The Precautionary Principle in International Environmental Law: What's New Under the Sun?

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Round-the-World News

United States

The US House of Representatives has put forward a proposal to phase out the killing of dolphins by American tuna fishermen by the end of 1992.

Pacific

Pressure is growing on Pacific nations, following Fiji's ban on turtle hunting in its seas. Meat sales and the export of shells are also to be strictly controlled.

UK

A proposed sewage outfall in the Moray Firth, Scotland, may seriously affect the last remaining group of bottlenosed dolphins in North Sea coastal waters. It is feared that pathogens in the sewage will infect the dolphins.

The British Government has rejected calls to further restrict the culling of seals by Scottish fish farmers.

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LAWS OF THE SEA

The Precautionary Principle in International Environmental Law:

What's New Under the Sun?

After a period in which relatively successful efforts have been undertaken to get the principle of precautionary action accepted in international environmental fora, the point has now been reached where the question forces itself upon us what the implications of this dissemination of the principle are. As was rightly noted by J. S. Gray (*Mar. Pollut. Bull.* **21**, 174–176), these implications are essentially to be found in the realm of (international) environmental policy and law. The question at issue is whether or not, and if yes, how, the principle distinguishes itself in the already dense normative scenery in this field.

Let's first recapitulate. The appeal of the principle for those apprehensive for the fate of the environment is obvious. The principle of precautionary action is a principle of prevention. It requires states to reduce polluting emissions at source, even in the absence of sufficient evidence to prove a causal link between emissions and adverse environmental effects. After the Federal Republic of Germany introduced this term in the early eighties ('das Vorsorgeprinzip'), it has found a broad application in international environmental law. The principle has been mentioned as a basis for measures for the protection of the ozone-layer, the reduction of the greenhouse effect and the conservation of nature. But its true application is still to be found in the field of marine pollution: the principle has, after its first explicit adoption at the Second North Sea Ministerial Conference in 1987, been adopted by the Paris Commission established under the 1974 Convention on the Prevention of Pollution from Land-Based Sources (Recommendation 89/1 of June 1989), the Parties to the 1976 Convention of the Protection of the Mediterranean Environment (Recommendation of October 1989), and the Governing Council of UNEP (Decision 15/27 of May 1989). In addition, the principle is being considered by the Parties to the 1972 London Dumping Convention, and has been taken up by the Preparatory Commission of the 1992 United Nations Conference on Environment and Development.

Now that the principle has been broadly endorsed, time has come to sit back and contemplate on the question what the principle will yield for us. Such a contemplation should depart from three interrelated assumptions, which together indicate the limits within which any international environmental norm has to operate. First: in the present world it is inevitable that society produces a certain amount of waste which, since the world is a closed system, eventually must enter the environment. Secondly: the state of science is such that it is often impossible to deliver fully conclusive proof of the (non-)detrimental effects of waste generating activities. And thirdly: no waste-generating human activity is free of risk as regards its environmental consequences. It follows that the development of (legal) principles or rules is axiomatically based on judgments, on the basis of available scientific advice, on which (risks of) detrimental effects for human health or for the environment are acceptable. The stringency of principles and rules may vary, and may in particular cases lead to an elimination of pollution by certain emissions, but on the whole the elimination of (risks of) detrimental effects remains a utopian ideal.

Consequently, the precautionary principle can only aim to reduce, and not eliminate, the (risks of) detrimental effects. To realize this aim, it requires that only

those substances may enter the environment for which it has been 'proven' that the effects on the environment will not be detrimental. Substances for which the non-harmful effects have not been proven, and which thus *may* cause harm (represent a risk or harm), should be prevented from entering the environment. This indeed is precautionary in the literary sense of the term. As it is however, given our assumptions, not possible to eliminate all harm, somewhere along the road, either in the level of risk of the level of harm, a threshold has to be introduced indicating which inputs of substances are, and which are not compatible with the principle. A strict interpretation of the principle in that no substances may be introduced unless it has been proved that they are harmless would render the principle fully meaningless for practice. Precisely because it needs the thresholds and cannot be formulated to absolute terms, its definition fails to make clear the distinctive nature of the principle. To elaborate this point let us first engage in a somewhat theoretical analysis.

Under international law, the traditional and virtually undisputed starting point for the obligations of states relating to the environment is the duty to prevent substantial harm to the environment of other states, or to areas beyond national jurisdiction: the so-called 'no-substantial harm principle'. The obligation to prevent extends to all substantial harm that is foreseeable. But as 100% foreseeability is rare, given the margins of uncertainty as regards cause-effect relationships and the impossibility to exclude risks, as a matter of definition, risk of substantial harm is a constitutive element of this obligation. Its scope, and thus the degree of due diligence required, is a function of the probability of the occurrence of harmful effects and their magnitude. The obligations imposed by the no substantial harm principle thus are more stringent, the more dangerous the pollutants are, the greater the possibility that they *may* cause harm, and thus the greater the risk. In cases of pollutants which pose great risk, more alertness, precaution and effort is required than in respect of pollutants which are less likely to cause substantial harm. The principle thus requires in each particular case a decision on which risks are acceptable. But it is clear that in broad interpretations, the scope of the preventive obligation can be particularly wide. Illustrative is the version of the principle as that has been developed by the International Law Commission on International Liability for Injurious Consequences Arising Out of Acts not Prohibited by International Law. Art. 8 of the 1990 draft* provides that:

> States of origin shall take appropriate measures to prevent or, where necessary, minimize the risk of transboundary harm or, where necessary, to contain or minimize the harmful transboundary effects of such activities. . . .

The concept of risk has been provisionally defined in art. 2 in such terms, that the obligation both applies to recurring discharges of minor pollution where the risk of appreciable harm is high, like continues transboundary water pollution, and to large-scale incidental accidents where the risk is low but the harm caused may be considerable. The scope of polluting activities to which the obligation to take preventive measures applies may prove to be rather wide.

While all this is far from accepted and opinions over the extent to which the likelihood of harm indeed is covered by the obligation continue to differ, it is clear that the idea of minimizing risks, by requiring that activities which may cause detrimental effects to the environment are prevented from taking place, and that this obligation becomes more stringent as the risks increase, is being asserted along different paths, and that the principle of precautionary action does not really break new ground in this respect. The requirement that substances which may cause harm to the environment should not be introduced into the environment is not a *distinctive feature* of the precautionary principle. In the final analysis it is all a matter of thresholds: which risks are acceptable (on this point the precautionary principle in itself does not provide any indication) and which level harm is to be prevented. It is only with respect to this latter issue that the precautionary principle, as a general principle, distinguishes itself. Whereas the no substantial harm principle indeed is always accompanied by the adjective 'substantial' (or, alternatively, 'significant' or 'appreciable'), such qualifications usually are not considered as part of the precautionary principle. While the direction in which this principle argues is not distinctive, it could be interpreted as imposing a more stringent threshold. But then again, this is not a fair cmparison as the no-substantial harm principle should meet the strict requirements of customary international law whereas the precautionary principle for the time being is not more than a, mostly legally non-binding norm, operating within the framework of particular agreements.

The distinctive features of the precautionary action can therefore only be found on the more practical level of specific agreements. Here however we find that a similar argument can be made: the distinctive features lie not in the type of measures required, but can only lie in the scope and stringency of the measures which implement the principle in practice. Any measure implementing the principle should assure that the introduction of substances for which the non-harmful effects have not been proven, and which thus represent a risk of causing harm, is prevented. But obviously, the adoption of regulatory measures in the absence of scientific consensus on cause-effect relations, is not the type of argument that can show the distinctive character of the precautionary principle. That idea since long has influenced international legal instruments. Examples are the 1985 Vienna Convention on the Ozone Layer and its 1987 Montreal Protocol and Directive 82/795/EEC with the telling name 'on precautionary measures concerning CFK's', which were adopted in spite of the existence of considerable scientific uncertainties. A future example could be the convention on global warming which at present is being drafted: as it is unlikely that the scientific disagreements will be over-

*Doc. A/CN.4/428 of 15 March 1990.

come, measures will be taken in the absence of consensus on the causes and, particularly, effects of global warming. Actually, the great majority of international regulatory measures have been taken despite the fact that some deficiencies in our scientific knowledge remained.

Is a distinct meaning then perhaps to be found in the *type* of precautionary measures to be taken? If we leave aside the fact that principles by their very nature do not set out the means by which they are to be realized, it can be noted that in practice a precautionary approach has already been reflected in particular instruments. Take the environmental impact assessment. This has since long been accepted as a means to enhance our knowledge of the consequences of particular activities on the environment. International applications can be found in the 1985 EC Directive on environmental impact assessment, art. 4 of the 1988 Antarctic Minerals Convention and, in the field of marine pollution, the Prior Justification Procedure adopted within the framework of the 1972 Oslo Dumping Convention: no dumping is allowed, unless it can be proven that no harm to the marine environment will be caused. Another example is the requirement to apply the best available technology, included in a number of international instruments. Whatever conditions have been attached thereto, such as 'practicability' or 'economically availability', that requirement can only mean that all that is technologically feasible is done to prevent certain substances from entering the environment. There is little more that can be done to make this requirement more precautionary.

Again, it may be concluded that the direction of the methods required under the precautionary principle is identical to those of many existing international instruments. While in none of these cases the *term* precautionary action has been used, the *concept* of precautionary action clearly underlies them. Instead of introducing a fundamentally different approach, the precautionary principle rather follows the trends. It is for this reason that a lot of confusion has arisen on the point whether particular conventions are or are not in conformity with the newly presented principle. In particular the discussions in the London Dumping Convention are illustrative in this respect.

Consequently, the function of the principle of precautionary action can only be to perpetuate ideas underlying the development of scattered international instruments, and on top of that provide a basis for a further and broader application of such instruments. Indeed, there is some room for an argument that the added value of the precautionary principle could lie in the scope and stringency of its application. The scope of instruments such as impact assessments and requirements to apply the best available technology has always been relatively limited. In particular an important source of marine pollution, as land-based pollution, has for long virtually escaped their application. The traditionally used parameters for the establishment of preventive measures (toxicity, persistence and bioaccumulation) have been criticized as they do not readily translate into a simple basis for decision making. It is not an unreasonable idea that, now that we have the principle of precautionary action, we can use it as a starting point for a broader application of methods to reduce the risks of detrimental effects.

Such a broader application can take a variety of forms: again, the principle itself does not and cannot stipulate the methods through which it is to be realized. One proposal that has been made is simply that more substances are included in the black or red lists of substances which have to be eliminated. In practice, a broadening of the application of preventive measures has for the time being been found in the requirement that by using clean production methods, substances adversely affecting the environment should be phased out. As was noted in a submission the Federal Republic of Germany to the London Dumping Convention, "Emission standards alone also cannot prevent insidious alterations. But precautionary action which adapts these standards to technical means and thereby leads to techniques of recycling, reduction and avoidance of wastes can help to reduce, . . . the probability of insidious alterations which otherwise could lead to drastic events. . . . Precautionary action thus means solving technical and economical problems."* This is also the direction that has been followed by the Preparatory Commission for the United Nations Conference on Environment and Development which decided that among the subject areas that should receive further consideration in the course of the preparatory process of that Conference is the application of the precautionary approach, *implemented through clean production methods*, at the global, regional and national level, targeted at all synthetic and persistent substances that directly or indirectly enter the marine environment†. First steps towards a concrete (implicit) application of such an approach have been set in the Paris Commission, which has started to realize its aim to avoid inputs in the environment by defining the best available technology for specific industrial sectors. Up to now this has resulted in PARCOM Recommendation 90/1 on the Definition of the Best Available Technology for Secondary Iron and Steel Plants.

Although this approach certainly has to be welcomed, and it might indeed be pursued under the heading of the precautionary approach, much is relative. A similar approach is also pursued under different headings. Illustrative is that, based on the notion of sustainable development, and without embodying a precautionary principle, the 1989 Netherlands Environmental Policy Plan, gives priority to the development of closed loop systems. Moreover, bringing it on one or another heading does not free us of long standing problems of interpretation such as the criterion of economic availability; a broad margin of interpretation remains.

In its search for a distinctive application, there are also procedural aspects to be taken into account. Indeed, while instruments as environmental impact assessment or the application of the best available tech-

*LDC/SG 13/8/1.
†Doc. A/CONF.151/PC/WG.II/L.I.

nology in themselves are very precautionary, that character often has been undermined during their application. Consequently, if we want to make (international) environmental policy more precautionary, it is not sufficient merely to prescribe other or more preventive measures, but also to build in, and to use, mechanisms to ensure their application. This would require a better use of supervisory mechanisms where they exist, and introduce them where they do not yet exist. This as well would require an extension of already existing practices, such as the Prior Justification Procedure of the Oslo Commission: substances may only be introduced if it has been indicated with an acceptable margin of uncertainty that they do not cause harm to the environment. Where such requirements are impracticable (for instance as regards pollution from diffuse sources), they might be applied at the more general level of the application of the best available technology or practice. This would result in a construction as is now contained in Directive 86/260/EEC: states are only allowed to grant licenses to new industrial plants, when these plants apply norms in accordance with the best available technical means; in case a state decides to grant a licence which does not accord to the best available technology, the Commission shall be notified which thereafter may propose appropriate measures.

While it is not difficult to find ways through which international environmental policy and law can be made more precautionary, none of these ways is necessitated by the newly adopted precautionary principle. The adoption of the principle of precautionary action has done little more than put a label on a growing consensus on the approaches to be taken. To repeat, this label is not a new concept, only a new term. The principle perpetuates existing trends and may be used as a basis for the further and broader application of such measures. The new term may however go to lead a life on its own which may be used in support of preventive measures. An example of how this might work out can be taken from the 1990 Meeting of the Paris Commission. A Swedish proposal for a PARCOM decision on the reduction of discharges of chlorinated organic substances from the production of bleached kraft pulp and sulphate pulp was objected to by Spain because, among other things, there was no final scientific assessment on the ecological impact of chlorinated organic substances. The illustrative reply by Sweden was not only that the toxicity has been demonstrated, but also that, even if that should not be the case, we have to reckon with the precautionary principle.

The adoption of the principle of precautionary action, and the effect that it may have on the specific measures taken in various fora, is an example of the adage that if one perceives something as real, it is real in its consequences. While strictly token, there is little in the principle that necessitates a drastic turn in international environmental policy, it may have that effect as it is perceived as requiring far reaching preventive measures. This might be a case where the critical character of legal science should be set aside for a moment.

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VIEWPOINT

Viewpoint is a column which allows authors to express their own opinions about current events.

Sustainable Development in the Marine Context

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The 'buzz words' among environmentalists, ecologists, environmental impact assessment specialists, and even among industrialists, are 'sustainable development'. What do these apparently contradictory terms mean? Various groups in many nations have been wrestling with the concept since it was enunciated in the report, *Our Common Future*, by an international body, chaired by Dr Gro Harlem Brundtland, at that time Prime Minister of Norway (World Commission on Environment and Development (WCED), 1987; Oxford University Press, Oxford and New York).

Sustainable development implies that we must meet