

The role of ecological restoration in the assessment of environmental damage in international law

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Abstract: Damage to the environment is difficult to assess in monetary terms as most natural resources and services are not traded in the market place. In this presentation, we look at the assessment and the compensation for environmental damage in international law. The comparison and analysis of the various international Conventions and Resolutions dealing with the liability for ecological damage enables to identify convergence and common evolutions in the way the issue of compensating for damages to the environment is addressed. In particular, we show that most of them refer to the cost of restoring the environment as the value of compensation amounts granted for ecological damage. We then consider the rationale behind the restoration cost approach.

Keywords: identifying appropriate conservation and restoration objectives ; restoration of wilderness areas.

Introduction

Ecological disasters, such as the Amoco Cadiz oil spill (1978) or the dumping of toxic waste in Côte d'Ivoire (2006) have an important impact on public awareness. Citizens ask justice to sentence the liable parties to compensate for the damage done. The impairment of the environment leads to usual categories of damage, such as the economic losses suffered by fishermen or the tourism industry. However, other kinds of more specific damages appear. First of all, the aesthetic, leisure value of the environment is blown, at least for a while. In addition, recognition of the intrinsic value of nature leads to consider the value of nature *per se* apart from human interest to be compensated in case of damage. The computation of a compensatory amount for those kind of damages -which are commonly defined as ecological damage, environmental damage or damage to the environment- appears to be a major challenge for environmental law (Lammers, 2007). A first reason lies in the fact that these impacts usually have no financial impact on the public. A second reason is that they refer mostly to goods and services that are not traded in the market place.

The aim of this presentation is to analyse how the issue of granting compensation for ecological damage has been addressed in international law. We briefly introduce the different international Conventions and Resolutions which were taken into account in this study. We then identify convergence and common evolutions in the way the issue of compensating for damages to the environment is addressed nowadays. In particular, we show that most of them refer to the cost of restoring the environment as the value of compensation amounts granted for ecological damage. This leads us to consider the rationale behind the restoration cost approach.

Materials and methods

In order to carry out this study, we identified, analysed and compared 20 different international Conventions and Resolutions defining liability for environmental damage, reported in the list below. We also considered, for comparative purpose, some US and

European legislations which also define liability for environmental damage (CERCLA, OPA, 2004 EU Environmental Directive).

International Conventions¹ and Resolutions addressing liability for ecological damage

- Convention on Third Party Liability in the Field of Nuclear Energy, Paris, 1960;
- Convention on the Liability of Operators of Nuclear Ships, Bruxelles, 1962;
- Convention on Civil Liability for Nuclear Damage, Vienna, 1963;
- International Convention on Civil Liability for Oil Pollution Damage, London, 1969;
- Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, Bruxelles, 1971;
- Convention on International Liability for Damage Caused by Space Objects London, Moscow, Washington, 1972;
- Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977;
- Convention on the Regulation of Antarctic Mineral Resource Activities, Wellington, 1988;
- Convention on Civil Liability for Damage Cause during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels, Geneva, 1989;
- UN Security Council Resolution 687 of 3 April 1991 and following Decisions of the UN compensation commission established by this Resolution to process claims and pay compensation for losses resulting from Iraq's invasion and occupation of Kuwait;
- Convention on biological diversity, Rio, 1992;
- Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Lugano, 1993;
- Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, London, 1996;
- Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal Basel, 1999;
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Montreal , 2000;
- UNGA Res 56/83 Responsibility of States for internationally wrongful acts (12 December 2001)
- International Convention on Civil Liability for Bunker Oil Pollution Damage, London, 2001;
- The protocol on civil liability and compensation for damage caused by the transboundary effects of industrial accidents on transboundary waters, Kiev, 2003 to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Convention on the Transboundary Effects of Industrial Accidents
- Annex VI Liability Arising from Environmental Emergencies, Stockholm, 2005 to the Protocol on Environmental Protection to the Antarctic Treaty
- UNGA Res 61/36 Allocation of loss in the case of transboundary harm arising out of hazardous activities (4 December 2006)

Results and discussion

The analysis of the various Conventions and Resolutions defining liability for ecological damage first revealed that the question of compensating for environmental damage has been an on-going, as well as highly debated, discussion issue within many international fora since the 1960s (de la Fayette, 2005). The comparison of these Conventions and Resolutions enables to identify convergence and common evolutions

¹ Of course, their evolutions by amendments are taken into account.

in the way the issue of compensating for damages to the environment has been addressed. In particular, most of them refer to the cost of restoring the environment as the value of compensation amounts granted for ecological damage (I). The rationale behind this approach deserves careful attention (II).

I. Trends and evolutions in international law

A main feature in international law is the clear preference to compensate for environmental damage by restoring the environment to its baseline condition. Therefore, nowadays, the compensation for ecological damage is defined in most international Conventions and Resolutions as the cost of reasonable practical actions required to restore the environment. A retrospective analysis shows that damages to the environment were not addressed as such in international law until the beginning of the 1980s. Up to that period, damage to natural resources seemed to be taken into account in an indirect manner, through the acceptance to compensate for preventive measures (I.1). Explicit reference to reinstatement measures appears in 1984, when a revision of the CLC Convention was considered (I.2). Newer steps have been taken since, especially by allowing in the definition of reinstatement measures the introduction into the environment of the equivalent of the damaged or destroyed components. This broadening of the notion of reinstatement measures seems interesting as it enables to repair both interim and irreversible damages (I.3).

I.1 Preventive measures, the first step towards compensation for ecological damage.

In a first period, liability regimes did not detail in a precise manner the type of claims covered. For example, the 1969 CLC Convention defines pollution damage as «the loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, and includes the costs of preventive measures and further loss or damage caused by preventive measures».

Even though international law did not contain at that time specific stipulations as regard environmental damage, most liability regimes already allowed compensation for reasonable measures taken by any person in order to prevent or minimise loss or damage.

Depending on the relevant regime, these measures are called defined as “preventive measures”, «response measures» or «response action». The common aim of these measures is to avoid or limit all kind of damages, including ecological one. By allowing compensation for this kind of measures, liability regimes provide clear economic incentives for potential claimants to limit as much as possible the extent of the pollution of the environment, with the aim to minimize the overall social cost of damage.

Therefore, the compensation for preventive measures can be seen as a first, implicit, indirect and minimal recognition of the value of adverse impacts of pollution on natural resources. For this reason, it seems possible to consider preventive measures as a first step towards the compensation for environmental damage.

1.2 Measures of reinstatement, restoration of the damaged environment

Reinstatement measures explicitly appeared in international law in 1984, when a Protocol revising the 1969 CLC Convention was considered, thus changing its definition of pollution damage. Following the intent of the negotiators of this Protocol, reinstatement measures can be defined as practical actions taken in order to return natural resources and services to baseline. Although the 1984 CLC Protocol never came into force, reference to reinstatement measures appeared shortly after in other international liability regimes, thus showing how the international oil pollution liability regime has had an influence on the evolutions in international environmental law.

Conventions modelled on the CLC Convention accept to compensate for the cost of the measures to reinstate the contaminated environment, provided that these measures are reasonable. In addition, those measures must be actually undertaken or to be undertaken. Some texts define in a more precise manner those measures. For instance, the UNGA Resolution 56/83 specify their objectives: «to re-establish the situation which existed before the wrongful act was committed». Other texts mention the objective to usually restore or reinstate the environment. Basel Protocol and UNCC add valuation of damaged or destroyed elements.

An exception exists as regards to the requirement that measures must have been taken or will effectively be taken but concerning response actions. The Annex VI to the environment Protocol to the Antarctic Treaty states that «when a State operator should have taken prompt and effective response action but did not, and no response action was taken by any Party, the State operator shall be liable to pay the costs of the response action which should have been undertaken (...)». Even though this statement does not require that the response measures should have been undertaken in order to compensate for them, it refers however to the cost of restoring the environment to baseline condition as the monetary value of the claim awarded for damage to the environment.

1.3 The introduction of the equivalent of the damaged components into the environment: a new step

Several months before the Rio Earth summit Conference, the Lugano 1993 Convention included in its definition of reinstatement measures the possibility to introduce, where reasonable, the equivalent of the damaged or destroyed components into the environment. Several liability regimes took the same direction, such as the two nuclear liability Conventions Vienna 1963 and Paris 1960 as amended in 1997 and 2004 respectively.

The introduction of the equivalent of the damaged or destroyed components of the environment is an interesting feature in the compensation for environmental damage to the environment, given that preventive and reinstatement measures as such leave uncompensated irreversible and interim damage. By allowing to compensate for the introduction of equivalent resource, one allows to reinstate alternative sites or ecosystems when it is impossible to bring back the contaminated environment to normal condition. This kind of restoration approach is also suitable for compensating for the losses suffered by the public and the environment until the altered resources fully recovered from the pollution.

However, the introduction of equivalent resources or services is not yet allowed in most liability regimes modelled on the CLC Convention. Given the particular influence of the international oil pollution liability regime on some other international liability regimes, such an amendment to CLC Convention would favour the spread of the introduction of equivalent resources in reinstatement measures in international law. CLC Convention does not consider this introduction yet but perhaps it could be influenced in the future by European Union and United States legislations, as well as Decisions from UN Compensation Commission, which accept this kind of restoration approach.

II. The rationale behind the restoration cost approach

The cost of restoring the natural resources and services affected by the pollution to their baseline condition clearly appears to be the appropriate mean to value environmental damage in international law.

This approach can be challenged in several ways, especially from an economic analysis standpoint. First, in terms of concepts, the restoration measures approach does not capture the value of ecological damage as such, but the cost to reinstate the environment instead, which is different. Consequently, this indirect manner to approximate environmental damage leads to different values than those calculated by applying standard economic valuation methods (contingent valuation, benefit transfer, travel costs...) which enable to assess the losses of value suffered by the environment (Mazotta, Opaluch et al. 1994).

However, several factors favour the use of this approach in the monetary assessment of ecological damage, especially when one takes into account the specificity of the context in which it is applied: damage compensation.

II.1. Better adequacy of restoration cost approach

Several key questions arise when considering the compensation for ecological damage. The first question relates to the legal status of the affected natural resources and to the right to claim compensation for damage caused to such resources. As clearly presented by Brans (2001), ecological damage refer mostly to damage to unowned natural resources, and therefore affect collective rather than private interests. The second question is the difficulty to assign a monetary value to non-financial losses, such as ecological impacts. The problem to recover damages of this kind lies in the fact that traditional liability regimes aim to protect individual interests and to compensate for monetary losses.

The restoration cost approach enables to bypass in a very convenient manner both questions. First, the reference to the measures required to restore the environment rather than to the value of the environment as such enables to convert a non-monetary loss into a financial loss, which fits better in conventional liability regimes. At the same time, it affects the interest of an individual, namely the claimant which undertook to restore the environment, thus allowing him to pursue a “traditional” claim, for the reimbursement of the costs he has incurred due to the pollution, in order to restore the environment.

II.2 Better acceptance and legitimacy of restoration measures approach

In addition to the key questions addressed above, other factors may explain the key role of ecological restoration in the assessment of natural resource damage.

In-kind compensation, rather than monetary compensation, seems more appropriate from a moral standpoint when it relates to the alteration of nature. Urging the liable party to bear the costs to repair the affected resources ensures that sufficient money is collected in order to achieve the aim of this approach: the complete restoration the environment. Thus, no adverse effect of pollution is left, and the public as well as the environment are made whole for the damage suffered.

In addition, lawyers as well as the public are generally unaware of the concepts (total economic value of the environment, use and non-use or passive use values) and methods developed in economic analysis in order to value ecological damages. At first sight, this scientific corpus may appear abstract, theoretical or even esoteric to the uninitiated, and consequently not suitable for the compensation of claims. On the other hand, the idea to link compensation amounts to the cost to restore the environment seems rather intuitive and convincing, and therefore acceptable.

Conclusions

The analysis showed that main feature observed in international law as regards the compensation for environmental damage is the intent to link the compensatory amounts to the cost of the practical actions undertaken to restore environment. In addition, the analysis displayed some continuity in international law, from the compensation for preventive measures to the compensation for the introduction of equivalent resources in reinstatement measures.

Several factors are likely to explain the preference for ecological restoration as the appropriate mean to compensate for environmental damage. Urging to restore the environment solves the problems of compensation funds allocation, as well as it has clear public support. Furthermore, the introduction of equivalent resources into the environment allows more flexibility in the manner to reinstate polluted sites, as well as it enables to compensate for interim and irreversible losses.

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