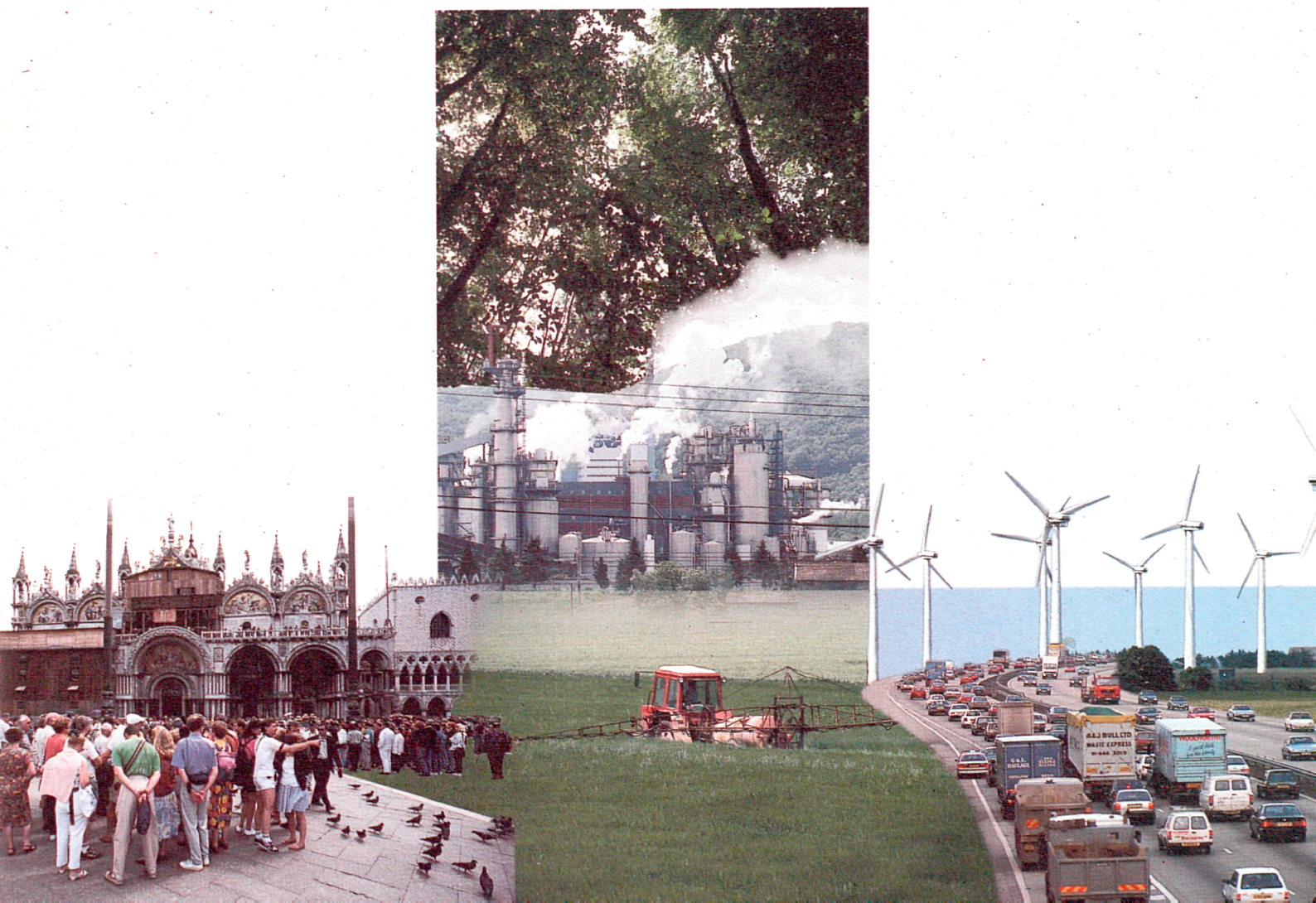




EUROPEAN COMMISSION

STATEMENTS ON SUSTAINABLE DEVELOPMENT

The General Consultative Forum on the Environment,
1993-96





European Commission

Directorate-General for Environment, Nuclear Safety and Civil Protection

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Preface

It is my pleasure to present this collection of recommendations and opinions agreed on by the European Commission's General Consultative Forum on the Environment. The members have worked very hard throughout the period 1993 to 1996 and have come up with an astonishing variety of statements on issues that have been both prominent and timely for the Commission's environment policy: issues on the environment and sustainable development such as agriculture, transport, environmental liability, energy, the review of the Community's fifth action programme, and last but not least the recommendations on a sustainable Europe in the year 2020. Underpinning its work were the Forum's own 12 principles of sustainable development that have served as an inspiration for us in the Commission as well.

It is in the hope that you, too, may find value in these recommendations and opinions that we have decided to publish them and give them a wide distribution.

They are important, in our view, not only because of the quality of the work and the pertinence of the subjects examined, but also because of the spirit that they embrace. This publication is solid evidence of the fact that it is possible to reach consensus among the wide and often conflicting interests of European society represented by the Forum's 32 members on contentious issues relating to sustainable development. The Forum has, in fact, shown what the concept of 'shared responsibility and partnership' — central to the fifth action programme on the environment 'Towards sustainability' — means in practice.

The first three years of the work of the Forum have produced an influential legacy. We look forward to the new Forum coming up with more ideas in the next four years. This book should serve to inspire them.

Ritt Bjerregaard

Member of the European Commission

Introduction

As part of the process of implementing the fifth action programme on the Environment 'Towards Sustainability', a General Consultative Forum was set up in 1993 to advise the Commission on key strategic issues relating to environmental policy and sustainable development. Its term of office was three years. The fundamental characteristic of the Forum that gave its contribution to Commission thinking such high added value was its composition. Consisting of 32 members appointed on a personal basis by the Commission, it was made up of eminent personalities from European industry, the business world, regional and local authorities, professional associations, unions, and environment protection and consumer organizations. It thus embodied the principle of shared responsibility that lies at the heart of the fifth action programme. The Forum succeeded in generating and enhancing existing and new views of the way sustainable development can be achieved in the Union and fulfilled the Commission's hope that it would become a channel of communication whereby Forum members passed the views developed in the meetings to the sectors concerned. The Forum also played an important role in integrating the concept of sustainable development into the Commission's other policies, most notably in the fields of agriculture, transport, energy, and information and communication. In its own words, the Forum believes that it 'can provide the Commission with challenging and new ideas on developing and implementing sustainable development...'

The Forum met nine times throughout the 1993-96 period in full plenary sessions (uniting all 32 members) and many more times in smaller working groups (where most of the preparation of discussion papers took place). In 1994, it discussed the review of the fifth action programme and sustainable transport. In 1995, the Forum published its 12 principles of sustainable development and discussed environmental liability, the environment in relation to the 1996 Intergovernmental Conference and sustainable rural development. In 1996, the Forum reached agreement on sustainable production and consumption patterns, broadening the range of environmental instruments, information and communication for sustainability, sustainable energy policy, implementation and enforcement of environmental legislation, and recommendations for moving towards a sustainable Europe in the year 2020.

The 12 papers on which the Forum reached agreement were sent to the Commission and have served as an important input into the Commission's policy thinking on all aspect relating to sustainable development. This publication assembles for the first time the Forum's work over the last three-year period in one single volume. It will be distributed widely and it is hoped that the Forum's opinions and recommendations encourage a wide-ranging debate on, and further implementation of, sustainable development policies across Europe.

1. THE GENERAL CONSULTATIVE FORUM'S 12 PRINCIPLES OF SUSTAINABLE DEVELOPMENT

January 1995

1. INTRODUCTION

Much diversity of opinion and a variety of approaches exist regarding the pursuit of sustainable development. The European Union should respect this diversity encouraging dialogue amongst all parties and facilitating the adoption of pragmatic solutions.

In response to Agenda 21, the European Union is developing an overall strategy for sustainable development which encourages economic progress, job creation, and the effective use and protection of natural resources. A step in this process was the development of the European Commission's fifth environmental action programme 'Towards sustainability'.

In his address to the European Parliament on 17 January 1995, the President of the European Commission, Mr Santer, referred to our duty to future generations. He noted the central importance of sustainable development, i.e. 'development which meets today's needs without jeopardizing future generations' chances of meeting their needs'. He stressed that 'this will also involve discussing our quality of life in a wider sense. We must make a success of the transition towards a more environmentally friendly economy. We have come to realize that economic performance is itself dependent on making the best use of our natural resources. By staying at the leading edge of environmental performance, we will actually be creating new jobs.'

The principles of sustainable development are intended to provide a basis for:

- the ongoing work of the General Consultative Forum on the Environment;
- the evaluation of progress towards the goals and milestones defined in the Commission's fifth environmental action programme;
- the provision of a framework against which both existing and new policies and initiatives can be tested.

2. THE 12 PRINCIPLES OF SUSTAINABLE DEVELOPMENT

A global agenda

Principle 1

Sustainable development cannot be achieved in isolation from the rest of the world. Policies for trade, economic and social development aid and environmental protection should be considered in the context of the international implications for both Europe and developing countries.

Principle 2

Policies and patterns of development, production and consumption should recognize the population issue, in Europe as well as in the rest of the world, and move towards being sustainable in the light of the projections for growth in population worldwide.

Limits to traditional growth patterns

Principle 3

The integrity of natural systems — soil, water, air and biological diversity — should be preserved and, where possible, restored.

Principle 4

Economic and social development should respect the physical limits that exist for resource use and regeneration.

Equity and cost internalization

Principle 5

The benefits and burdens of policies should be shared equitably by all segments of society. Where serious inequalities are unavoidable, some form of compensation should be considered.

Principle 6

Policies should have clear objectives and be based on detailed assessment of the issues and related risks, assessment of the impact, sound science and sensible balance between costs and benefits leading to full internalization of all costs.

Principle 7

Economic and social development, environmental protection and social equity are interdependent and all policies should be tested for their impact on each area and not considered in isolation.

Principle 8

Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing precautionary measures which are cost-effective and which have merits in their own right.

A shared responsibility

Principle 9

Decisions affecting sustainable development are a shared responsibility. They should be open and based on informed participation by affected and

interested parties. A personal sense of responsibility and involvement should be promoted amongst all sectors of society. This requires a knowledgeable public, a free flow of information and fair and equitable opportunities for review and redress.

Principle 10

In addition to appropriate regulatory measures, a mix of market-based instruments, including fiscal and economic incentives, and a flexible approach should be used to harness private energies and capital to promote sustainable development. The contribution which individuals and society as a whole can make on a voluntary basis should be encouraged.

The nature of the challenge

Principle 11

One key to success will be a willingness to experiment. Given that some solutions will require fundamental changes to the *status quo* and accepted practices, policies should be introduced, where possible, on a phased basis, to minimise the inequalities between winners and losers.

Principle 12

The central challenge for Europe will be to maintain international competitiveness during the transition towards a more environmentally friendly and sustainable economy.

2. REVIEW OF THE FIFTH ENVIRONMENTAL ACTION PROGRAMME 'TOWARDS SUSTAINABILITY'

October 1995

Based on opinions it has previously prepared, especially the 12 principles for sustainable development, the Consultative Forum would like to make the following points.

1. BALANCING SOCIAL, ECONOMIC AND ENVIRONMENTAL GOALS

In a time of increased global competition and an alarmingly high rate of unemployment, special efforts are required to develop an innovative policy for sustainable development which reconciles environmental, economic and social requirements. Numerous examples demonstrate that lasting economic success can only be achieved today and in the future alongside high standards of environmental protection. Therefore, an effective integration of social, economic and environmental goals, strategies and programmes should be the first priority in the years to come. Whereas environmental criteria influence industrial and social developments, environmental policy has also the potential to contribute to economic modernization, employment and Europe's competitiveness in global markets. The review of the fifth action programme should actively explore how this potential can be exploited.

Sustainable development requires a high level of policy coordination: balancing macro- and micro-level economic viability with social and environmental requirements. For this, more courage, creativity, vision, an openness to change, and a readiness to learn and to experiment are the necessary ingredients, which are unfortunately often missing.

2. STRATEGIES FOR ACCELERATING INTEGRATION

The Consultative Forum regrets that progress towards integrating the environment into other policies has been slow and has not facilitated the process of moving towards sustainable development.

The Consultative Forum suggests it will be important in future:

- to attach high priority to setting long-term goals;
- to carry out a strategic environmental assessment of the important Community policies as an eventual first step towards sustainability;
- to accelerate this process by appropriate means (e.g. transparent reporting of the environmental impact of policies and programmes) and to assign clear responsibility to all parties involved;
- to shift EU financial programmes towards the promotion of sustainable development (e.g. in the Cohesion Fund: from increase of water supply to efficient water management);
- to continue the formulation of operational policy goals and performance indicators in all relevant policy issues;
- to give particular attention to issues concerned with energy efficiency;
- to ensure the effective implementation and enforcement of environmental legislation.

3. EDUCATION, LEARNING AND SHARED EXPERIENCE

The Consultative Forum emphasizes that the achievement of sustainable development will depend on changed attitudes and behaviour. Educa-

tion and learning processes involving a wide range of groups and individuals are a necessary prerequisite for progress, leading to a situation where sustainability becomes an integral part of European identity and culture. It is therefore important to invest not only in environmental hardware, but also to organize educational, shared-learning and innovation processes through a broad range of pilot projects and experiments, involving as many different participants as possible. Integration of environmental issues in vocational training, school and university education should be supported at Community, national and regional levels.

4. ENVIRONMENTAL POLICY INSTRUMENTS

The Consultative Forum emphasizes the importance of modernizing the regulatory framework and finding a more balanced approach between 'command and control' regulation and economic and other instruments. The numerous changes which sustainable development requires cannot be achieved by streamlining existing legislation alone. Any review of existing legislation should look to the experience of 25 years of environmental policy and then focus on the best mix of instruments to achieve policy objectives in the most efficient way. Economic instruments do not just consist of taxes; they cover a much broader range of approaches, such as labelling, reporting, extending producer responsibility, liability, tradeable permits and negotiated agreements.

The Consultative Forum emphasizes the need to encourage experiments and policy-making approaches involving all the partners concerned in the implementation of the programme. Special attention should be given to the phasing-out of subsidies which are counter-productive. For best available technologies (BATs), clear environmental priorities and cost-benefit analyses should guide the process. Innovation processes should be encouraged rather than match the current *status quo*.

It is also important to develop effective methodologies to internalize the external costs of the environment as an aid to effective economic, social and environmental decision-making.

5. PARTNERSHIP AND SHARED RESPONSIBILITY

The Consultative Forum emphasizes that the review should ensure a more effective implementation of the concepts of partnership and shared responsibility which underpin the whole approach of the fifth action programme.

6. THE GLOBAL DIMENSION

The Consultative Forum urges the review to consider the global impact of European actions on the environment and sustainable development. Joint implementation of actions with other countries, as well as the transfer of clean technology through direct investment, seems an appropriate path to sharing the know-how of Europe with developing countries and contributes in a meaningful way to global sustainability. For East European as well as for the Mediterranean countries in first instance, and for the Lomé countries and Asia and Latin America as other areas of special interest, appropriate strategies and programmes should be developed to promote joint implementation.

7. MEASUREMENT OF PROGRESS TOWARDS SUSTAINABILITY

The Consultative Forum welcomes the growth in availability of more environmental data to assist decision-making processes. It considers, however, that more attention needs to be focused on ensuring the relevance and accessibility of this information at Community, national and regional levels as well as by individual companies.

Such information is needed to allow a more effective assessment to be made of progress in improving the environment. It is also essential that benchmark indicators are developed to measure progress towards sustainable development and to allow the setting of operational targets.

3. PRINCIPLES AND PRIORITIES FOR ENVIRONMENTAL LIABILITY

December 1995

1. THE CONTEXT

Liability is an accepted part of Member States' legal systems, with private and public law playing complementary roles. Our main task is to consider what aspects of civil liability for remedying environmental damage would benefit from a framework to harmonize approaches within the EU — that is, changes to mechanisms for determining who is liable, what burden of proof is required and how the extent of liability should be established. Each of these aspects needs to be tested for its practical effect in terms of effective and efficient clean-up, the signal given to operators about the care that must be exercised and the overall economic impact resulting from proposed changes.

There currently exists, within EU Member States, a sliding scale of liability regimes from pure 'fault-based' liability (where it must be proved that any damage is linked to, and results from, negligence) to 'strict' liability (where only a causal link need be established between the defendant and the damage). Proof varies along this scale, as does the nature of the defence that can be used. 'Joint and several' liability is an overlay to the liability regime under which a number of defendants are liable for the entire amount.

There is also a wide variety of international agreements and treaties, which regulate specific issues on the basis of strict liability rules.

2. PURPOSE AND OBJECTIVES

Environmental liability can be a useful tool in internalizing uncertain, future environmental damages in today's corporate risk management. Even though environmental liability is primarily a means of redressing past events, it also acts to complement existing regulations through market-oriented instruments, thereby providing incentives for prevention of environmental damage. It stresses the 'duty to care' for the environment on the corporate level,

provides more striking and comprehensive compensation for created damage, and makes risk aversion towards environmental damage a rational attitude in the market. With that, it supports the implementation of environmental standards and the enforcement of the voluntary European Eco-Management and Audit Scheme (EMAS).

This pre-emptive effect and the increased corporate responsibility should be regarded as the main reasons for introducing environmental liability. The distortion of competition in the international market through different liability regimes on the national level is another — but secondary — reason, because the size of distortion could not be regarded as a severe one. Also, cases of a transboundary pollution with identifiable polluters (e.g. nuclear incidents) are possible.

Minority viewpoint

'The real justification for environmental liability is to ensure mechanisms through which future environmental damage is rectified.

The incentive effect of uncertain potential liabilities is more theoretical than real and minor compared with the direct impact of good regulation, EMAS and other immediate tools such as economic instruments.

Liability as a means of internalizing uncertain future damage requires a means of estimating its probable magnitude. We are far from the stage at which meaningful estimates of future costs and liabilities can be made.'

3. DESIGN AND LIMITS

Environmental liability has, as every instrument, its advantages and disadvantages. Therefore, the context and design should be carefully considered. Experience and research reinforce arguments that

environmental liability should be designed as a strict liability for reasons of efficiency and transparency. This holds especially true if environmental liability complements or substitutes 'command and control regulation'. Contrary to fault liability, no 'due care' standard has to be imposed in the case of strict liability, because the efficient approval imposition of such standards by courts or authorities is extremely difficult. But strict liability is limited to those cases where parties could be made liable for causing environmental damage because their activities were appropriate to having caused the damage. Anyhow, compliance with existing regulation does not exclude environmental liability. However, those who can potentially cause environmental damage can avoid the causality conjecture by proving that they have met all legal requirements in the past. The German *Umwelthaftungsgesetz* is a case in point. As experience in the United States of America demonstrates, it is less efficient to ensure the clean-up of past environmental damage by liability rules, because the polluters are unknown, no longer exist or their responsibility is difficult to prove. Therefore, environmental liability should concentrate on future damage, the cut-off date should be clearly defined and liability should only be applied to cases where the cause has continued to pollute.

The clean-up of past damage should be left to an internal regulation of the Member States. This might also distort competition to a certain degree but, through the definition of environmental damage in the liability law, at least some guidelines for clean-up standards are implicitly provided.

Remediation standards should be clearly defined and be 'fit for the purpose'. Standards for remediation should include a sound assessment of risks posed by the contamination in the present and the future. The proposed future use of land should also be recognized in the quality standards to be met.

Besides, environmental liability is not an appropriate tool to deal with summation and distance damage, where no individual polluter can be identified. It is the task of European environmental policy in general to ensure that sustainable development without significant damage to natural living conditions is ensured.

Minority viewpoint

'I would not welcome a fundamental departure from existing fault-based systems and certainly any move towards strict liability should not exclude appropriate defence including *force majeure*, state of the art, and compliance with operating permits'.

4. PRAGMATIC SOLUTIONS TO UNSOLVABLE PROBLEMS

A specific challenge to any environmental liability provision is the case of joint and several liability. Given the specific ecological uncertainties, neither a just nor an efficient and practical allocation rule exists so far. It should therefore be considered if the possible polluters could exculpate themselves by the proof of continuous compliance with the environmental standards and adherence to EMAS. In that case, the authorities obviously have — under today's European conditions — set the wrong standard (too low). Also, it seems to be fair to allocate to them the responsibility to calculate the environmental impact of the aggregated emissions in a defined biosphere. In any case, the (negative) US experience should be avoided.

Society has learned to assess environmental damage to property and health by translating it into monetary terms. But so far no price tag for nature exists. A reasonable approach might be to use the monetary costs, which are necessary to clean-up and restore the destroyed or disturbed ecosystem, as a yardstick. This might close the existing gap where the polluter is not held liable for the damage caused to nature.

5. INTEGRATING INTO THE NATIONAL LEGAL FRAMEWORK

Given the fundamental differences in the legal structure of different Member States, the feasibility of harmonization is questionable. However, some degree of harmonization (e.g. definition of standards and principles) across the EU for future environmental liability could be beneficial. Civil liability law has evolved over the years, and drastic change could lead to unintended and unwanted second-order effects. Any environmental liability regime at the European level should therefore provide a broad framework, allowing Member States a large degree of flexibility in its implementation.

6. INNOVATIVE INSURANCE COVERAGE AND RISK-MANAGEMENT METHODS

Strict liability has serious implications for insurability. Insurance will be difficult to obtain where

liabilities are uncertain and unlimited. The introduction of compulsory insurance (underpinned by governmental underwriting) could lead to the removal of cover for environmental pollution from the insurance market.

Environmental liability requires, therefore, new and sophisticated concepts of tailored insurance coverage, as well as innovative approaches in risk man-

agement. Leading edge companies have proved that it is not impossible to achieve both. Its development should be left to market forces, but the Commission is encouraged to promote research and experiments in this area. This involves the Commission being ready to conduct an exchange of experiences and a sufficient transfer of know-how among the Member States.

4. SUSTAINABLE TRANSPORT

January 1996

EXECUTIVE SUMMARY

In its plenary session of April 1995, the Consultative Forum discussed the issue of sustainable transport.

The Consultative Forum concludes that:

- transport-related issues will be central to the European policy agenda of the late 1990s and early years of the 21st century.

The Consultative Forum recommends that the European Commission should:

- investigate ways in which sustainable economic development can progressively be decoupled from transport demand;
- ensure full, strategic environmental assessments of the trans-European networks (TENs), with less emphasis on mega projects and more on sustainable alternatives;
- undertake detailed studies on more efficient and sustainable logistical systems (e.g. possibilities like 'lean logistics' and underground freight transport);
- investigate a new hierarchy for transport policy, and explore new ways of making transport modes with a lower impact per tonne-kilometre or passenger-kilometre more attractive to users, whether in terms of accessibility, user-friendliness, price and/or quality;
- explore ways of ensuring that a growing proportion of costs are internalized, and start concrete projects where this can be justified on the basis of a reasonable cost-benefit evaluation;
- ensure that the revision of the fifth environmental action programme addresses the question of how greater investment in sustainable transport infrastructures can be made;
- increase the pressure on national governments to enforce existing and impending air quality legislation. Industry's work on developing low or 'zero' emission engine technology should be encouraged and supported. The Commission should also explore innovative ways of taking 'super-emitting' or 'high-pollution' vehicles off the road;

- explore the potential of each of the above recommendations in terms of reducing Europe's contribution to CO₂ and other greenhouse gas emissions as part of Europe's contribution to tackling this central environmental priority for the 21st century.

1. THE PURPOSE OF CONSULTATIVE FORUM PAPERS

Papers prepared for the Consultative Forum have two main purposes:

- to brief members on key issues, trends and initiatives; and
- to help members move towards consensus in key areas.

2. BACKGROUND TO THIS PAPER

This paper has been prepared by the Consultative Forum's transport and environment working group. Drafts were discussed at the January and April 1995 meetings of the Consultative Forum and a final draft was circulated to all Consultative Forum members for comment in October 1995. This final version has taken on board the comments that were received.

The paper represents the views of all members of the Consultative Forum, except one. He questioned the very notion of sustainable mobility and felt that the paper fails to reflect the urgent need to reduce transport demand (not simply accommodate it in less environmentally damaging ways) and actively to divert available EU funds out of road-building projects into more sustainable modes.

3. PRINCIPLES OF SUSTAINABLE DEVELOPMENT

An efficient transport system is a key asset in international competition. This fact is implicit in the principles of sustainable development adopted by the Consultative Forum early in 1995. These principles were subsequently circulated to all members of the European Commission.

For consistency, the Consultative Forum's thinking on sustainable transport (i.e. transport which operates within acceptable, sustainable environmental, social and economic limits) will need to develop within the context of both the fifth environmental action programme (5EAP) and the Consultative Forum's own principles.

In summary, these might apply to transport policy as follows:

Principle 1: Interdependence

Many of the trends driving increased demand for transport in Europe are interdependent, as will be any effective solutions to the problems so caused. The driving forces of increased demand for mobility include: economic growth; the international division of labour; the separation of living, work and leisure areas; and the rapid spread of car ownership, predisposing car owners to drive even when viable public transport options are available. The attitudes and interests of ordinary people have also become more global. As a result, there is no single 'cure' to the environmental problems caused by growing transport demand across the Union.

Principle 2: Per capita consumption

Under the 'business as usual' scenario, a very substantial increase in road transport is expected over the period 1990 to 2010. Per capita travel shows steady — and, in some areas of Europe, rapid — growth. The ecosystem impacts flow from the wide range of transport-related activity: infrastructure provision and maintenance; the environmental life cycle of materials and fuels; accidents involving hazardous substances in transit; the direct impact of traffic on wildlife; emissions and waste generation; and so on.

Per capita transport 'consumption' continues to increase. In the United Kingdom, for example, the European Environment Agency reports that transport intensity (i.e. the tonne-kilometres needed to achieve a unit of gross national product) rose by 20% between 1960 and 1990. This is in contrast with the trend in energy intensity (i.e. the energy

needed to produce a unit of gross national product), which fell by 40% over the same period. No doubt improvements in transport efficiency helped to achieve this fall in energy intensity, but the transport intensity trend — which is very likely found in most parts of the European Union — underscores the need to devote more attention to this area.

Principle 3: Ecosystem integrity

The impacts of transportation systems have been discussed ever since the Industrial Revolution. The Task Force on the Environment and the EC Internal Market considered transport 'the most important environmental impact of the internal market.' The impacts associated with transport are experienced at the local (e.g. emissions, congestion, accidents), regional (e.g. NO_x emissions) or global (e.g. CO₂, N₂O, CH₄ and other greenhouse gas emissions) level. The biggest impacts, however, relate to the land lost to new transport infrastructure.

Principle 4: Resource efficiency

At the level of resource efficiency, the conclusions are clear: for passenger traffic, air transport and cars consume proportionally more energy per passenger-kilometre than rail transport. In terms of freight movement, the energy efficiency of heavy trucks is broadly comparable to that of rail wagons, although rail is expected to become considerably more energy efficient over the next 15 to 20 years. Inland waterways are the lowest specific energy consumers, and a serious European competitor for road and rail transport in the shipping of containers.

Road and air transport are amongst the biggest energy consumers within the transport sector and have experienced the strongest growth in the recent past. But Europe needs a diverse transport infrastructure, placing a premium on continuous improvement in the resource and environmental efficiency of all transport modes, coupled with much more effective integration of the different modes.

Resource efficiency improvements, however hard won, are too often offset by the increasing use of larger and more powerful passenger vehicles, and by the underlying growth in vehicle ownership and in travel generally.

Principle 5: Equity

According to the European Environment Agency, it is estimated that the social and environmental costs of transport in Germany are in the region of 2.5% of gross domestic product (GDP). For the OECD region

as a whole, the Organization for Economic Cooperation and Development (OECD) has put the costs even higher, at nearer 5%. Figures like these are clearly open to challenge and should be used with caution, but they do indicate the scale of the problems we now face.

In the absence of real 'markets' for such effects as accidents, noise and pollution, it is hard to calculate monetary values for the inequities caused by the transport sector, but they will need to be considered in the planning and operation of sustainable transport systems.

The concept of 'environmental equity' is ill developed in relation to the transport sector. With sustainable development including social and economic objectives, the social impact and social efficiency of competing transport systems will need to be considered.

Principle 6: Internalization of costs

Many costs associated with all forms of economic activity, transport included, are currently being borne by individuals or communities other than those engaged in a particular activity. At some level, however, we are all dependent on these flows of passenger and freight traffic. An appropriate approach will be to ensure the internalization, wherever it is rational and feasible to do so, of a growing proportion of the social, environmental and other costs currently externalized. This, in turn, will necessitate a review, and restructuring, of taxes and fees, to ensure fiscal neutrality. These problems are not unique to transport, nor is the need to internalize costs, but this is an area where the intensity of current problems necessitates priority attention.

Principle 7: Integration of policies

Transport, perhaps more than any other form of economic activity, merits a strategic environmental assessment at the European Union level. The environmental evaluation of transport infrastructure requirements and provision must consider both the direct and indirect effects, as well as avoidable trade-offs. New roads, for example, not only take additional land, but may also help to increase pressures for development and boost overall traffic movements. Clearly, policies need to address not simply road transport but all modes of transport. They must aim to provide integrated infrastructure, not simply cleaner vehicles and more environmentally efficient use of road vehicles. Such integration will require close coordination at the local, national and EU levels, as well as at the pan-European level.

Principle 8: Uncertainty

Policy-makers operate in conditions of some scientific uncertainty, but the negative impacts of transport are increasingly clear and the direct public experience of the environmental problems implies that they will be moving up the political agenda in many parts of the Union. This is an area where 'no regrets' policies are likely to be increasingly appropriate.

Principle 9: Shared responsibility

The responsibility for action cannot be laid at the door of any one sector of European society. The fifth environmental action programme stresses the importance of shared responsibility, and in the transport sector it applies equally to those responsible for providing and maintaining infrastructures, those responsible for manufacturing and/or providing goods and services, and those who use them.

Principle 10: Mix of instruments

Europe will only succeed in developing and operating sustainable transport systems (that is, systems which operate within acceptable, sustainable environmental, social and economic limits) if the Union can bring to bear an appropriate mix of policy and other instruments. These should aim to optimize transport, not simply meet growing demand, and will need to include some — or all — of the following:

- Economic instruments: more costs will need to be internalized for all transport modes by an appropriate mix of taxes and fees (e.g. fuel taxes, road pricing, parking fees), differentiated purchase taxes (e.g. leaded versus unleaded fuels), scrapping benefits (where appropriate, to encourage owners to replace older, more polluting vehicles with newer, more energy efficient and cleaner models) and area or time-zoned circulation charges.
- Regional and transport planning and traffic management: regional planning has a key role to play in ensuring that the demand for transport is minimized and that transport infrastructure is user-friendly and environmentally efficient. Where appropriate, bottlenecks will need to be removed in order to cut congestion and improve traffic flow. But the provision and improvement of efficient public transport facilities and networks will also often need to be accompanied by speed limitations, the restriction of car use and parking in inner cities, bans on through traffic, and the provision of improved facilities

for pedestrians and cyclists. Business will need to focus much greater efforts on the integration of logistics.

- Behavioural measures: European citizens will be most likely to support such measures if they are encouraged with 'carrots' and 'sticks'. The carrots might include measures designed to assist greater use of public transport, such as cycles, car pools and/or cleanest vehicles; the sticks might include tougher enforcement of speed, emissions, noise and parking restrictions.
- Technical measures: a wide range of technical measures is needed, focusing on infrastructures, systems and vehicles for all modes of transport. We need major investments in the life-cycle management of transport systems and in the repair and recycling infrastructures required to ensure the sustainable use of materials committed to transport use. More specifically, a stronger push from the EU and the national governments is overdue to ensure the necessary developments in, and applications of, cleaner engine technology, together with improved standards for fuel quality, emissions and noise.
- Construction measures: these include a wide range of noise and disturbance reduction measures, the improved integration of transport infrastructures into the landscape, the provision of noise protection walls along major transport links, and the construction of bridges and tunnels for pedestrians and for animals crossing roads and railways.

Principle 11: Willingness to experiment

Different parts of the Union will reach different conclusions on the best mix of transport modes and on the best mix of instruments designed to achieve them. As different communities, regions or countries experiment with different strategies and approaches, the results should be shared rapidly with others considering taking the same steps.

Such experiments need to be undertaken within a broad vision of future European transport systems, so that there is a much greater likelihood that it will be possible to integrate the different experiments at the EU level.

Principle 12: International competitiveness

This integration, in turn, is critical, given that the availability of user-friendly, cost-effective and environmentally efficient transport systems is emerging as a key factor in determining the competitiveness of

different regions in achieving economic development and in attracting the inward investment they need. In summary, Europe's longer-term competitive success will, *inter alia*, depend to a considerable degree on its ability to develop, operate and maintain sustainable transport systems.

4. A NEW HIERARCHY FOR TRANSPORT POLICY

The development of sustainable transport policies and systems for Europe will require much more than tighter environmental standards and greater resource efficiency, however important these may be. We will also need to see much better integration of our thinking on the economic and social aspects of access and of transportation. Indeed, the working sessions at the Château de Limelette on 27 and 28 January 1995 outlined a hierarchy which might be used to test transport policies and proposals at the local, regional, national and EU levels.

This would involve the sequential testing by producers, regulators and consumers of transport services of each policy or proposal as follows:

- Needs: instead of taking human needs, as expressed in current and forecast market demand, as given, a sustainable transport policy would dictate that such needs and demand should be considered particularly by the various levels of government — in the context of the likely associated impacts, disbenefits and opportunity costs.
- Access: where governments consider that the need and demand are legitimate and potentially sustainable, we should then ask what forms of access are likely to be required to ensure their satisfaction. In a growing number of cases, access may be achieved by means of nearby service centres, the telephone or modem-equipped computers or televisions, rather than by travel.
- Mobility: where travel is required, the next set of questions would relate to the most appropriate modal split to ensure the demand for mobility is met in an economically, socially and environmentally efficient and equitable way. The European Commission has set itself the ambitious target of making the transport system as a whole environmentally sustainable through the concept of 'sustainable mobility', although this concept still requires precise definition and effective operationalization. It is also worth stressing that there is likely to be an increasing collision between some forms of mobility (and linked development and severance patterns) and the levels of access available to parts of the population.

- Transportation: only when these higher-order considerations have been taken into account should the decision on whether to proceed with given infrastructure or network investments be taken.

The ways in which we choose to meet the demand for transport have major implications not simply for the sustainability of transport *per se*, but also for the sustainability of our economies and societies. The key question now beginning to be asked by some parts of the European Commission and by the European Environment Agency is: Can the same — or even improved — quality of life be achieved with lower transport demand per capita and/or different forms of infrastructure provision?

The challenge for Europe, and for the world, will be to break the automatic linkage between improved standards of living and increased mobility and increased transport intensity per unit of GDP. The key task for the future will be to search systematically for options of any kind which allow the substitution of physical transport while providing the same services.

The first step will be to try and freeze per capita demand at current levels, while ensuring that standards of living continue to rise. The necessary changes will require linked changes both at the level of the overall economic system and in personal expectations and lifestyles. Policy measures in other fields can influence distances by decentralization (or appropriate location) of services, such as hospitals and schools. Ultimately, the core policy decisions will be political in the broadest sense of the word.

The Consultative Forum should now develop its thinking on this key area and make recommendations on the ways in which transport should be addressed during the implementation and revision of the fifth environmental action programme.

5. RECOMMENDATIONS

Drawing on the earlier work of the transport and environment working group, the Consultative Forum makes the following recommendations for action by the European Commission which should be addressed during the revision of the fifth environmental action programme:

5.1. A new focus on uncoupling transport demand from economic growth

It is recommended that the European Commission should investigate ways in which sustainable eco-

nomics development, and, where appropriate, economic growth can progressively be decoupled from transport demand.

5.2. Increased investment in sustainable logistics

It is recommended that the European Commission also undertake more detailed studies on ways in which a more efficient and sustainable logistical system could be developed, with a view to providing guidance for government agencies and business. For example, research might be undertaken on the potential for developing a different logistical system within Europe, making more use of sea and inland waterways and, where feasible, of completely new (underground) systems.

5.3. Changes in transport policy and modal splits

It is recommended that the European Commission actively investigate a new hierarchy for transport policy — beginning to address the demand side (see Section 4 above), as well as exploring new ways of making transport modes with a lower impact per tonne-kilometre or passenger-kilometre more attractive to users — whether in terms of accessibility, user-friendliness, price and/or quality. In challenging the dominance of road transport in the passenger transport sector, commuter traffic should be an early target.

In the freight transport sector, the likelihood is that in a free market and with shippers having a reasonably free choice, road transport will be the preferred mode of transport, unless access to rail systems can be made much more open to internal competition. A substantial shift from road to rail will almost certainly not be possible if rail were to continue to be operated as a virtual monopoly. Access to rail systems will need to be much freer, not only on paper but also in practice.

5.4. Internalization of costs

It is recommended that the European Commission should explore ways of ensuring that a growing proportion of costs are 'internalized', and start concrete projects where this can be justified on the basis of a reasonable cost-benefit evaluation. For such an evaluation it will be necessary to:

- identify the real objectives of the measures;

- develop operational definitions of the relevant social and environmental costs;
- analyse their effects on competitiveness, economic growth and employment.

5.5. Investment in infrastructure for sustainable transport

It is recommended that the revision of the fifth environmental action programme consider how greater investment in appropriate transport infrastructures might be made. Both from an economic and environmental viewpoint, such infrastructure investments need more balanced budgetary treatment and serious consideration should therefore be given to setting aside a share of tax revenues generated by transport for sustainable transport infrastructure provision, including facilities which reduce transport demand.

5.6. Managing local and regional air quality

It is recommended that the European Commission increase the pressure on national governments to enforce existing and impending air quality legislation. Industry's work on developing low or zero emission engine technology should be actively encouraged and supported. The Commission should also explore innovative ways of taking 'super-emitting' or 'high-pollution' vehicles off the road. This

should cover private passenger and public transport, and freight vehicles.

5.7. Managing global atmospheric issues

There may be continuing uncertainties about global warming and climate change, but the Berlin Declaration underscored the growing urgency of the climate change agenda. It is recommended that the European Commission actively explore the potential contributions of each of the previous six recommendations in terms of reducing Europe's contribution to CO₂ and other greenhouse gas emissions as part of Europe's contribution to tackling this central environmental priority for the 21st century.

Sources

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5. THE 1996 INTERGOVERNMENTAL CONFERENCE: STRENGTHENING THE ENVIRONMENTAL DIMENSION

February 1996

1. PREAMBLE

- 1.1. The Intergovernmental Conference (IGC) marks a crucial moment in the ongoing evolution of the European Union. Many issues of great significance will be addressed during the IGC.

As the Consultative Forum, we feel it is essential that the environment should be included amongst those issues. Considerable progress has been made through the Single European Act and the 1992 Treaty on European Union in establishing environmental principles and policies as an integral element in EU affairs, and those gains must now be reaffirmed and reinforced.

- 1.2. After the Treaty was agreed at Maastricht, the Union made commitments to sustainable development at the Earth Summit and in the Council Decision approving the fifth environmental action programme. Also significant in this regard is the Commission's White Paper on growth, competitiveness and employment (Chapter 10). The Consultative Forum attaches considerable importance to this document, and endorses its suggestion that there is a powerful convergence between measures taken to protect the environment and measures taken to address the pressing issue of long-term unemployment.

Making clear that sustainable development is one of the main objectives of the Union is an obligation that follows from these commitments. The report from the Reflection Group has underlined the importance of these issues for the IGC, and the following suggestions should be seen as a contribution from the Consultative Forum in view of the many constructive suggestions that the Reflection Group has made in this area.

2. CONSOLIDATION

- 2.1. The central challenge for Europe over the next decade will be to maintain international competitiveness during the transition towards a more environmentally friendly and sustainable economy.

To achieve that, economic and social development should respect the physical limits that exist for resource use and regeneration, and the integrity of natural systems — soil, water, air and biological diversity — should be preserved and, where possible, restored.

For that reason, Article B of Title 1 of the Treaty should be amended to read:

'The Union shall set itself the following objectives:

- to promote economic and social progress which ensures sustainable development by fully integrating environmental requirements in all economic and social policies...'

- 2.2. Economic and social development, environmental protection and social equity are interdependent and all policies should be tested for their impact on each area and not considered in isolation.

For there to be no doubt about the nature of this interdependence, Article 2 of the EC Treaty should be clarified.

It currently reflects an uneasy compromise between the two parallel IGCs that were launched in December 1990 (on, respectively, political union, and economic and monetary union). The resulting formulation has been criticized as confusing, and even unintelligible.

We would like to propose the following amendment to Article 2:

'The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Articles 3 and 3a, to promote sustainable development which is non-inflationary, to secure for its inhabitants a clean and healthy environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States.'

- 2.3. We also feel that there is an opportunity as part of the IGC to make it easier for the Council, Commission and Parliament to play their part in carrying out these tasks by clarifying some of the confusion that currently exists surrounding exceptions to the use of qualified majority voting on environmental issues.

Part of this clarification should extend to Articles 100a and 130s of the EC Treaty to consider the proposals that fiscal provisions relating to the environment should also be treated on the basis of qualified majority voting (under Articles 100a(1) and 130s) rather than unanimity.

3. INTEGRATION

- 3.1. In reviewing progress by the Community institutions and the Member States in implementing the fifth environmental action programme, the Commission noted recently that 'there is insufficient awareness of the need and lack of willingness adequately to integrate environmental and sustainable development considerations into the development of other policy actions to the benefit of the policy itself and of the environment and sustainable development ... sustainable development essentially continues to be seen as the business of those who deal with the environment'.

It has been strongly argued that, although there are many different reasons for this limited progress, one of them is undoubtedly the rather general nature of the integration requirements in Article 130r.

We would therefore like to propose a small amendment to Article 130r so that it reads as follows:

'In order to facilitate movement within the Union towards sustainable development, environmental protection requirements must be integrated into the definition and implementation by the Community and the Member States of all other Community policies.'

We would also suggest that a similarly worded article be included in the general principles at the beginning of the Treaty in order to emphasize the significance of integration.

- 3.2. There are several points in the Treaty where minor textual amendments would reinforce the effect of the revised and repositioned Article 130r.

- Article 110, relating to the common commercial policy, for instance, could be amended as follows:

'By establishing a customs union between themselves, Member States aim to contribute, in the common interest and taking full account of the requirements of sustainable development, to the harmonious development of world trade, the progressive abolition of restrictions on international trade and the lowering of customs barriers.'

The common commercial policy shall promote sustainable development and ensure that any effect which the abolition of customs duties between Member States may have on the increase in the competitive strength of undertaking in those States is consistent with this objective'.

- The importance of existing EU instruments such as the Directive on environmental impact assessment could be made more explicit by amplifying the provisions of Article 130a under Title XIV:

'In order to promote its overall harmonious and sustainable development, the Community shall develop and pursue actions leading to the strengthening of its economic and social cohesion in keeping with the objective of sustainable development referred to in Article 2. Community funding to strengthen economic and social cohesion through the Structural Funds, the Cohesion Fund, the European Investment Bank and other financial instruments shall be provided only where a full assessment of the environmental impact of the contemplated plans, programmes, policies or projects has been completed, as part of the overall assessment process.'

- Articles 130f (on research and technological development) and 130u (on development cooperation) should emphasize the priority given to achieving the goal of sustainable development.

3.3. Agriculture

The Consultative Forum believes that a particular effort should be made to persuade Member States that the IGC provides a timely opportunity to amend key articles under Article II on agriculture.

Whilst it is clear that agriculture is first of all an economic activity which must be economically viable over the long run, the Consultative Forum (in its 'Set of recommendations for a sustainable rural development') has also emphasized that a sustainable agriculture can only be achieved through the integration of environmental, agricultural, transport, energy and consumption policies. The agriculture Title of the Treaty needs to reflect that kind of integrative approach.

Agricultural practice is recognized as having a major impact on the environment, extending beyond the area actually farmed to include air and water quality and a range of both terrestrial and aquatic habitats. Article 39 makes no reference to the environment, no reference to rural development *per se*, no reference to forestry and no reference to other issues increasingly perceived to be relevant to agricultural policy objectives, including farm animal welfare.

With those concerns in mind, Article 39 should be amended to ensure that Community policy and actions on agriculture should be based on the principles of revised Article 130r, and the objectives of the common agricultural policy (CAP) in Article 39 should additionally refer to the need:

- to support and promote sustainable agricultural production, practices, and processing to ensure the long-term stability and viability of ecosystems, while protecting and enhancing biological and landscape diversity;
- to ensure active involvement and participation of local rural and coastal communities in policy- and decision-making processes that affect them, and to ensure their fair standard of living;
- to promote sustainable rural communities by ensuring that CAP instruments are consistent with other Community policies aimed at promoting sustainable integrated rural development.

3.4. Transport

The common transport policy (CTP), as set out in Articles 74 to 84, survives virtually unaltered from the original Treaty of Rome, being one of the original three common policies. Changes to date have been restricted to voting and other procedural changes, together with the insertion of paragraph 1(c) on safety into Article 75.

Reflecting its early origins, the transport Title contains no mention of the environment. There is thus no reference to the important steps in vehicle noise and emission controls which have already proved to be prominent features of EU environment policy.

As with agriculture, sustainable development should be an explicit and primary objective of the Union's policy and activities in the area of transport. Article 74 should therefore be amended to require the Union to develop and carry out an environmentally sound transport policy, in particular with regard to the trans-European networks.

This would simultaneously necessitate small textual amendments to Article 129c under Title XII which relate specifically to the trans-European networks.

3.5. Environmental protection

There are many other ways in which a higher priority could be given to specific measures to protect the environment:

- Article 36 under Title I (relating to the free movement of goods) could specifically include 'protection of the environment' as one of those areas which allow for prohibitions or restrictions on imports, exports or goods in transit.
- Article 92(3) under Title V (relating to competition, taxation and approximation of laws) could specifically include the words 'and to promote activities for the protection of the environment' as one of those areas deemed compatible with the common market.

4. FURTHER CONSIDERATIONS

4.1. New titles

Should any new titles be proposed as part of the IGC process to give the Community explicit competency in areas such as energy and tourism, it should be taken for granted that the wording of all articles relating to those titles be drafted in a manner

consistent with all the points raised in Sections 1 to 3 above.

4.2. Citizens' rights

Decisions affecting sustainable development are a shared responsibility. They should be open and based on informed participation by affected and interested parties. A personal sense of responsibility and involvement should be promoted amongst all sectors of society. This requires a knowledgeable public, a free flow of information and fair and equitable opportunities for review and redress.

For many of the Union's citizens, the protection of their cultural and natural environment is of central importance. In order to respond to the concerns of

European citizens, a proposal which was already considered in the course of the Maastricht preparations (which was not, however, included in the Treaty) should be reconsidered, i.e. that every citizen has a right to a sound environment and the duty to contribute to its protection. Such citizenship rights would be closely linked with the provisions on the 'democratic dimension of the protection of the environment'; which could include:

- participation in the decision-making process;
- access to information;
- consultation of the public;
- access to justice;
- duty of authorities to build awareness;
- building educational capacity.

6. SUSTAINABLE RURAL DEVELOPMENT

February 1996

At its meeting on 27 and 28 January 1996, the Consultative Forum agreed a set of recommendations for a sustainable rural development.

The Consultative Forum acknowledged that sound agriculture is not only indispensable to the food provision for continually growing population but also the key factor of a sustainable rural development. Agriculture is first of all an economic activity and, to this extent, must obey the common rules of the economy (competitiveness, quality, respect of social and environmental constraints, etc.). However, agriculture is also indispensable to the sustainability of the rural areas and performs, beyond the economic function, many other functions which are worth paying for.

The members of the Consultative Forum recommended to keep in mind these two aspects of agriculture and to distinguish — as clearly as possible — between the two so as not to disturb market rules.

Some of the members were more attached to the economic role of agriculture; some others to its social and environmental roles.

Given these preliminary considerations, the Consultative Forum adopted the following principles and proposed orientations for action.

1. GENERAL PRINCIPLES

1.1. Agriculture must be economically viable over the long run

This viability should be achieved through income from the market. Income from the market should be diversified, compared with the present situation, where most gross product comes from human food production. Economic viability implies that supports maintaining holdings with negative added value should be phased out. This principle does not exclude public aid for restructuring and country planning and does not prevent the taking into account of the complementary functions of agriculture and granting public aid to remunerate fairly

these functions when they relate to unnegotiable goods or services. Both of these public aids are necessary and often intricate.

1.2. Sustainability should be achieved through integration of environmental, agricultural, transport, energy and consumption policies

Environmental administrations and non-governmental organizations should be associated with the design of the policy as a whole and its implementation. This participation should be achieved at every level: from the European to the local level. It would be useless to take environmental actions while at the same time keeping unchanged the major forces that lead to degradation of environmental quality, such as incentives for overintensification or environmentally damaging practices as well as costs of transport and fossil energy which would not include all external costs in the long term.

1.3. The basic obligations of agriculture towards the environment must be negotiated and clearly determined

Sustainable development implies that natural resources must be maintained in the long term: water, soils, air, biodiversity, listed sites, etc.

The level of basic environmental obligations should be negotiated and registered in charters for sustainable agriculture and codes of good practice. This should be done at different levels (from a worldwide to a local level) implying diversified actors: farmers, environmentalists, policy-makers and civil society, including also standards (nitrates, pesticides) as operational practices. These basic obligations should not be paid for by public funds in accord-

ance with the 'polluter pays' principle. In many cases, less intensive and more natural agriculture should allow, at the same time, these basic environmental obligations, the demand of the consumers for quality and the stabilization, or even the development, of employment to be met.

1.4. Additional environmental services provided by agriculture must be enforced and developed on identified economic resources

Such services are energy production, forest fire prevention, water protection, fixation of CO₂, recycling of organic waste, nature conservation and biodiversity management, tourism and recreation, soil conservation, landscape management, civil defence and food security, and conservation of cultural inheritance.

In order to develop these services, some economic resources might come from public funds (e.g. protection of nature and food security), and others from a real market approach (bioenergy, tourism, etc.). On the other hand, this recommendation must not lead to the funding of every service provided by agriculture, especially obligations identified under 1.3.

The European policy must set frameworks in which such services can be developed at local levels, if they are proved to be environmentally positive and economically justified.

1.5. European policy must show clear and consistent signals to agriculture

This implies both simplification and flexibility of European policy. In its present form, the policy shows both contradictory signals to farmers (intensification on the one hand, environmental protection on the other) and leads them to a dominant mass-production strategy, which is incompatible with more diversified agriculture and nature protection in the long run. The European policy must not lead to uniformity.

1.6. European policy should offer possibilities of evolution for farming systems

Sustainable development is often seen as the conservation of a fixed situation (in terms of holdings

and farmers) and the present policy also intends to maintain existing farms. In a dynamic approach, sustainable development might include evolution of agricultural systems and farmers. This means management of financial institutional supports and quotas in favour of new farming systems.

2. ORIENTATION FOR ACTION

2.1. The role of agriculture should be redefined in the Treaty on European Union

The present basis of agriculture is the one set out in the Treaty of Rome (1957), insisting on the protection and support of the farming sector in order to achieve food autonomy. Environmental aspects and the various functions of agriculture were not included in this Treaty, as they should be, considering the evolution of agriculture.

2.2. Environmentally damaging policies must be phased out

Such potentially damaging policies include rotational set-aside, and financial supports for drainage, irrigation and fodder maize. Concerning set-aside, this measure could be strongly improved if used for an environmental purpose, such as fixed set-aside for water and nature protection. Rotational set-aside should be removed from the present scheme. Moreover, the farmer should be allowed to replace set-aside by the possibility to use extensive farming practices all over his farm.

2.3. Actions in favour of programmes for research, education training and extension must be emphasized

This aspect appears to be underdeveloped in the present policy action. Research programmes should refer both to assessment of environmental and economic aspects, with a view to efficient use of the natural resources, in particular water, and to extension of realistic and environmentally adapted farming practices. Such programmes should be encouraged by EU grants.

2.4. Agri-environmental measures should be resolutely developed

Regulation (EEC) No 2078/92, funding environmental actions, appears to be a major instrument for flexible land management. Correlatively, EU crop-specific incentives unrelated to quality objectives

should be reduced. This approach is adapted to subsidiarity and might replace heavy and centralized policies (development of Regulation (EEC) No 2078/92 could be a way to achieve Recommendation 8). It must be stressed that these measures must include local expertise and excellence in various aspects — conception of projects, animation and control — otherwise they might lead to inefficient use of public funds.

7. SUSTAINABLE PRODUCTION AND CONSUMPTION

August 1996

1. INTRODUCTION

1.1. History

The need to develop more sustainable production and consumption patterns to achieve a long-term balance between human activities and the environmental load the earth can carry has been on the international agenda since the United Nations Conference on Environment and Development (UNCED) 1992.

1.2. The problem and the way forward

Although the European Union has made much progress in improving the quality of the environment, the overall use of natural resources in Europe is still increasing. The problem is significantly increasing outside Europe, in particular in the developing countries where high economic growth rates are sometimes leading to even higher pressures on the environment. The continuation of our production and consumption patterns and their repetition in threshold and developing countries would surely exceed the carrying capacity of the earth and thus be self-defeating by affecting real living standards due to pollution, congestion and tensions. High population growth contributes to these problems. Achieving sustainable production and consumption patterns — particularly by ensuring that the true cost of using natural resources is reflected in prices — is the surest way forward to good living standards and a better quality of life.

1.3. Definition

In Europe, sustainable production and consumption imply the provision and use of goods and services that respond to basic needs and improve the quality

of life, while preserving, and where possible restoring, the integrity of natural systems. Regional and global constraints upon resource use and regeneration should be respected. Furthermore, given the scale and geographical extent of Europe's environmental footprint, our responsibilities to other world regions should be recognized.

1.4. The goals

The EU should play, in its own interest, a leadership role in addressing this global problem. At home it should set a good example by encouraging the decoupling of resource use from continued economic growth and then, as a further step, encourage a reduction in absolute terms. Externally, it should assist the developing countries in the difficult task to stabilize their impact on the environment while still achieving their economic growth aspirations. The Consultative Forum believes there is wide scope for technology cooperation, sharing best practice and joint implementation.

1.5. Some key requirements

The development of a more sustainable production and consumption pattern is a shared responsibility between industry (including producers, and agricultural and service sectors), consumers and policy-makers. In pursuit of these goals, ecological, economic and social objectives have to be balanced (three bottom lines). A good understanding of the social/economic consequences of the inevitable changes based on good science and cost-benefit analysis is vital.

1.6. Content

The paper discusses principles for sustainable production and consumption and develops recommendations for policy-makers. The Consultative Forum

paper 'Broadening the range of instruments' discusses policy instruments to implement some of the recommendations.

2. TARGET SETTING

To achieve the goals, a process of target setting is required which consists of two elements:

- scientific research: deliver scientific information about the carrying capacity and environmental space;
- political process: choosing targets, measurable indicators and related time frames which are connected to these mechanisms.

Long-term targets form the basis for negotiating intermediate targets, and can also serve as yardsticks for measuring the degree of sustainability that has so far been achieved. The European Environment Agency (EEA) could provide the necessary information needed to identify priority areas, long-term targets and adequate indicators for measuring progress. There certainly ought to be measurable quantified targets for resource use. The regular monitoring of progress against indicators and targets is enormously important and the EEA might be encouraged to supply an annual progress report.

Long-term targets should:

- be related to all crucial problem areas at the right level of scale, notably in this case the EU and larger, leaving detailed target setting to appropriate national, regional and local bodies;
- relate as far as possible to the source of problems;
- be based on currently available scientific consensus;
- be based on clear, transparent assumptions;
- in cases where scientific evidence is lacking, follow the precautionary principle;
- be adapted, if necessary, to developing scientific understanding;
- consider cost-benefit analysis.

In cases where scientific consensus is relevant, but clearly lacking or not evident, a consensus process should be organized. The IPCC (Intergovernmental Panel on Climate Change) process is such an example on a global scale, organized by the United Nations (UN).

It should be kept in mind, however, that, despite a necessary scientific basis, the debate about target setting is value-driven: which level of quality of the environment do we aspire to and which risks and

consequences do we accept, and in what period do we want to achieve certain targets. It is therefore of utmost importance that political leaders take full responsibility for these issues and make clear political choices. To this end, they need to be provided with the basic scientific information as well as visions on sustainable production and consumption patterns that are both practical and inspirational.

Social and political choices have to be made, in a transparent process, on:

- short- and mid-term targets related to a time frame;
- the integration of social and economic issues into short- and medium-term targets;
- the distributional issues — how the burdens are allocated over society's groups;
- institutional frameworks needed/to be installed;
- mechanisms and instruments.

Below, the main actors are discussed: producers, consumers and policy-makers.

3. SUSTAINABLE PRODUCTION

The industrialized countries can influence their economic development in a quantitative and qualitative sense. The choice of appropriate modes of social and economic development should ensure environmental protection and resource efficiency that go along with economic progress. Research and dialogue on such appropriate development for specific parts of our economy are recommended.

Economic sectors (producers, agriculture and services) bear the main part of the responsibility for the realization of sustainable production and consumption (SPC). The whole life cycle of products and services has to be considered: procurement of resources, production processes, distribution, use, including maintenance, attrition and repair, disposal including cleaning, recycling, transport.

The most important principles for sustainable production are:

- hierarchy of targets to find the most sustainable option: avoiding, reducing, reusing, recycling, processing, non-polluting disposing;
- respecting regional natural limitations and cultural heritage of the area where production or services are taking place;
- minimum use of natural resources (dematerialization) and avoidance of irreparable consequences while winning resources and production processes (e.g. destroying nature, landscapes or ozone layer);

- enhancing product efficiency and durability and providing design for reuse of innovative component parts;
- ‘green standardization’, for example by using standardized component parts, reductions of variants whenever relevant for ecological design, without neglecting consumer requirements regarding convenience and individuality;
- avoiding or reducing packaging material;
- making distribution and logistics resources efficient (sales organizations, city logistics, rail transport);
- developing and marketing innovative services (offering services rather than goods, like absent subscriber service instead of many individual answering machines);
- encouraging consumers’ ecological behaviour by passing on information on environmentally friendly products (low-cost automation (LCA) and eco-labelling) and services, displaying products in a privileged way, using appropriate public relations and advertisement, applying mixed calculation in favour of more environmentally friendly products.

Companies and sectors could be asked to subscribe to the above principles; then this should also apply to companies outside Europe in order to allow fair competition.

4. SUSTAINABLE CONSUMPTION

Three factors define sustainable consumption:

- the total amount of consumption (closely related to income);
- the environmental and resource impact per unit of consumption;
- the size of the population.

Each element can be influenced. The consumer has a lot of power and responsibility and should use this to favour products and services that result from sustainable production as described above, and at the same time avoid products and services produced in an unsustainable way.

The most important principles for sustainable consumption are:

- consumer prices reflect the ecological impact and scarcity, and give products and services of sustainable production a competitive advantage on the consumer market;

- optimized communication and information on products, services and behaviour with the lowest and highest environmental impact;
- consumers themselves should be informed and aware of basic environmental issues;
- a wide range of repair and post-consumer services replacing waste collection and encouraging realization of product lifespan and maximizing recycling and reuse of components/materials by giving financial and psychological rewards;
- basic ecological information and practical information on sustainable consumption communicated by the mass media as well as a part of all primary and secondary education and thus a basic element of teachers’ training;
- active involvement of consumer organizations in designing acceptable and effective measures and systems.

5. THE RESPONSIBILITY OF POLICY-MAKERS

It is the responsibility of policy-makers to create mechanisms that give incentives and guidance in the right directions with the objective of ensuring that the sum of all activities and products does not exceed the carrying capacity/environmental space. It is very important to involve all actors in designing these mechanisms for optimizing support and effectiveness. Public administrations depend directly on the policy-makers and should provide the example.

The global perspective that is included in sustainable development should be considered in all political action; political choices resulting from this must be made in a transparent way.

5.1. Necessity of clear targets

Clearly defined, quantified long-term targets should be developed on a sound scientific basis relating to concepts of carrying capacity and environmental space, to act as the basis of clear political and ethical choices on which environmental limits should be respected at international, national and regional levels.

5.2. Necessity of involvement of all partners

The basic analysis and the definition of those political choices have to be shared with a wide audience

in order to build political ownership. Citizens and consumer organizations, as well as socioeconomic representatives and environmental organizations, should be actively involved in those discussions.

5.3. Need for basic research

Research on, and discussion about, economic and social development models which delink the quality of life from the use of natural resources (dematerialization of consumption) should be encouraged, as well as experimental approaches by scientists, producers and consumers in this matter. Support for such experimentation could include tax exemptions limiting financial sacrifices and risks for those involved, as well as other financial incentives.

Scientific (natural, social, economic, political aspects) research on carrying capacity/environmental space indicators and monitoring should be considerably increased. Case studies that explore the possibilities for sustainable production and consumption in specific areas (food, travel, tourism, etc.) could lead to concrete proposals.

5.4. Priority to information

Information on main environmental impacts and resource use of products, production processes and administration should be made available to all decision-makers at all levels as well as to citizens in their daily life.

This includes:

- making available results of research and technology to a wide range of decision-makers in economic, administrative and political circles;

- a positive, proactive information and communication strategy aimed at giving widespread understanding of positive examples, new technologies and new services, organizations, eco-labelling, and so on. Preference should be given to European-wide information programmes acting on different levels (European to local);
- a regular feedback for consumers, stressing the positive sustainability effects of actions that have been taken;
- a promotion of positive leadership as a multiplier. The best examples from all over Europe should be communicated right across Europe.

5.5. Choosing the right instruments

A wide range of instruments has to be used to balance and reconcile current demands with sustainable levels of resource use and environmental impacts. Action concerning prices of products and services should aim towards an integration of their ecological costs, which means that tax incentives and sanctions could be part of economic instruments. Experiments with tradable permits on a European scale should start.

Political decision-making should take into account and prevent, or compensate for, the possible unequal impact that economic (taxes, increasing prices) and regulatory (e.g. building standards) measures could have on different social groups of the society.

8. BROADENING THE RANGE OF INSTRUMENTS IN ENVIRONMENTAL POLICY IN THE EUROPEAN UNION

August 1996

This paper will make some pragmatic contributions to the current debate on broadening the range of instruments in public environmental policy. It will not address issues related to a wholesale reform of the European tax system.

1. BACKGROUND AND INTRODUCTION

- 1.1. Over the last 25 years environmental policy has internalized a wide range of environmental externalities. Single point sources of emissions no longer pose the main problem. Industry has become much cleaner, but there is widespread agreement that our current production and consumption patterns are no longer sustainable.
- 1.2. There is a long history of experience with the existing environmental policy instruments, basically of a 'command and control' type. Given the achieved level of emission reductions, the 'end-of-pipe' technology may be reaching its limits. New technology approaches are necessary but they also require new policy approaches. Current approaches tilt investment to end-of-pipe solutions, do not always provide incentives for technological innovation and do not encourage necessary changes in consumer behaviour.
- 1.3. Therefore, a broadening of the set of policy instruments is required. In addition to regulations, these instruments should include both economic instruments (such as taxes, incentives and tradable permits) and voluntary initiatives. The search for new instruments should be combined with a review of the effectiveness of existing regulations.
- 1.4. The implementation of new environmental policy instruments will have a significant impact on the economies, employment and competitiveness of the European Union. A careful case-by-case evaluation of the potential impact of these instruments is therefore required. There is a widespread concern, in particular by industry, that a shift of taxation from income taxation to resource/environment taxation or the implementation of ecological taxes that add to the overall tax burden will damage European competitiveness. Some also fear that revenues raised through economic instruments will not be used to meet the environmental objectives they were designed for, but used to meet general government expenditure.

2. IMPLEMENTING THE EU POLICY 'TOWARDS SUSTAINABILITY'

- 2.1. There should be a clear distinction between the environmental goals and targets and the policy instruments to achieve them.
- 2.2. There is a need for a strategic approach. Governments have to set long-term goals in all cases where environmental protection is a common good. These goals should take into account the sustainable level of resource use and of emissions.
- 2.3. Targets and time schedules must be developed, with an indication of the different steps to achieve these long-term goals. The targets must be designed to achieve clear environmental objectives, considering technology, costs and benefits, and estimates of the risks, and balancing ecological with economic and other social objectives. The target must recognize that, with a very few exceptions, an

objective of zero emissions would not be the optimum level of use of resources. The assessment of costs and benefits must have a long-term horizon to allow scope for technology innovations (e.g. Amory Lovin's 'ultra-light car'), and for concepts such as eco-efficiency. It must also be recognised that best available technology (BAT) presents an option that must be tested for cost/benefit, and is not an objective in itself.

- 2.4. The chosen policy instrument must be the one that best and most cost-effectively achieves the defined environmental objectives. It must not unnecessarily affect European competitiveness and must also ensure that the triple goals of competitiveness, environmental protection and employment can not only be compatible, but also mutually reinforcing. It must be easy to implement and also be socially acceptable. It needs to provide enterprise with the freedom to develop innovative and cost-effective means of meeting the targets. One option is to consider how to harness market forces to meet these targets at minimal economic cost. These requirements should be identified in an agreed set of assessment criteria.
- 2.5. A broader set of instruments, which meet these requirements, will include not only fiscal instruments (fees, taxes or subsidies), but also tradable permits and property rights, voluntary agreements, informational instruments (eco-labelling) and educational programmes. In specific cases, publicly sponsored R&D programmes could accelerate the development of new technologies. For transborder pollution 'joint implementation' could be an appropriate approach, perhaps especially towards Eastern Europe.
- 2.6. What matters at the end is finding the right mix of environmental policy instruments to address a given environmental protection problem cost-effectively, be it at EU, national, or local level, with the EU level giving guidance, setting principles, developing frameworks, and setting minimum requirements.
- 2.7. In order successfully to incorporate environmental goals into society, a shared responsibility approach must be developed which includes government, industry and the consumer, whilst incorporating a regulatory framework which is open and participatory. This approach will require greater public awareness and education.

(See Annex 1.)

3. THE RANGE OF OPTIONS

Environmental policy instruments are intensely political because of large potential impacts on economies and industrial competitiveness. Many different players, often with conflicting objectives, seek different approaches. All policy instruments should be based on good cost-benefit analysis and good science:

3.1. Regulations

- The most widely used approach to date and effective in cleaning up Europe; however, at a cost.
- Command and control approach which regulates end-of-pipe emissions.
- Command and control by the use of standards or specific targets.
- Often bureaucratic requiring a lot of enforcement effort which in some cases has not been very effective.
- Often do not take account of local environmental circumstances.
- A prescriptive approach which does not exploit the potential of market forces.
- Inflexible, providing no incentive to lower environmental impact.

3.2. Economic instruments: taxes, incentives, charges, tradable permits

- Economic instruments utilize the market mechanism by linking the price of goods/services to environmental aim/impact.
- However, they require a better evaluation of the cost of externalities, i.e. damage/impact on the environment and they should reflect theoretical benefits and excess burdens caused by taxation of labour, capital and resources.
- Economic instruments can give powerful market signals, but should not be allowed to unnecessarily damage the competitiveness of European business and industry. Consensus with industry will be difficult if the Commission cannot demonstrate that this will not happen.
- Tradable permits solve the problem of 'pricing' the environment, but require a clear definition of the carrying capacity of ecosystems.

- Economic instruments can be used at all levels of decision-making, from local, to regional, to national, with the Commission able to propose consistent guidelines at EU level to protect the integrity of the single market.
- Economic instruments should encourage innovation/technology, in order to reduce cost as well as to offer new levels of technical performance.
- Environmental charges can have a double effect, provided revenues are used to encourage investment capable of reducing environmental impact, as well as the charges themselves being used to influence consumer behaviour.
- Recycling of revenue from environmental taxes to achieve environmental aims can help gain public acceptance of the tax and increase economic efficiency. There is a widespread suspicion that additional tax revenues could be misused as a hidden tax increase.
- Joint implementation as an option available to address global issues. The EU could demonstrate leadership in this area.

3.3. Voluntary initiatives

- There are many examples of successful voluntary initiatives by industry, for example:
 - (i) the chemical industry's 'Responsible care' programme;
 - (ii) many energy conservation programmes;
 - (iii) the ICC Charter for Sustainable Development;
 - (iv) the oil industry's contribution to technology cooperation and capacity-building in developing countries.
- They include voluntary participation in a legally framed programme such as EMAS, the European Eco-Management and Audit Scheme.
- There is still insufficient understanding of the potential of voluntary initiatives.
- There is no obligation for action and the risk that some companies might close a free-rider position. Therefore, some monitoring may be required.

Examples of environmental policy instruments for which cost-effectiveness is claimed are summarized in Annex 2.

4. CRITERIA FOR ENVIRONMENTAL POLICY INSTRUMENTS

For each environmental goal, an appropriate set of policy instruments should be developed. There is no one best way. Environmental policy instruments should be tested against the following principles and criteria:

4.1. Ecologically efficient

- Does it have clearly defined environmental objectives?
- Is it based on an agreed evaluation of the environmental impact?
- Does the instrument really solve the environmental problem or does it just shift it from one area to another?
- Is it based on sound science; what are the uncertainties?
- Does it earmark revenues to achieve specific environmental aims?

4.2. Economically efficient

- Does it achieve the environmental goal/target at minimum cost to society? Has a rigorous cost-benefit analysis been carried out?
- Does it set clear price signals and target dates?
- Does it avoid market distortions and a negative impact on the European internal market?
- Does it affect the international competitiveness of EU business?
- Does it promote and encourage technical innovation in the long term?

4.3. Practicable

- Could it be readily implemented, administered, and enforced?
- Is it flexible, fast and efficient in helping to achieve environmental targets, in the light of changing circumstances?
- Have lessons from the past been taken into account?

- Has experimentation and piloting been considered as a way to test the effectiveness and applicability of the instrument?
- Does it allow for lead times and phased implementation?
- Does it avoid uncertainty about the need for future investment?
- Does it set credible penalties for inaccurate reporting and cheating?

4.4. Equitable

- Does it ensure regular consultation between government, the public and industry, especially before any policy changes?
- Does it consider sustainable development in developing countries?
- Does it ensure sufficient public information, consultation and education to attain public understanding and acceptability of policy approach, and motivate the public to do what is required?
- Is the distribution of cost perceived to be socially acceptable?

Instruments should only be implemented after thorough assessment of trade-offs between environmental improvement, economic growth, and social benefit.

5. CONCLUSIONS

- 5.1. There is a need for a strategic approach to implementing the EU policy 'Towards sustainability'. Governments have to set long-term goals and develop targets and timetables. The targets must be designed to achieve clear environmental objectives, considering costs and benefits, estimates of the risks, and technological innovation, be based on good science and balance ecological with economic and social objectives.
- 5.2. Policy instruments should be developed to achieve environmental goals and targets in the most cost-effective way. They should be

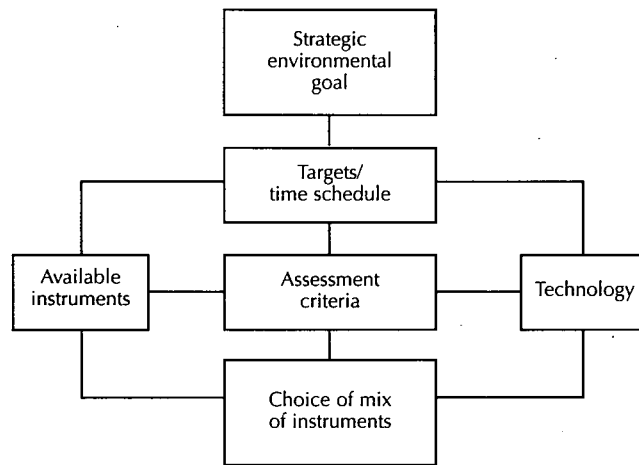
flexible, and so able to adjust to changing circumstances, providing transparency between the polluter and impact. They should include incentives to change polluter behaviour, reward efficiency, and encourage technological innovation. The cost of using environmental resources should be appropriately reflected in the price of products and services. Voluntary agreements should be encouraged. Environmental policy instruments should reinforce, not damage, business competitiveness.

- 5.3. A broader range of environmental policy instruments, including standards/regulations, economic instruments and voluntary initiatives can play a wider role in the European Union. However, there is not one single solution. The challenge will be to develop the right mix of policy instruments to address a given environmental protection problem, be it at EU, national or local level, balancing environmental, economic, and social objectives. There is a need to develop a framework for environmental policy instruments on a European Union level, setting agreed principles and stating minimum agreed requirements.
- 5.4. There is insufficient cost-benefit analysis in defining best practicable options. The methodology of cost-benefit analysis needs to be improved. More evaluation of the external cost of environmental damage is required.
- 5.5. There needs to be a transparent and open consultation process between government, industry, and the public. Agreed criteria and principles should be developed against which the effectiveness of a policy instrument must be evaluated. A set of principles and criteria is proposed under Section 4 of this paper.
- 5.6. The Commission should undertake a comprehensive but prioritized review of the cost-effectiveness of the current set of policy instruments, including some of the instruments listed in Annex 2 for which cost-effectiveness is claimed.
- 5.7. Best practice amongst Member States in implementing innovative and cost-effective policy instruments should be shared. Experience outside the EU should be taken into account.

ANNEX 1

IMPLEMENTING THE EU POLICY 'TOWARDS SUSTAINABILITY'

The process



ANNEX 2

EXAMPLES OF INSTRUMENTS FOR WHICH COST-EFFECTIVENESS IS CLAIMED

- French water resource management tariffs/grants.
- Danish energy and CO₂ tax.
- Swedish NO_x — levies, revenues recycled.
NO_x levy introduced to all power plants above 10 MW and heating plants above 50 GWh. Achieved 30 % NO_x reduction in three years.
- United Kingdom waste management tax.
The landfill tax is designed to use market forces to protect the environment by making disposal of waste more expensive, but minimize the impact on business by reducing employers' national insurance by an equivalent amount.
- Singapore urban congestion — road taxes.
- California SO_x — tradable permit.
California South Coast Air Quality Management introduced tradable permits to lower SO_x and NO_x emissions from large stationary sources by 7% per year.
- Swedish paper industry chlorine use — voluntary initiative.
- Chemicals industry 'Responsible care' programme — voluntary initiative.
'Responsible care' is the chemical industry's commitment to continual improvement in all aspects of health, safety and environmental (H, S and E) performance and to openness in communication about its activities and its achievements.
- German unleaded fuel differential — incentive for green products/services.
Several European countries successfully introduced a lower tax to promote the use of unleaded petrol.

9. INFORMATION AND COMMUNICATION FOR SUSTAINABILITY

November 1996

1. EXECUTIVE SUMMARY

In a series of meetings throughout 1996, the Consultative Forum's information and communication working group considered ways in which the Consultative Forum — and particularly the new Consultative Forum due to meet for the first time in 1997 — could help give new momentum to the sustainable development agenda across the European Union.

This paper summarizes the work undertaken and the processes that led to the conclusions and recommendations. It was striking that the proposals won a very high level of support from Consultative Forum members — with 70 to 80% support being typical. That said, it was felt that the 13 priorities should be cut down to a more manageable agenda. The priorities which emerged from the final round of the process were as follows:

- a summary report on the work of the Consultative Forum to the end of 1996 should be published, and consideration should be given to publishing an annual update;
- the new Consultative Forum should be surveyed at an early stage to find out what its shared priorities are;
- the three scenarios developed during 1996 and presented at the November Consultative Forum meeting should be used to communicate the Consultative Forum's thinking;
- the new Consultative Forum should have a standing working group on communications;
- stronger international links should be formed between the Consultative Forum and equivalent national sustainable development forums;
- the Consultative Forum should have its own web site;
- in 1998, the Consultative Forum should co-host a major conference to celebrate the 25th anniversary of the first EC environmental action programme, and look forward to future needs and priorities.

2. BACKGROUND

The European Commission faces a major challenge in relation to its strategy on information and communication related to sustainability, in general, and to the fifth environmental action programme (5EAP) process, in particular.

The Environmental Policy Review Group (EPRG), which advises the Directorate-General for Environment, Nuclear Safety and Civil Protection (DG XI), together with DG XI's own Information and Communications Unit, has already considered this issue and addressed six basic questions:

- What is the message of sustainability?
- Why should the Commission convey the message?
- Who will receive the message?
- How will the message be transmitted?
- What are the issues related to timing?
- What sort of feedback mechanisms will be needed?

Early in 1996, the Consultative Forum was asked by DG XI to form an information and communication working group, which held its first meeting on 25 April 1996, to discuss a briefing paper prepared by Directorate-General XI and consider ways forward.

The meeting's main conclusions and recommendations are reported in Annex 1. Among the more significant messages were the following:

- the concept of sustainability is difficult — but not impossible — to communicate;
- sustainable development requires 'win-win-win' action in relation to three 'bottom lines': economic, environmental and social;
- to achieve real progress, European citizens need to be both motivated and active;
- to be motivated, they need understanding, information and feedback;

- the Union's very diversity and the fragmentation of its media represent major barriers to effective communication;
- the Commission cannot address these problems alone — it needs partners and 'multipliers';
- the Consultative Forum has a potential role to play in respect of these problems and opportunities;
- to participate effectively, the Consultative Forum needs to develop:
 - (i) a stronger identity and sense of purpose;
 - (ii) a more strategic approach;
 - (iii) closer working links with its various constituencies;
 - (iv) a higher media profile.

A total of 14 recommendations were developed and presented to the Consultative Forum. These were further tested with a questionnaire circulated to all Consultative Forum members in April. The results were analysed and presented to the 30 and 31 May Consultative Forum meeting.

3. THE SURVEY OF CONSULTATIVE FORUM MEMBERS

The survey was initially completed by 16 Consultative Forum members, and the analysis conducted on sustainability on that basis. During the May meeting, however, a number of other members confirmed their strong support for the proposals in the working group's working paper. In each case, the questionnaire offered three choices: 'Agree', 'Not sure' and 'Disagree'. The results showed:

- 80% support (20% not sure, no disagreement) for the working group's analysis of the challenges and the barriers;
- 86% agreement (14% not sure, no disagreement) with the points made about the Consultative Forum and its potential role (see above);
- 94% agreed (6% not sure, no disagreement) that the Consultative Forum should decide on ways forward at the May meeting.

On the 13 specific proposals, the results were as follows:

- 100% supported the proposed survey of Consultative Forum members on their experience to date and priorities for the future;

- 87% supported (7% not sure, 7% disagreed) the publication of a three-year Consultative Forum report;
- 60% supported (40% not sure) opening the (November 1996) meeting of the Consultative Forum to the media, coinciding with the launch of the three Consultative Forum scenarios of a sustainable Europe in 2020;
- 86% agreed (14% not sure) that other ways should be found to communicate the sustainable Europe challenge via scenarios;
- 67% supported (13% not sure, 20% disagreed) the idea of a video on the scenarios;
- 87% supported (7% not sure, 7% disagreed) the formation of a standing working group on communications, to develop and implement a rolling 12-month strategy;
- 75% agreed (19% not sure, 6% disagreed) that stronger links need to be built with national and other international sustainable development committees and initiatives;
- 81% agreed (25% not sure) that the Consultative Forum should pick one major campaign each year and focus its efforts within this framework;
- 81% supported (19% disagreed) the publication of an annual Consultative Forum report on the key trends, priorities and best practice;
- 63% supported (19% not sure, 18% disagreed) the holding of an annual Consultative Forum hearing, focusing on the launch of the latest annual progress report;
- 81% supported (13% not sure, 6% disagreed) that the Consultative Forum should have its own site on the World Wide Web (WWW);
- 69% agreed (25% not sure, 6% disagreed) that the Consultative Forum should celebrate the 25th anniversary of the first EC environmental action programme in 1998, with a conference on communicating sustainability or on values linked to sustainability;
- 69% supported (19% not sure, 12% disagreed) a pan-European competition aimed at design, marketing and advertising agencies, as a way of harnessing Europe's creativity to the task of 'selling sustainability'.

Several conclusions were drawn from this analysis. First, the survey itself was widely welcomed as an interactive approach to agenda setting. Second, the process was seen as a first step towards a more strategic approach by the Consultative Forum to shaping its own agenda and developing its own identity. Third, the level of support expressed for most of the proposals was very high (75% or higher). The May Consultative Forum debate on the paper reinforced the findings of the survey, with a couple of provisos.

The two main ones related to the proposals on opening the next Consultative Forum meeting to the press and producing a short video on the scenarios. The first of these was felt to be premature, and the second perhaps not the most cost-effective way of communicating to a wider audience. But the high level of interest in finding ways of communicating the scenarios — and via the scenarios — stands.

Key messages from the Consultative Forum debate

The debate highlighted a number of points:

- the Consultative Forum can help the Commission to work out communicable messages around sustainability — and to communicate them;
- in terms of audiences, the Consultative Forum can help DG XI communicate with other parts of the Commission and the Commission as a whole to communicate with EU citizens;
- to play this role, the Consultative Forum needs to be better resourced;
- for its own credibility and effectiveness, the Consultative Forum also needs to develop a more independent positioning, with a capacity to develop and publish independent opinions;
- to date, the Consultative Forum has largely adopted a passive role, responding to inputs from the Commission, but in future it should take a more active role;
- the Consultative Forum should operate alongside and through the Commission, wherever possible;
- the 13 priorities identified by the working group (the 14th encouraging the Consultative Forum to address and decide upon these issues) were felt to be sound, but in need of pruning to a smaller number.

To ensure that the Consultative Forum can itself communicate coherently, it was felt that there needs to be a policy on who can speak on the Consultative Forum's behalf and in what circumstances. Once that is in place, members should be encouraged to communicate key messages to their own constituencies and other audiences, as appropriate.

4. NEXT STEPS

In its earlier deliberations, the Environmental Policy Review Group concluded, among other things, that:

- the ultimate goal of sustainability is to change attitudes and patterns of behaviour (e.g. priori-

ties, willingness to act, patterns of production and consumption);

- the Commission can play an important role in defining a 'short, punchy, yet flexible message for sustainability' — and in leading by example;
- the Commission ought to play such a role, given the 'shared responsibility' dimensions of the 5EAP, and the Commission's clearing house and catalytic functions could enhance its own capacity to exercise effective leadership in key areas;
- any major communication programmes should recognize that:
 - (i) it is better to communicate on a permanent basis with high-quality 'peaks' in information, to maintain media interest;
 - (ii) the message must be communicated by persons who are well respected by the target audience and who bring their personal and/or institutional credibility to the task;
 - (iii) large-scale and regular media activities or campaigns for institutional programmes tend to be suspect in the public eye.
- existing mechanisms — like the 'Green spider network' of environment information correspondents could help develop a common approach to sustainability information and communication;
- sustainability messages need to be linked to messages in other policy sectors;
- new channels of communication (e.g. CD-ROMs, Internet, WWW) need to be explored and exploited.

The logical outcome of all of these recommendations is that:

- the financial resources for information and communication activities need to be increased and more strategically focused.

Against this backdrop, the Consultative Forum concluded that:

- the Commission should publish a report on the first three years of the Consultative Forum's work, including the principles, papers and scenarios of a sustainable Europe in 2020;
- this publication should be available in a number of European languages;
- the Consultative Forum should also have its own World Wide Web site, featuring the three-year report and other relevant information;
- the Consultative Forum should host a conference on the theme of communicating sustainability, or on values related to sustainability, late in 1997;

- the new Consultative Forum, which will be in operation in 1997, should have a standing working group on information and communication;
- the working group's main task should be to develop one major campaign theme for each of the years 1997, 1998 and 1999;
- the Consultative Forum should produce an annual progress report, assessing progress and — in the context of the annual campaign theme — spotlighting examples of best practice around the Union.

ANNEX

CONCLUSIONS AND RECOMMENDATIONS

Among the key messages emerging from the 25 April 1996 meeting of the information and communication working group, chaired by John Elkington, were the following:

1. THE CHALLENGE

- Sustainable development requires 'win-win-win' action in relation to three 'bottom lines': economic, environmental and social.
- To achieve real progress, European citizens must be motivated and active.
- To be motivated they need both understanding and information, including feedback on the environmental effects of specific actions they take and choices they make.
- To be effective, information needs to be carefully targeted and tailored.
- The Commission cannot address these problems alone — it needs partners and multipliers.

2. KEY BARRIERS

- The integration of sustainability perspectives into the thinking, priorities and actions of most major EU institutions is at best embryonic.
- Environmental issues are relatively low on the media agenda.
- The concept of sustainability is neither well defined nor well understood.
- Solution-focused news is less appealing than problem-focused news.
- The Union's very diversity and the fragmentation of its media represent major barriers to effective communication.

3. A ROLE FOR THE CONSULTATIVE FORUM?

- The Consultative Forum has a potential role to play in respect of these opportunities and problems.
- So far, the Consultative Forum has not been effective in communicating either with the Commission or with the outside world.
- To become more effective, the Consultative Forum needs to develop: (1) a stronger identity and sense of purpose; (2) a more strategic approach; (3) closer working links with its various constituencies; and (4) a higher media profile.
- Any successful information and communication strategy should ensure a regular series of 'peaks', in the form of topical and/or agenda-shaping outputs of real media interest.
- The scenarios currently being prepared for the Consultative Forum's September meeting potentially offer the opportunity to raise the Consultative Forum's profile and to address the challenges implicit in the Consultative Forum's mandate.

4. WORKING GROUP RECOMMENDATIONS

The working group concluded that significantly more effort is needed to communicate both the objectives of the fifth environmental action programme and the priorities and conclusions of the Consultative Forum.

Effective communication could help increase the Consultative Forum's influence and leverage both within the Commission and more generally.

To this end, the following recommendations are made for the period to the final, September meeting

of the current Consultative Forum (Consultative Forum 1) and for the renewed body beyond September (Consultative Forum 2):

Consultative Forum 1: May-September 1996

- Decision: the May meeting of the Consultative Forum to consider working group recommendations, and decide on priorities.
- Survey: Consultative Forum members to be surveyed on their assessment of the Consultative Forum's experience to date, and their priorities for the future.
- Three-year report: preparation of a report/newsletter on the Consultative Forum's first three years, focusing on perspectives of members, key conclusions reached and priorities and targets for Consultative Forum 2.
- Press conference: part of the September meeting to be open to the press, and the occasion to be used to launch the scenarios and a short report on the Consultative Forum, past, present and future.
- Scenarios: investigation of other ways of communicating the sustainable Europe challenge via the scenarios.
- Video: possibly, a short video of the scenarios, to help Consultative Forum members communicate the Consultative Forum's conclusions in their own organizations and countries.

Consultative Forum 2: September 1996-99

- Working group: form standing working group on communications, charged with developing and implementing rolling 12-month strategy.
- Networks: build strong links with national and other international sustainable development committees and initiatives.

- Annual campaigns: pick one major campaign theme each year, for example:
 - (i) 1997: 'Sustainable enterprise and employment';
 - (ii) 1998: 'Citizen and community action';
 - (iii) 1999: 'Enlargement and the new century' (e.g. promote or commission and publish a major survey of European citizens, looking back at 30 years of environmental action and forward into the 21st century).
- Annual Consultative Forum report: compile and publish an annual Consultative Forum report on priorities, key trends and best practice.
- Annual hearing: hold annual Consultative Forum hearing, focusing on the launch of latest annual progress report.
- Consultative Forum web site: construct Consultative Forum World Wide Web site (linked to sites operated by EU, national initiatives and members' organizations), initially focusing on scenarios, and invite reactions and inputs.
- Celebrate 25th anniversary of the first EC environmental regulation in 1998, possibly with major debate on ethics, values and sustainability.
- 'Selling sustainability' campaign: promote a pan-European competition aimed at design, marketing and advertising agencies, focused on communicating sustainability in key sectors and to specific audiences (e.g. industry, the financial sector, the young, the elderly, consumers, tourists), using multiplier effects to achieve high visibility.

10. SUSTAINABLE ENERGY POLICY DEVELOPMENT RECOMMENDATIONS

December 1996

1. SUSTAINABLE ENERGY

In the recent Commission White Paper on an EU energy policy, it is stated that:

'Given the significance of energy in economic development, an important aim of a Community energy policy will be to ensure that measures in the energy sector do not conflict with and indeed enhance sustainable development. In general, the pursuit of competitiveness and environmental protection should be complementary and should not create any major tensions, as pointed out in the Commission's White Paper — "Growth, competitiveness and employment — The challenges and ways forward into the 21st century".'

The Commission identifies three main pillars for an EU energy policy: competition, security of supply and environmental protection. It is important to realize that measures which are introduced in any one of these areas will normally have consequences on both the other areas. Energy policy development is therefore a 'balancing act', where the requirements and proposed measures stemming from each of the pillars must be tested against the impacts they will have on the requirements of the others. Only on this reciprocal basis can a full impact assessment be performed and a realistic political judgment made on how the measures in the three areas could best be balanced.

Other pillars that will also have to be considered in the balancing act are:

- the requirements stemming from what social development is desired; and
- where our global measures are involved, such as in climate change, the requirements stemming from global obligations.

Thus, sustainable energy means finding the proper balance between all the relevant factors.

The developments over the last two decades indicate that the rate of discovery of new reserves of fossil fuels have more than kept pace with the current use of these fuels. Since 1989, new additions and revisions have broadly matched the

world's production, leaving total reserves virtually unchanged. The reserves to production ratio for oil has increased over the last 15 years, from about 30 in 1980 to about 40 in 1995. For gas, the reserves to production ratio was, in 1995, at about 65, up from about 59 in 1985. For coal, the reserves to production ratio was at the end of 1995 at a level of about 230 years. Thus, from a resource point of view, the sustainability question seems to have less significance than what was generally believed in the early 1970s. This observation would, however, not be relevant if the application of fossil fuels had to be significantly curtailed as a result of climate change policy measures. The security question would then be related to the pace at which non-fossil fuel resources could be built up, as well as the reduction in energy consumption by demand-side management (technical as well as behavioural/incentive-driven conservation), and the impact this would have on the overall economy.

The Rio Conference in 1992 and the work of the Intergovernmental Panel on Climate Change (IPCC) give evidence that climate change caused by atmospheric accumulations of carbon dioxide (CO₂) and other greenhouse gases may become a significant global concern and will require broad international cooperation for its effective abatement.

The Consultative Forum will, in this paper in particular, focus on the climate change issue, because it is probably the area of environmental policy development where consensus about targets and measures is the most difficult to achieve. This is due both to the complexity of the problem and the fact that it requires effective global participation for its mitigation.

This choice of focus is in line with the White Paper on energy policy which notes that the local environmental problems — spills, waste, noise, amenity damage, and atmospheric pollution produced by local emissions — are more conspicuous and more manageable than the global environmental problems. Moreover, the Consultative Forum has already made its recommendations in the transport sector where all the above local environmental

problems are involved in addition to this sector's major contribution to the energy-related CO₂ emissions.

In relation to the forthcoming COP (Conference of Parties) meetings, it will be of major importance that the EU follow up its global obligations with realistic and cost-efficient proposals for its contribution to effective climate change policy and within a global context.

2. DEVELOPING CREDIBILITY IN EU CLIMATE CHANGE POLICY

So far, there has not been much progress in the development of an effective EU policy on climate change. The complexity of the problem, the uncertainties with respect to its consequences, as well as the different characteristics of the current energy systems in the various Member States are contributing to this.

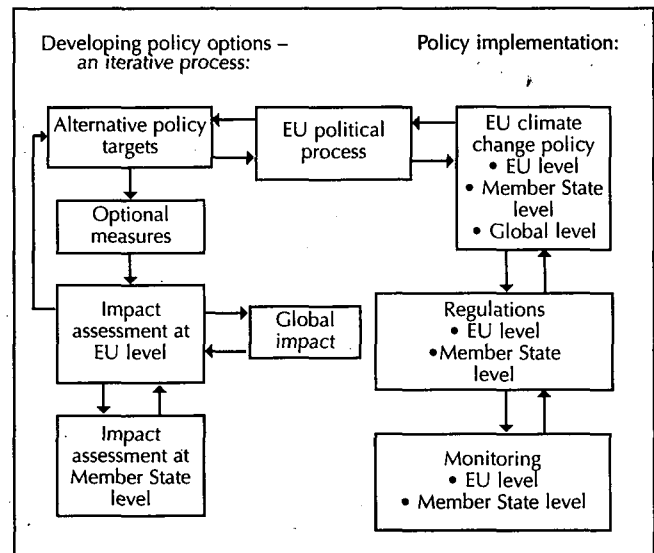
It has, in particular, turned out to be very difficult to obtain consensus about the introduction of a CO₂/energy tax. From the outset such a tax was designed to address the global problem of abating CO₂ emissions, without distorting industrial competition. Thus its application was, as originally proposed, conditional on other major OECD markets (e.g. the United States and Japan) introducing a similar tax. In the more recent proposals for such a tax, the conditionality requirement has been removed and many stakeholders are of the opinion that the income effect of the tax seems to have become more important than its efficiency as an environmental instrument.

To become credible, an EU policy on climate change must address how the problem can be abated in the most resource-efficient manner. It must also be possible with a high degree of transparency to demonstrate that both the policy goals and the instruments being proposed for reaching them have been selected on the basis of an impact assessment, where the important interrelations at Member State and global levels have also been analysed.

3. MODEL FOR EU CLIMATE CHANGE POLICY DEVELOPMENT

A sketch of a model for climate change policy development in the EU is shown in the figure below.

EU climate change policy



First of all, the development process must start by defining what should be the appropriate goal. This in itself requires considerable analysis and assessment in relating the potential benefit value of achieving the goal to the cost of achieving it. A climate change policy which is not based on the most efficient use of the resources will neither be credible nor stand any chance of solving or alleviating the global problem.

The abatement of CO₂ emissions must be considered within the context of the overall emissions of greenhouse gases to assure that the most cost-efficient abatement strategy is chosen. A realistic timing of targets must be chosen on the basis of a thorough assessment of the feasibility and consequences.

Another requirement which is fundamental to acceptance of a common EU policy on the climate change issue is the different basis which the various member countries have for abating greenhouse gas emissions because of the different characteristics of their current energy systems. This difference manifests itself in that different policy instruments have varying efficiencies for abating greenhouse gas emissions in the various member countries.

4. THE COMPONENTS OF ALTERNATIVE POLICY MEASURES

Abating greenhouse gas emissions will require improved efficiency in energy use (more energy services per unit of energy used), less carbon content in the energy mix, and maintaining, and hopefully improving, the absorption capacity of the biosphere

for CO₂. In the following, these are referred to as 'the vertical measures'. The policy instruments that can be used to influence the efficiency of the vertical measures are referred to as 'the horizontal measures'.

4.1. The vertical measures

The fuels that can substitute for the fossil fuels are nuclear power and renewables.

Nuclear power is today faced with its own credibility problem related to safety in operation and in the disposal and long-term storage of high-level radioactive wastes. There is also on the global scale the problem of potential misuse of fissile material for non-peaceful purposes. Unless efficient solutions to these problems are found, one must expect that nuclear power will not be permitted to play an important role in the world energy system. On the other hand, one must realize that totally eliminating nuclear power in the global energy system will make the transition to non-carbon-bearing fuels even more urgent and most likely result in higher CO₂ emissions on the global level.

Of the renewable fuels, there are strong indications that solar and biomass are the main contenders on the global scale and these can make significant contributions to satisfying global energy demand in the longer term. To achieve transformation to a global energy system with heavy reliance on these fuels will, however, take time. The potentials of solar and biomass should be more fully explored, also considering that other resources (such as sustainable use of land areas) can become limiting factors.

There is a very large potential for improving the efficiencies for both supplying and using energy. It will be of utmost importance that this potential be exploited through market mechanisms and regulatory requirements, as well as through changes in lifestyle.

The Directorate-General for Energy (DG XVII) of the European Commission has, in a recent report entitled 'European energy to 2020: A scenario approach', analysed four different scenarios of energy development in the EU up to the year 2020. In the Annex to this report, it is illustrated how it is visualized that the magnitude and composition of the gross inland consumption of energy and the corresponding CO₂ emissions will develop in the four scenarios — 'Conventional wisdom' (CW), 'Battle field' (BF), 'Consultative Forum' (FO), and 'Hyper market' (HM). It is interesting to note that of the four scenarios it is the one requiring the most regulatory approach, the 'Consultative Forum' scenario, which reduces the load on the environment the most and makes it possible to reduce the CO₂ emissions in the EU in 2020 below the 1990 level.

The situation is, however, quite different in a global context, in which the Annex shows that the world CO₂ emissions will increase substantially above the 1990 level in all four scenarios.

4.2. The horizontal measures

The mix of instruments for climate change policy must be selected on the basis of its efficiency in abating the CO₂ emissions through the vertical measures, with the lowest possible use of resources and without excessive negative impacts on the other pillars of energy policy.

The horizontal measures have been dealt with in detail in the Consultative Forum paper 'Broadening the range of instruments in environmental policy in the European Union'. In the same paper, the Consultative Forum also made recommendations on the principles and criteria against which the environmental policy instruments should be tested for ecological efficiency, economic efficiency, practicability, and equity.

5. RECOMMENDATIONS

- 5.1. Sustainable EU energy policy should be set in a holistic, global and long-term strategic context.
- 5.2. Economic success must be seen and achieved as an essential part of any policy of sustainable development, necessary not only to meet people's needs and aspirations but also to generate the investment capital needed to use energy more efficiently and to protect the environment.
- 5.3. It must be recognized that people seek the services which energy can provide, and not energy as such. Policies, processes and equipment related to energy provision and use should focus on how the energy services can be much more effectively provided in the future. There is a very large potential for improvements in efficiencies where developments and applications need to be stimulated by various instruments (market-based, regulatory, voluntary and through information to the public).
- 5.4. The governmental measures should be directed principally at providing the framework within which markets function effectively and avoiding market distortions which prevent the development of the necessary longer-term solutions to problems — in particular with respect to research and

development and the worldwide dissemination of useful results. The environmental and security of supply objectives must apply to all market parties.

- 5.5. In balancing the requirements and measures stemming from the three pillars of an EU energy policy — competition, security of supply, and environmental protection — there needs to be a transparent and open consultation process between government, local authorities, industry and the public. Agreed criteria and principles should be developed against which the effectiveness of a policy instrument must be evaluated. A set of such principles and criteria is set out in the Consultative Forum's paper 'Broadening the range of instruments in environmental policy in the European Union'.
- 5.6. The appropriate set of instruments for climate change policy should be selected on the basis of its efficiency in abating the greenhouse gas emissions/atmospheric concentrations, economic efficiency, practicality and equity.
- 5.7. It is of the utmost importance that the EU climate change policy be considered within a global context. It is only in this context that the climate change problem can be effectively abated. Thus the impact on, and interrelation with, climate change policy development in the rest of the world must be an integral part of the EU policy; leadership of the EU internal policy, achieving global agreements as well as practical co-operation with developing countries for sustainable development, is needed.
- 5.8. The development of new renewable energy technologies, and other novel ways of producing non-carbon energy fuels, will need investment in research, development and installation which is not yet generally perceived to be justified by economic returns. This type of development work will continue to need more governmental support in order fully to explore the technical and behavioural potentials of renewable energy sources, as well as conservation and their implementation in practice.
- 5.9. Policy instruments applied should be flexible to adjust to new evidence of the energy, environment and climate change sciences.
- 5.10. The EU should ensure good housekeeping within its own government bodies, including green procurement notably in the direct and indirect energy use connected to housing, building and transport-related activities of its bodies and contractors.

ANNEX 1

The gross inland energy consumption and the energy-related CO₂ emissions in 1990 and 2020 for the EU are presented in Figures 1 and 2 below. Figure 1 illustrates how the energy consumption in the EU is distributed on renewables, nuclear, gas, oil, and coal. In Figure 2 it can be seen that the CO₂ emissions in 2020 from the EU power sector in the 'Consultative Forum' scenario are about half the emissions in the 'Conventional wisdom' scenario. The 'Consultative Forum' scenario achieves this reduction with a heavy reliance on nuclear power and with a comparatively large contribution from biomass and renewables, and with reduced reliance on conventional thermal. The 1992 Earth Summit in Rio assumes that the current opposition to nuclear power in the EU is resolved. Without this assumption, it will probably be difficult to achieve a reduction in the CO₂ emissions in the EU within the framework of the economic developments assumed for the four scenarios. It must be understood, however, that the four scenarios studied in the Commission report can only be considered as points of departure for more detailed assessments of the EU climate change issue.

Figure 1: EUR 15 gross inland energy consumption (million toe)

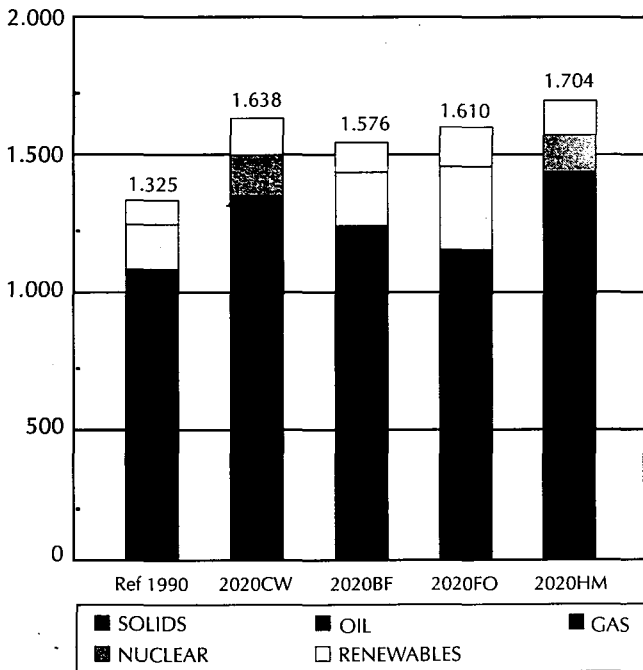


Figure 2: EUR 15 annual CO₂ emissions (million tonnes of CO₂)

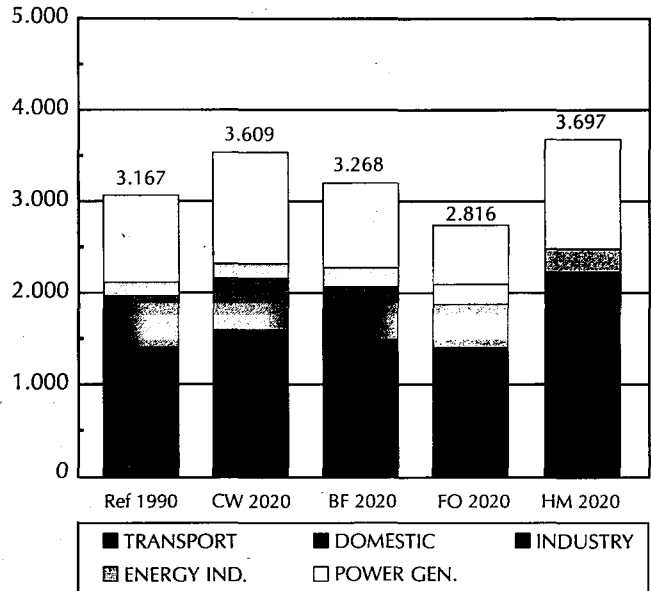
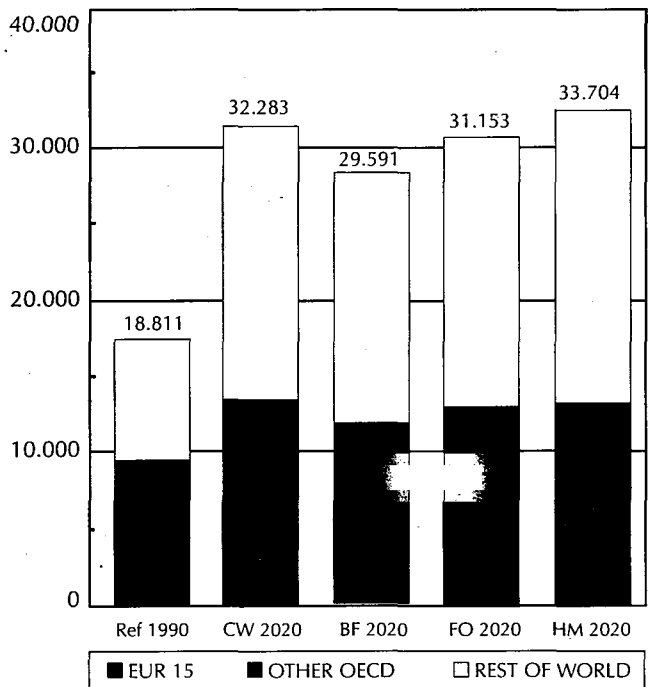


Figure 3: World annual CO₂ emissions (million tonnes of CO₂)



¹ Source: 'European energy to 2020: A scenario approach', European Commission, DG XVII.

While Figure 2 indicates that stabilization and even reduction of the CO₂ emissions in the EU is within the realm of the possible, Figure 3 presents a completely different situation for the world emissions of CO₂. In all four scenarios for the world, we can observe a substantial increase in the CO₂ emissions despite the strong improvements which have been assumed in the energy

intensity. This is the case even in the 'Consultative Forum' scenario, where there is a continuous and strong regulatory focus on the climate change issue. In this scenario, 'a major switch in taxation from labour (by reduced employers' social security contributions) to natural resources (including the internalization of external energy costs)' has been assumed.

11. IMPLEMENTATION AND ENFORCEMENT OF EUROPEAN ENVIRONMENTAL LEGISLATION

January 1997

1. INTRODUCTION

The working group organized two meetings in Brussels to prepare recommendations for the European Commission on the implementation and enforcement of European environmental legislation. The discussions were centred on the following themes:

- transparency in implementation and enforcement practices in the Member States;
- transboundary enforcement;
- involvement of relevant actors in policy-making;
- simplifying and decreasing the number of directives;
- development of a European enforcement strategy;
- communication on implementation and enforcement between the European Community, Member States, regional authorities and local authorities;
- information and education;
- explaining 'Euro-jargon' and new environmental management concepts;
- recommendations for policy-making at European level.

In a plenary Consultative Forum meeting, a first draft report was presented and discussed in three sub-groups followed by plenary discussion. All remarks are incorporated in the text and the most important recommendations are listed at the end.

2. TRANSPARENCY

The Consultative Forum has the feeling that implementation and enforcement vary widely in the EU and that on the EC level insufficient information is available on this matter. It is absolutely necessary that the European Commission be well informed

about the implementation and enforcement of EU legislation in the Member States and that this process take place in all Member States at the same degree.

Availability of information to the general public would also raise public awareness of shortcomings in the fields of transposition, application and execution of European legislation. This, in turn, would lead to public and political debate and increase public pressure to attenuate/eliminate such shortcomings.

For these reasons, the EC should closely follow the whole process of implementation and enforcement in the Member States. A system of reporting/auditing should be developed where the environmental performances (only key indicators like number of permits granted, results of inspection visits paid, environmental quality, etc.) of both private entities and public authorities on all levels of government responsible for implementing and/or enforcing environmental legislation should be monitored. This reporting process should be bottom up at local level and end at the EC level; the results should be reported as far as possible in ecologically bordered areas. Reports should be assessed by each authority concerned and should be accessible to the public, non-governmental organizations (NGOs) and news media. Such regular reporting could be based on an EU reporting obligation or, alternatively, on questionnaires developed by, or on behalf of, the EC.

The reporting process should allow for innovating initiatives and voluntary actions; it should not lead to a kind of 'police State'. Non-technical manuals can also be prepared structuring the body of legislation from the points of view of those affected by legislation or by environmental damage.

3. TRANSBOUNDARY ENFORCEMENT

Enforcement is primarily a matter of the Member States, but there should be more international

coordination and cooperation which could be stimulated at EC level. If the monitoring functions of the European Environment Agency were to be strengthened, it would not seem necessary to have a comprehensive environmental inspectorate at EU level.

However, in special situations (transboundary pollution, distortion of the internal market if a Member State fails to counteract) it should be possible at EU level to take actions additional to Member States' actions.

4. INFORMATION AND EDUCATION

Simultaneous to the creation of the Consultative Forum in the fifth environmental action programme, the IMPEL network (Network for the Implementation and Enforcement of Environmental Law) was also created. It is suggested not to restrict this network to a very limited number of participants, but to involve all levels of government having tasks in the field of both implementation and enforcement. Since the clustering of too many items in one session could give rise to bottlenecks in Member States, both overloading the network (as its work always has to be done on top of the main job of the participants) and the feeling that relevant and interested actors are not being involved because they are not allowed to participate in the IMPEL network should be avoided. Therefore, it is recommended that the network have several subnetworks comprising actors from all relevant target groups: representatives of the EC, Member States, regional and local authorities (RAs and LAs) and NGOs. The following subnetworks should be considered:

- a monitoring network (covering data on environmental quality, emissions of polluting substances and reporting/auditing of environmental performances);
- a network dealing principally with the implementation and enforcement of EU law;
- a network for information, communication and education;
- a policy development and review network in which the EPRG and the Consultative Forum may have a role to play.

From a purely practical point of view, all actors cannot be represented in all networks. It would therefore be advisable to involve their European 'umbrella' organizations like the CEMR (Council of European Municipalities and Regions), AER (Assembly of European Regions), etc.

5. DEVELOPMENT OF NEW DIRECTIVES

From a public perspective, it appears that up to now many directives and decisions emerge after a short period of debate/preparation, preliminary discussions having taken place out of the public's eye. This may have led to difficulties in acceptance and in implementation.

It is therefore recommended to increase awareness during the preparatory stages and to involve as many relevant partners as possible. While the preparatory phase may be prolonged, the implementation period can be shorter and the sense of involvement and acceptance greater.

At the moment, about 200 environmental directives exist. The implementation and enforcement of all these directives should be followed by DG XI which needs high working capacity. These considerations gave rise to the following remarks:

- Two hundred separate directives seems an extremely high number. Perhaps these directives could be rearranged under general legislation headings with sectoral issues in more detailed chapters.
- Many of the 200 directives date from a period during which the whole approach of environmental management and thinking was very different from today. Furthermore, environmental legislators as newcomers face a wide variety of conflicting and contradictory provisions in other areas. Besides, the legal environmental situation has changed.
- Although in several Member States single point emissions have been cleaned up to a considerable degree and scattered non-point sources now need attention, too much time is spent on prolonging and modifying existing permits with little or no ecological impact.

Consequently, it is desirable that the 200 directives be screened to establish that:

- they are streamlined, simplified and included in a legislative framework;
- they have a market-oriented character;
- they are open and convincing rather than being command and control measures;
- they can be well enforced;
- they are complemented with incentive mechanisms and voluntary agreements where this promises to be cost-effective.

It is desirable that not only lawyers but also experts in management, in communication and in organi-

zational issues be involved in this work. If DG XI does not have sufficient capacity it is advisable that specialized external contractors be made available to follow this up.

6. ENFORCEMENT STRATEGY

The interest for and the experience with the topics' implementation and enforcement in different Member States vary widely. These topics are not very popular in many political circles where interests seem to lie in the area of policy development. Furthermore, it is seen as a subsidiarity issue, even though this is not at all the case when examining transboundary issues.

The differences would most likely increase further if the EU were to be enlarged. As a result, implementation and enforcement are often neglected topics. On the other hand, enforcement is seen to give direct value for money as far as environmental impact is concerned. For that reason, it is desirable that implementation and enforcement be improved, that coordination, stimulation and leadership at EU level be increased and that a European enforcement strategy with clear objectives be developed.

7. COMMUNICATION ON IMPLEMENTATION AND ENFORCEMENT BETWEEN THE EUROPEAN COMMUNITY, MEMBER STATES, REGIONAL AUTHORITIES AND LOCAL AUTHORITIES

The EC is becoming more and more the leading authority in developing environmental policy, but as for implementation the EC depends on Member States at national level and for application, enforcement and feedback on RAs and LAs. However, not all these actors consider EC policy as a high priority.

Since representatives of both the public and private sectors are active in Brussels in order to promote their own interests on the EC level, the question could be put: Would it not suit DG XI's purpose also to reverse roles and to start up a process of backing and supporting EC policy on local and regional levels and to stimulate a feeling of European citizenship? To start this process DG XI should communicate more frequently on implementation

and enforcement with representatives of all relevant actors.

8. SUGGESTIONS FOR COMPREHENSIBLE PAPERS

Papers on European (and other) environmental policy are often punctuated with specific terminology, Euro-jargon and environmental concepts. Many important actors in different Member States undoubtedly will not understand essential parts of these concepts and terminology, not even after translation into their own native language. This may give rise to wrong interpretations and own definitions and may confuse discussions later on. Therefore, language should be made simpler and more understandable. If specific jargon is applied, and jargon is often unavoidable, a lexicon should be provided. Examples of jargon in the context of implementation and enforcement are: implementation, enforcement, application, legislation, regulation, execution, control, audit, transposition, review, evaluation, comitology, EEA, Eeionet, Dobris assessment.

9. OVERVIEW OF RECOMMENDATIONS

9.1. Modernizing legislation

Many environmental directives should be rearranged under general legislation headings with sectoral issues in more detailed chapters. At the same time, they should be screened to establish that:

- they are streamlined and simplified, including deletion of superfluous items;
- they have a market-oriented character;
- they are open and convincing rather than being command and control measures;
- they can be well enforced;
- they are complemented with incentive mechanisms and voluntary agreements where this promises to be cost-effective.

Since in several Member States single point emissions have been cleaned up to a considerable degree, more attention should be paid to scattered non-point sources preferably using incentive

mechanisms. Member States not having cleaned up single point emissions need to do both.

9.2. Improving transparency

A system of reporting/auditing should be developed, where environmental performances of both private entities and public authorities at all levels of government are monitored.

The reporting system should start at the local level and end on the EC level (bottom up). Reports should be assessed by each government concerned and should be accessible to the public, NGOs and news media.

It is advisable to involve specialized external experts in management and in organizational and communication issues when following the implementation of EU law in Member States.

To improve transparency, those who are really affected should have more opportunities to seek legal review.

9.3. Enforcement/sanctions/incentives

Sanction mechanisms should be introduced against Member States grossly disregarding EU environmental legislation.

It is necessary that a European enforcement strategy with clear objectives be developed and that coordination and leadership on the EU level be increased where implementation and enforcement are concerned.

The monitoring functions of the EEA should be strengthened.

In special situations (transboundary pollution, distortion of the internal market), it should be possible to take enforcement actions additional to Member States' actions at the EU level.

9.4. Communication/information/education/awareness raising

It is desirable to start up a process of backing and supporting EC policy on the local and regional levels and to stimulate a feeling of European citizenship. Therefore DG XI should communicate more frequently about implementation and enforcement with representatives of all relevant actors. It is also desirable that the EC pays more attention to the education and training of environmental experts (such as civil servants, judges) in Member States.

It is recommended to increase awareness during the preparatory stages of development of new policy. While the preparatory phase may be prolonged, the implementation period can be shorter and the sense of involvement and acceptance greater.

The language of papers on European environmental policy should be made simpler and more understandable. For specific jargon, a lexicon should be added.

It is recommended that the IMPEL network have several subnetworks comprising actors from all relevant target groups: representatives of the European Community, Member States, regional authorities, local authorities and non-governmental organisations. Subnetworks should include:

- a monitoring network (covering data on environmental quality, emissions of polluting substances and reporting/auditing of environmental performances);
- a network dealing principally with the implementation and enforcement of EU law;
- a network for information, communication and education;
- a policy development and review network in which the EPRG and the Consultative Forum may have a role to play.

12. 'VISION 2020' — SCENARIOS FOR A SUSTAINABLE EUROPE: SUMMARY AND RECOMMENDATIONS

February 1997

1. INTRODUCTION

At its plenary session of November 1996 the Consultative Forum, a body set up to advise the European Commission, considered potential scenarios for a sustainable Europe in the year 2020 and agreed on a series of recommendations to the European Commission on how it should approach its policy-making in the light of the environment and sustainable development (SD) in the run-up to 2000. It set five objectives for its work:

- to test and provoke the Consultative Forum's thinking about sustainability, building on its work so far;
- to help the European Commission develop its own 2020 vision for a sustainable Europe;
- to challenge policy-makers and the various stakeholders in sustainable development to develop a more future-oriented approach to environmental policy;
- to contribute to the definition of the agenda for the next Consultative Forum (1997-99);
- to communicate to a wider audience the complexity and interdependencies involved in achieving a sustainable Europe, and provoke further thought on new ways of proceeding.

To identify its recommendations, the Consultative Forum considered three scenarios for a sustainable Europe specially prepared for it. The scenarios were supported by, and based on, a background analysis of environmental, social and economic trends in Europe and the world. The Consultative Forum emphasized, however, that this should not be taken to mean that there was consensus on the content of the background document.

Although the scenarios for a sustainable Europe cover a wide range of environmental, economic and social issues at a broad level, it is clearly not possible for them to cover all possible issues in fine detail. This would not necessarily be desirable in any case, since the aim is for people to use the

scenarios to explore implications and to try and answer such questions themselves, rather than for the scenarios to try to provide a complete set of answers. Similarly, the scenarios do not try to recommend which policies and actions are required to attain a given future, but instead they raise some of the key issues that policy-makers must face.

The Consultative Forum found these scenarios to be a useful tool to support its policy discussions, and recommends the use of the scenarios to other groups in government, business and society that are seeking to develop policies for sustainable development.

2. CONCERNS/VALUES

On the basis of the scenarios, the following were identified as the key values and concerns that should guide the shaping of sustainable development policies in Europe over the next 25 years:

- employment and competitiveness;
- environment and health;
- social security, social cohesion and equity;
- cultural diversity;
- personal freedom and democracy.

3. ENVIRONMENT AND SUSTAINABLE DEVELOPMENT POLICY PRIORITIES

From the Consultative Forum's use of the scenarios, six issues emerged as the main areas of tension and balance in the area of environment and SD to be addressed by policy-makers over the next 25 years. These are key issues in the sense that environmental

progress and sustainability will only be attained if they are addressed. The issues were derived from an analysis of all three scenarios, and they are relevant to all three scenarios. In each case, the word 'environment' is not mentioned explicitly in the title, since it is understood that all issues refer to the environment.

3.1. A new economic approach

The Consultative Forum was concerned with the tension between attaining full employment, the need to ensure competitiveness, protecting the environment and improving quality of life taking into account the need for equity and the need to accommodate different lifestyles. It was also concerned about the impacts of the rich-poor divide and the possibility of developing new forms of employment and organization of time (work-sharing, increased leisure, etc.). The Consultative Forum identified the following additional issues related to economic policy:

- What indicators are required to go beyond GNP and measure progress towards SD (both supplementary to and integrated with more traditional economic indicators)?
- What is the role of economic instruments (taxes, incentives, etc.)?
- What are the institutional issues (e.g. the role of the EU and its members, and their relationship)?
- Can the EU go 'beyond GNP' on its own, or does it need a global approach? What are the harmonization issues?

Additional issues include job-sharing; promoting new kinds of economic activity and employment (beyond the discussion within the Delors White Paper); accelerating the exploitation of R&D in job creation; the move from production to services; the role of micro-enterprise; the implications of IT and teleworking; and the special concerns of rural areas, especially in southern Europe.

3.2. Governance and democracy

The Consultative Forum was concerned with a dual agenda of where decisions should be best taken (subsidiarity at global, regional, national and local levels) and how they should be taken to increase participation (to fill the democratic deficit). It also includes the balance between rights and responsibilities for all stakeholders. In considering the issues associated with different levels of decision-making, it is also necessary to differentiate between different regions, both within Europe and in the rest of the world.

3.3. Long-term policy and flexibility

The Consultative Forum was concerned with the areas in which there is a need for long-term policy, and how to inspire the long-term thinking needed for SD while developing the necessary flexibility to respond to accelerating change and the possibility of surprise. This issue has both economic and political aspects:

- A more appropriate balance must be struck between long-term and short-term interests and interest groups in the policy process. This will require institutional structures to consider explicitly the long-term implications of policy.
- There are political problems associated with taking action in the short term to support or work towards long-term goals. There is a need for raising public awareness and support, which may also mean a new role for NGOs.

3.4. Education, information and awareness raising

The Consultative Forum was concerned with tackling the apparent gap between increasing amounts of technical information on SD and the everyday decision-making requirements of consumers and business. It is also concerned with raising awareness and changing attitudes regarding SD. This will involve a rethinking of policies for information, awareness, education and culture. Other aspects of this issue include:

- disparity between the scale of the SD challenge compared with the small sums being spent on public education and awareness raising;
- appropriate balance between disseminating information and promoting 'learning by doing';
- development of appropriate incentives (people will not act unless there are incentives);
- role of the local community as 'enabler' and catalyst in sharing and promoting best practice;
- developing a sense of 'European space' that transcends perceptions limited by national boundaries;
- the short-term focus of mainstream media;
- the need to integrate environmental messages into communication and advertising.

3.5. The international role of the EU

The Consultative Forum addressed the international role of the European Union in SD, which involves identifying Europe's SD interests and how it can project its SD values on the world stage. It involves issues of equity, trade, aid, technology transfer and investment, and identifying a strategic SD agenda with countries and regions such as Africa, China, India, Russia, the Mediterranean and Latin America.

3.6. R&D, innovation and technology

The Consultative Forum was concerned with the tension between the need to innovate for greater eco-efficiency and the risks to humans and the environment posed by technologies such as biotechnology and toxic chemicals. It also includes the integration and awareness of the role of information technology as a lever for SD in such areas as resource management and new sustainable lifestyles. Other aspects of this issue include:

- how to accelerate the development, testing and adoption of eco-efficient technologies. Money is an important part of it, but not the only consideration;
- social aspects of innovation and new technologies;
- developing new mechanisms to understand and communicate risks (e.g. chemical risks);
- creating the right investment climate in the EU and areas receiving EU support;
- use of information technology as a lever/amplifier to promote sustainable technological change;
- improving the balance between basic, applied and theoretical research;
- ensuring that the research community plays a more active role as a stakeholder in the SD debate;
- fostering truly pan-European R&D;
- R&D aiming at optimum eco-efficiency improvements (e.g. new vehicles, solar energy);
- ensuring that life-cycle analysis (LCA) style thinking is the basis for all R&D.

4. RECOMMENDATIONS

4.1. Recommendation 1: Sustainability task force

The European Commission should set up a task force for new and innovative solutions for the environment, and economic and social cohesion, which should focus on:

- developing a vision for sustainable development in Europe;
- more analysis and holistic linkages between different policy areas;
- more sophisticated and precise policy options;
- R&D policy to focus on accelerated use and exploitation of R&D (i.e. for faster job creation);
- establishing the main SD indicators;
- mechanisms to include non-monetary indicators in decision-making;
- development of new employment possibilities through SD and the environment.

This would give the EU the possibility to lead global developments by example.

4.2. Recommendation 2: Regular EU SD report

In the light of Recommendation 1, the EU should produce and publish widely a regular SD report, to include:

- both 'performance' and 'balance-sheet' information;
- integrated environmental/economic/social issues and aspects based on all the concerns/values and priorities identified by the Consultative Forum in the scenarios work, and including employment and questions of regional distribution;
- how trade-offs were reached between economic/social/environmental issues, equity issues and assessment of long-term perspective and flexibility of policies;
- policy evaluation of current policies (e.g. their cost-effectiveness) and also report on new policies in the pipeline;
- SD assessment of EU public spending (and also aid and technology transfer);
- progress on EU's global obligations (environment, trade, etc.);

- international impact of the EU, i.e. how activities within the EU have economic, environmental and social impacts beyond the EU.

In preparing the report, it will be necessary to attend to institutional and organizational aspects. For example, each Directorate-General should contribute to the report (which would require greater cooperation within the Commission). It may be appropriate for the European Environment Agency to be involved in the preparation of the report.

The report should be transparent and should also emphasize communications and participation. The report should also not be seen as the 'end' of a process, but rather as the input to a new cycle of policy development, and thus as an essential stage in the policy life cycle.

4.3. Recommendation 3: Think-tank on the 'House of the Future'

To ensure that the long-term is taken account of in policy, a think-tank should be set up to develop innovative proposals for:

- a political institution called, for example, the 'House of the Future', which would seek explicitly to take into consideration the concerns and priorities of the longer term and the future in the development of policies;
- SD constitutions at the EU and national levels;
- transparency, access to information and appropriate communications;
- long-term investments for SD (which may not appear cost-effective over the shorter term);
- proper science to underpin long-term policy development (which could include independent funding for scientific research);
- integrating SD and long-term perspectives into international institutions (notably the World Trade Organization (WTO), but also the United Nations).

4.4. Recommendation 4: Awareness, communications and lifestyles

Steps should be taken to raise awareness and improve communications on sustainability and more sustainable lifestyles, with citizens and businesses. Mechanisms that should be employed include the following:

- Raise awareness of best practice on SD: there should be greater knowledge, awareness and communications of best practice on SD within the EU (similar to the way in which the PCSD (Presidential Council for Sustainable Development) in the United States has collected best practice examples from across the United States). Such information could be posted on a WWW site.
- Communications on SD: the Commission should develop a communications strategy, starting by 'speaking with one voice' within the Commission, and then spreading the message externally using mass media. The EU should also make use of public relations and advertising skills that are available in stakeholder groups to develop more effective communications strategies. Communications should take advantage not only of existing networks, but also new ones like the World Wide Web (WWW) and the Internet.
- Competitions on SD should be set up: competitions are a good way of communicating best practice, innovations, etc. The competitions could be based on existing 'twinning' of cities in different EU countries and on exchanges of young people across the EU. Adequate budgets are essential, since existing competitions are poorly funded, so they have a limited reach across the EU.
- In order to create political support for SD policies, a policy advisory group should be created comprising those groups and individuals that would be potential 'winners' as a result of SD policies, since they are typically dispersed or unaware of this.

4.5. Recommendation 5: Research and technology

Steps should be taken to develop a European R&D strategy to move towards SD. This should include the following:

- Developing more responsive university programmes to get away from the strong disciplinary tradition, to facilitate problem-oriented research and interdisciplinary cooperation, and to encourage researchers to spend more time in the 'real' world away from their research environment.
- Developing an R&D strategy for an eco-efficient Europe by 2020, complete with vision, deadlines and budget (similar in scale and ambition to the US plan to put a man on the moon in the 1960s).

- In order to promote the development, dissemination and use of new technologies, SD needs a market pull, for example through sustainable lifestyles and purchasing policies. Mechanisms should be put in place to provide such incentives.
- In order to foster greater participation by citizens and stakeholders in R&D, there should be provisions to go beyond simply informing them, and to include them more closely in decisions about knowledge creation.

4.6. Recommendation 6: Global and international role of the EU

Sustainable development is a global issue, and cannot be attained solely within the EU or by the EU acting alone. The EU should therefore prepare a strategy on its global and international role in SD to include the following:

- Developing a policy paper on EU foreign policy and SD issues, evaluating how the EU could demonstrate global leadership on SD.
- Developing regional specific policies. For example, in relation to the OECD countries, the EU could compete on high environmental

standards; with emerging economies the focus could be on lifestyles as well as technological exchange, and, with the poorest countries, there should be a focus on urgent environmental issues (e.g. water quality rather than climate change). There should also be SD screening of private and public financial flows to these countries.

- Attention should be paid to the potential role of private and public financial flows to facilitate the process of SD.

4.7. Recommendation 7: Strengthening the role of local communities

Local communities can play an important role in the transition towards sustainability, and their role should be strengthened through:

- supporting stakeholder involvement in decision-making: there should be technical and logistical support for greater access of local stakeholders, consumers, SMEs (small and medium-sized enterprises) in European and global decision-making;
- setting up local hearings for SD, perhaps similar to those used by the Brundtland Commission.

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