs of climate change

What is the direction of the measurable signs of climate change? The policy relevance of this question is because the appreciation of signs of climate change reflects in the perceived urgency of preparing

and implementing adaptation measures, ratification of the Kyoto protocol, agreement on reduction targets beyond the Kyoto Protocol (after 2012) and taking greenhouse gas emission reduction measures.

The analysis will be based upon finalised and ongoing research activities including the European Climate Change assessment research project (ACACIA, published 2000), the Arctic Climate Impact Assessment (ACIA, expected in 2002), the European Climate Assessment (EUMETNET, publication mid 2001) and the most recent IPCC assessment of future climate change trends (up to 2100) in their Third Assessment Report (reports from working group 1, 2 and 3 published early 2001, final full report expected mid 2001),

**Indicators:**

- European average temperature 1860-2000 (+ projected 2100);
- European precipitation 1860-2000 (North-South/Summer-Winter);
- Sea level rise past trend and projected to 2100
- Sea ice and glaciers
- evt. Regional indicators for signs of climate change (ecosystems)
- evt. Regional indicators for impacts of climate change (projected to 2100 - agriculture, water resources, etc.. Link with the chapter on natural hazards)

Paragraph 2 Analysis: progress in the implementation of the Kyoto targets and mechanisms

Western Europe: are the current national policies sufficient to reach the Kyoto targets or even go beyond them? By 2001 the EU Climate change programme will be well underway (and the Kyoto Protocol is still expected to be ratified in 2002), with better information available on common and co-ordinated policies and measures at EU level, the avoidance/abatement costs, enabling to answer the question: How much will the individual sectors contribute to emission reductions: detailed analysis of reduction measures taken per sector, and what is the potential of future reduction measures and what will be their costs?

And related to this: how much could the trade in emissions of the EU and the individual countries possibly be, in particular with NIS countries (important issue of cap on trading and trading of NIS “hot air”)?

**Indicators (Western Europe):**

- Total emissions of greenhouse gases compared with target,
- Emissions of individual gases by sector projected with current and pipeline policies (outlook to 2010 and 2020, including estimates of EU Member state use of the Kyoto Mechanisms)
- Cost estimates for policies and measures for the EU for the baseline outlook (no additional measures) and cost-effective reduction potential of additional measures.

Eastern Europe: what has been and what will be the effect of economic development on greenhouse gas emissions, what has been the effect and what is the scope for abatement measures; what is the scope for the use of Kyoto mechanisms, and what will this mean for the total emissions of GHGs of both Eastern and Western Europe (how important is the ‘hot air issue’)?

**Indicators (Eastern Europe):**

- Total emissions of greenhouse gases compared with target
- Emission of individual greenhouse gases by sector, outlook to 2010 and 2020 for EU-accession countries with current and pipeline policies.
- Cost estimates for policies and measures for the baseline outlook (no additional measures) and cost-effective reduction potential of additional measures

Pan-European ‘What if’ study: What would implementation of the Kyoto protocol targets mean for the emissions of other air pollutants and their abatement costs (‘ancillary benefits’-study).

Paragraph 3 Analysis: Greenhouse gas sinks?

If the decision is taken at the extension of COP6 to take sinks (forests and possibly also soils) into account, a pan-European analysis could be envisaged on the use of CDM and/or joint implementation for sink enhancement activities (forestry, soil measures), taking into account the 2000 IPCC special

report on sinks (land use change and forestry), ensuring that biodiversity aspects are properly addressed.

**Indicators:** not yet defined.

REQUIRED for the climate change chapter:  
Analysis of existing information (IPPC TAR, ACACIA, ACIA, ECA/EUMETNET) on climate change indicators on the pan-European scale.  
Exploitation of Commission (DG Environment) and ECCP (European Climate Change Programme) studies on costs of GHG abatement.  
Exploitation of existing outlooks for greenhouse gas emissions (ETC/IIASA/NTUA-report; ShAIR scenario).  
Additional 'What if' study: What would implementation of the Kyoto protocol targets mean for the emissions and abatement costs of other air pollutants.  
Additional study in sustainable carbon sinks potential in Europe, ensuring that biodiversity aspects are properly addressed.

### ***Depletion of the ozone layer***

Analysis: *progress in the implementation of the Montreal Protocol*

Are the eastern European countries still following the same reduction path as the western countries? Is special action needed?

The next UNEP assessment (ready in 2002) on the effects of depletion of the ozone layer could be used to provide a policy summary update on developments in the ozone layer and its impacts.

**Indicators:**

- Consumption of key ozone depleting substances, 1990-2000
- Selection of effect/impact indicators taken from the UNEP assessment

REQUIRED for the ozone depletion chapter: data collection and assessment

### ***Air pollution***

Analysis 1st paragraph: *Progress in the implementation of the CLRTAP protocols: Reduction of air pollutant emissions (acidification, tropospheric ozone, PM)*

Are the current national policies sufficient to reach the UNECE/CLRTAP and (proposed) EU targets or even go beyond them? What costs of abatement measures have been made in the past years and what are the expected costs of reaching the 2010 CLRTAP-targets? Can the cost efficiency be improved by joint implementation or emission trading of sulphur dioxide and nitrogen oxides? See also the proposed pan-European "what if" ancillary benefits study (under climate change)

**Indicators:**

- Emissions of SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, NMVOC, PM<sub>10</sub> total and by sector, 1990-2010-2020, compared with the 2010 targets, per country.
- Cost ranges of abatement measures (per country, group of countries).
- Outcome indicators of the "what if" ancillary benefits study (see under climate change).

Analysis 2nd paragraph: *Urban air quality*

What are the impacts of poor urban air quality on the European population, and how is it developing? Link with the topic traffic/environment/health brought forward from the London conference.

What have been successful measures in the reduction of standard exceedances in European cities? A number of studies for respectively sulphur dioxide, nitrogen oxides, ozone, particulate matter.

**Indicators:**

- exceedances/reduction air quality exceedances (precise indicators to be selected; 1990-2010-2020).

REQUIRED for the air pollution chapter:

- exploitation of existing outlook (ETC report: ShAIR scenario and UNECE/CLRTAP and EU/CAFÉ studies, specially on particulates, expected in 2001/2002)
- study by IIASA (in UNECE/CLRTAP and CAFÉ) comparing costs made and expected.
- study together with WHO to develop exposure indicators and to make an impact analysis.
- study on successful management on local, national and international level in combating urban air pollution.

## **6. Production, use and dispersion of hazardous chemicals**

With the limited availability of pan-European data on chemicals, this chapter can only illustrate the scale of chemicals use in Europe, give an overview of recent findings on pathways and the effects of chemicals in the environment on human health and provide an overview of recent policy initiatives in countries and the EU.

Analysis 1<sup>st</sup> paragraph: “chemicalisation” of societies

Gives the development in production, use and import of hazardous chemicals, analysis of development of its components. Includes an update of information on chemicals in the environment and human health. Discusses the use in policies of “maximum permissible levels”? Gives an overview of policy initiatives to arrive at lists of chemicals of which use is to be abolished or thoroughly controlled.

Analysis 2<sup>nd</sup> paragraph: pathways

Contains an identification of major problem areas in Europe with accumulation or high concentrations of hazardous chemicals (Heavy metals, POPs, maybe pesticides in general). Gives special attention for the CLRTAP 1998 Århus POPs protocol and the POPs convention: reports on the status in reduction of emissions of dioxins, furans, PAHs and HCB below 1990 level.

### **Indicators:**

- Production and import of hazardous chemicals (maybe focused on POPs)
- Maps on the occurrence in the environment or in organisms, or deposition from the air of hazardous substances (maybe focused on POPs). Maps of marine areas (Mediterranean, Atlantic, Baltic, Black Sea) with concentrations of hazardous substances in marine organisms or marine and coastal waters.

REQUIRED for the chemicals chapter:

- improvement of the data for the chemicals production indicator. Extension data collection to more countries. This part is highly dependent on improved data collection and co-operation with the chemical industry. It is expected that the work on the EU headline indicator will have progressed somewhat by the end of 2001.
- specific study and data collection on concentrations of hazardous chemicals. (Some pan-European information on emissions to air and transboundary air pollution and deposition pathways can be obtained from CLRTAP/EMEP-MSC-East. The European Topic Centre on waters will explore using marine data. AMAP data on pathways. Although several overviews exist on (local and national) monitoring programmes of chemicals in environmental media or organisms, data have not been put together and made comparable.
- WHO input on chemicals and health

## **7. Waste generation and management**

Analysis 1<sup>st</sup> paragraph: Decrease in the “Direct Material Inputs” of economies

As a growing number of countries will have calculated a time series of their Direct Material Input (DMI) by 2001 a first analysis of progress in overall dematerialisation can be tried, as an entry into the waste assessment. The analysis should shed some light on the development of material inputs as influenced by structural changes in the economy (moving heavy industries to developing countries?), and maybe even by efficiency improvements in the countries concerned. A first analysis should be given on the link between material flow indicators like DMI and waste generation.

### **Indicator:**

- DMI for selected countries



Analysis 2<sup>nd</sup> paragraph: waste generation

*Western Europe:* Is de-linking of waste generation from economic activity occurring and what is causing it to happen? Special focus can be given to recycling performance of countries. Is the extended producer responsibility as applied in the EU (end-of-life vehicles, electronic waste) starting to have effect?

**Indicators:**

- Municipal waste generation vs household expenditure
- Industrial waste generation vs industrial production. Selected country graphs on waste development split up in various causing factors.
- Overview of total waste managed/total waste recovered-recycled or percentage of recycled waste as a share of total consumption of (glass/paper/construction waste/tires/plastic).

*Eastern Europe:* How much waste is generated and what happens with it?

**Indicators:**

- Generation and treatment of municipal, industry, (mining), (agricultural) waste;
- Disposal facilities and their capacities.

Analysis 3: Hazardous waste management

What is happening with hazardous waste? Include an update based on best available data regarding generation, import/export and treatment. Attention for management options in small countries. Include nuclear waste.

**Indicators:**

- Generation of hazardous waste

Analysis 4: Progress in establishing waste management plans.

An overview can be given of the existence of waste management planning and the available waste managements plans can be assessed using simple quality criteria, such as: target setting, monitoring requirements, mechanisms to implement and adjust the plan.

REQUIRED for the waste chapter: extension of ETC/w collection of best available data to CEE and NIS, study of trends in treatment and capacity problems.

## **8. Water stress**

Whereas previous reports dealt with inland waters and seas in separate chapters, we seem to be better able now to provide an integrated picture of developments in catchment areas, linked with the seas as the final destination of many pollutants.

The chapter will start with a general overview of the state and pressures in large (sometimes transboundary) catchment areas. The aim is to clarify the magnitude problems in each of these and thereby identify areas for specific attention. A preliminary selection of catchment areas that will be taken into account is: Volga, Danube, Dniepr, Severneya Dwina, Pechora, Rhine, Oder, Tajo, Po, Nestos, Ebro, Denmark (as example of a 'river basin district' in terms of EU regulations). The links between developments in river basins and the seas are illustrated by a study on eutrophication. The chapter continues with an overview of problems and problem areas where the state of the marine environment is taken as the starting point.

Analysis 1<sup>st</sup> paragraph: trends in water stress on a regional basis

Approaches to water issues in EU show that the level of catchment areas is more appropriate for dealing with monitoring, analysis and management activities and actions. It is therefore proposed to develop this chapter around a comparative assessment of water-related environmental problems by major pan European catchment areas/drainage basins of regional seas, i.e. to analyse quantity and quality issues of freshwater and coastal/marine waters under a common framework of interactions. The magnitude of problems and their causes over the catchment areas will steer the scope of the assessment, e.g. water availability in southern Europe (incl. southern NIS),

eutrophication/acidification in northern and central seas/catchments, pollution in industrial catchment areas, etc. Attention needs to be given to the effect of water sector reforms and other recent policy measures in NIS.

**Indicators:** (might vary per catchment area or group of catchment areas):

- Exploitation index/consumption index of water quantity
- Nitrogen, Phosphorus and Organic Matter in rivers (by catchment size and type)
- Nitrogen and Phosphorus in lakes (by catchment size and type)
- Overall river water quality index: Biological and physico-chemical classification of river lengths less than 'good' in national classifications
- Pesticides in groundwater and surface waters
- Nitrate in groundwater
- Radio-nuclides in groundwater
- Urban Waste Water Treatment capacity
- Drinking water quality

Analysis 2<sup>nd</sup> paragraph: *the link between eutrophication on land and sea.*

Although improvements have been achieved nutrient loads to the sea are locally still too high. The combination of data (maps) of the eutrophication situation in inland waters and in the sea will highlight the areas for urgent action, linking the need for catchment-based action with expected improvements in marine quality.

**Indicators:**

- Nutrient inputs into the sea
- Nutrient concentrations in coastal waters
- Eutrophication maps

Analysis 3<sup>rd</sup> paragraph: *hotspots in marine water quality*

Activities following the marine conventions have brought improvements to marine water quality in many European seas. This chapter will identify the remaining problems/hotspots: eutrophication, oil exploration/exploitation and tanker transport; hazardous substances, including radio nuclides. A matrix might be presented showing development of various problems in various seas. Note that over-fishing is dealt with in the chapter on fisheries.

**Indicators:**

- Bathing water quality
- Input and concentrations of hazardous substances in marine waters (see also under 6. chemicals, the focus here might be more on temporal development)
- Oil pollution from maritime transport and offshore activities (Accidental oil spills in chapter on technical hazards)

Analysis 4<sup>th</sup> paragraph: *progress in the implementation of the UNECE water convention*

What has been the progress in the establishment of targets and action plans? Will it be sufficient to reach the aims of the convention? What are the problems of countries not conforming with the requirements of the convention?

**Indicators:**

- Table: implementation of programmes of measures for shared waters
- Table: implementation of monitoring requirements for shared waters

Required for the water chapter: Additional data collection and updates. Study and map analysis on eutrophication.
---

## ***9. Soil degradation***

In the introduction various aspects of soil degradation will be mentioned: soil erosion problems, soil sealing, disappearance of peatbogs, desertification, soil quality under agricultural land, etc. This

overview should show the multiple dimensions of the problem and should give also an overview of recent international policy actions taken in each of the areas.

**Indicators:**

- Estimate of soil loss per year by erosion from agricultural land for relevant countries
- Map of soil sealing (in the sense of covering of soil by urbanisation, infrastructure)

Analysis 1<sup>st</sup> paragraph: *Salinisation in the southern Russian Federation, Central Asia and the Southern Caucasus*

Salinisation of arable land has occurred in large areas (e.g. in Azarbaijan, Kazakhstan, Turkmenistan, Uzbekistan). Recovery is being undertaken, and the analysis could focus on the possibilities to build drainage systems for salinised land, comparing the area salinised, with the possible area for which recovery projects are ongoing and the area that could be recovered. It might be possible to come up with an estimation of recovery costs.

**Indicators:**

- Area of land affected by salinisation
- Table: restoration projects undertaken/planned

Analysis 2<sup>nd</sup> paragraph: *Aral sea follow up problems.*

One of the consequences of the drying out of the Aral sea is wind erosion of the former sea bottom, which endangers surrounding agricultural land, as the deposit contains salt. The analysis should focus on the actions necessary to prevent wind erosion. Other problems (desertification, biodiversity changes) will be listed. Comparable situations in other catchment areas (e.g. lake Sevan in Armenia) should be identified.

**Indicators:**

- Change in water balance of the Aral sea region
- Area with problems due to wind erosion and salt deposition
- Table: Wind erosion prevention projects.

Analysis 3<sup>rd</sup> paragraph: *Soil compaction*

Intensive heavily mechanised agriculture practices have resulted in compaction of soil top layers in large areas in Eastern Europe. An inventory of “sealed” surface based on existing studies carried out by national and international organisations should provide information on the present state, impact on soil quality and hydrological conditions. An overview might be given on state of rehabilitation plans.

**Indicator:**

- Map showing extension of problem.

Analysis 4<sup>th</sup> paragraph: *Soil contamination*

The paragraph should give the progress in clean up of contaminated sites and an estimate of remaining clean up costs. A rough comparison of the situation in major industrial/urban areas can be made to identify the main areas of concern. It could include a box on diffuse contamination by heavy industries, or on problems of large derelict industrial areas.

**Indicators:**

- Map of soil contamination hotspots
- Update of estimated/number of (potentially) contaminated sites
- Update of clean up projects/costs.

REQUIRED for the soil chapter:

Specific studies; inventory ETC/TE (soil specialists) in CEE and NIS.

UNEP input on specific problems in Central Asia and the Caucasian States, including the influence of environmental degradation on poverty and human health

EC-JRC contribution for soil loss by erosion

## **10. Technical and natural hazards**

### Analysis 1<sup>st</sup> paragraph: technological incidents

What has been the effect of prevention programmes and measures on technological hazards?

Where are main problems left?

- industrial accidents,
- nuclear incidents (link with 2<sup>nd</sup> paragraph below, link with energy),
- oil spills and other transport accidents.

#### **Indicators:**

- Number of industrial accidents
- Number of nuclear incidents
- Tanker oil spills

Include somewhere in this chapter a box on Environmental consequences of recent armed conflicts in Europe.

### Analysis 2<sup>nd</sup> paragraph: radio nuclides

Regarding radio nuclides, the greatest threats to human health and the environment are associated with the potential for accidents in the civilian and nuclear sectors. Hence the assessment will need to give an overview of the distribution of nuclear power stations and fuel processing plants, storage of nuclear weapons, places for decommissioning nuclear submarines and spent nuclear fuel dumping sites and their relative risk. Since Chernobyl emergency preparedness has increased; an overview of recent outcomes of pathways studies should give some recommendations for population protection actions in case of an accident. The report should also give an overview of places with a direct risk to ecosystems and human health (large scale polluted areas, uncontained sources) as a basis for focusing remediation actions.

The assessment will be built on the 2002 nuclear assessment by AMAP, using indicators from that assessment.

#### **Indicators** (to be further defined):

- Map of nuclear installations, storage of nuclear weapons, places for decommissioning nuclear submarines, storage/dumps for spent nuclear fuel.
- (Arctic) example of doses to members of population.
- Map of polluted areas/uncontained sources

### Analysis 3<sup>d</sup> paragraph: natural extreme events

Storms and floods and droughts are the most common natural disasters in Europe. An increase of these events has been noticed which maybe is linked with human activities. Links with the various chapters can be made.

#### **Indicator:**

- Number of natural disasters, excluding earthquakes and volcanic activity.

Required for the technological hazards part: datacollection NIS and CEE industrial accidents.  
Summary of BTF/UNEP report on Yugoslavia to be completed with other information on recent conflicts.  
Required for the radio nuclides part: extension of the AMAP assessment to cover the whole of Europe.

## **11. Biological and landscape diversity**

There are two main policy issues in nature and biodiversity conservation on the pan-European level.

1) Enhancing the protection of 'high-quality' natural areas; 2) safeguarding 'ordinary' biodiversity by integrating biodiversity concerns in agriculture, transport and physical planning policies.

### Analysis 1<sup>st</sup> paragraph: state and protection of 'high quality' habitat types

Includes an assessment of the success of protection policies, using as a main indicator the development of area protected under Natura 2000, Emerald and other initiatives. Gives attention to

differences in speed between countries and the question how far we are establishing a European Ecological network with these protected areas. It should include an identification of neglected areas/habitats.

**Indicators:**

- Protected area (IUCN categories)
- Number of habitats/species protected under EU-directives/Bern Convention with a better/worse status (in terms of population and distribution), causes for these changes in status.

Analysis 2<sup>nd</sup> paragraph: safeguarding 'ordinary nature'

The paragraph mainly contains a listing of developments mentioned in the sectoral chapters that threaten 'ordinary' nature, or biodiversity as such, and landscape features. It gives special attention to land-use. It may include a text box with attention for invasion of alien species. It ends with a listing of measures that could be part of sector strategies aiming at environmental integration. Both analyses might be supported by information on wetlands, permanent grasslands, and forests (focus on natural and old forests), covering: remaining area, distribution, protection status and the pressures upon these.

REQUIRED for the biodiversity chapter: Exploitation of the EEA Biodiversity report. Possible co-operation with the Council of Europe, UNEP. Additional data collection and updates.

## 12. Progress in managing the environment and sustainable development

The 1995 Environmental Programme for Europe stated as recommendations: "to ensure the integration of environmental considerations into all decision making processes, taking into account environmental costs, benefits and risks; to apply the precautionary and "polluter pays" principles; to promote partnerships between government, parliaments, business and NGOs".

This final chapter aims to give an assessment of the progress made in using policy tools to achieve more environmentally sustainable development.

1<sup>st</sup> paragraph analysis: Integration of environmental considerations in other policies

Drawing among others on the lessons of the so-called 'Cardiff'-process in the EU a general assessment will be given of progress in the integration of environment in other policies, including also non-EU countries. Some specific instruments will be highlighted in the following paragraphs.

**Indicator:**

- Progress in policy integration (qualitative table)

Analysis 2<sup>nd</sup> paragraph Price signals (economic integration)

How far reflect prices total costs, including external costs? What is the role of subsidies and other state aid in energy supply and energy management? Are there still conflicts between subsidy and other policies?

**Indicators:**

- Environmentally unfavourable subsidies/state aid
- Prices and externalities (examples from agriculture and transport)

Analysis 3<sup>rd</sup> paragraph Environmental impact assessment (management integration)

One of the tools to take environment into account is environmental impact assessment (EIA) for projects and policies. Many countries have acquired a wealth of experience in EIA. This section will summarise progress in the application of the tool and above all give some best practice/best experience conclusions based on existing evaluations.

**Indicator:**

- Appliance of EIA/SIA in Europe

Analysis 4<sup>th</sup> paragraph Urban planning (institutional integration/management integration)

Contrary to previous reports no attempt will be made to give an overview of the state of the environment in European cities. (A link can be given to relevant web-resources). The main policy issue on the national level is the use of institutional and planning mechanisms to achieve an integrated and sustainable development of cities. This section will need to summarise experiences in integrated urban planning addressing planning tools, partnerships (a.o. Agenda 21-initiatives), management issues. It should aim to bring out the conclusion of the various 'sustainable towns' activities for national authorities.

**Indicator:** to be defined, could be an overview of successful/not successful planning tools

Analysis 5th paragraph: *Coastal zone management (spatial planning/institutional integration)*

Coastal zone management is taken as an example for solving problems in specific areas with conflicting interests and high environmental values. Similar problems are encountered in a.o. mountainous areas, and zones with traditional agricultural landscapes. A comparative regional assessment of coastal zones is foreseen. Maybe a box on temporal development can be included. The comparison should identify the major pressures on coastal ecosystems and areas where carrying capacities to sustain the economic activities are reaching their limit or are overused already. A first evaluation of the development of integrated coastal zone management will be explored to highlight the role of physical planning, institutional integration and other tools.

**Indicators:**

- Qualitative indicator on pressures on coastal zones
- Progress in Integrated Coastal Zone Management

Additionally, a box might be included on business environmental reporting.

**Note:** Although information and public participation are important policy tools as well, it is proposed that the Kiev report will not deal with the follow-up of the Århus convention on Information, Public Participation and Access to Justice as it is expected that a progress report on this convention will be prepared separately.

REQUIRED for the integration chapter:  
Update of subsidies information  
Literature study best experiences in EIA/SIA  
Study on urban planning  
Study gathering dispersed information on coastal zones

## **14. Information needs.**

The chapter provides a short overview of the information that would be needed for improving the assessments in the Kiev report.

### **Annex: country comparison**

In an annex country comparisons will be given for main variables, such as:

Carbon dioxide emissions per capita, % change 1990-2000

Nitrogen oxide emissions per capita, % change 1990-2000

Sulphur dioxide emissions per capita, % change 1990-2000

Etc.....

### **Annex: International agreements**

A table will be included showing the status of ratification for the main international agreements.

## Annex 2: PLANNING THE KIEV REPORT

	Period or deadline
<i>First proposal for the table of contents</i>	<i>September 2000 (discussed in the WGEM)</i>
<i>Consultation with stakeholders on the contents</i>	<i>January - April 2001</i>
<i>Processing of comments and draft table of contents</i>	<i>March/April 2001</i>
Produce draft guideline for data collection	March – June 2001
Establish data warehouse for central storage of data	May - September 2001
Expert consultation on the data required for the report	May-July 2001
<b>Data collection</b>	<b>June – November 2001</b>
Perform the analysis and produce indicator fact sheets	October 2001 – January/February 2002
<b>Review of the first analyses</b>	<b>February 2002 – April 2002</b>
2 <sup>nd</sup> UNECE WGEM meeting	27 Febr-1 March 2002
Write draft report	April 2002 – June 2002
<b>Review of the draft report</b>	<b>June 2002 – July 2002</b>
3 <sup>rd</sup> UNECE WGEM meeting	28-30 August 2002
Produce final report	July 2002 – September 2002
<b>Printed report available</b>	<b>November 2002</b>
KIEV Conference	21-23 May 2003



**Annex 3**  
**List of countries included in the Kiev-report**

Albania	Czech Republic	Monaco	Poland	Tajikistan
Andorra	Denmark	Netherlands	Portugal	The former Yugoslav Republic of Macedonia
Armenia	Estonia	Greece	Republic of Moldova	Turkey
Austria	Finland	Hungary	Romania	Turkmenistan
Azerbaijan	France	Iceland	Russian Federation	Ukraine
Belarus	Georgia	Ireland	San Marino	United Kingdom
Belgium	Germany	Italy	Slovakia	Uzbekistan
Bosnia and Herzegovina	Liechtenstein	Kazakhstan	Slovenia	Yugoslavia
Bulgaria	Lithuania	Kyrgyzstan	Spain	
Croatia	Luxembourg	Latvia	Sweden	
Cyprus	Malta	Norway	Switzerland	

## ***The EEA Indicator Fact Sheet Model***

### **Concept**

During the past three years the EEA has used a standard model for indicator reporting in two Environmental signals reports and the first TERM report. In general the experiences are positive: the indicator and the assessment are documented in a standard way; the indicator fact sheet as such can be used as background document to each individual indicator (and published by making it downloadable from the web) and it is generally easy to re-use the information for several publications.

Using the experiences of the past years an improved indicator fact sheet model has been developed. Use of this model will be compulsory for all indicators developed by or for the EEA.

### **Design changes compared with earlier models**

As we aim to publish all indicators on the web as soon as they have been finalised, some changes for easy extracting of the information for web-publishing have been made: for 'support indicators' or 'support graphs' that contain other data than the main graph now separate indicator fact sheet need to be developed; the 'Key message' box now allows for a text of 5 lines.

Requirements for rationalising the production process of indicator led to the introduction of the concept that an indicator fact sheet, if relevant, also contains the detailed indicators needed for reporting with a special viewpoint. For example: the indicator fact sheet on final energy use contains also the indicators needed for TERM (final energy use by the transport sector), and for any other sector reporting mechanism; the indicator fact sheet on sulphur dioxide emissions could also contain the indicators on SO<sub>2</sub> emissions by transport, by the energy industry and fossil fuel related SO<sub>2</sub> emissions. It is obvious that requests for the more detailed indicators must be discussed with the responsible project managers well in advance.

Several other small changes have been introduced, the most important of which are:

- A box for references has been added;
- The definition of the 'Data' section has been improved;
- A scoring system to indicate the quality of the indicator has been added to ask for more attention for the quality information on the indicator (this information can be used to create a quality icon next to each indicator).

It is important to stress that the Metadata box still follows the Catalogue of Data Sources (CDS) standards ("Standard element set for GELOS records").

### **The making of a good indicator**

Communication is the main function of indicators. Environmental indicators provide information that is considered to be critical to the development of environmental problems. It is on this information base that decision makers (ranging from individual consumers to high level policy makers) decide to take action or not. Each newly developed indicator must thus be screened on its relevancy for deciders: does the indicator give the incentive to undertake an action?

To make this communication process work simplicity is needed. Indicators simplify a complex reality. An indicator distils information derived from analysing data obtained by monitoring and data collection. Raw data or statistics do not make an indicator without the results of analysis and synthesis. As a bare minimum an explanation must be given of the (possible) causes of change (or lack of change) shown by the indicator.

Linking to other indicators and telling the story about the features of the larger system should overcome the risk of losing the sense of interrelations between processes in society and the environment. The DPSIR framework is to be used to place an indicator into the context of human activities and their environmental impacts and the societal responses to these impacts.

A good graphical presentation of the information is key for communication: too often the message behind an indicator is lost because, for instance, the countries in a bar chart are ordered alphabetically. The guideline for the presentation of statistics developed by the Environment Agency of England and Wales should be used. An electronic copy can be found in the indicator interest group on CIRCLE [http://eea.eionet.eu.int:8980/Members/irc/eionet-circle/indicator/library?l=/general\\_documents&vm=detailed&sb=Title](http://eea.eionet.eu.int:8980/Members/irc/eionet-circle/indicator/library?l=/general_documents&vm=detailed&sb=Title)

Part of the presentation of the indicator is the attention for reliability. Apart from a proper and as far as possible quantitative documentation in the 'Meta-data' box, presentation of confidence intervals in the graph has a big value added.

There are different types of indicators useful in the context of supporting environmental policy: descriptive indicators (type A), performance indicators (type B), efficiency indicators (type C) and policy effectiveness indicators (type D). Descriptive indicators exist for all elements in the DPSIR framework, and describe the development of a variable related to an environmental issue. In fact, all indicators are descriptive but not all indicators are performance indicators.

Performance indicators measure the achievement of stated objectives or with a specific set of reference conditions. By doing this they enable a 'distance to target' assessment. Performance indicators are especially relevant if specific groups or institutions can be held accountable for reaching the targets. Performance indicators relate mostly to Driving Forces and Pressures, sometimes to State.

Some indicators express the relation between separate elements of the DPSIR causal chain. Eco-efficiency indicators, which relate pressures to human activities (P/D), give insight in the change in the efficiency of use of the environment in processes or products. As a "2% increase per year in energy efficiency" means the same for a company as for a municipality as for a national government, these indicators are very suited to enable communication and target setting at various levels in society

Policy effectiveness indicators are relatively new: they show the effect of structural changes in the economy and of policy measures relative to a reference scenario. See EEA, Environmental signals 2000, page 69; and 2001, page 32 and 41. As these indicators include the analysis in the graph, they are very powerful in communicating how measures/policies have worked with respect to other developments in societies.

## **Test questions**

The following questions are a test to be applied to each draft Indicator Fact Sheet:

- Is the indicator attractive to the eye (accessible)?
- Is the indicator easy to interpret correctly?
- Does it match the interest of the target audience? Does it invite to take action?
- How is this indicator representative to the issue or area being considered?
- What are the causes behind the development (trends) of the indicator?
- Is the indicator based on data which are updated at regular intervals?
- What is the shortest time period required to show change?
- Is there a reference value for comparing changes over time? What is this value? What change could be expected when random errors are considered?
- Is the data (raw data or indicator data) allowing international comparability? What would make the data non-comparable (differences in national definitions, changes over time to the definition and methodologies, etc.)?
- Scientifically, is the work well done? Is the indicator well founded and of good quality (data & methodology)?
- Is there consensus on the data validity: data collection methods, statistical methods, etc.?

## **The Model**

The model of the Indicator Fact Sheet is presented on the next pages together with a guideline for completing the sheet.

**Indicator Fact Sheet**

**(Code) Title of indicator (add 'EEA', 'ACC', etc. if there are different versions)**

☹ ☹ ☹  
**Key message** [5 lines]

**(Technical title of graph)**

insert: One graph  
 (via copy/paste special/picture)

Notes: >>add relevant notes in the indicator fact sheet word document, as they should appear in the final publication<<  
 Sources: >>add source as it should appear in the final publication<<

**Results and assessment**

Section describing (can be as one continuous text, the balance of topics may vary depending on the type of indicator):

Policy relevance: target or objective for the indicator

>> insert: 1-5 lines of description <<

Policy context (relevance of the indicator with reference to specific policy processes)

>> insert:5-10 lines of description <<

Environmental context: (scientific soundness and choice and definition of the indicator)

>> insert:5-10 lines of description <<

Assessment

>> insert: 15 lines of description <<

**Subindicators**

If a subdivision of the indicator (for instance by country, by sector, by fuel type) will be used in the same or another publication, include here for each graph:

☹ ☹ ☹ **Key message** [5 lines]

**Technical title of sub-graph**

Insert graph

Notes: >>add relevant notes in the indicator fact sheet word document, as they should appear in the final publication<<

Sources: >>add source as it should appear in the final publication

**Assessment for the sub-indicator**

>> insert: 15 lines of description <<

## References

>> insert the bibliographical details of the references used or cited <<

## Data

>> If you consider it useful for a publication or for this indicator fact sheet to provide statistical data, insert then a publication-ready table (that is: a WORD table, not a link to a spreadsheet) with statistics on country level and as a total for a relevant country grouping. Data should be made comparable between countries (by dividing by population, land area, GDP etc) if that enhances the use of the table. Select in the number of years if necessary to keep the table readable.

>> The background data for producing the indicators should be provided as three spreadsheets in a workbook, with clearly marked tabs:

A) base data (by country and year)

B) manipulated data (for the indicator)

C) graph <<

>> Mention the file name here: Spreadsheet file:

## Meta data

### Technical information

1. Data source:
2. Description of data:
3. Geographical coverage:
4. Temporal coverage:
5. Methodology and frequency of data collection:
6. Methodology of data manipulation, including making 'early estimates':

### Quality information

7. Strength and weakness (at data level):
8. Reliability, accuracy, robustness, uncertainty (at data level):
9. Overall scoring (give 1 to 3 points: 1=no major problems, 3=major reservations):

Relevancy: <see Description of elements for definitions>

Accuracy:

Comparability over time:

Comparability over space:

## Further work required

<< for most indicators necessary; insert short description >>

## Descriptions of all elements

Fact Sheet Element	Description/definition
<b>1. General + graph</b>	
Language	The working language for the indicator fact sheets is English.
File format	Digital files of the Fact Sheet : Microsoft Word (the EEA uses currently Word 2000, v.9.0) Digital files of spreadsheets: Microsoft Excel (the EEA uses currently Excell 2000, v.9.0)
Codes	A coding system helps to keep some order in a pile of indicator fact sheets. Indicator codes need to be systematically assigned by project managers.
Title/name of graph	This is a short descriptive title of key words (maximum 10 words). It clarifies to add 'EU' or 'EEA' or 'Accession countries' to the title if the geographical scope is not clear from the graph itself. Idem for the year if that is not clear from the graph. It is not necessary to add in the title: the units (because that should be with the axis), the time span (like 1990-1999, because you can see that also from the axis), or the subdivisions in the graph if these are already clear from the lay-out of the graph (the famous: "population broked down by sex and age").
Graph / diagram / map	The following is a check list. Each graph must have: <ul style="list-style-type: none"> <li><input type="checkbox"/> Years, preferably on the x-axis.</li> <li><input type="checkbox"/> Units of measure, on y-axis.</li> <li><input type="checkbox"/> Legend, key of symbols.</li> <li><input type="checkbox"/> Notes located below the graph (in Word).</li> <li><input type="checkbox"/> Source information - place below the graph (in Word).</li> <li><input type="checkbox"/> Check if the graph is still readable if reproduced with a black/white photocopying machine.</li> </ul> <p>Use the guideline for the presentation of statistics (Env. Agency England and Wales).</p> <p>Note that also another graphical presentation, like a map, can be the main indicator.</p>
Targets	Include on the graph relevant policy and/or sustainability targets.
Geographical groupings	The following are guidelines for the geographical groupings of countries: <ul style="list-style-type: none"> <li>• EU15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, United Kingdom.</li> <li>• EFTA 3: Iceland, Norway and Liechtenstein ( ! not Switzerland).</li> <li>• EU15 + EFTA 3: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, United Kingdom, Iceland, Norway and Liechtenstein (not Switzerland)</li> <li>• North EU + EFTA 3: Austria, Belgium, Denmark, Finland, Germany, Ireland, Luxembourg, the Netherlands, Sweden, United Kingdom, Iceland, Norway and Liechtenstein</li> <li>• North EU: Austria, Belgium, Denmark, Finland, Germany, Ireland, Luxembourg, the Netherlands, Sweden, United Kingdom</li> <li>• South EU: France, Greece, Italy, Spain, Portugal</li> </ul>
Time series	In general a time series 1980 – the most recent year is preferred, if not possible present 1990 – the most recent year. Explore possibilities to provide an early estimate for the previous (or even the current) year.

Fact Sheet Element	Description/definition
Key message	<p>This is the eye-important message for each graph presented. Examples include:</p> <ul style="list-style-type: none"> <li>☺ In England, about 55 per cent of new homes are now built on previously developed land. The Government has set a target of 60 per cent to be achieved by 2008.</li> <li>☺ In Iceland the total length of roads has remained stable for the last 15 to 20 years and no major changes are expected in the near future. Iceland has just over 0.1 km road per km<sup>2</sup> land.</li> <li>☺ Although between 1980 and 1990 the NO<sub>x</sub> deposition in the Netherlands dropped slightly, the actual emissions from Dutch sources did not drop in that period. The reductions achieved by cleaner cars and power plants was off set by growth in the number of vehicles and equipment.</li> </ul> <p>Keep the text length to five lines.</p>
Positive, neutral, negative assessments	<p>There are 3 rankings or subjective valuations available:</p> <ul style="list-style-type: none"> <li>• Positive ☺: <ul style="list-style-type: none"> <li>- development of <i>driving forces</i> or <i>responses</i> in a direction that reasonably should lead to lower environmental pressures</li> <li>- decreasing <i>pressures</i> on the environment in such an extent that targets have been reached or are coming within reach</li> <li>- decreasing <i>pressures</i> on the environment showing (the beginning of) an absolute decoupling from the development of the causing activities</li> <li>- improvement in the <i>state</i> of the environment, targets/guidance values only exceeded in a small (&lt;15%) part of the area/for a small (&lt;15%) part of the population.</li> </ul> </li> <li>• Neutral ☺: <ul style="list-style-type: none"> <li>- developments in the <i>driving force</i> or in <i>pressures</i> on the environment are levelling of</li> <li>- reductions in <i>pressures</i> on the environment, but insufficient to bring targets within reach</li> <li>- reductions in the concentration levels/improvement in the <i>state</i> of the environment, but targets/guideline values are still exceeded in &gt;15% of the area/ for &gt;15% of the population</li> <li>- no changes in <i>pressure</i> on and <i>state</i> of the environment</li> <li>- mixed developments within the indicator.</li> </ul> </li> <li>• Negative ☺: <ul style="list-style-type: none"> <li>- <i>driving force</i> or <i>response</i> development that reasonably should lead to higher environmental pressures</li> <li>- increasing <i>pressures</i> on the environment</li> <li>- decreasing <i>quality</i> of the environment.</li> </ul> </li> </ul> <p>The assessment value needs to be presented next to the “key message” of each graph. Unless it is mentioned explicitly, the assessment should be made for the whole period shown.</p>

## 2. Results and assessment

This section can be written as a continuous text, but needs to pay attention to the following questions. Depending on the type of indicator (more scientific versus more political) the balance can vary. Keep the text short and to the point.

Policy relevance: targets for the indicators	What policy targets been agreed for the variable? And are there sustainability reference values available? And what is the distance to target?
Policy context	<p>What is the policy relevance of the indicator? For which policy process has the indicator been developed? Add references to policy documents which contain the policy statements that are to be evaluated with this indicator.</p> <p>Which policy instruments may influence the developments in the indicator? (note: some indicators have been added mainly because of public concern, describe in that case, why so).</p>
Relevance of the indicator for describing developments in the environment	<p>For which environmental process is the indicator indicative? (refer to other indicators if relevant)?</p> <p>What does the indicator show that we should be concerned about?</p>
Assessment	The assessment is the elaboration of the key message in more details; it

	<p>must cover the following elements:</p> <ul style="list-style-type: none"> <li>- the explanation of the trend: what have been the causes for its development. Be as precise and quantitative as possible, give results of and refer to background studies analysing the effect of various technical measures and structural developments in the various countries. Include relevant country specific assessments</li> <li>- list separately the policy measures that have influenced the trend and give an account of the magnitude of the influence.</li> <li>- the reasons why targets/guidance values are reached or not reached. Mention relevant policy developments which have hindered/promoted reaching of the targets. Mention, if not done already, developments in society and technology that have played a role.</li> <li>- the implications of the development of the indicator (1) for the environment (refer to other indicators) and (2) for policy makers.</li> </ul> <p>If relevant highlight any national/regional differences.</p>
<b>3. References</b>	
	Provide literature references for the assessment. May include webpages, Use the EEA style guide
<b>4. Data</b>	
Presentation of a data table	<p>Contents and design of a table are determined by needs of the reader: national breakdowns, complementary information to the graph. This box is not intended for basic data for the graph that can be made available electronically (via the data service or by sending an Excell sheet).</p> <p>Make sure that each table has:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> title in key words.</li> <li><input type="checkbox"/> units of measure.</li> <li><input type="checkbox"/> headings for all columns and all rows, definitions of the headings are defined in the notes at the bottom of the table (if not obvious).</li> <li><input type="checkbox"/> table notes are provided under each table and explain key data issues found within the table.</li> <li><input type="checkbox"/> a source of the data</li> <li><input type="checkbox"/> decimal symbol is the "." (point) and not ",", (comma).</li> <li><input type="checkbox"/> put years always on top of the columns</li> </ul> <p>put countries always in the rows</p>
<b>5. Meta Data</b>	
<b>Technical information</b>	This section refers to all descriptive and technical information about each indicator. This information is essential, and all the elements are considered mandatory.
Data provider (source)	<p>Usually one international source of data will be used. Here is a check list, for citing the data source:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Contact organisation.</li> <li><input type="checkbox"/> Point of contact / person.</li> <li><input type="checkbox"/> Copyright and other restrictions that might apply.</li> <li><input type="checkbox"/> Other places where the data has been published.</li> </ul>
Description of data	<p>For purposes of retracing the information the following information should be provided:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Original name of the data file.</li> <li><input type="checkbox"/> Unit of measure of original data.</li> <li><input type="checkbox"/> Original projection files (geographic data).</li> <li><input type="checkbox"/> Original purpose of the data.</li> </ul>
Geographical coverage	This indicates if the extent of the source data includes EU15, EU15 + EFTA 3, pan Europe, etc. .



Fact Sheet Element	Description/definition
<p>Temporal coverage</p> <p>Methodology and frequency of data collection</p>	<p>Describe the time referencing of the data (annual, bi-annual, daily, etc.) Clearly note all times for which data was observed, the earliest temporal coverage and the most recent, and in-between.</p> <p>Summarise the methodology used to collect the raw data, and note the frequency of this collection procedure.</p> <p>Example: A data set is collected by a house to house survey of a sample set of the population. The results are then extrapolated to provide an idea of the entire population. Data are gathered annually by each country.</p>
<p>Methodology of data manipulation: from base data to indicator</p>	<p>Describe the methodology used to create the indicator. Provide:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> formulas and calculations; weighting factors</li> <li><input type="checkbox"/> assumptions that influence the methodology (e.g. reliability);</li> <li><input type="checkbox"/> name of equation or the statistical method,</li> <li><input type="checkbox"/> management of rounding up or down, errors, decimals, etc.</li> <li><input type="checkbox"/> methodology for creating an 'early estimate (data for the year n-1).</li> </ul> <p>As it has appeared that others who are redoing the indicator with their own data use this section, please check if the information provided is sufficient for an outsider to repeat the indicator construction!</p>
<p><b>Quality information</b></p>	<p>This section refers to quality of the information, and the focus is the data level. This information is important to develop a full appreciation of the indicators presented in a Fact Sheet, and all the elements are considered mandatory.</p>
<p>Strength and weakness (at data level)</p>	<p>This is for the data level. Describe the strengths of a data set, and also the weaknesses of the data set.</p> <p>Examples include: <i>Strength</i> of a data set is the mandatory requirement for the collection and the results are harmonised at the EU level. <i>Weakness</i> of a data set is that different definitions or methodologies are used, and so the results are not completely comparable.</p>
<p>Reliability, accuracy, precision, robustness, uncertainty (at data level)</p>	<p>At data level - the purpose is to record the quality of the data being used, what is known and unknown.</p> <p>Example: if a data set is based on a survey of the population, and the figures for the total population are derived by extrapolation, then the reliability of the data values is dependant upon the original sample size.</p>
<p>Overall scoring</p>	<p>Relevancy: closeness of the indicator to the information that would be needed for answer policy questions.</p> <p>Accuracy represents issues such as comparability of the data, reliability of data sources, coverage of the indicator, validation of results through sensitiveness analysis</p> <p>Comparability over time relates to the completeness of the time series and the consistency of the methodology over time</p> <p>Comparability over space relates to the number of countries represented in the indicator, the use of the same or similar methodologies in these and the reliability within the countries.</p>
<p><b>6. Further work required</b></p>	
	<p>This addresses both the data level and indicator level.</p> <p>Reflect with expert knowledge what is and is not available, and what would be the most useful next steps: new data, better data, revised methods, etc.</p> <p>Also reflect on the continued usefulness as policy relevant indicator and to provide information. Have relevant policy questions been changed so much that the indicator does not match the requirements any more?</p>