Technical Annex to

“An Analysis of the Preventive Effect of Environmental Liability”

Policy Context

The European Commission has just approved a White Paper on Environmental Liability (WP) whereby it commits itself to launch further studies on the economic impact of environmental liability. The findings of these studies, it is said in the White Paper, will be profoundly assessed and given due weight in the preparation of the Commission’s future initiatives in this field. The Commission is considering proposing a Directive on Environmental Liability.

Liability is perceived to give economic operators incentives to adopt more effective levels of prevention. The interest of the European Commission in liability as a tool of environmental policy stems, among other things, from these perceived incentives.

However, while these incentives are clearly recognised, under certain conditions, in the economics literature, the practical outcome of environmental liability regimes depends on a number of circumstances that influence the behavioural changes expected and the eventual level of damages. Ultimately, the prevention effect of environmental liability regimes is then a matter for empirical analysis.

With a view to preparing further initiatives in the field of environmental liability in the European Union, the European Commission intends to launch a study that will
• identify the factors expected to influence the prevention of environmental damages in the context of an environmental liability regime and
• empirically test the relationship between an existing liability regime and environmental damage avoidance.

General background for the study

It is evident that when considered on a case by case basis, liability looks backward at damages that have already occurred. It would be impossible, then, to claim a particular liability case had a preventive effect on the damages in question. However, an environmental liability regime as a whole may have just such an effect on environmental damages generally, by outlining very clearly when parties who are responsible for environmental damages may be held liable for those damages. In this regard, depending on the design of the environmental liability regime, the threat of liability presumably motivates potentially responsible parties to take measures to prevent any environmental damages they might otherwise have caused in the absence of such a threat. It is such an effect that is referred to when it is said that environmental liability has a preventive effect on environmental damages.

However, little is actually known about the effect existing environmental liability regimes have on the prevention of environmental damages. Moreover, the prevention of damages cannot be measured directly, but can only be approximated by deviations from expected levels of damages. That said, a liability regime may promote remediation and prevention, have no effect on environmental protection in general, or perversely encourage polluters to abandon environmental stewardship and invest in ways to avoid liability altogether. Therefore, in evaluating environmental liability as a policy tool, it is of interest to understand the empirical relation between the threat of liability and the level of environmental damages that are covered by the liability regime.

Whether a liability regime will influence potential polluters to invest in prevention effectively and efficiently will depend in part on a number of factors:

• whether the potential polluters understand that they are potentially responsible parties under the liability regime;
• whether they can escape liability by spinning off or delegating risky activities;
• how likely they perceive that a case will be brought against them if they cause damages;
• how likely they perceive that they will be held liable if a case is brought against them;
• how much they perceive they will be required to pay in compensation if a judgement is made against them; and
• whether they perceive a judgement against them would be enforced;
• how is the liability regime linked with (other) environmental regulation.

The responses to these questions thus may depend in part on:

• how clearly the liability regime is designed;
• the measures available to potentially responsible parties to discourage cases from being brought against them,
• the number of cases that are brought,
• the type of liability (fault versus strict, exemptions or defenses allowed, joint and several or proportional liability, access to justice provisions, …) and burden of proof imposed on the parties involved,
• whether potentially responsible parties have the option to take out insurance policies to limit their liability, and
• how strictly judgements are enforced.

In exploring the relationship between environmental liability and its preventive effect, then, any information that would provide any insights into these factors would be quite useful. In particular, it is of interest to know how the various types of liability – strict or fault, joint and several or proportional, retroactive or prospective – influence its preventive effect. For example, one might assume that retroactive liability would not have much of a preventive effect, since parties could not be expected to appropriately alter their behavior based on liability rules that have not yet been written. Nevertheless, more empirical evidence is needed to shed light on this line of inquiry.

In general, it is of interest to better understand how polluters may discourage liability cases from being brought against them, or how they may evade liability altogether.
As such, there may be a number of explanations other than the preventive effect behind any apparent decrease in environmental damages when a liability law is introduced. It is possible that the threat of liability will encourage polluters to change their behavior such that it becomes impossible to link them with the damages they have caused. A concrete example is the argument in the United States that industries that burned their hazardous waste on site tend to be held less liable under Superfund than industries that buried their waste. While such an evasion of liability might be difficult to detect, it would be a mistake to attribute the “decrease” in damages to the preventive effect. Further, it is also possible that polluters will not invest in prevention but will seek to manipulate the liability regime to their own benefit. For example, firms might exploit the rules of a liability regime through the creation of smaller, protected entities, that in turn are shielded from liability in deference to their limited resources, and delegate damaging activities to these entities. Such a consequence of liability has been referred to as the spin off effect. Empirical evidence already exists that indicates that smaller entities are responsible for damages greater than their size and number would predict. Again, it would be a mistake to attribute any “decrease” in damages on the part of the parent firm to the preventive effect if in fact it were due to the spin off effect. In both cases, it would be of interest to better understand how liability influences the overall level of environmental damages, rather than damages that are narrowly defined.

In the EU, the spin-off effect is a matter of particular concern. It would be particularly useful to know more about the dimension of the problem and of possible ways to limit its negative impact.

Finally, if environmental liability can be shown to have a positive correlation with prevention, it would be of great interest to better understand the costs associated with such prevention. Liability is only one among several policy instruments and good policy should try to maximize social benefits by electing to use policy instruments in a cost-effective manner.

**Study Objective**

The European Commission intends to launch a study with the objective of better understanding the relationship between environmental liability and the prevention of environmental damages. While it is understood that including all the factors mentioned above in such a study might not be practicable, it is desired that the study shed as much light on the relationships between these factors as possible. The effectiveness of strict liability in terms of increased levels of prevention and the significance of the spin-off effect are considered to be the prime objectives of the study and priority should be given to address these factors.

It is anticipated that such a study would identify an environmental liability regime suitable for modelling, and analyze data related to that regime using econometric approaches. The study need not be limited to European environmental liability regimes.
The anticipated audience of such a study will include those with a general interest in liability, as well as subject experts, so that the main report of the study should be written for a general audience, with technical notes attached.

It is anticipated that the findings of the study will be discussed in a seminar convened by the European Commission for that purpose. The participants will include policy makers, subject experts and various stakeholders.

**Tasks**

- Identify and characterize an environmental liability regime as a suitable model.
- Identify data sources related to the chosen environmental liability regime and justify the choice of parameters used to represent the various factors expected to influence the prevention of environmental damages. Particularly important are the strictness of the liability rule and the significance of the spin off effect.
- Develop a methodology that isolates and clarifies the relationship between liability and the prevention of environmental damages – if the effect of some relevant factors on prevention cannot be isolated, explain why.
- Discuss unresolved questions that the study might raise.

**Study Duration**

The overall duration of the study is estimated to be six months from the time a contract is signed.

**Deliverables**

- **Inception Report**: due 1 month after the signature of the contract. The inception report will further specify the issues to be investigated in the manner agreed to during the consultant(s)’ consultation with the Commission (see Study Logistics). It will, where considered necessary by the relevant Commission services, clarify and specify any elements of the proposed methodology, including the appropriate parameters to be studied. The inception report will document the sources of information that will be used for the study. Finally, the inception report will specify the general contents of the interim and final reports.

- **Interim Report**: due three months after the signature of the contract. The interim report will be prepared as specified in the inception report. To the extent possible, the interim report will explain the preliminary findings of the study, outline the work to be completed before the preparation of the final report, and indicate any conclusions expected to be included in the final report. At the completion of the interim report, the relevant Commission services will be requested to provide comments, which will be incorporated into the draft final report by the consultant(s) as appropriate.

- **Draft Final Report**: due five months after the signature of the contract. The draft final report will be prepared as specified in the inception report, incorporating the
comments solicited at the completion of the interim report, and will already include an executive summary. At the completion of the draft final report, the relevant Commission services will be requested to provide comments, which will be incorporated into the final report by the consultant(s) as appropriate.

- **Final Report** due six months after the signature of the contract. The final report will include an executive summary that should be expected to be the most widely disseminated and read part of the report. The consultant(s) will provide five paper copies of the final report and an identical electronic copy of the final report, in Microsoft Word format. For publication purposes, tables and figures should be clearly readable, using different pattern-fillings instead of colors or shades of white-black-gray. If pictures/images are inserted from other sources the result has to be distinctive and clear.

**Study Logistics**

The (lead) consultant will be expected to meet in person with the Commission services that deal with issues examined in this study, as identified by the Commission itself, at least once during the preparation of the inception report and at least once during the preparation of the draft final report. This is to ensure that adequate communication and appropriate exchanges will occur on a timely basis between the consultant(s) and the relevant Commission services. This is also to ensure that there is a clear agreement between the consultant(s) and the Commission regarding the acceptable quality and delivery date of the final report.

**Selection and Award Process**

The tenders submitted will be evaluated in two stages. The first stage is the selection stage, and only tenderers meeting the selection criteria will be evaluated on their tender for final award, according to the award criteria in the second stage.

**Selection Criteria**

To pass the first evaluation stage, tenderers must meet the criteria outlined below.

- Candidates should be individuals or legal entities, or a consortium of either, and provide evidence of this at the time of tender by way of registration documents or numbers from official registers or certificates.

- Candidates must give evidence of their financial viability by furnishing (extracts from) financial statements covering the last three years.

- Candidates must demonstrate that they have an advanced level of expertise in the field of environmental economics, and in particular technical competence in the research of the prevention effect of environmental liability, as evidenced by the qualifications and composition of proposed teams and the scope and quality of their previous research. A list of the principal papers produced concerning the
prevention effect of environmental liability by members of the proposed team should be attached by the candidate.

**Award Criteria**

The tenders of the tenderers that meet the selection will be evaluated for final award according to the criteria below.

**Understanding**

This criterion serves to assess whether the candidate(s) has fully understood all the requirements of the contract, as presented above, including the required content of the final report.

**Methodology**

This criterion serves to assess whether the candidate(s) propose(s) a methodology for preparing, reviewing, analyzing and/or assessing data in conformity with the stated needs of the Commission; in proposing a methodology the tender will be evaluated according to the demonstrated familiarity of the proposed team with data sources appropriate to the needs of the Commission.

**Communication Skills**

This criterion serves to assess whether the tender demonstrates an ability to communicate technical material in a way that is clear to other technical experts while still accessible to a general audience.

**Points:** a maximum of 20 points will be attributed to the criterion ‘understanding,’ a maximum of 50 points will be attributed to the criterion ‘methodology’ and a maximum of 30 points will be attributed to the criterion ‘communication skills’. To be selected, candidates will have to obtain a minimum of 10 points for the criterion ‘understanding,’ a minimum of 40 points for the criterion ‘methodology,’ and a minimum of 20 points for the criterion ‘communication skills’, which gives a total minimum of 70 to be obtained.

**Costs:** the overall project costs (including fees and all other costs) have been estimated at around €50,000. This is an estimation and the final contract cost may differ from it. The price of each tender will be considered in the award decision to determine the best value for money when selecting between technically comparable bids.