

**REPORTING BY EU MEMBER STATES ON  
ENVIRONMENTAL POLICIES AND THEIR EFFECTS:**

**Summary of EU Reporting Requirements and  
The Example of CO<sub>2</sub> Reduction Programme**

**DRAFT**

**Draft Paper 2** for the project:

*Towards a new EU framework for reporting on environmental policies and  
measures.*

Prepared by:  
David Wilkinson  
Jodi Newcombe  
Institute for European Environmental Policy, London  
under contract to the European Environment Agency.

Project Manager: Maria Teresa Ribeiro

4 November 1999

This paper is the second report prepared in the framework of a study commissioned by the European Environment Agency, entitled *Towards a new EU framework for reporting on environmental policies and measures*. The project seeks to develop proposals for a better system of reporting that focuses on the actual effects and effectiveness of environmental policies, by identifying sound and realistic methodologies for evaluating the impact of policies, and developing a cost-effective framework for reporting the results.

## CONTENTS

### Foreword

### **PART I: SUMMARY OF REPORTING ON POLICIES AND THEIR EFFECTS**

- 1.0 INTRODUCTION AND THE STANDARDISED REPORTING DIRECTIVE**
- 2.0 REVIEW OF REPORTING REQUIREMENTS**
- 2.1 Reporting Methodology**
- 2.2 Instances of Requests for Descriptions of Programmes and Measures**
  - 1.2.1 Member States Reporting
- 2.3 Instances of Requests for Evaluations of Programmes and Measures**
  - 1.3.1 Member States Reporting
  - 1.3.2 Commission Reporting
- 2.4 Evaluations of EU Financial Support Programmes**
- 2.5 Reporting Requirements in Proposals for Legislation**
- 2.6 Conclusions**

### **PART II: THE EXPERIENCE OF REPORTING ON CO<sub>2</sub> REDUCTION PROGRAMMES**

#### Summary

- 1.0 EXPERIENCE TO DATE**
- 1.1 The EU's CO<sub>2</sub> Monitoring Mechanism**
- 1.2 The UNFCCC's Reporting Guidelines**
  - 1.2.1 Introduction
  - 1.2.2 Describing Policies and Measures
  - 1.2.3 Evaluating the Effects of Policies and Measures
  - 1.2.4 Monitoring Progress
  - 1.2.5 Conclusions
- 2.0 FUTURE REVISION OF GUIDELINES FOR REPORTING ON POLICIES AND MEASURES**
- 2.1 The EU's revised GHG Monitoring Mechanism**

## **2.2 Draft revised UNFCCC guidelines**

2.2.1 Describing Policies and Measures

2.2.2 Evaluating the Effects of Policies and Measures

2.2.3 Monitoring Progress

2.2.4 Level of Government and private sector involvement

2.2.5 Policy Interactions.

## **4.0 Conclusions**

### **ANNEXES**

**A1 – Reporting Requirements for Directives amended by SRD**

**A2 – Questionnaires for Standardised Reporting Directive (SRD)**

**A3 – Existing Requirements in the Legislation for the Commission to Evaluate Policies and Measures**

**A4 – Requirements in Proposed Legislation for Member States and the**

**Commission to Describe or Evaluate Measures and Programmes**

**A5 - Evaluations of EU Financial Support Programmes**

## FOREWORD

It is of key importance for the European Commission and the European Environment Agency to know whether an item of EU environmental legislation is effective in achieving its objectives, and what its actual impact on the ground has been. This information is necessary for

- establishing whether the EU is on course to meet future targets
- scenario development and forward looking assessments
- policy learning
- assessing the cost effectiveness of measures in comparison with alternatives.

Yet most current reporting requirements do not provide the type of information necessary to make such judgements. Reporting is overwhelmingly focused on the provision of monitoring and 'state of the environment' data, and information on legal compliance. Only rarely are Member States required to undertake and report assessments of the effects and effectiveness of their policy measures.

**Part one** of this paper reviews the extent and nature of existing reporting requirements in EU environmental legislation. Roughly one-third of all major items of current EU environmental legislation require Member States to describe policy measures or programmes established to implement a particular directive or regulation. Member States have responded in widely differing ways (if at all), in the absence of standard policy categories and definitions, which makes comparisons and aggregation very difficult.

In any event, mere descriptions of policies say nothing about their *effectiveness*. Only some 18 pieces of current EU environmental legislation require Member States to include an assessment of the effects of their implementing measures. This requirement has become more common in recent legislation and proposals as quantitative targets are set, sometimes differentiated by Member State.

This is a welcome development, but the practical response of Member States has and will be limited by the weakness (or complete absence) of EU guidelines on reporting in respect of policies and measures. Most importantly, there are no robust, standard methodologies agreed at EU level for undertaking the *ex post* evaluations of the impact of policies, or the *ex ante* estimates of future trends, that are being increasingly asked for.

**Part two** of this paper looks, in detail, at the (revised) EU Greenhouse Gas Monitoring Mechanism (MM) (Decision 1999/389) as this item of environmental legislation contains the most extensive requirements for Member States to report on policies and measures and their impact. The paper reviews existing MM reporting guidelines, and the manner in which Member States have responded to them. The usefulness of the information Member States have provided so far under the MM is limited, illustrating the need for better reporting frameworks and agreed evaluation methodologies. Proposed revisions to UNFCCC guidelines for reporting on policies and

measures do not meet these needs, giving the EU an opportunity to fill the gap.

## **PART I: SUMMARY OF REPORTING ON POLICIES AND THEIR EFFECTS**

### **1.0 INTRODUCTION AND THE STANDARDISED REPORTING DIRECTIVE**

Most legislation contains some level of reporting requirement, whether it is in the form of a report or communication by Member States to the Commission (or the public) or merely information to be available upon request. However, as an IEEP study found in 1993, over one half of the cases where legislation required reports to be submitted by the Commission these were either severely delayed or not produced at all. Indeed, six years later in 1999 the state of environmental reporting by both the Member States and the Commission is still poor. This is despite the efforts of the Standardised Reporting Directive 91/962, introduced at the end of 1992 to reduce 'reporting fatigue' through the introduction of sectoral reporting for certain environmental Directives every three years.

The Standardised Reporting Directive (SRD) aimed to make the existing reporting requirements more consistent and more complete by requiring reports to be submitted on a sectoral basis. However, as each Directive falling under the SRD is to report on the basis of a different questionnaire, the extent of harmonisation *between* Directives is limited. Annex 1 contains a table summarising the reporting requirements for those Directives reporting under the SRD. The table reveals little harmony in the types of information requested by each questionnaire and above all demonstrates that little attention is given to reporting on the *effectiveness* of programmes and measures. Add to this the fact that questionnaires have been published several months or *years* late (see Annex 2) and the result is a Directive that is far from reaching its original objectives.

Since the SRD came into effect new legislation has been agreed or proposed which attempts to take a more holistic approach to environmental problems. The Air Framework Directive, the Water Framework Directive and the Climate Change Monitoring Mechanism have or will repeal several directives, which will be incorporated into the new legislation. For example, the proposed Water Framework Directive will repeal all the water sector Directives reporting under the SRD. If a second attempt is to be made towards achieving a standardised reporting framework its remit will have to be larger to incorporate these new developments. In order to be comprehensive a new framework would also have to consider those Directives existing outside the remit of the current SRD (approximately two thirds of the total of EU environmental legislation is not covered by the SRD).

### **2.0 REVIEW OF REPORTING REQUIREMENTS**

#### **2.1 Methodology**

The results of a review of all reporting requirements in EU environmental legislation are presented below. The main focus is on reporting by the Member States and the Commission in relation to *policy*, specifically -

- programmes or measures to implement environmental legislation; and
- evaluations of the effectiveness of the programmes or measures.

Supporting tables are provided with details of the policy-related reporting requirement of each item of legislation.

Reporting requirements contained in the legislation vary in respect of:

- **the form of reporting (*notify, communicate, submit, inform, report*)**  
Information may be submitted to the Commission in various forms whether it be in the form of report or other means of communication. The distinction has been made in the tables and annexes between reports to be submitted and details to be ‘communicated’, ‘informed’, etc. It is arguable whether the form of the request may have any impact on the final *quality* of the information submitted, but it makes a difference in terms of the ease of *retrieving* such information from the Commission (i.e. reports tend to be more accessible to the public). A report tends to encompass experiences and actions taken over a period and can thus be more useful as a basis for evaluation of effectiveness.
- **the frequency of reporting (*one-off, annually, every 3 years*)**  
Evaluation of measures taken to implement environmental legislation requires some form of continual assessment. Frequent reporting provides information to policy makers about whether or not the policy is achieving its objective. In legislation where Member States are asked to report only once on measures, information made available is insufficient since most environmental problems are only resolved over the long term.  
Where a ‘sectoral report’ is indicated in the tables, reporting is undertaken in the framework of the SRD. In some legislation more than one request for reporting is made (for example, Member States may be required to *inform* the Commission annually of measures taken and then to *report* on them every three years).
- **the depth of information to be collected**  
The first measure of depth is whether reporting requirements refer merely to a *description* of policies and measures or whether they go further and ask for an evaluation of the impacts of these measures. In addition, the *level of detail* of each type of request is important for receiving meaningful and consistent responses. More detailed requests provide Member States with tables, typologies and methods for responding. Merely asking for ‘a description of measures’ or ‘an assessment of impact’ can lead to widely varying responses which are of little use to the policy maker wishing to evaluate different approaches.

In the tables which follow, information on the form, frequency and depth of information to be reported for each item of legislation, are covered by columns (3), (5) and (6) respectively, and discussed in the accompanying text.

In addition to reports by Member States, the Commission is also required to report (see section 3.2.2 and Annex 5). Usually Commission reports follow Member States reports and serve mainly as a summary. However, sometimes the Commission is required to report on *implementation* (or evaluation) of a directive in the absence of such reports from Member States.

The Box below provides an overview of the results of the review of reporting requirements. These are discussed in more detail in the sections that follow.

<b>Box 1: Summary of reporting requirements in relation to policies and/or their effects</b>		
	Number of items of legislation	Percent of Total*
Major items of EU environmental legislation	106	100%
Descriptions of programmes or measures to implement environmental legislation, of which:	40	38%
• In report form	27	25%
• On a regular basis	30	28%
Evaluations of the effects or effectiveness of the programmes or measures, of which:	18	17%
• In report form	9	9%
• On a regular basis	15	14%

\* This column is not intended to add up to 100%

## **2.2 Instances of Requests for Descriptions of Programmes and Measures**

### **2.2.1 Member States**

Less than 40% of all major items of current EU environmental legislation - some 40 items of EU environmental legislation - require Member States to *describe* programmes and measures taken to implement legislation (see Table 2.2.1). Such reporting is in addition to reporting on transposition and administrative provisions (which is required by most legislation).

Reporting requirements to describe programmes and measures vary from vague requests for details of ‘improvement measures’ to more explicit requests for ‘details of national policies and measures, types of instruments used and status of implementation’. Only a handful of directives require very detailed reporting (CO2 Monitoring Mechanism, Air Quality Framework, Nitrates from Agricultural Sources, Dangerous Substances in Water, and some of the Standardised Reporting Directive Questionnaires). Of these the CO2 Monitoring Mechanism requests the greatest amount of detail, as a consequence of following UNFCCC reporting requirements. In other legislation requests for reporting on measures are very brief and or very vague.

Most of these 40 items require reporting on measures on a *regular* basis (i.e. every 3 years, or less commonly – on an annual basis). Thirty pieces of legislation require the details of measures and programmes to be provided in the form of a report (as opposed to just ‘informing’ the Commission of such measures).

## **2.3 Instances of Requests for Evaluations of Programmes and Measures**

### ***2.3.1 Member States***

Only some 18 pieces of legislation require Member States to evaluate programmes and measures. Words such as evaluation of ‘implementation’, ‘progress’, ‘measures undertaken’, ‘data collected’ are used (see Table 2.3.1). In only half of these instances – nine pieces of legislation - are Member States actually required to include the evaluations in a *report*. The remaining nine require only that Member States shall ‘inform’ the Commission of such evaluations, or more vaguely that they ‘shall’ undertake evaluations. For the most part, Member States are required to inform or report on evaluation on a *regular basis* (i.e. every 3 or 4 years or annually).

Information requested varies in depth from, for example, a request to ‘review programmes’ to a request to ‘quantify effects of measures taken, indicate progress, economic impact and evaluate effectiveness’. In none of the legislation is there an existing evaluation methodology to assess effectiveness, although the CO2 monitoring mechanism Committee has developed one<sup>1</sup>.

### ***2.3.2 Commission***

Reporting on evaluation is sometimes required of the Commission as well as Member States. The Commission is required by 27 pieces of existing environmental legislation to evaluate in some form or another the directive or regulation. In the majority of cases the Commission is merely asked to report on ‘progress’, ‘implementation’ or to ‘review’ and/or ‘assess’ the scheme/ programme/ legislation

---

<sup>1</sup> ‘Proposal for the Methodology for the Evaluation of Progress and for the Contents of National Programmes’, Monitoring Mechanism Committee 5<sup>th</sup> meeting, May 18, 1995.

(see Annex 3). In a handful of instances the word ‘evaluation’ is actually used. Often these reports are summaries of similar Member states reports.

The Commission is often asked to make proposals for changes to legislation on the basis of these reports, but sometimes Commission reports are required regardless of whether any similar information is required from Member States. Hence the assessments contained in them are unique, although they may be based on limited empirical evidence.

## **2.4 Evaluations of EU Financial Support Programmes**

In addition to evaluation reports undertaken by the Commission and Member States, there are several evaluation activities that are supported under several EU financial support programmes, including ALTENER II, THERMIE, the Cohesion Fund and the Structural Funds (see Annex 5). Under ALTENER II, for example, support is given to actions that ‘evaluate the impact (environmental and social) and cost effectiveness of actions and measures undertaken under the programme.’ The legislation does not require reports from Member States to include evaluations, but instead makes provision for separate evaluation activities. Hence, they are included here in the review of reporting requirements.

## **2.5 Reporting Requirements in Proposed Legislation**

In recent proposals for legislation, the trend seems to be for a greater level of detail to be required in relation to policies and measures, with a more frequent requirement for reporting on ‘national programmes’. This is partly a reflection of a move towards greater subsidiarity started in the early 1990s, which has given Member States wider discretion in the manner in which they implement EU legislation. However, in reporting on measures and evaluation the *proportion* of legislation requiring such reporting remains similar to that in existing legislation – roughly one third (see Annex 4).

**Table 2.2.1: Existing Requirements in EU Legislation for Member States to Describe Policies and Measures**

Ref no. (1)	Title of Directive (2)	Form of Reporting (3)	Due (4)	Frequency (5)	Detail of Reporting on Policy Programmes/ Measures (6)
75/439	Waste oils	sectoral report (1995-1997)	01-Sep-98	3 years	have required measures been taken?/ identify constraints
75/440	surface water	sectoral report (1993-1995)	01-Sep-96	3 years	action and management plan/ programme for improvement
75/442	Waste framework directive	sectoral report (1995-1997)	01-Sep-98	3 years	details of waste management plans/ general measures
76/160	bathing water	implementation report	31-Dec-93	annually	short description of improvement schemes/ timetable/ investments
76/464	dangerous substances in water - framework	sectoral report (1993-1995)	01-Sep-96	3 years	programme description and objectives/ expected reduction/ new programme foreseen
77/312	screening for lead	inform		annually – for 4yrs*	measures taken in cases of exceedance of reference levels
78/176	Titanium Dioxide	sectoral report (1993-1995)	01-Sep-96	3 years	what measures taken
78/659	Freshwater fish	sectoral report (1993-1995)	01-Sep-96	3 years	measures foreseen in improvement programmes (very brief)
79/869	surface water for drinking	sectoral report (1993-1995)	01-Sep-96	3 years	short description of improvement schemes
79/923	Shellfish waters	sectoral report (1993-1995)	01-Sep-96	3 years	measures foreseen in improvement programmes (very brief)
80/778	drinking water	sectoral report (1993-1995)	01-Sep-96	3 years	info on improvement programme
80/779	air quality - SO2 and particulates	sectoral report (1994-1996)	01-Sep-97	3 years	improvement measures
		inform/ forward	01-Oct-82	one-off	plans and measures to bring conc. down
		notify	31-Mar-91	annual	measures taken to avoid reoccurrence
82/884	air quality - lead	sectoral report (1994-1996)	01-Sep-97	3 years	improvement measures
		inform/ forward	31-Dec-86	one-off	plans and measures to bring conc. down
		inform	01-Jul-83	annual	measures taken to avoid reoccurrence

\* between 1985 and 1989 (now lapsed)

**Table 2.2.1 Continued...: Existing Requirements in EU Legislation for Member States to Describe Policies and Measures**

Ref no. (1)	Title of Directive (2)	Form of Reporting (3)	Due (4)	Frequency (5)	Detail of Reporting on Policy Programmes/ Measures (6)
83/129	Seal skins	inform	No date	one-off	necessary measures
84/360	industrial plant emissions	sectoral report (1994-1996)	01-Sep-97	3 years	measures taken to prevent air pollution
85/203	air quality - nitrogen dioxide	sectoral report (1994-1996)	01-Sep-97	3 years	improvement measures
		notify	31-Dec-88	annual	measures taken to avoid reoccurrence
86/278	Sewage sludge	sectoral report (1995-1997)	01-Sep-98	3 years	measures/ limit values
86/574	Exchange of information - water (amendment)	info provided only	01-Oct-87	annually	timetable of investments/ current position in programme/
R3528/86	monitoring of forest damage	report on status of forests	15-Jan-93	annual	measures to restore
88/609	large combustion plants	report	1994, 1998, 2003	one off	measures taken or envisaged; plants covered; closures; limits imposed
		inform	31-Dec-90		programmes with timetables and measures to comply with emissions ceilings
90/219	GMOs - contained use	inform Art 16	No date		response measures taken
90/220	GMOs - deliberate release	inform - general	01-Sep-92	three years	measures taken to implement the Directive
90/642	pesticide residues	notify - Art 8			measures to reduce levels temporarily
91/157	batteries and accumulators	Programme report	17-Sep-92	4 years	promote research/ encourage marketing/ reduce damage
91/271 (93/481)	urban waste water treatment	provide info	30-Jun-94	update every two years	programme for the implementation of this directive
91/676	Nitrates from Agricultural Sources	Report	20-Jun-96	4 years	summary of action programmes and their application (measures to be taken are assigned)/ measures/ codes of good practice + programme for their implementation/ timescale
		submit	No date		details of codes of good practice
		inform Commission of changes	No date	every 4 yrs	action programme - shall consist of mandatory measures proscribed +codes

**Table 2.2.1 .Continued...: Existing Requirements in EU Legislation for Member States to Describe Policies and Measures**

<b>Ref no. (1)</b>	<b>Title of Directive (2)</b>	<b>Form of Reporting (3)</b>	<b>Due (4)</b>	<b>Frequency (5)</b>	<b>Detail of Reporting on Policy Programmes/ Measures (6)</b>
91/689	hazardous waste	sectoral report (1995-1997)	01-Sep-98	3 years	have measures/ plans been taken?
92/43	Habitats and species conservation	inform	Jul-00	6 years	conservation measures, including plans and statutory, administrative or contractual measures
R2078/92	Agri-environment measures	communicate	30-Jul-93	one-off	draft programmes
93/389	GHG monitoring mechanism	publish	No date	periodically updated	details of nat'l policies and measures taken or envisaged/ objectives/ type of instrument/ status of implementation
93/500	Renewable Energy (ALTENER)	submit	No date		list of adopted measures and bodies to undertake them
2081/93	Structural Funds	submit	No date		regional development plan/ description of strategy/ financial tables
R259/93	Transfrontier shipment of toxic waste	report to Basel Convention (and Commission)	No date	annual	info on measures taken
94/62	packaging	sectoral report (1995-1997)	01-Sep-98	3 years	necessary measures taken? / economic instruments
94/67	Hazardous waste incineration	sectoral report (1998-2000)	01-Sep-01	3 years	measures taken to comply; no. of permits, requirements, exemptions
96/61	integrated pollution prevention and control	sectoral report (1996-1999)	10-Sep-00	3 years	measures taken to ensure guidelines followed; developments in BAT
96/62	air quality framework	report	2 yrs after levels were observed	3 years	measures to meet directive / timetable for implementation/ estimate of improvement and time estimated/ preparations for long term plans
96/737	Energy Efficiency (SAVE)	submit		annually	list of adopted measures and bodies to undertake them
99/30	air quality framework - 1st daughter directive	inform	Sep-97	until limit values cease to apply	reasons and measures taken
99/31	landfill of waste	notify	26-Apr-01	one-off	strategy guidelines provided

**Table 2.3.1: Existing Requirements in EU Legislation for Member States to Evaluate Policies and Measures**

Ref no. (1)	Title of Directive (2)	Form of Reporting (3)	Due (4)	Frequency (5)	Detail of Reporting on Policy Programmes/ Measures (6)
96/62	air quality framework (second report within framework of SRD)	report	no later than 2 yrs after levels were observed	3 years	report on progress every three years
85/210	lead in petrol	inform (upon request)			effects of the implementation of this directive / human health/ energy policy
R3528/86	monitoring of forest damage (repealed?)	report	15-Jan-93	annual	info regarding possible causes of damage; socio-economic impact of damage
		inform	one month after exceedance noted		evaluate data collected annually
96/61	integrated pollution prevention and control (SRD )	report	10-Sep-00 (for 10/96 - 10/99)	3 years	how do MS view the effectiveness of the Directive in comparison with other instruments
D1999/389	GHG monitoring mechanism	publish		periodically updated	estimates of effects of policies and measures (plus intermediate indicators of progress) /assess the economic impact/ evaluate the effectiveness
1164/94	Cohesion Fund	shall ensure			MS and Commission shall evaluate implementation and impact (and environmental impact)
86/278	Sewage sludge	report	12-Jun-91	4 yrs	difficulties encountered
91/157	batteries and accumulators	report	17-Sep-92	4 years	programmes to be reviewed and updated
78/176	Titanium Dioxide (SRD)	report	01-Sep-96	3 years	effects on environment of waste / assessment of surveillance results
91/676	Nitrates from Agricultural Sources	report	20-Jun-96	4 years	assess effectiveness of action programmes
		inform		every 4 yrs	assess effectiveness of action programmes
90/219	GMOs - contained use	report	31-Dec-e	annually	evaluation of risks
		inform			effectiveness of measures taken, including recommendations to limit effects and avoid similar accidents in future
77/312	screening for lead	inform		annually - for four years	information on causes or factors leading to blood levels
92/43	Habitats and species conservation	inform	Jul-00	6 years	evaluation of impact of measures on conservation status of habitats and species
R2078/92	Agri-environment measures	inform			evaluation of measures

## 2.6 Conclusions

- Most EU environmental legislation requires Member states to provide only monitoring data and details of legal compliance. Less than 40% request information on national policies and measures and less than 20% require Member States to assess the effects and/or effectiveness of such measures.
- The Commission, however, is often required to produce reports assessing the effectiveness of Directives and proposing amendments usually in the absence of essential information from Member States. There is thus a serious mismatch between the needs of the Commission and what Member States are required to report.
- Even when Member States are required to report on policies and measures, the legislation is normally insufficiently specific on what precise details are required and in what form.
- In the few cases where detailed reporting guidelines for policies are provided, Member States frequently choose to ignore them.
- Standardised formats and methodologies, which Member States respect, are essential for undertaking EU-wide assessments of environmental trends.
- Reducing reporting fatigue would make reporting better. Member States are more likely to comply with reporting requirements if requests are better co-ordinated. Despite its intentions the Standardised Reporting Directive has done little to limit the number of reports.

## **PART II: THE EXPERIENCE OF CO2 REDUCTION PROGRAMMES**

### **Summary**

This section seeks to assess reporting by Member States and the European Commission in relation to policy measures designed to reduce Greenhouse Gas (GHG) emissions. It reviews attempts by Member States to

- describe and categorise such measures, and
- evaluate their effects on emissions reductions.

These cover a wide range of environmental and sectoral measures, and include a variety of policy instruments. Member States are required to report on such policies and measures through the EU's GHG Monitoring Mechanism (MM), and also in the framework of the UNFCCC.

Experience so far reveals many weaknesses in such reporting:

- some Member States have failed to report at all;
- of those reporting, some have failed to follow the required tables and guidelines;
- there has been excessive scope for interpretation by Member States of what is required.

A major limitation of the draft revised UNFCCC guidelines is their continued emphasis on descriptive reporting of policy measures, rather than on the provision of reliable estimates of their quantitative impacts on the ground. Even so, much work remains to be done on standardising approaches to *describing* categories of policies and measures, and the stages of their implementation.

As regards evaluating the *effects* of policies, the guidelines fail to propose a standard methodology for undertaking evaluations, and there has been a lack of transparency in the way that Member States have sought to estimate the impact of GHG mitigation policies. The development of a standard evaluation methodology should become a priority for the EU's MM Committee.

Some improvement to reporting on GHG reduction programmes and their effects can be expected following the recent revision of the EU's Monitoring Mechanism, and the imminent adoption by the UNFCCC of revised reporting guidelines at COP5. By incorporating the essential elements of the (non-binding) UNFCCC guidelines into a Community Decision, Member States will now have a legal obligation to provide the information requested, making reports more consistent and comparable.

Under the revised Monitoring Mechanism, for the first time, both Member States and the Commission are now obliged to identify the separate contribution to GHG reductions of Community measures. For most Community measures, this information is not collected by the Member States,

nor available to the Commission, adding pressure for a revision of existing reporting requirements in other items of EU environmental legislation, to include more assessments of the effects and effectiveness of the legislation.

## **1.0 EXPERIENCE TO DATE**

### **1.1 The EU's CO<sub>2</sub> Monitoring Mechanism**

In 1993 the EU established a mechanism for monitoring (MM) anthropogenic CO<sub>2</sub> and other greenhouse gas emissions in the Community (Decision 93/389/EEC). The purpose of the monitoring mechanism is to track progress towards the 'fulfilment of the commitment relating to the limitation of CO<sub>2</sub> emissions in the UNFCCC by the Community as a whole'.

The requirements of the MM Decision are that

- Member States are required to forward to the Commission national programmes, to include information on policies and measures taken to reach the targets, as well as an assessment of the 'economic' impact of the measures. These programmes are to be periodically updated.
- The Commission is to produce an evaluation of progress in the Community towards reaching the emissions target, based on an assessment of the national programmes. In addition, annually, the Commission is to assess progress towards reaching the targets based on consultations with Member States. Procedures and methods for the evaluation of national programmes are to be established by the Commission, assisted by a committee.

The Commission has produced only two formal evaluation reports in six years - in 1994 and 1996. The second evaluation report makes reference to guidelines on the 'Methodology for the Evaluation of Progress and for the Contents of National Progress' developed by the MM Committee in 1995. This document includes both guidelines for reporting by Member States on policies and measures, as well as a system of evaluation of the national programmes to be used by the Commission in its reports. But the Commission's second report in 1996 concluded that not enough information was provided by the Member States to allow them to use the evaluation methodology they had prepared.

In 1999 the EU's MM Decision was amended in light of the Kyoto Protocol, and more detailed reporting requirements were included in it. These are described in section 3.

The limitations of the MM have obliged the Commission's to base its evaluations on communications submitted by Member States to the UNFCCC, as required of them as parties to the Convention. These communications should have been based on the UNFCCC's own guidelines for reporting on policies and measures (see section 2). This framework is more developed than any other, and as such can provide a basis for similar frameworks for other environmental legislation. Nevertheless, there have still been considerable difficulties with the UNFCCC guidelines: not all Member States

have used them, and they have interpreted their requirements in different ways. The UNFCCC guidelines are to be extended and refined at COP5 in October 1999. These developments are described in section 3.

## 1.2 The UNFCCC 's Reporting Guidelines

### 1.2.1 Introduction

As discussed above, reporting by EU Member States on CO2 reduction programmes has been undertaken in the framework of the more developed UNFCCC guidelines, rather than those of the Commission. In 1996 the UNFCCC guidelines were revised, and the Second National Communications to the UNCCC should have been based on them. The guidelines included the following table, which Parties were asked to use 'to summarise the information provided on policies and measures, with all fields of the table completed, to the extent possible.'

**Table 1.2.1-1: The UNFCCC suggested format for reporting on policies and measures**

Name of policy/measure	Type of instrument	Objective and/or Method of achieving reduction (including description of how effects take place)	Sector	Status of implementation (planned/implemented; legislation passed or not; status of funding)	Estimation of mitigation impact				Monitoring: intermediate indicator of progress
					2000	2005	2010	2015	
					2000	2005	2010	2015	
1.									
2. etc									

Source: *The UNFCCC Guidelines for National Communications, 1996*

The response of Member States has been disappointing:

- two Member States (Italy and Luxembourg) failed to report;
- only eight Member States used the table;
- not all of these eight Member States reported on each item - and some invented their own categories;
- Member States using the table followed different interpretations of what the column headings required;
- the remaining five Member States reported without the table, addressing to varying degrees the requirements and suggestions of the guidelines in the body of text (see Table 1.2.1-2 below).

The detailed response of Member States to the UNFCCC's reporting requirements in relation to their policies and measures is examined below.

**Table 1.2.1-2: The State of Reporting on Policies and Measures – UNFCCC National Communications (EU Countries)**

Country	Policy/ measure	Type of Instrument	Objective/ Target	Status of Implementation	Emissions reduction potential	Monitoring: Indicators of Progress
Austria	✓	✓	✓	✓	✓	✓
Belgium	✓		✓			
Denmark	✓					
Finland	✓		✓	✓	✓	
France	✓	✓	✓	✓	✓	✓
Greece	✓	✓		✓	✓	
Germany	✓	✓	✓	✓	✓	
Ireland	✓	✓	✓	✓	✓	✓
Italy	No report					
Luxembourg	No report					
Netherlands	✓	✓	✓	✓		✓
Portugal	✓	✓	✓	✓		✓
Spain	✓					
Sweden	✓					
UK	✓	✓	✓	✓	✓	✓

Source: Second National Communications to the UNFCCC (circa 1997), from UNFCCC website

### 1.2.2 Describing policy measures

#### 'Type of instrument'

The UNFCCC's 1996 reporting guidelines do not impose a standard framework for reporting on instrument type: they only *suggest* the use of the following categories:

- Economic instrument
- Regulation or guideline
- Voluntary agreement
- Information
- Education and training
- Research and development

Germany adhered rigorously to this categorisation and assigned each a letter code (E, R, V, I, ET, and D respectively) which is used in the tables. France also followed the rubric, but has introduced a new term 'Multiple' for measures which consist of combinations of types of measures. Portugal failed to adhere to the guidelines at all, instead using this column to further describe the instruments - for example, 'daytime driving with headlights on medium beam' or 'obligatory periodic inspections of vehicles'. In some cases it is clear what type of measure is being discussed, but in most cases this information is lacking.

### *'Objective'*

The 1996 revised guidelines actually entitle this column 'Objective and/or Method of achieving reduction (including description of how effects take place).' No further guidance is given. This heading is confusing, since Parties are asked to discuss the method of achieving the reduction in a section on policy objectives. Moreover, 'methods' can be easily confused with the separate category 'type of instrument used'. Austria attempted to address both in some instances, but not all. For example, in relation to an item on mineral oil taxation, the 'Objective' column contains the following:

'Lower increase in total amount of kilometres driven; providing financial means for rail-bound traffic; reduction of fuel consumption per km driven (incentives for technical improvements)'

It is difficult to associate an objective with a method or even differentiate between the two.

Only one country - the Netherlands - out of the seven EU countries reporting under this column of the table provided quantifiable objectives. One example is: 'limitation growth of car-km to 35% in 2010 relative to 1986'. Other countries addressed objectives in purely descriptive form. For example, 'increasing transboundary HGV transport on trains'. The UK described objectives minimally: for example, the objective of a road fuel duty is 'emissions abatement'.

### *'Sector'*

The UNFCCC guidelines provide a list of sectors grouped according to the different greenhouse gases, which Parties are to use for the communication of policies and measures. However sectors may be further disaggregated, or other sectors added, as appropriate. In practice, in many of the reports far fewer sector categories are used - possibly a reflection of the lack of measures in these sectors.

### *Stage of implementation*

Describing the stage of implementation of particular policy measures raises difficult conceptual problems, which the UNFCCC 1996 guidelines failed to resolve. It is a matter of judgement when a measure has been 'implemented'. Is it when it enters into national law; when, for example, local authorities have taken implementing measures; when sufficient staff and resources have been allocated? Can implementation be said to be complete when certain (pre-determined) stages have been reached? In the table a limited checklist is offered:

- planned/implemented
- legislation passed or not
- status of funding

Greece has subdivided this section into two columns –

- 1) degree of implementation
- 2) administrative planning.

Under 'degree of implementation' the options are 1) under elaboration; 2) starting; and 3) in progress. Under 'administrative planning' the options are:

- I: Under implementation
- D: Decided
- PD: Planned/Pending Decision
- P: Proposed

The difference between the two principal columns is not clear, but it highlights the complexities of reporting on implementation.

Austria's table details the status of measures in terms of specific legal documents, such as 'Amendment to Road Traffic Regulation entered into force on 1 Jan 1995'. Whether this is an achievement or not is difficult to say without some reference to a longer implementation timetable. The status of funding has not been addressed by any Member State.

### ***1.2.3 Evaluating the effects of policies and measures***

The UNFCCC's 1996 guidelines require Parties to include 'Estimates of mitigation impact' - that is, an assessment of the effects on CO<sub>2</sub> reduction of their policies, for dates at five yearly intervals between 2000 and 2020. The most serious weakness of the guidelines is that no standard methodology is proposed for undertaking such assessments of effectiveness - which makes comparisons and aggregations highly hazardous.

Parties are requested to provide projections with, and without, measures 'indicating... which measures are included and which measures are additional to the baseline projection.' This is an important distinction, but there is no evidence in any of the EU Member States' reports of any such distinction being made in the tables. The guidelines also state that 'Parties may also describe the mechanisms that lead to reductions, as well as how they arrived at their estimates'.

The main variant with respect to the provision (if any) of information under this heading is the units of measurement applied to emissions. These range from gigagrams to megatonnes to MMT (?) to kilotonnes, and there is a need for a common unit of measurement.

### ***1.2.4 Monitoring progress***

The 1996 guidelines provide that indicators of progress may be related to 'legislative processes, emissions-related activities, or the broader objectives of the policies and measures'. Hence the scope for interpretation for this item is very broad.

Indicators of progress employed by Member States have been highly varied:

- The Netherlands uses quantified indicators - such as ‘growth of 24% in 1995 relative to 1996’ or ‘in 1996 20,000 participants’;
- Portugal provides ‘1.003 million vehicles inspected in 1996’ or ‘10 obstacle courses [for driver training] to be set up’. For the most part there is no baseline reference. Is 20,000 participants a lot? What is the impact of these 20,000 participants? What is the maximum number of participants possible?
- France uses ‘indicators’ of legal implementation. Examples include ‘law on air and the rational energy use of DEC/30/96’ and ‘measure in force from June/30/95 to DEC/31/1996’. However, also found are ‘300 MFF effort in 1995’ and ‘voluntary commitment of French manufacturers to reach 150gC)2/km in 2005.’
- The UK provides information on the *instrument* for measuring progress - for example, ‘econometric analysis of impact of (road fuel) duty imposed’ (on emissions in the transport sector). This measure has already been implemented, so the results of the econometric analysis might also have been included.

### 1.2.5 Conclusions

The UNFCCC has been in vanguard of attempts to introduce more rigour in the reporting of policies and measures in relation to CO2 reduction programmes, and has made an important contribution in providing tables and formats to encourage the provision of comparable and clear data from the parties.

However, the 1996 guidelines on reporting suffer from several weaknesses - not least the lack of clarity in respect of categories of information requested. Areas where confusion has occurred are:

- ‘status of implementation’ and ‘costs’ - since status of implementation is to include all manner of financial planning details the distinction between ‘finance’ and ‘costs’ needs to be made clear;
- ‘objectives’ and ‘estimation of mitigation impact’ and ‘indicators of progress’. It is unclear whether all of these items are to be reported in the same units and whether there is any overlap of information (i.e. if estimation of effects is *ex-ante* is this not also the objective? And if estimation of effects is *ex-post* is this not the indicator of progress?).
- ‘status of implementation’ and ‘monitoring of progress’. There is great scope for overlap and repetition of information here especially if this is interpreted with respect to legislation (i.e. progress is seen as development of laws and regulations at the national level)

## **2.0 FUTURE REVISIONS TO GUIDELINES FOR REPORTING ON CO2 REDUCTION POLICIES AND MEASURES**

### **2.1 Revised EU Greenhouse Gas Monitoring Mechanism (Decision 1999/389)**

In 1999 the EU's CO2 Monitoring Mechanism (MM) was amended to take account of the Kyoto Protocol, and to address some of the problems highlighted in the Commission's previous evaluation reports. The provision of more of the information contained in the MM Committee's 1995 guidelines is made mandatory. There is also evidence of increasing synergy between the UNFCCC reporting guidelines and those of the MM.

The main changes to the MM are:

- a greater emphasis on more transparent and accurate monitoring of actual and projected progress with GHG reductions;
- reporting requirements in relation to policies and measures are further detailed to mirror the UNFCCC's reporting guidelines. They include information concerning: objectives, type of policy instrument, status of implementation, and intermediate indicators of progress.
- the Commission, with the MM Committee, is to produce standard guidelines and methodologies for developing projections.
- details are required of measures being taken by Member States (or envisaged) for the implementation of relevant Community legislation and policies;
- the Commission is required to assess the contribution made by Community measures in meeting the agreements of the UNFCCC and the Kyoto Protocol;

The revised MM is important for at least three reasons:

- by incorporating the essential elements of the (non-binding) UNFCCC guidelines into a Community Decision, Member States will now have a legal obligation to provide the information requested, making reports more consistent and comparable;
- for the first time, both Member States and the Commission are obliged to identify the separate contribution to GHG reductions of Community measures. For most Community measures, this information is not collected by the Member States, nor available to the Commission, adding pressure for a revision of existing reporting requirements in EU environmental legislation, to include more assessments of the effects and effectiveness of legislation.
- the establishment of a reporting framework such as this is useful for more general policy learning, since Member States are obliged to think clearly through the types of instruments they are using, their objectives, their impact and their progress in

achieving objectives. Once governments have complied with such a procedure in relation to climate change policy it may be easier to introduce similar frameworks for other, non climate-related policies.

Reporting in relation to policies and measures, including methodologies for assessing their effects on reducing emissions, will be considered in one of three new working groups of the MM Committee, which will meet for the first time in December 1999. The Committee will need to take account of the UNFCCC's revised guidelines, to be agreed at COP5 on October/November 1999 (see below).

## **2.2 The revised UNFCCC guidelines**

Proposed revisions to the UNFCCC guidelines in relation to policies and measures have been developed by the Subsidiary Body for Scientific and Technology Advice (SBSTA) on the basis of responses by Parties to a questionnaire. There are two draft guidelines in circulation – one is the Chairman's revised draft text and the other is a Working Paper written by the Secretariat to reflect the state of discussions after the tenth SBSTA meeting in 1999. There are differences in the two texts, and both are used as a basis for discussion below.

### **2.2.1 Description of measures**

#### *Type of instrument.*

The new draft guidelines are more insistent with respect to typology. They state:

‘to the extent possible the following terms should be used: economic, fiscal, voluntary, regulatory, information, education and other’.

However, some of the categories remain unclear. For example, it is uncertain what the distinction is between ‘economic’ and ‘fiscal’, and between these terms and ‘regulatory’ measures. Indeed, a note by the Secretariat (introducing the Chairman's revised text) questions whether these categories are sufficiently clear or whether alternative terms should be found. This is an ‘option for change’ to be raised at COP-5.

#### *Objectives*

In an earlier draft this section states

‘the description of the objectives [should] focus on the key purposes and benefits of the policies and measures. Objectives [should] be described in quantitative terms to the extent possible’.

In one version of the proposed guidelines, the ‘objective’ category is left out altogether. The rationale for this appears to be that if objectives are to be described in terms of emissions reductions, this would duplicate information in the ‘estimation of mitigation impact’ column, since a country's objective ought to be to achieve the total potential of the estimated mitigation.

Indeed, the term ‘objectives’ needs to be clarified. Objectives can be defined in terms of policy outputs (legislation, other policy instruments); outcomes (effect of measures on the behaviour of actors); or impacts (actual effects on the ground) - and each may be quantified. The guidelines need to state explicitly that the latter is intended.

### *Sectors*

One version of the proposed guidelines presents sector headings within the table. These are:

- Cross-sectoral
- Energy Industries
- Manufacturing Industries
- Transport
- Residential
- Commerce, public sector
- Agriculture
- Land-use change and forestry
- Waste

A point which is to be debated at COP5 is whether details on measures and policies is to be presented first by sector or first by gas (and then sub-divided by gas or by sector respectively). Some parties have a preference according to how their national accounting or reporting systems are already organised.

A note by the Secretariat states that ‘whether reporting of policies and measures and projections should be along the lines of economic sectors (in line with the convention) or along the lines of inventory categories’ should be considered by the parties as an option for change.

### *Stages of Implementation*

Some attempt has been made to unpick what is meant by ‘implementation’. In one of the proposed guidelines the following breakdown is proposed:

- under consideration
- decided (year\_\_\_\_\_)
- implemented (year\_\_\_\_\_)
- funding allocated (years, amount)
- funding planned (years, amount)

This framework is an improvement over the previous one, but the issue of how to define ‘implemented’ remains.

### ***2.2.2 Estimating the effects of policies and measures***

A major weakness in the UNFCCC’s draft revised guidelines is that they fail to propose a standard methodology for assessing the impact of measures. Parties may use any methodology provided it is transparent: both versions of the revised

guidelines state that '[p]arties may also (are encouraged to) provide a brief description of how such savings are estimated.'

According to one proposal, the estimation of impacts may be retrospective, or prospective. It is assumed that historic impacts can be calculated only if the measure has been in place for a while, making the estimation of impacts an *ex-post* evaluation rather than an *ex-ante* assessment. However, it is unfortunate that this is not stated more clearly and that parties are not encouraged to present both.

The Commission's current (1995) guidelines on reporting on policies and measures are more explicit in this regard (although they have not been applied in practice). The guidelines state:

'Member states should provide a description of the models and methods used in calculating the effects of measures. This should include a discussion of the advantages and disadvantages of the approach, and possible levels of uncertainty; the exogenous assumptions used in calculating the effects of measures.'

It will be a key task of the Monitoring Committee Working Group on policies, measures and projections to assess the assumptions underlying Member States' assessments of effects, and to develop a standard methodology.

### ***2.2.3 Monitoring***

In the UNFCCC's draft guidelines, 'indicators of progress' are no longer mentioned, but parties are asked to describe how progress is to be monitored and evaluated over time and to provide information on the institutional arrangements. Strangely enough they are not actually required to report on any of the monitoring and evaluation results.

### ***2.2.4 Level of Government and Private sector involvement***

For the first time, Member States are required to provide information on where decision-making power rests, on funding sources, and implementation authorities, as well as at whom the policy is targeted. Presumably this information is to be used to assess the likelihood of success. In its second evaluation report of Member States' reports the Commission makes an attempt at an evaluation framework on the basis of such information.

### ***2.2.5 Policy interactions***

This new section seeks to enhance understanding about how to disaggregate impacts of groups of policy measures. It is worth noting here that the draft guidelines also state that '[p]olicies reported may (could) also include those adopted in the context of regional or international efforts.' This is interesting in the context of both the MM's requirement that Member States report on 'measures being taken or envisaged for the implementation of relevant Community legislation and policies' and the requirement that the Commission 'shall assess annually the...contribution made by Community measures, towards fulfilling the Community's commitments..'

### 3.0 Conclusions

The UNFCCC has prepared the most well developed guidelines for reporting on policies and measures (now mirrored in the EU MM), but national communications are still failing to provide the right information in the right form. Most of the EU communications mention that measures are being undertaken, but these are clearly not having enough of the desired effect as emissions levels continue to rise (Commission's 2<sup>nd</sup> evaluation report on the MM). The information contained in the national communications *should* serve to explain why policies are not having the desired effects. Hence, the current reporting tool is not being used to its greatest potential.

A higher level of compliance with the Guidelines would certainly improve the situation, but also the Guidelines themselves also need to be revised in order to elicit more useful information, as close examination of national communications reveals. Member States reporting on policies and measures shows widespread variation in the interpretation of the terms used. A clearer picture of 'status of implementation', 'objectives' and 'indicators and monitoring', would help assess progress and develop a more effective policy strategy. These terms need to be more closely defined in order to improve the comparability and useability of the information provided.

Moreover, work needs to be done to identify how best impacts and effectiveness of policies can be ascertained. Once this methodology is established it should be reflected in standard reporting guidelines.

Progress in revising Guidelines on reporting at the UNFCCC level (COP-5) and at the EU level through the CO<sub>2</sub> Monitoring Mechanism Committee should be closely monitored as there are many possibilities for the application of such a framework to other Directives.

More generally, the continuing development of a reporting framework in relation to GHG reduction programmes is useful for wider policy learning. Member States are obliged to think clearly about the types of instruments they are using, their objectives, their impact and their progress in achieving objectives. This is a useful process that can be easily transferred to other Directives.