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WHITE PAPER

ON ENVIRONMENTAL LIABILITY

(presented by the Commission)

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Introduction

These days, we are confronted with cases of severe damage to the environment resulting from human acts. The recent incident with the Erika resulted in a large contamination of the French coast and the suffering and painful death of several hundred thousands sea birds and other animals. This was by far not the first case of an oil spill at sea with terrible consequences for the environment. Some years ago, a catastrophe of a different kind happened near the Doñana nature reserve, in the South of Spain, when the breach of a dam containing a large amount of toxic water caused enormous harm to the surrounding environment, including innumerable protected birds. These and other similar events raise the question of who should pay for the costs involved in the clean up of the pollution and the restoration of the damage. Should the bill for this be paid by society at large, in other words, the tax payer, or should it be the polluter who has to pay, in cases where he can be identified?

Also in relation to genetically modified products, there is serious public concern that these may affect our health, or may have negative effects on the environment. This concern results in a call for liability of responsible parties.

One way to ensure that better caution will be applied to avoid the occurrence of damage to the environment, is indeed to impose liability on the party responsible for an activity that bears risks of causing such damage. This means that, when such an activity really results in damage, the party in control of the activity (the operator), who is the actual polluter, has to pay the costs of repair.

This White Paper sets out the structure for a future EC environmental liability regime that aims at implementing this polluter pays principle. It describes the key elements needed for making such a regime effective and practicable.

The proposed regime should not only cover damage to persons and goods and contamination of sites, but also damage to nature, especially to those natural resources that are important from a point of view of the conservation of biological diversity in the Community (namely the areas and species protected under the Natura 2000 network). So far, environmental liability regimes in EU Member States do not yet deal with that.

Liability for damage to nature is a prerequisite for making economic actors feel responsible for the possible negative effects of their operations on the environment as such. So far, operators seem to feel such responsibility for other people's health or property – for which environmental liability already exists, in different forms, at the national level - rather than for the environment. They tend to consider the environment 'a public good' for which society as a whole should be responsible, rather than an individual actor who happened to cause damage to it. Liability is a certain way of making people realise that they are also responsible for possible consequences of their acts with regard to nature. This expected change of attitude should result in an increased level of prevention and precaution.

EXECUTIVE SUMMARY

This White Paper explores various ways to shape an EC-wide environmental liability regime, in order to improve application of the environmental principles in the EC Treaty and implementation of EC environmental law, and to ensure adequate restoration of the environment. The background includes a Commission Green Paper in 1993, a Joint Hearing with the European Parliament that year, a Parliament Resolution asking for an EC directive and an Opinion of the Economic and Social Committee in 1994, and a Commission decision in January 1997 to produce a White Paper. Several Member States have expressed support for Community action in this field, including some recent comments on the need to address liability relating to genetically modified organisms (GMOs). Interested parties have been consulted throughout the White Paper's preparation.

Environmental liability makes the causer of environmental damage (the polluter) pay for remedying the damage that he has caused. Liability is only effective where polluters can be identified, damage is quantifiable and a causal connection can be shown. It is therefore not suitable for diffuse pollution from numerous sources. Reasons for introducing an EC liability regime include improved implementation of key environmental principles (polluter pays, prevention and precaution) and of existing EC environmental laws, the need to ensure decontamination and restoration of the environment, better integration of environment into other policy areas and improved functioning of the internal market. Liability should enhance incentives for more responsible behaviour by firms and thus exert a preventive effect, although much will depend on the context and details of the regime.

Possible main features of a Community regime are outlined, including: no retroactivity (application to future damage only); coverage of both environmental damage (site contamination and damage to biodiversity) and traditional damage (harm to health and property); a closed scope of application linked with EC environmental legislation: contaminated sites and traditional damage to be covered only if caused by an EC regulated hazardous or potentially hazardous activity; damage to biodiversity only if protected under the Natura 2000 network; strict liability for damage caused by inherently dangerous activities, fault-based liability for damage to biodiversity caused by a non-dangerous activity; commonly accepted defences, some alleviation of the plaintiffs' burden of proof and some equitable relief for defendants; liability focused on the operator in control of the activity which caused the damage; criteria for assessing and dealing with the different types of damage; an obligation to spend compensation paid by the polluter on environmental restoration; an approach to enhanced access to justice in environmental damage cases; coordination with international conventions; financial security for potential liabilities, working with the markets.

Different options for Community action are presented and assessed: Community accession to the Council of Europe's Lugano Convention; a regime covering only transboundary damage; a Community recommendation to guide Member State action; a Community directive; and a sectoral regime focusing on biotechnology. Arguments for and against each option are given, with a Community directive seen as the most coherent. A Community initiative in this field is justified in terms of subsidiarity and proportionality, on grounds including the insufficiency of separate Member State regimes to address all aspects of environmental damage, the integrating effect of common enforcement through EC law and the flexibility of an EC framework regime which fixes objectives and results, while leaving to Member States the

1

See a schematic view of the possible scope of the regime in the annex to this summary.

ways and instruments to achieve these. The impact of an EC liability regime on the EU industry's external competitiveness is likely to be limited. Evidence on existing liability regimes was reviewed and does suggest that their impact on national industry's competitiveness has not been disproportionate. The effects on SMEs and financial services and the important question of insurability of core elements of the regime are dealt with. Effectiveness of any legal liability regime requires a workable financial security system based on transparency and legal certainty with respect to liability. The regime should be shaped in such a way as to minimise transaction costs.

The White Paper concludes that the most appropriate option would be a framework directive providing for strict liability for damage caused by EC regulated dangerous activities, with defences, covering both traditional and environmental damage, and fault-based liability for damage to biodiversity caused by non-dangerous activities. The details of such a directive should be further elaborated in the light of consultations. The EU institutions and interested parties are invited to discuss the White Paper and to submit comments by 1 July 2000.

POSSIBLE SCOPE OF AN EC ENVIRONMENTAL LIABILITY REGIME

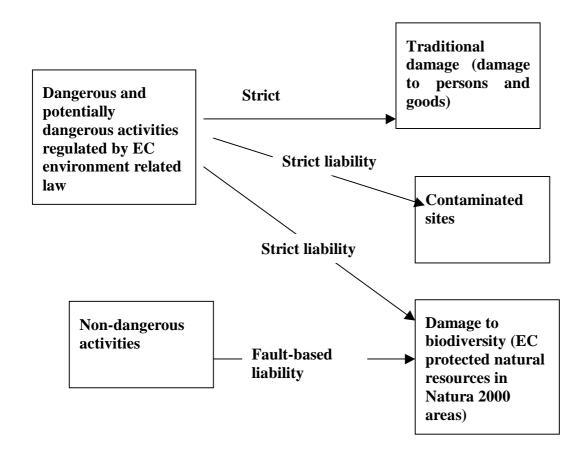


TABLE OF CONTENTS

1.	INTRODUCTION					
	1.1.The aim of this White Paper					
	1.2.The structure of the White Paper					
	1.3.Background and institutional context					
	1.3.1. The Green Paper on Remedying Environmental Damage	•				
	1.3.2. The position of the European Parliament	9				
	1.3.3. The Opinion of the Economic and Social Committee	C				
	1.3.4. Commission's decision for a White Paper10)				
	1.3.5. Member States' positions	0				
	1.3.6. The consultation process)				
2.	What is environmental liability?11	1				
	2.1.The aim of environmental liability11	1				
	2.2. The types of environmental damage for which liability is suited	1				
3.	The case for an EC environmental liability regime and its expected effects	1				
	3.1.Implementing the polluter pays, the preventive and precautionary principles1	1				
	3.2.Ensuring decontamination and restoration of the environment					
	3.3.Boosting the implementation of EC environmental legislation					
	3.4.Bringing about better integration12					
	3.5.Improving the functioning of the internal market	3				
	3.6.Expected effects	3				
4.	Possible features of an EC environmental liability regime14	4				
	4.1.No retroactivity					

	4.2.The	scope of the regime	.14
	4.2.1.	Damage to be covered	.14
	4.2.2.	Activities to be covered	.15
	4.3.The	type of liability, the defences to be allowed and the burden of proof	.16
	4.4.Wh	o should be liable?	.18
	4.5.Crit	eria for different types of damage	.18
	4.5.1.	Biodiversity damage	.18
	4.5.2.	Contaminated sites	.20
	4.5.3	Traditional damage	.21
	4.5.4	The relation with the Product Liability Directive	.21
	4.6.Ens	uring effective decontamination and restoration of the environment	.21
	4.7.Acc	ess to justice	.21
	4.7.1.	"Two tier approach": the State should be responsible in the first place	.22
	4.7.2.	Urgent cases (injunctions, costs of preventive action)	.22
	4.7.3.	Ensuring sufficient expertise and avoiding unnecessary costs	.22
	4.8.The	relation with international conventions	.23
	4.9.Fina	ancial security	.23
5.	Differ	ent options for Community action	.24
	5.1.Con	nmunity accession to the Lugano Convention	.24
	5.2.A re	egime for transboundary damage only	.25
	5.3.Mei	mber States action guided by a Community recommendation	.26
	5.4.A C	community directive	.26
	5.5.Liał	bility sector-wise, namely in the area of biotechnology	.26

6.	Subsidiarity and proportionality	27
7.	The overall economic impact of environmental liability at EC level	28
8.	CONCLUSION	.30

1. INTRODUCTION

1.1. The aim of this White Paper

According to Article 174(2) of the EC Treaty:

"Community policy on the environment shall be (...) based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay."

The purpose of this White Paper is to explore how the polluter pays principle can best serve these aims of Community environmental policy, keeping in mind that avoiding environmental damage is the main aim of this policy.

Against this background, the paper explores how a Community regime on environmental liability can best be shaped in order to improve the application of the environmental principles of the EC Treaty and to ensure restoration of damage to the environment. The White Paper also explores how an EC environmental liability regime can help to improve the implementation of Community environmental law, and examines the possible economic effects of such a Community action.

1.2. The structure of the White Paper

After an introductory part containing some background information and explaining the aim of environmental liability in sections 1 and 2, the White Paper presents the case for an EC regime in section 3. Section 4 contains some possible features of a Community regime and section 5 considers and compares different options for such a regime. Whereas section 6 considers the issue from the perspective of subsidiarity and proportionality, section 7 examines the economic impact of an EC environmental liability regime. Section 8, finally, draws a conclusion and sets out the next steps in this matter.

1.3. Background and institutional context

1.3.1. The Green Paper on Remedying Environmental Damage

In May 1993 the Commission published its Green Paper on Remedying Environmental Damage². Over 100 comments were submitted, from Member States, industry, environment groups and other interested parties, followed up by continuous consultations. A Joint Public Hearing was held by the Parliament and the Commission in November 1993.

1.3.2. The position of the European Parliament

In April 1994, the European Parliament adopted a Resolution, calling on the Commission to submit "a proposal for a directive on civil liability in respect of (future) environmental damage"³. In that Resolution, the Parliament applied for the first time Article 192(2) (ex-

² Communication of 14 May 1993 (COM(93)47 final) presented to the Council, the Parliament and the Economic and Social Committee.

³ Resolution of 20.4.94 (OJ C 128/165).

Article 138b(2) EC Treaty, which enables it to ask the Commission to submit legislative proposals. Since then, the issue of environmental liability has been raised by the Parliament on several occasions, such as the Commission's annual working programmes, in parliamentary questions and in letters to the Commission.

In its Questionnaire to the candidate Commissioners in view of their Hearings, the Parliament again raised this question and expressed once more its view that Community legislation in this field is urgently needed. It stressed in particular the need to insert liability provisions in existing Community legislation in the field of biotechnology.

1.3.3. The Opinion of the Economic and Social Committee

A detailed Opinion on the Green Paper was issued by the Economic and Social Committee on 23 February 1994, which supported EC action on liability for environmental damage, suggesting that this could take the form of a framework directive on the basis of Treaty Articles 174 and 175 (ex-Articles 130r and 130s)⁴.

1.3.4. Commission's decision for a White Paper

Following an orientation debate on 29 January 1997, the Commission decided, taking into account the need to reply to the Resolution from the European Parliament of 1994 asking for Community action, that a White Paper on environmental liability should be prepared.⁵

1.3.5. Member States' positions

A number of Member States have expressed, informally or formally, a favourable opinion with respect to Community action in the field of environmental liability in general (Austria, Belgium, Finland, Greece, Luxembourg, the Netherlands, Portugal and Sweden). Several Member States are known to be awaiting the Commission's proposals before embarking on national legislation in this field, especially with respect to liability for damage to biodiversity. Furthermore, Austria, Belgium, Finland, Germany, the Netherlands, Spain and Sweden have recently declared in Council that they welcome the Commission's intention, in the context of the forthcoming White Paper on liability, to assess the question of liability for environmental damage linked to the deliberate release and placing on the market of GMOs. The UK has recently called upon the Commission as a matter of priority to consider the feasibility of and possible criteria for a liability regime or regimes to cover the release and marketing of GMOs. The positions of the other Member States are not yet clear.

1.3.6. The consultation process

During the process of preparing the White Paper, consultations have been held with independent experts from the Member States, with national experts from the Member States and with interested parties, many of whom have also sent written comments in relation to informal working papers that they received in the course of the process. The views expressed were quite different, among other things with respect to the need for

⁴ ESC Opinion of 23.2.94 (CES 226/94).

⁵ Four studies have been conducted for the purpose of the preparation of an EC policy in this area. Summaries of these studies are available to the public.

Community action. A summary report of the comments from interested parties is available on request.

2. WHAT IS ENVIRONMENTAL LIABILITY?

2.1. The aim of environmental liability

Environmental liability aims at making the causer of environmental damage (the polluter) pay for remedying the damage that he has caused.

Environmental regulation lays down norms and procedures aimed at preserving the environment. Without liability, failure to comply with existing norms and procedures may merely result in administrative or penal sanctions. However, if liability is added to regulation, potential polluters also face the prospect of having to pay for restoration or compensation of the damage they caused.

2.2. The types of environmental damage for which liability is suited

Not all forms of environmental damage can be remedied through liability. For the latter to be effective:

- there need to be one (or more) identifiable actors (polluters)
- the damage needs to be concrete and quantifiable, and
- a causal link needs to be established between the damage and the identified polluter(s).

Therefore, liability can be applied, for instance, in cases where damage results from industrial accidents or from gradual pollution caused by hazardous substances or waste coming into the environment from identifiable sources.

However, liability is not a suitable instrument for dealing with pollution of a widespread, diffuse character, where it is impossible to link the negative environmental effects with the activities of certain individual actors. Examples are effects of climate change brought about by CO2 and other emissions, forests dying as a result of acid rain and air pollution caused by traffic.

3. THE CASE FOR AN EC ENVIRONMENTAL LIABILITY REGIME AND ITS EXPECTED EFFECTS

3.1. Implementing the key environmental principles of the EC Treaty

Environmental liability is a way of implementing the main principles of environmental policy enshrined in the EC Treaty (Article 174(2)), above all the polluter pays principle. If this principle is not applied to covering the costs of restoration of environmental damage, either the environment remains un-restored or the State, and ultimately the taxpayer, has to pay for it. Therefore, a first objective is making the polluter liable for the damage he has caused. If polluters need to pay for damage caused, they will cut back pollution up to the point where the marginal cost of abatement exceeds the compensation avoided. Thus, environmental liability results in prevention of damage and in

internalisation of environmental costs.⁶ Liability may also lead to the application of more precaution, resulting in avoidance of risk and damage, as well as it may encourage investment in R & D for improving knowledge and technologies.

3.2. Ensuring decontamination and restoration of the environment

In order to make the polluter pays principle really operational, Member States should ensure effective decontamination and restoration or replacement of the environment in cases where there is a liable polluter, by making sure that the compensation which he has to pay will be properly and effectively used to this effect.

3.3. Boosting the implementation of EC environmental legislation

If liability exerts the preventive effect described earlier and restoration is ensured when damage does occur, it should also improve compliance with EC environmental legislation. Therefore, the link between the provisions of the EC liability regime and existing environmental legislation is of great importance. Whereas most Member States have introduced national laws that deal with strict liability for damage caused by activities that are dangerous to the environment in one way or another, these laws are very different in scope and often do not cover in a consistent way all damage caused by activities that are known to bear a hazard for the environment. Moreover, these liability regimes are only operational with respect to damage to human health or property, or contaminated sites. Generally, they are not applied to damage to natural resources. It is therefore important that an EC environmental liability regime should also cover damage afflicted upon natural resources, at least those that are already protected by EC law, namely under the Wild Birds and Habitats Directives, in the designated areas of the Natura 2000 network⁷. Member States should ensure the restoration of damage to these protected natural resources in any event, also in cases where a liability regime could not be applied (for instance, if the polluter cannot be identified), since this is an obligation under the Habitats Directive. The preventive effects of liability should have a 'boosting' effect in an enlarged Union, thus facilitating the implementation of environmental rules by new Member States..

3.4. Bringing about better integration

The Treaty of Amsterdam introduced in Article 6 of the EC Treaty the principle that environmental protection requirements must be integrated into the definition and implementation of other Community policies and activities. An EC environmental liability regime covering all Community-regulated activities bearing a risk for the environment (see 4.2.2 for activities to be covered) will bring about a better integration of environmental considerations in the different sectors concerned through the internalisation of environmental costs.

⁶ Internalisation of environmental costs means that the costs of preventing and restoring environmental pollution will be paid directly by the parties responsible for the damage rather than being financed by society in general.

⁷ Council Directives 79/409/EEC on the conservation of wild birds, OJ L 103 p. 1, and 92/43/EEC on the conservation of natural habitats and wild fauna and flora, OJ L 206, p. 7.

3.5. Improving the functioning of the internal market

Even if the main objectives of a Community regime are of an environmental nature, it may also contribute to creating a level playing field in the internal market. This is important since most of EU trade takes place within the internal market, i.e. intra-EU trade is more significant than extra-EU trade for Member States, and therefore differences in the legal framework and costs faced by companies in the internal market matter more than differences vis-à-vis third countries.

Currently, the existence of any problem of competition in the internal market caused by differences in Member States' environmental liability approaches is still unclear. This may be because national environmental liability systems in the EU are relatively new and have yet to become totally operational.

However, most existing Member States' environmental liability regimes do not cover damage to biodiversity. The economic impact of the latter could conceivably be significantly higher than the impact resulting from existing national liability laws and reach thresholds where concerns about the competitiveness of firms established in one Member State would advise the national authorities to wait for an EU initiative and refrain from imposing unilaterally liability for biodiversity. If so, this would justify EU action also on the grounds of ensuring a level playing field in the internal market.

The considerations above suggest that an EU liability regime should also be designed with a view to minimising possible impacts on the EU industry's external competitiveness⁸ - an issue which is discussed specifically in section 7. This is one reason for applying a step-by-step approach when introducing a Community regime (see also section 6).

3.6. Expected effects

It follows from what is said in paragraph 3.1 on implementing the polluter pays, the preventive and precautionary principles, that it is expected that liability creates incentives for more responsible behaviour by firms. However, a number of conditions need to be met for this effect to happen. For instance, experience with the US Superfund legislation (liability for cleaning up contaminated sites) shows the need to avoid loopholes for circumventing liability by transferring hazardous activities to thinly capitalised firms which become insolvent in the event of significant damage. If firms can cover themselves against liability risk by way of insurance, they will not tend to resort to this perverse route. Availability of financial security, such as insurance, is therefore important to ensure that liability is environmentally effective, a concern that is discussed in section 4.9. Effectiveness of any legal liability regime requires a workable financial security system, which means that financial security is available for the core elements constituting the regime. Moreover, the effectiveness of liability for environmental damage (as opposed to traditional damage) depends on the capacity of administrative and judicial authorities to treat cases expeditiously, as well as proper means of access to justice available to the public.

⁸ It should be pointed out in this regard that in the framework of environmental liability legislation, which applies also to natural resource damage, the US applies border-adjusted taxes for the most sensitive sectors, i.e. the oil and chemical industries.

The overall effect of liability is therefore a function of the broader context and specific design of the liability scheme.

4. POSSIBLE FEATURES OF AN EC ENVIRONMENTAL LIABILITY REGIME

This section provides a description of the possible main features of a Community regime. All or some of these elements will have to be taken into account depending on the option for further action that is chosen (see section 5).

4.1. No retroactivity

For reasons of legal certainty and legitimate expectations, the EC regime should only work prospectively. Damage that becomes known after the entry into force of the EC regime should be covered, unless the act or omission that resulted in the damage has taken place before the entry into force. It should be left to the Member States to deal with pollution from the past. They could establish funding mechanisms to deal with existing contaminated sites or damage to biodiversity in a way which would best fit their national situation, taking into account elements like the number of such sites, the nature of the pollution and the costs of clean-up or restoration. In order to apply the principle of nonretroactivity in a harmonised way, a definition of 'past pollution' will need to be given at a later stage.

Some transaction costs associated with litigation concerning the cut-off point between what is to be considered past pollution and pollution covered by the regime are to be expected. However, a retroactive system would have significantly higher economic impacts.

4.2. The scope of the regime

The scope of the regime has to be approached from two different angles: first, the types of damage to be covered, and second, the activities, resulting in such damage, to be covered. The following sub-paragraphs set out how this could be dealt with.

4.2.1. Damage to be covered

Environmental damage

As the regime concerns *environmental liability*, environmental damage should be covered. This is not as self evident as it may seem: several national laws called 'environmental liability law' (or similar names) deal with traditional types of damage, such as personal injury, or property damage, rather than with environmental damage as such. Damage is covered by such laws, if it is caused by activities that are considered dangerous for the environment, or if the damage is caused by effects that result in (traditional) damage via the environment (for instance: pollution of air or water). Examples of such legislation are the German Environmental Liability Act of 1990 and the Danish Compensation for Environment is also covered, next to traditional damage, but hardly any further rules are given to specify this notion.

In this White Paper, two different types of damage are brought together under the heading '*environmental damage*', both of which should be covered under a Community regime, namely:

a) Damage to biodiversity

b) Damage in the form of contamination of sites.

Most Member States have not yet started to explicitly cover biodiversity damage under their environmental liability regimes. However, all Member States have laws or programmes in place to deal with liability for contaminated sites. They are mostly administrative laws aiming at cleaning up polluted sites at the cost of the polluter (and/or others).

Traditional damage

To be coherent, it is important to cover also traditional damage, such as damage to health or property, if it is caused by a dangerous activity as defined under the scope, since in many cases traditional damage and environmental damage result from the same event. Covering only environmental damage under the EC regime while leaving liability for traditional damage entirely to the Member States might result in inequitable results (for instance no or less remedies for health damage than for environmental damage caused by one and the same incident). Moreover, human health - an important policy objective in its own right - is an interest closely connected with environmental protection: Article 174(1) of the EC Treaty states that Community policy on the environment shall contribute to pursuit (among other things) of the objective of protecting human health.

4.2.2. Activities to be covered

The objective of nearly all national environmental liability regimes is to cover activities⁹ that bear an inherent risk of causing damage. Many of such activities are currently regulated by Community environmental legislation, or Community legislation that has an environmental objective along with other objectives.

A coherent framework for the liability regime needs to be linked with the relevant EC legislation on protection of the environment. In addition to ensuring restoration of the environment where this is currently not possible, the liability regime would therefore also provide extra incentives for a correct observation of national laws implementing Community environmental legislation. An infringement of such legislation would not only result in administrative or penal sanctions, but also, if damage results from it, in an obligation on the causer (polluter) to restore the damage or pay compensation for the lost value of the injured asset. This approach of a closed scope, linked with existing EC legislation, moreover has the advantage of ensuring an optimal legal certainty.

The activities to be covered, with respect to health or property damage and contaminated sites, could be those regulated in the following categories of EC legislation: legislation which contains discharge or emission limits for hazardous substances into water or air, legislation dealing with dangerous substances and preparations with a view (also) to

9

Dealing with substances that bear such an inherent risk is also referred to, in this paper, as (dangerous) activities.

protecting the environment, legislation with the objective to prevent and control risks of accidents and pollution, namely the IPPC Directive and the revised Seveso II Directive, legislation on the production, handling, treatment, recovery, recycling, reduction, storage, transport, trans-frontier shipment and disposal of hazardous and other waste, legislation in the field of biotechnology and legislation in the field of transport of dangerous substances. In the further shaping of an EC initiative, the scope of activities will need to be defined with more precision, for instance by setting up a list of all the pieces of relevant EC legislation with which the liability regime should be linked. Moreover, some of these activities, such as activities with respect to genetically modified organisms (GMOs), are not dangerous per se, but have the potential, in certain circumstances, to cause health damage or significant environmental damage. This could be the case, for example, in the event of an escape from a high-level containment facility or from unforeseen results of a deliberate release. For this reason it is considered appropriate for such activities to come within the scope of a Community-wide liability regime. In these cases, the precise definition of the regime, for instance the defences to be allowed, might not be the same for all activities related to GMOs, but may have to be differentiated according to the relevant legislation and the activities concerned.

An important factor to be taken into account with respect to biodiversity damage is the existence of specific Community legislation to conserve biodiversity, namely the Wild Birds Directive and the Habitats Directive. These directives establish a regime, to be implemented through the Natura 2000 network, of special protection of natural resources, namely those important for the conservation of biodiversity. They contain, among other things, requirements that significant damage to protected natural resources should be restored. These obligations are addressed to the Member States. The environmental liability regime would provide the tool to make the polluter pay for the restoration of such damage. Since the objective of the two directives is the protection of natural resources concerned, *irrespective of the activity that causes damage to them*, and since such resources are vulnerable and can therefore also rather easily be damaged by other than inherently dangerous activities, a liability regime applicable to biodiversity damage should also cover other than dangerous activities which cause significant damage in protected Natura 2000 areas. However, the type of liability in this case should be different from the liability applicable to damage caused by dangerous activities, as is explained in 4.3.

4.3. The type of liability, the defences to be allowed and the burden of proof

Strict liability means that fault of the actor need not be established, only the fact that the act (or the omission) caused the damage. At first sight, fault-based liability¹⁰ may seem more economically efficient than strict liability, since incentives towards abatement costs do not exceed the benefits from reduced emissions. However, recent national and international environmental liability regimes tend to be based on the principle of strict liability, because of the assumption that environmental objectives are better reached that way. One reason for this is that it is very difficult for plaintiffs to establish fault of the defendant in environmental liability cases. Another reason is the view that someone who is carrying out an inherently hazardous activity should bear the risk if damage is caused by it, rather than the victim or society at large. These reasons argue in favour of an EC

¹⁰ Fault-based liability applies when an operator has acted wrongly intentionally, by negligence, or by insufficient care. Such an act (or omission) may involve non-compliance with legal rules or with the conditions of a permit, or may occur in any other form.

regime based, as a general rule, on strict liability. As mentioned in 4.2.2, damage to biodiversity should be covered by liability, whether it is caused by a dangerous activity or not. It is proposed, however, to apply fault-based in stead of strict liability to such damage *if it is caused by a non-dangerous activity*. Activities carried out in conformity with measures implementing the Wild Birds and Habitats Directives which aim at safeguarding biodiversity would not give rise to liability of the person carrying out the activity, other than for fault. Such activities can for instance take place under an agri-environmental contract in accordance with the Council Regulation on support for rural development¹¹. The State will be responsible for restoration or compensation of biodiversity damage caused by a non-dangerous activity, in case fault of the causer can not be established.

In the framework of an environmental liability regime, consistency should be ensured with other Community policies and measures implementing these policies.

The effectiveness of a liability regime depends not only on the basic character of the regime but also on such elements as the allowed defences and the division of the burden of proof. The positive effects of strict liability should therefore not be undermined by allowing too many defences, or by an impossible burden of proof on the plaintiff.

Defences

Commonly accepted defences should be allowed, such as Act of God (force majeure), contribution to the damage or consent by the plaintiff, and intervention by a third party (an example of the latter defence is the case that an operator caused damage by an activity that he conducted following a compulsory order given by a public authority).¹²

Several interested parties, in particular economic operators, have expressed the view that a defence in relation to damage caused by releases authorised through EC regulations, for state of the art and/or for development risk should also be allowed. For economic reasons they need predictability regarding their liabilities to third parties, but the occurrence and extent of these liabilities are subject to ongoing developments in any event (e.g. changes in legislation and case law, medical progress, etc.). Defences like the ones mentioned here are normally not allowed by existing national environmental liability regimes of EU Member States. When deciding on these defences, all relevant impacts should be considered, among others possible effects on SMEs (see also section 7).

Burden of proof

In environmental cases, it may be more difficult for a plaintiff and easier for a defendant to establish facts concerning the causal link (or the absence of it) between an activity carried out by the defendant and the damage. Therefore, provisions exist in several national environmental liability regimes to alleviate the burden of proof concerning fault or causation in favour of the plaintiff. The Community regime could also contain one or other form of alleviation of the traditional burden of proof, to be more precisely defined at a later stage.

¹¹ Council Regulation no 1257/99 (OJ L160 p. 80).

¹² Certain procedural aspects can also be relevant with a view to contesting liability, such as the lack of jurisdiction of the court seized or questions of limitation.

Application of equity

Circumstances might occur which would make it inequitable for the polluter to have to pay the full compensation for the damage caused by him. Some room might be granted to the court (or any other competent body, e.g. an arbiter) to decide - for instance in cases where the operator who caused the damage can prove that this damage was entirely and exclusively caused by emissions that were explicitly allowed by his permit - that part of the compensation should be borne by the permitting authority, instead of the polluter. Further criteria would need to be defined for such a provision, for instance that the liable operator had done everything possible to avoid the damage.

4.4. Who should be liable?

The person (or persons) who exercise control of an activity (covered by the definition of the scope) by which the damage is caused (namely the operator) should be the liable party under an EC environmental liability regime¹³. Where the activity is carried out by a company in the form of a legal person, liability will rest on the legal person and not on the managers (decision makers) or other employees who may have been involved in the activity. Lenders not exercising operational control should not be liable.

4.5. Criteria for different types of damage

Different approaches are indicated to deal with the different types of damage. For biodiversity damage, liability rules and criteria do not exist to any meaningful extent, so therefore they need to be developed. With respect to liability for contaminated sites, national laws and systems exist, but they are quite different. Traditional damage should be dealt with in a coherent way in relation to the other, environmental, forms of damage, which can only be achieved if the fundamental rules are the same for each type of damage.

4.5.1. Biodiversity damage

Since this area is not generally covered by Member State liability rules, an EC liability regime could make a start with covering this kind of damage within the limits of existing Community biodiversity legislation.

• Which biodiversity damage should be covered?

Damage to biodiversity, which is protected in Natura 2000 areas, based on the Habitats and the Wild Birds Directives, should be covered. Such damage could take the form of damage to habitats, wildlife or species of plants, as defined in the annexes to the directives concerned.

• When should damage to biodiversity be covered?

¹³ However, Member States could make other parties liable also, on the basis of Article 176 EC Treaty.

There should be a *minimum threshold* for triggering the regime: *only significant damage* should be covered. Criteria for this should be derived, in the first place, from the interpretation of this notion in the context of the Habitats Directive¹⁴.

• How to value biodiversity damage and ensure restoration at reasonable cost?

Economic valuation of biodiversity damage is of particular importance for cases where damage is irreparable. But if restoration of damage is feasible, there also have to be valuation criteria for the damaged natural resource, in order to avoid disproportionate costs of restoration. A cost-benefit or reasonableness test will have to be undertaken in each separate case. The starting point for such a test, for cases where restoration is feasible, should be the *restoration costs* (including the costs of assessing the damage). For valuing the benefits of the natural resource¹⁵, a system needs to be elaborated for which inspiration could be gathered from certain systems that exist or are being developed at the regional level (e.g. Andalusia, Hessen).

If restoration is technically not or only partially possible, the valuation of the natural resource has to be based on the costs of alternative solutions, aiming at the establishment of natural resources equivalent to the destroyed natural resources, in order to re-establish the level of nature conservation and biological diversity embodied in the Natura 2000 network.

Valuation of natural resources may be more or less expensive, depending on the method used. Economic valuation methods, such as contingent valuation, travel cost and other forms of revealed preference techniques that necessitate surveys involving a large number of people can be expensive if carried out in every case. The use of 'benefits transfer' techniques can however significantly reduce the cost. The development of benefit transfer data bases, such as the Environmental Valuation Resource Inventory (EVRI), which contain relevant valuation material, is particularly important. These data bases can be used to provide a context to the problem and as a source of directly comparable valuation.

• How to ensure a minimum level of restoration?

Restoration should aim at the return to the state of the natural resource before the damage occurred. To estimate this state, historical data and reference data (the normal characteristics of the natural resource concerned) could be used. Replication of the quality and quantity of the natural resources will mostly not be possible, or only at extreme cost. Therefore the aim should rather be to bring the damaged resources back to a comparable condition, considering also factors such as the function and the presumed future use of the damaged resources.

• The impact of damage to biodiversity on costs of prevention and restoration

Biodiversity damage, in the sense of this White Paper, may only occur in areas protected under the Habitats and Wild Birds directives which, once the Natura 2000 network is

¹⁴ A Commission services document on the interpretation of this and other notions in the context of article 6 Habitats Directive will be published shortly.

¹⁵ For instance the presence of the middle spotted woodpecker (see cover page), a protected species under the Wild Birds Directive.

established, is expected to cover up to around 10% of the EC territory. In these areas only environmentally friendly activities may be carried out. This means that the bulk of environmental damage to these areas may only be caused by plants operating dangerous activities in neighbouring areas. But these plants are already covered by the other pillars of the proposed regime which address damage in the form of traditional damage and contamination of sites. It follows that the only additional cost for these activities due to biodiversity coverage is the one related to prevention of damage to, and restoration of, biodiversity according to the criteria foreseen in the White Paper.

Given that, as said, dangerous activities are not supposed to operate in protected areas, biodiversity damage occurring there will only exceptionally be caused by IPPC industries or large plants for which costs and competitiveness are a critical issue. Hence, the impact of liability for biodiversity damage will be minimal for these industries. On the other hand, the kind of environmentally friendly activities allowed to operate in the protected areas are, by its very nature, likely to internalise cheaply the desired levels of prevention and restoration.

4.5.2. *Contaminated sites*

Most Member States have special laws or programmes to deal with clean up of contaminated sites, both old and new. The Community regime should aim at implementing the environmental principles (polluter pays, prevention and precaution) for new contamination and at a certain level of harmonisation with respect to clean-up standards and clean-up objectives. For contaminated sites, the dangerous activities approach would apply and the regime would be triggered only if the contamination is significant. Contaminated sites include the soil, surface water and groundwater. Where an area protected under the biodiversity legislation is part of a contaminated site, the regime for biodiversity damage would apply to that area, in addition to the regime for contaminated sites. This might mean that restoration of the natural resource has to be carried out after decontamination of the site.

• Clean-up standards

These are standards to evaluate and decide *whether clean up of a contaminated site is necessary*. As with biodiversity, only significant damage should be covered. The main qualitative criterion for this will be: does the contamination lead to a serious threat to man and the environment?

• Clean-up objectives

These should define the *quality of soil and water at the site to be maintained or restored*. The main objective should be: removal of any serious threat to man and environment. Acceptable thresholds would be determined according to best available techniques under economically and technically viable conditions (as under the IPPC Directive). Another objective should be, to make the soil *fit for actual and plausible future use* of the land. These qualitative objectives should where possible be combined with quantified numerical standards indicating the soil and water quality to be achieved. If clean up is not feasible for economic or technical reasons, full or partial containment might be a possibility.

4.5.3 Traditional damage

The definition of traditional damage, namely personal and property damage and possibly economic loss, will remain under the Member States' jurisdiction. All the elements of the regime dealt with in this paper should, however, also be applied to traditional damage, with the exception of the specific rules on access to justice (4.7) and the specific criteria for restoration and valuation of environmental damage (4.5.1 and 4.5.2). For traditional damage, the EC regime should not introduce a notion of "significant damage".

4.5.4 The relation with the Product Liability Directive¹⁶

The Product Liability Directive deals with damage to persons and goods (i.e. traditional damage) caused by a defective product, but it does not cover environmental damage. Overlaps between the two liability regimes cannot be excluded in the field of traditional damage. This could be the case for example when damage is caused by a product containing dangerous substances which results in being a defective product due to a higher presence of chemical substances than allowed under EC environmental legislation. In such a case, the Product Liability Directive prevails as the legislation applicable when compensation is sought for traditional damage.

4.6. Ensuring effective decontamination and restoration of the environment

An obligation common to biodiversity damage and contamination of sites should be that damages or compensation paid by the polluter for restoration or clean up have to be effectively spent for that purpose. If restoration of the damage is not or only partially possible for technical or economic (cost-benefit) reasons, compensation mounting to the value of the un-restored damage should be spent on comparable projects of restoring or improving protected natural resources. Determination of comparable projects by the competent authorities should depend on a thorough analysis of the environmental benefits gained.

4.7. Access to justice

The case of damage to the environment is different from the case of traditional damage, where victims have the right to raise a claim with competent administrative or judicial bodies to safeguard their private interests. Since the protection of the environment is a public interest, the State (including other parts of the polity) has the first responsibility to act if the environment is or threatens to be damaged. However, there are limits to the availability of public resources for this, and there is a growing acknowledgement that the public at large should feel responsible for the environment and should under circumstances be able to act on its behalf. The Commission has referred to the need for such an enhanced access to justice in its Communication to the Council and Parliament on 'Implementing Community Environmental Law'¹⁸.

¹⁶ Council Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (OJ 85, L 210, p.29), amended by Directive 99/34/EC; OJ 99, L 141, p. 20.

¹⁷ The Commission has recently published a Green Paper on product liability, to gather information on the actual application of the Directive and in order to initiate a debate about the possible need for a substantial revision of the Directive.

¹⁸ COM(96)500 final. "Better access to courts for non-governmental organisations and individuals would have a number of helpful effects in relation to the implementation of Community

An important legal instrument in this field is the Århus Convention.¹⁹ It includes specific provisions on access to justice that form a basis for different actions by individuals and public interest groups. These actions include: to challenge a decision of a public authority before a court of law or another independent and impartial body established by law (the right of administrative and judicial review), to ask for adequate and effective remedies, including injunctions, and to challenge acts and omissions by private persons and public authorities which contravene environmental law²⁰. An EC environmental liability regime could contribute to the implementation of the Convention in Community law, along the following lines.

4.7.1. "Two tier approach": the State should be responsible in the first place

Member States should be under a duty to ensure restoration of biodiversity damage and decontamination in the first place (*first tier*), by using the compensation or damages paid by the polluter. Public interest groups promoting environmental protection (and meeting relevant requirements under national law) shall be deemed to have an interest in environmental decision-making²¹. In general, public interest groups should get the right to act on a subsidiary basis, i.e. only if the State does not act at all or does not act properly (*second tier*). This approach should apply to administrative and judicial review and to claims against the polluter.

4.7.2. Urgent cases (injunctions, costs of preventive action)

In urgent cases, interest groups should have the right to ask the court for an injunction directly in order to make the (potential) polluter act or abstain from action, to prevent significant damage or avoid further damage to the environment. They should be allowed, for this purpose, to sue the alleged polluter, without going to the State first. Injunctive relief could aim at the prohibition of a damaging activity or at ordering the operator to prevent damage before or after an incident, or at making him take measures of reinstatement. It is up to the court to decide if an injunction is justified.

The possibility to bring claims for reimbursement of reasonable costs incurred in taking urgent preventive measures (i.e. to avoid damage or further damage) should be granted, in a first instance, to interest groups, without them having to request action by a public authority first.

4.7.3. Ensuring sufficient expertise and avoiding unnecessary costs

Only interest groups complying with objective qualitative criteria should be able to take action against the State or the polluter. Restoration of the environment should be carried

environmental law. First, it will make it more likely that, where necessary, individual cases concerning problems of implementation of Community law are resolved in accordance with the requirements of Community law. Second, and probably more important, it will have a general effect of improving practical application and enforcement of Community environmental law, since potentially liable actors will tend to comply with its requirements in order to avoid the greater likelihood of litigation." (p. 12).

¹⁹ UN/ECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, that has been adopted and signed, also by the Community, at the Fourth Ministerial Conference in Århus (Denmark), 23-25 June 1998.

²⁰ Article 9 Århus Convention.

²¹ Article 2(5) Århus Convention.

out in co-operation with public authorities and in an optimal and cost-effective way. The availability of specific expertise and the involvement of independent and recognised experts and scientists can play a fundamental role.

Since costs will inevitably be involved in making use of rights of access to justice, it would be worthwhile to explore how *out-of-court solutions*, such as arbitration or mediation, could be used in this context. Such solutions aim at saving time and costs.

4.8. The relation with international conventions

There are a growing number of international conventions and protocols dealing with (environmental) liability in several fields. There is, for instance, a long standing body of conventions and protocols concerning damage caused by nuclear activities, as well as in the field of oil pollution at sea. A more recent convention deals with damage caused by maritime transport of hazardous and noxious substances; Member States are currently considering its possible ratification. All these conventions are based on a strict but limited liability, and the concept of a second tier of compensation. In the case of oil pollution, the second tier is a fund, fed jointly by the contributing oil companies in the importing states, which compensates - also up to a certain limit - liabilities exceeding the ship owners liability. In light of recent marine pollution accidents, it should be examined if the international regime should be complemented by EC measures. The Commission will prepare a Communication on oil tanker safety (June 2000) examining, inter alia, the need for a complementary EC regime on liability for oil spills. Different options in this regard will be examined, taking into account the specific character of the sector. More in general, a future EC regime on environmental liability would have to clarify to which extent there is room for application in those areas that are already covered by international law.

4.9. Financial security

Insurability is important to ensure that the goals of an environmental liability regime are reached.

Strict liability has been found to prompt spin-offs or delegation of risky production activities from larger firms to smaller ones in the hope of circumventing liability. These smaller firms, which often lack the resources to have risk management systems as effective as their larger counterparts, often become responsible for a higher share of damage than what their size would predict. When they cause damage, they are also less likely to have the financial resources to pay for redressing the damage. Insurance availability reduces the risks companies are exposed to (by transferring part of them to insurers). They should therefore also be less inclined to try to circumvent liability²².

Insurance availability for environmental risks, and in particular for natural resource damage, is likely to develop gradually. As long as there are not more widely accepted measurement techniques to quantify environmental damage, the amount of the liability

²² On the other hand, a company that is able to insure against the damages it can potentially cause to natural resources still has an interest in behaving responsibly. This is so because, to get an insurance policy, a company normally has to go through an environmental audit, is often required to have an effective risk management system and, if insurance payments are required, must frequently shoulder part of the bill.

will be difficult to predict. However, the calculation of risk-related tariffs is important for the fulfilment of liabilities under insurance contracts and insurance companies are required to establish adequate technical provisions at all times. Developing qualitative and reliable quantitative criteria for recognition and measurement of environmental damage will improve the financial security available for the liability regime and contribute to its viability, but this will not occur overnight and is likely to remain expensive. This justifies a cautious approach in setting up the liability regime.

Capping liability for natural resource damages is likely to improve the chances of early development of the insurance market in this field, though it would erode the effective application of the polluter pays principle.

When looking at the insurance market - insurance being one of the possible ways of having financial security, alongside, among others, bank guarantees, internal reserves or sector-wise pooling systems - it appears that coverage of environmental damage risks is still relatively undeveloped, but there is clear progress being made in parts of the financial markets specialising in this area. One example is the development of new types of insurance policies for the coverage of costs involved in the clean up of contaminated sites, for instance in the Netherlands.

The insurability of environmental risks is essential for financial security but depends considerably on the legal certainty and transparency provided by the liability regime. The environmental liability regimes of nearly all Member States however, have not made financial security a legal requirement. Where this has been done, for instance in the German Environmental Liability Law, the implementation of the provision concerned has run into difficulties, which have so far prevented the necessary implementing decree from being established.

The concerns of the financial sectors are one reason for the step-by-step approach mentioned in this paper (see section 6). The closed scope of dangerous activities, the limitation to those natural resources which are already protected by existing Community law and the limitation to significant damage are all aspects which contribute to making the risks arising from the regime better calculable and manageable. Moreover, *the EC regime should not impose an obligation to have financial security*, in order to allow the necessary flexibility as long as experience with the new regime still has to be gathered. The provision of financial security by the insurance and banking sectors for the risks resulting from the regime should take place on a voluntary basis. The Commission intends to continue discussions with these sectors in order to stimulate the further development of specific financial guarantee instruments.

5. DIFFERENT OPTIONS FOR COMMUNITY ACTION

A range of different options and instruments have been considered in the course of the process of developing an approach to environmental liability. The main ones are described in this section, as well as their advantages and disadvantages.

5.1. Community accession to the Lugano Convention

The Council of Europe Convention on civil liability for damage resulting from activities dangerous for the environment was established in 1993. The Commission and all Member States participated in the negotiations. The Convention contains a regime for

environmental liability that covers all types of damage (both traditional damage such as personal injury and property damage and impairment of the environment as such), when caused by a dangerous activity. Dangerous activities in the field of dangerous substances, biotechnology and waste are further defined. The scope is open in the sense that other activities than the ones explicitly referred to may also be classified as dangerous. A summary on the history, contents and signatories of this Convention is available to the public.

Community accession to this Convention would have the advantage of being in accordance with the subsidiarity principle at international level (new EC legislation should not be established insofar as the matter concerned can be dealt with by Community accession to an existing international convention). Moreover, the Convention has a comprehensive coverage (all types of damage resulting from dangerous activities) and a wide and open scope, which has the merit of presenting a coherent system and of treating operators of all dangerous activities in the same way. Six Member States²³ have signed the Convention whereas some others may be considering doing so. Several Member States²⁴ have already prepared legislation to implement the Convention, or are in the process of preparing ratification. However, some other Member States²⁵ do not intend to sign or ratify it. The Convention is also open to accession by Central and Eastern European countries, even by countries which are not members of the Council of Europe, so that it could have an important international spread. Accession by the Community could encourage other countries to accede.

Comparing the regime of the Lugano Convention with the environmental liability regimes of the Member States, a general impression is that the Convention goes further than most Member States in some respects (namely in that it explicitly covers environmental damage as such). Its open scope of dangerous activities also goes further than several Member States which have regimes with a closed and more limited scope. These Member States, and most of industry, feel that the scope of Lugano is too wide and gives too little legal certainty and that its definitions, especially in the field of environmental damage, are too vague. The Convention does cover such damage, but in a rather unspecific way. For instance, it does not require restoration nor does it give criteria for restoration or economic valuation of such damage. Thus, if accession to the Convention was envisaged, an EC act would be needed to supplement the Lugano regime in order to bring more clarity and precision to this new area where liability is concerned.

5.2. A regime for transboundary damage only

Member States are increasingly aware of damage caused across their boundaries, not least because of public sensitivity to pollution originating from another country. Awareness of transboundary problems is likely to increase further as the implementation of the Habitats Directive and Natura 2000 progress and it is found that many protected areas straddle borders between Member States. Even if both pollution and immediate damage to one of these areas are within one Member State, the damage may have implications for other Member States as well, for instance by damaging the integrity of a species or a habitat as a whole. Pollution of rivers or lakes also often has a transboundary dimension.

²³ Finland, Greece, Italy, Luxembourg, the Netherlands and Portugal.

²⁴ Austria, Finland, Greece, the Netherlands, Portugal.

²⁵ Denmark, Germany, UK.

The main argument used in favour of a 'transboundary only' regime is that, on subsidiarity grounds, there are insufficient arguments for applying a liability regime to problems within one Member State, but that transboundary problems are indeed better dealt with at EC level. Disadvantages are that a system that addresses only transboundary problems would leave a serious gap where liability for biodiversity damage is concerned, since this is not yet covered at all by most Member States. The important objective of strengthening the application of Community environmental legislation could not be reached by a regime which would not cover most of the potential infractions of such legislation, namely all those taking place within one Member State. A 'transboundary only' system would also lead to subjects being treated completely differently within one Member State, since some, who happen to be involved in a case of transboundary damage, could be liable under the EC 'transboundary only' regime, whereas others, who are conducting the same activity in the same country and causing similar damage, could walk free if the national regime happened not to cover such a case. This might even call into question the legitimacy of such a regime under the principle of equal treatment as developed in the case law of the European Court of Justice.

5.3. Member States action guided by a Community recommendation

This option, for instance a recommendation linked with existing Community legislation relevant in this field, might have the support of those who are not convinced of the need for a legally binding instrument. They might feel, for instance, that there is insufficient evidence for Member State laws not being adequate enough for dealing with the relevant environmental problems. A recommendation, being a non-binding instrument without enforcement mechanisms, would bring less cost for operators but also less benefit for the environment, among other things in cases of transboundary damage inside the Community, than a binding instrument. Similar arguments would apply to the use of environmental (voluntary) agreements in this context.

5.4. A Community directive

The main differences between a Community directive and Community accession to the Lugano Convention are that the scope of Community action can be better delimited and the regime for biodiversity damage can be better elaborated, in accordance with the relevant Community legislation. Both differences result in more legal certainty than provided by Lugano. It should be noted that, even if the Community does not accede to the Lugano Convention, the latter can provide an important source of inspiration for a future Community directive. As far as the application of a liability regime to non-EU Member States is concerned, it is clear that a Community directive on environmental liability would be taken into account in the enlargementprocess of the applicant countries, whereas the situation in these countries with respect to environmental liability would also be examined.

Comparing this type of Community action with the more limited and non-binding options described in 5.2 and 5.3, the former is the option with higher added value in terms of a better implementation of the EU environmental principles and law, and of effective restoration of the environment.

5.5. Liability sector-wise, namely in the area of biotechnology

On several occasions the European Parliament has asked the Commission to insert liability provisions into existing directives in the field of biotechnology. The option

mentioned in 5.4 could be pursued by proposing more focused liability provisions applicable to specific sectors (e.g. biotechnology), instead of a horizontal approach, covering all (potentially) hazardous activities in an equal way.

A horizontal approach has the advantage of providing the general framework in a single act. Provided that the activities covered pose similar environmental risks and raise comparable economic issues, this approach would not only be more consistent but also more efficient. A sector-wise approach would not ensure a coherent system or an equal application of the polluter pays, preventive and precautionary principles to activities that are comparable in the sense that they pose a risk to man and the environment. Moreover, the objective of better implementation of all relevant pieces of Community environmental legislation would not be reached if liability provisions were introduced only in one specific area of legislation. Finally, it would be difficult to explain to a sector why it should be singled out for being subject to liability provisions, different from other sectors posing similar risks. For all these reasons, a horizontal environmental liability regime is to be preferred.

6. SUBSIDIARITY AND PROPORTIONALITY

The EC Treaty requires Community policy on the environment to contribute to preserving, protecting and improving the quality of the environment, and to protecting human health (Article 174(1)). This policy must also aim at a high level of protection, taking into account the diversity of situations in the various regions of the Community. *It shall be based* on the precautionary principle and on the principle that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay (Article 174(2)). All these principles, which are, according to the wording of the Treaty (see italic) binding for the EC institutions, are currently not being implemented in an optimal way throughout the Community. One reason for this is that there is a gap in most Member States' liability regimes as far as biodiversity damage is concerned. (See in this context also section 3).

Moreover, national legislation can not effectively cover issues of transboundary environmental damage within the Community, which may affect, among others, watercourses and habitats, many of which straddle frontiers. Therefore, an EC-wide regime is necessary in order to avoid inadequate solutions to transfrontier damage.

Member States apply different instruments to implement their environmental liability rules. Some rely more on administrative or public law whereas others use civil law to a larger extent. They all use a mixture of both. An EC regime should aim at fixing the objectives and results, but the Member States should choose the ways and instruments to achieve these.

In accordance also with the subsidiarity and proportionality principles, an EC regime - to be based on Article 175 of the Treaty - could be a framework regime containing essential minimum requirements, to be completed over time with other elements which might appear necessary on the basis of the experience gathered with its application during the initial period (*step-by-step approach*).

In case the instrument for establishing the regime were to be a directive, a coherent application of the system throughout the Community will be ensured through the Commission's monitoring of EC law and the case law of the European Court of Justice.

7. THE OVERALL ECONOMIC IMPACT OF ENVIRONMENTAL LIABILITY AT EC LEVEL

An EC regime along the lines of the White Paper would differ in significant respects from existing regimes. Therefore, past experience is insufficient to support any strong views on the overall economic impact of the EC regime, including its external competitiveness impact. The Commission will continue its research in this area and launch further studies on the economic and environmental impact of environmental liability. The findings of these studies will be profoundly assessed and given due weight in the preparation of the Commission's future initiatives in this field. However, at this point evidence on existing liability regimes offers a useful general analytical framework.

Available evidence on the overall impact of environmental regulation on industry competitiveness suggests that no significant negative impact is discernible. There is also available data on the impact of environmental liability regimes. The annual total clean up costs, though excluding nature resource damage costs, of the retroactive²⁶ U.S. Superfund represent some 5% of the total amount spent each year in the U.S. to comply with all federal environmental regulations. No overall figures are available on costs with natural resource damages for the US Superfund. For what concerns the environmental liability regimes in place in Member States, available evidence suggests they have not led to any significant competitiveness problems.

While we are unsure about the effects on external competitiveness of an EC liability regime, it must be taken into consideration that most OECD countries have environmental liability legislation of some kind. Therefore, an EU environmental liability regime will not amount to the adoption by the EU of a unilateral standard of environment protection²⁷

This does not mean that the international competitiveness of EU industry, and in particular of export-oriented industries and of sectors facing significant competition from imports, should not be safeguarded by all means possible. There are ways to offset potential external competitiveness problems that might be raised by differences in liability standards at international level compatible with world trade rules.

As to **SMEs**, they often cause more environmental damage than what their size would predict, possibly due to a lack of resources. From this perspective they might experience a more substantial impact. Undesirable side effects such as an increase in the share of damage caused by SMEs could be mitigated by more targeted use of national or EC support mechanisms aimed at facilitating adoption by SMEs of cleaner processes.

The proposed approach to liability protects economic operators in the **financial sector** from liability unless they have operational responsibilities. Undesirable negative impacts on this sector are therefore unlikely. Provided legal certainty with respect to liability and

²⁶ The White Paper argues against retroactive liability that, all else the same, has higher cost impacts.

In this context, it is relevant to note that most problems of competitiveness and delocalisation present themselves among developed countries rather than between developing and developed ones (a conclusion that is confirmed in the recent WTO study on trade and environment, *Special Studies, 'Trade and the Environment', WTO 1999*). Then, since most OECD countries already have environmental liability legislation of some kind, the impact on external competitiveness of an EC liability regime is likely to be limited.

transparency are assured, the impact, in particular on the **insurance** sector should be positive over time, as experience is gained with the working of the regime and new markets for insurance products emerge.

The effect of environmental liability on employment is also a relevant issue. Available research on the overall impact of environmental regulation suggests that, while jobs in particular industries may rise or fall, total employment will not be systematically affected²⁸.

While there are no available empirical studies on the specific impact of environmental liability on employment, it is clear that there might be some negative impacts as enterprises shift from more environmentally damaging activities and processes to cleaner ones. However, this impact is likely to be counterbalanced. The economic essence of liability is that it provides incentives to increased levels of prevention. It is therefore to be expected that employment in industries providing and using clean technologies and related services will benefit from environmental liability. As insurance for natural resource damage develops, more jobs should also be created in this sector.

The key concept here is sustainable development taking into account in a balanced way, the economic, social and environmental dimensions.

Finally, it must be recalled that the use of policy instruments generates often costs even if they yield a net benefit. Minimisation of costs associated with pre-determined goals is therefore necessary to pursue.

In the case of liability, transaction costs, i.e. the costs of reaching and enforcing rules, is a matter of specific consideration. Three cases can be mentioned in this respect. First, the case of the US, where litigation is admittedly more widespread than in Europe, and where liability laws have entailed high transaction costs, mainly legal fees, to the tune of 20% of total enforcement and compensation costs. Secondly, for the strict environmental liability systems in the Member States, there is no evidence that they have given raise to an increase of claims or transaction costs. Finally, there is the experience in the Community with the introduction of the Product Liability Directive (see footnote 9). A study report on the first period of application of this directive did not find any significant increase in the number or pattern of claims. It can be concluded from this that, when shaping the features of an environmental liability regime, it is important to look at the reasons for the differences in transaction costs between the different systems, and to avoid features that would in particular contribute to such costs.

Rules concerning direct access to justice by parties other than public authorities should also be assessed in this light. The application of out-of-court solutions could be beneficial in this context. Also clean up and restoration standards should be assessed in the light of the costs they would be likely to generate.

In order to be able to deal with historic pollution and other forms of pollution for which liability would not be a suitable instrument, for instance in case of diffuse damage, or in cases where the polluter cannot be identified, Member States could use - as some already

²⁸

See, for instance, the benchmark study 'Jobs, Competitiveness and Environmental Regulation: What are the real issues", R. Repetto, World Resources Institute, March 1995.

do - other instruments, such as impact fees levied on polluting activities, or funds established at national or regional level.

8. CONCLUSION

This White Paper has sought to assess different options for Community action in the field of environmental liability. On the basis of the analysis set out in this paper, the Commission considers as the most appropriate option that of a Community framework directive on environmental liability, providing for strict liability - with defences – with respect to traditional damage (namely damage to health and property) and environmental damage (contamination of sites and damage to biodiversity in Natura 2000 areas) caused by EC regulated dangerous activities, and fault-based liability for damage to such biodiversity caused by non-dangerous activities. This approach would provide the most effective means of implementing the environmental principles of the EC Treaty, in particular the polluter pays principle.

The details of such a framework directive should be further elaborated in the light of the consultations to be held.

The Commission invites the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions as well as interested parties to discuss and comment on the White Paper. Comments can be sent to the Commission, to the following address:

Directorate General for Environment, Nuclear Safety and Civil Protection Legal Affairs Unit (DG XI.B.3), Rue de la Loi 200, 1049 Brussels, or sent by e-mail to Carla.DEVRIES@cec.eu.int or Charlotta.COLLIANDER@cec.eu.int before 1 July 2000.