

The Precautionary principle under International Environmental Law: a rule of customary law or merely an approach based on prudence? An analysis

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Abstract: The key objective of the article is to analyze the current status of the precautionary principle under international environmental law; it also aims to identify the concerns that need to be addressed to facilitate its further growth. The article suggests that although the principle is widely applied to regulate the activities impacting common concerns of mankind, it is yet to be applied, as extensively in other fields of environmental management. As a result, at this stage of its development, the principle cannot be said to embody a rule of customary international law. The sporadic use of the principle owes much to the disagreement of states with respect to its exact meaning and scope. Nonetheless, keeping in view its regular codification in international treaties relating to environmental law, and states' reliance upon it in international courts and tribunals to justify their claims, the principle may be said to reflect emerging rule of customary law. To accelerate the process of its evolution, the principle needs to be clarified further by setting forth standards of determining environmental risk, and steps to be taken to remove that risk. Additionally, states should be encouraged to adopt universal definition of the principle so that a single rule can be drawn by looking at international documents and court decisions involving precautionary action.

Keywords: Rule of customary law, common concerns of mankind environmental risk, the precautionary principle, serious and irreversible damage.

Introduction:

The precautionary principle can be defined as environmental protection based on precaution, even when there is absence of clear evidence of harm or risk from an activity.¹ It obliges the states to take precautionary action in spite of the fact that scientific evidence is lacking with respect to harmful impact of the activity desired to be regulated. The principle, in short emphasizes the importance of taking action in those areas of environmental law where there is scientific uncertainty.²

Over the years, the precautionary principle has received enormous support from international community, at the same time; there are disagreements about its exact meaning and scope. For its proponents, the principle has become a rule of customary international law; the critics maintain that the principle is merely an approach based on prudence or common sense.³ The advocates argue that the principle provides basis for early action in the wake of serious environmental threats like climate change and ozone layer depletion. The opponents, on the other hand, regard it a tool for over-regulation in the hands of law enforcement authorities of states.⁴

The major objective of the article is to investigate the existing position of the principle in international law, and identify the concerns that need to be addressed to facilitate its further growth. It will be argued that although the principle is widely applied to regulate the activities having a bearing on common concerns of mankind, such as ozone layer depletion, it is yet to be applied, as extensively in other fields of environmental management, let's say trans-boundary pollution caused by the industrial activities.

The sporadic use of the principle owes much to the disagreement of states with respect to its exact meaning and scope. For one thing, the principle has multiple expressions in international documents. Secondly, there has been a general reluctance on the part of international courts and

¹ “Stuart Bell, Donald McGillivray & Ole W. Pedersen, *Environmental Law* 56 (6th ed. Oxford University Press 2006).

² Norman J. Vig & Regina S. Axelrod, *The Global Environment: Institutions, Law and Policy* 129 (Earthscan 1999).

³ Marko Ahteensuu, ‘Defending the Precautionary Principle against Three Criticisms’ 11 *Trames Journal of the Humanities and Social Sciences* 366 (2007) at 367.’

⁴ *Id.* at 373.

tribunals to make express reference to it. Lastly, the principle itself suffers from ambiguities, at least to the extent of defining environmental risk.

Considering this, the principle at present may only be called an emerging rule of customary law, but taking into account its growing support, it is likely to crystallize into custom in future. To accelerate the process of its growth, the principle needs to be clarified further by setting forth standards of determining environmental risk, that is, evidence required to take precautionary action- should it be *prima facie* evidence of risk, or evidence of serious and irreversible damage to the environment- and steps to be taken to remove that risk. Additionally, states should be encouraged to adopt universal definition of the principle so that a single rule can be drawn by looking at international documents (binding and non-binding) and court decisions involving precautionary action.

In this article, the rationale of the precautionary principle, its evolution, meaning and scope will be discussed in the first place. Secondly, the application of the principle in international documents (binding and non-binding), and jurisprudence of international courts and tribunal will be analyzed. Thirdly, controversy surrounding the status of the principle will be considered, and finally conclusion will be made.

1. Precautionary Principle

1.1 Rationale

Principle 15 of the Rio Declaration on Environment and Development 1992 states:

“where there is a risk of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation.”⁵

This is termed as precautionary principle or approach.

⁵ “Rio Declaration on Environment and Development, adopted June 14, 1992, U.N. Doc. A/CONF.151/5/Rev. 1 (1992) [hereinafter Rio Declaration].”

Although the status of the principle in international law is contentious as yet, there is no denying the fact that it has assumed a vital role in the present day environmental management. To illustrate, in the past few decades, human efforts to explore the nature have been at their peak, and this has led to the discovery of new threats to the environment, some of which pose a challenge to the very existence of mankind. As the scientific knowledge of these threats is still very limited, common sense demands that due care and caution be exercised to prevent future harm to the planet earth resulting from in-considerate human activity. This is the point where precautionary principle comes into play.⁶

The principle requires the states to take precautionary action even if the likely harm is too remote or uncertain. In this way, it helps us prepare meet with uncertainties accompanying developmental work, before the risk of in-action translates into irreversible damage.⁷ Accordingly, the principle can be considered a ‘state of mind’ which helps decision makers to be more sensitive to uncertainties, ambiguities and ignorance associated with the developmental work.⁸ Admittedly, the principle provides no clear guideline for putting it into practice; it nevertheless seeks to reduce uncertainties and negative impacts of developmental work by bringing the decision or decision horizon into focus.⁹

The precautionary principle impresses upon states to take action where possibility of environmental damage resulting from a human activity is not established by scientific evidence but further postponement of the action may result in irreversible harm, unless, preventive measures are taken to regulate that activity.¹⁰ The principle is thus premised on anticipation of environmental harm resulting from an unregulated human activity. While the principle is based on anticipation of harm, how prudent it is to ignore the possible harm till scientific proof becomes available? This is what we are going to discuss in this article.

1.2 Evolution:

⁶ Per Sandin, ‘The Precautionary Principle and the Concept of Precaution’ 13 *Environmental Values* 461 (2004) at 467.

⁷ *Id.* at 463

⁸ *Id.*

⁹ *Id.* at 472

¹⁰ “Per Sandin, ‘Dimensions of the Precautionary Principle’ 5 *Human and Ecological Risk Assessment: An International Journal* 889 (1999) at 901.

In the opinion of Sadeleer, policy measures to reduce environmental harm passed through three different phases.¹¹ First phase involved remedial measures. It called upon states to take remedial action when damage has already occurred; the second phase necessitated timely prevention of the damage when threat to environment is proved by scientific evidence.¹² This approach required that states wishing to adopt preventive measures must prove a case for action by producing scientific evidence of environmental harm. Third phase required taking of precautionary action in anticipation of uncertain risks to the environment, where no definite proof exists that the risk will translate into reality.¹³ While the previous approaches called for taking of action upon happening of actual damage or in the wake of a certain risk, the precautionary approach only demands a probable or possible risk for taking of action.¹⁴ This reflects a significant shift of thinking from reactionary to anticipatory mode. Contrary to previous approaches calling for collection of facts before taking action, precautionary approach requires taking of action first and then gathering facts. Pursuant to this approach, states are obliged to take action for preservation of environment in the wake of anticipated dangers, but the dangers need not to be scientifically proved, they should only be foreseeable in the light of some scientific evidence.¹⁵

The Ministerial Declaration of the International Conference on the Protection of the North Sea 1984 was the first soft law instrument¹⁶ and the Vienna Convention for the Protection of the Ozone Layer 1985 was the first multilateral treaty to recognize the limitations of previous approaches.¹⁷ The 1984 Ministerial Declaration provides:

“States must not wait for proof of damage before taking action since damage to marine environment can be irreversible, or remediable only at considerable cost.”¹⁸

¹¹ Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 91 (Oxford University Press 2002).”

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ Id. at 161.

¹⁶“Ministerial Declaration: International Conferences on the Protection of the North Sea: Bremen, Germany, 1984 available at https://www.ospar.org/site/assets/files/1239/Insc-1984-bremen_declaration.pdf [Retrieved: Jan. 25, 2019].”

¹⁷ “Vienna Convention for the Protection of the Ozone Layer Vienna, 22 March 1985.

¹⁸ Ministerial Declaration: International Conferences on the Protection of the North Sea: Bremen, Germany, 1984.

Comparably, article 2 of the 1985 Ozone Layer convention provides:

“The parties shall take appropriate measures... to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.”¹⁹

In the same vein, article 3 of the 1985 Ozone Layer convention reads:

“The parties undertake, as appropriate, to initiate and cooperate in, directly or through competent international bodies, the conduct of research and scientific assessments on: (a) the physical and chemical processes that may affect the ozone layer...”²⁰

In a nutshell, the two instruments emphasize that if a practice/ human activity seems likely to harm the environment, even if the proof of its impact is not definitive, action should be taken to eliminate or control the practice.

1.3 Meaning and scope:

As stated by Sands, there is no clear and uniform understanding of the precautionary principle.²¹ At general level, it merely calls upon states to be cautious and act with foresight when taking action in relation to the activities threatening to cause environmental damage. Specifically, it implies that states are obliged to regulate and even prohibit the activities likely to cause environmental damage.²² The principle continues to generate disagreement, those in favor argue that the principle provides basis for prompt action in the wake of serious environmental threats like climate change and ozone depletion. The critics on the other hand, regard it a tool in the hands of law enforcement agencies for over-regulation.²³ The principle has been a basis of disagreement between the United States and European Union (EU). According to the US view point, precaution is an approach not a principle, which can vary on case to case basis. At any event, anticipatory action under this approach would be justifiable only when it is based on

¹⁹ Article 2, Vienna Convention for the Protection of the Ozone Layer Vienna, 22 March 1985.

²⁰ Article 3, Vienna Convention for the Protection of the Ozone Layer Vienna, 22 March 1985.

²¹ Philippe Sands & Jacqueline Peel, *Principles of International Environmental Law* 268-269 (2nd ed. Cambridge University Press 2004).

²² Id.

²³ Miguel A. Recuerda, ‘Dangerous Interpretations of the Precautionary Principle and the Foundational Values of the European Union Food Law: Risk versus Risk’ 4 *Journal of Food Law & Policy* 1 (2008) at 16.

scientific data.²⁴ Quite the reverse, the EU regards it a principle which should be relied upon where the harm to the environment is probable, even if the scientific proof is inconclusive.²⁵ Principle 15 of 1992 Rio Declaration defines it as an 'approach', nonetheless, the term approach was replaced by the word 'principle' in 1992 OSPAR Convention.²⁶

For example, article 2 (2) (a) of the OSPAR Convention provides:

“the contracting parties shall apply: (a) the precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern...that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health... even when there is no conclusive evidence of a causal relationship between the inputs and the effects...”²⁷

The unique feature of the principle is its requirement to prevent environmental damage regardless of uncertainty as to the effects of the activity desired to be regulated.²⁸ Pursuant to traditional approaches, potentially dangerous human activity was permissible, unless, evidence could be produced to demonstrate its harmful effects. Under the precautionary principle, potentially dangerous human activity is not permissible if there is ‘reason to believe’ it is likely to cause harm.²⁹ The traditional approach required scientific assessment of the risk in order to authorize prevention of the activity, whereas, the precautionary principle only requires a *prima facie* case that a risk exists, if it does, the scientific uncertainty works against the activity.³⁰

As the definition of precautionary principle involves the element of 'risk' it would be pertinent at this stage to discuss 'risk' in the environmental context, with a view to draw a clear distinction between taking of action in the wake of probable or possible risk under precautionary principle, and taking of action when the damage has already occurred under the previous approaches.

²⁴ Id.”

²⁵ Id.

²⁶ “The Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992.

²⁷ Article 2, the Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992.

²⁸ Sandin, *supra* note 6 at 470. ”

²⁹ Id.

³⁰ Id. at 471

1.3.1 The Concept of Environmental Risk under Precautionary Principle:

The term 'environmental risk' means dangers to the ecological system as a result of human activity.

The Law Dictionary defines the term as:

“actual or potential failure in the environment... [having]... adverse effects on involved living organisms arising out of an organization's activities. Sources of threat are effluents, emissions, wastes, resource depletion, and the like.”³¹

Along the same lines, Defined Term- a Dictionary of Legal, Industry-Specific and Uncommon Terms interprets the expression environmental risk as:

“a substance, a state or an event which has the potential to threaten the surrounding natural environment / or adversely affect people's health, including pollution and natural disasters such as storms and earthquakes.”³²

The latest scientific developments and globalization of economy have introduced new category of risks which were previously either unknown or considered speculative. These include, emission of greenhouse gases, dumping of industrial and radioactive waste, genetically modified organisms (GMOs) and persistent organic pollutants.³³ There is very limited scientific knowledge about these new risks, and because of their uncertainty, it has become a challenge for the policy makers to foresee and prevent the environmental harm associated with them.³⁴ The precautionary principle is not concerned with mere speculations of harm which are without any scientific foundations; neither it covers proven risks which are dealt with under principle of preventive action,³⁵ what it deals with is uncertain risks. The uncertain risks postulate a situation where potentially dangerous effects from an activity have been identified but conclusive

³¹ <https://thelawdictionary.org/environmental-risk/> [Retrieved: Jan. 21, 2019].

³² <https://definedterm.com/> [Retrieved 21 January 2019].

³³ Sandin, *supra* note 10 at 895.

³⁴ *Id.* at 896

³⁵ “According to the principle of preventive action, consequently, the release of poisonous affluences in such extents or concentrations that go beyond the volume of the environment's degradation size must be ceased so as to safeguard that grave or irreparable harm is not imposed on ecosystems. See Principle 6, Trail Smelter, Report of the United Nations Conference on the Human Environment, 11 I.L.M. 1416 (June 16, 1972).

scientific proof is lacking to justify remedial action.³⁶ For instance, in the case of greenhouse gas emissions, the available evidence indicates that their emissions will cause global warming resulting into a rise in sea level, leading to world-wide ecological disturbance.³⁷ This being said, it is not yet known how rapid is the phenomenon and which part of the world will be worst affected in case the threat translates into reality.³⁸

Nonetheless, since the minimum scientific evidence is available, the states are inclined to take precautionary approach, and have undertaken to reduce greenhouse gas emissions to a certain minimum level.³⁹

1.3.1.1 Threshold of Risk for application of precautionary principle:

As said by Sandin, although, precautionary principle does not require that possibility of damage be fully demonstrated, it should not be applied in situations where the possibility of harm is too remote and anticipated damage is insignificant.⁴⁰ To illustrate, scientific study shows that chances are one in a million that chlorinated water is injurious to human health, in suchlike cases there is no scope for the application of precautionary principle because the likely damage is not serious or irreversible and probability of its occurrence is extremely low.⁴¹ Far from it, repeated experiments on insects have shown that consumption of genetically modified organisms (GMOs) is dangerous to life. In such cases, while no conclusive proof is available to establish the negative effects of GMOs on human health, yet keeping in view the scientific experiments (research shows that certain butterflies were killed by consuming GMOs), it can be said that there is a genuine possibility of harm and the likely damage can be serious, hence the duty of care and

³⁶ Sandin, supra note 10 at 896.”

³⁷ Ahteensuu, supra note 3 at 379.

³⁸ Id.

³⁹ “Michael B. Gerrard and Jody Freeman, *Global Climate Change and U.S. Law* 315 (Chicago Illinois: ABA Publishing 2008).

⁴⁰ Per Sandin, ‘Dimensions of the Precautionary Principle’ 5 *Human and Ecological Risk Assessment: An International Journal* 889 (1999) at 893 See also Nicolas DE Sadeleer *Environmental Principles: From Political Slogans to Legal Rules* 173 (Oxford University Press 2002)

caution demands that remedial action should be taken.⁴² Thus, the damage to be averted should be specific notwithstanding the fact that the criteria of seriousness and irreversibility are not always satisfied.⁴³

The level of environmental risk justifying precautionary action varies in different hard and soft law instruments, according to their distinct aims and objectives. As an example, the 1992 Rio Declaration uses the term 'serious or irreversible damage' to bring into action precautionary principle,⁴⁴ while the 1992 Convention on Biological Diversity calls for precautionary action when there is a threat of 'significant reduction or loss of biological diversity'.⁴⁵ The term 'irreversible damage' refers to the situation where it is impossible to return to the point of departure, much as the term 'serious and significant' can be taken to mean collective damage of catastrophic nature.⁴⁶ Granting all this, Sadeleer contends that determining the gravity of an environmental risk is a function of political authorities of each state according to the priority they assign to environmental concerns.⁴⁷

Because of differing standards of environmental risk, the principle sometimes is taken as a vehicle for imposing environmental standard of one state upon another.⁴⁸ For instance, in cases of precautionary action affecting free trade, risk assessment standards of one state may come into

⁴¹ Kimmo Jalava, Ismo Pölonen, Pekka Hokkanen & Markku Kuitunen, 'The Precautionary Principle and Management of Uncertainties in EIAs – Analysis of Waste Incineration Cases in Finland' 31 *Impact Assessment and Project Appraisal* 280 (2013) DOI: 10.1080/14615517.2013.821769."

⁴² Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 162-165 (Oxford University Press 2002).

⁴³ *Id.* at 173

⁴⁴ See Principle 15 of Rio Declaration 1992:

"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

⁴⁵ See Preamble of UN Convention on Biological Diversity 1992: "Noting also that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat"

⁴⁶ "Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 161 (Oxford University Press 2002).

⁴⁷ *Id.* at 150-154

⁴⁸ Miguel A. Recuerda, 'Dangerous Interpretations of the Precautionary Principle and the Foundational Values of the European Union Food Law: Risk versus Risk' 4 *Journal of Food Law & Policy* 1 (2008) at p.22.

conflict with those of another.⁴⁹ Thus, it is suggested that environmental risk should be given a universally acceptable definition so that the precautionary principle may not be subjected to over-use or misuse.⁵⁰ It goes without saying; a universally agreed definition of risk will keep the principle from becoming a tool for over-regulation in the hands of law enforcement authorities.⁵¹

1.3.2 Shifting of the burden of proof:

A major controversy surrounding the precautionary principle is the so-called shifting of the burden of proof. It has been suggested that unlike traditional approaches, the precautionary principle shifts the burden of proof from the opponents of an activity or a product to its proponents.⁵² Previously, the party opposing an activity was required to prove its hazards, now the party wishing to carry out the activity has to prove that the proposed activity would be harmless.⁵³ This interpretation of the principle draws support from treaty law as well as jurisprudence of international courts and tribunals. For instance, the 1992 OSPAR convention provides that before dumping radioactive waste, the polluter shall submit his proposed dumping activity to the scrutiny of states parties to the convention.⁵⁴ Along the same lines, in 1995 *Nuclear Tests Case (New Zealand v. France)* New Zealand argued before the International Court of Justice (ICJ) that the precautionary principle had shifted the burden of proof to the party wishing to carry out the activity, and since the nuclear activities of France were threatening the environment of Pacific, it was the duty of France to prove on the basis of scientific evidence that no harm would be resulted from its activities.⁵⁵ The ICJ made no reference to this argument in its judgment albeit Judge Weeramantry accepted in his dissenting opinion that precautionary

⁴⁹ Id.

⁵⁰ Norman J. Vig & Regina S. Axelrod, *The Global Environment: Institutions, Law and Policy* 129-130 (London: Earthscan 1999).

⁵¹ Id.

⁵² Barney Dickson edited by Rosie Cooney and Barney Dickson, *Biodiversity & The Precautionary Principle: Risk and Uncertainty in Conversation and Sustainable Use* 275 (London: Earthscan 2007)."

⁵³ Id.

⁵⁴ "The Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992.

⁵⁵ Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v France) case, Order, [1995] ICJ Rep 288, ICGJ 58 (ICJ 1995), 22nd September 1995, International Court of Justice [ICJ].

principle was achieving support in international environmental law, and under this principle the burden of proof had been shifted to the party wishing to carry out the disputed activity.⁵⁶

In concordance with Churchill & Freestone, shifting of burden of proof is a radical interpretation of the precautionary principle, and it does not represent the opinion of international community as a whole.⁵⁷

1.4 Cost of Precautionary Action

Even if it is proved that an environmental risk is serious and irreversible, the state authorities may refuse to take action because the economic cost of the precautionary action can be very high, moreover, the state authorities may presume that the risk is too remote.⁵⁸ To give an example, in Ukraine and Bulgaria the state authorities had to encounter this situation when they were required to make a choice between defending their citizens against radioactivity by closing down nuclear reactors, or continue supplying cheap electricity to them by ignoring the risk.⁵⁹

Precautionary action requires redistribution of economic resources, and generally the state authorities tend to weigh the economic cost of action against environmental cost of in-action.⁶⁰ The cost of precautionary measures must not be greater than the acceptable level of protection, and a state must not aim at a zero risk situation which does not really exist.⁶¹ As believed by Sands, the cost of precautionary action should be correlated to the seriousness of the risk and economic capacity of the state concerned.⁶²

This issue is addressed specifically in 1992 United Nations Framework Convention on Climate Change (UNFCCC) which provides that the parties should take precautionary measures to

⁵⁶ Id.

⁵⁷ R.Churchill & D.Freestone, *International Law and Global Climate Change* 75 (London/Dordrecht: Martinus Nijhoff, 1991).

⁵⁸ Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 150-154 (Oxford University Press 2002).

⁵⁹ Toni Johnson, 'Nuclear Power Safety Concerns' Council on Foreign Relations, September 23, 2011 available at <https://www.cfr.org/background/nuclear-power-safety-concerns> [Retrieved 23.01.19].

⁶⁰ Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 150-154 (Oxford University Press 2002).

⁶¹ Id.

⁶² Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* 261 (2nd edn Cambridge University Press 2004). See also Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 167 (Oxford University Press 2002)."

anticipate, avoid or curtail the reasons of climate change and diminish its adverse effects. It goes on to say, “policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts...”⁶³

In the light of above, it can be argued that in the situation in which there is a danger of irreversible environmental damage, for example climate change, the primary consideration should be given to the duty towards future generations, and precautionary action should be taken regardless of economic cost outweighing the risk.⁶⁴ While analyzing cost of precautionary action its overall benefit to the community and possible long term effects of ecological damage resulting from inaction should be taken into account.⁶⁵

2. Application of Precautionary Principle in Multilateral Treaties and Judicial Decisions

2.1 Expression of the Principle in Multilateral Treaties

The first multilateral treaty which codified precautionary principle was 1985 Vienna Convention for Protection of Ozone Layer.⁶⁶ It binds the parties to take precautionary measures to safeguard the environment and human health against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.⁶⁷ Correspondingly, the 1992 Watercourse Convention required the parties to adopt:

“the precautionary principle by virtue of which action to avoid the potential trans-boundary impact of the release of hazardous substances shall not be postponed on the ground that scientific research has not fully proved a causal link

⁶³ “United Nations Framework Convention on Climate Change 1992, 771 UNTS 107; S. Treaty Doc No. 102-38; U.N. Doc. A/AC.237/18 (Part II)/Add.1; 31 ILM 849 (1992) [hereinafter UNFCCC 1992]

⁶⁴ Nicolas DE Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* 172 (Oxford University Press 2002).

⁶⁵ *Id.* at 168

⁶⁶ Article 2, Vienna Convention for the Protection of the Ozone Layer Vienna, 22 March 1985, TIAS No. 11,097; 1513 UNTS 323; 26 ILM 1529 (1987) [hereinafter the Ozone Layer Convention].

⁶⁷ *Id.*

between those substances, on the one hand, and the potential trans-boundary impact, on the other hand.”⁶⁸

In parallel, the 2000 Cartagena Protocol on Bio-safety to the Convention on Biological Diversity affirms that lack of scientific knowledge regarding probable adverse effects of living modified organisms (LMOs) on conservation of biological diversity should not stop anyone from prohibiting imports.⁶⁹ In like manner, the 1992 Climate Change Convention impels the parties to take precautionary measures to anticipate, prevent or minimize causes of climate change and where there is a threat of serious and irreversible damage, scientific uncertainty should not be used as a reason for postponing such measures.⁷⁰

Taking note of the use of precautionary principle in different multilateral treaties and their protocols, it can be argued that acceptance of the principle has been unequivocal. While the precise nature of the principle is yet to be settled, its wide-scale codification testifies to the fact that the existing international law demands the states to be alert and take precautionary action where there is a risk of serious and irreversible environmental harm.

2.2 Recognition of precautionary principle in jurisprudence of International Courts and Tribunals:

The approach of international courts and tribunals differs with respect to recognition and endorsement of the precautionary principle. The decision in *1941 Trail Smelter Arbitration (United States V. Canada)* indicates that the obligation arises when there is an actual or serious harm to environment which is likely to recur,⁷¹ by comparison judgment in *1949 Corfu Channel*

⁶⁸ Article 2(5) Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes, 1936 UNTS 269; 31 ILM 1312 (1992) [hereinafter watercourse convention 1992].

⁶⁹ The Cartagena Protocol on Bio-safety to the Convention on Biological Diversity, 2226 U.N.T.S. 208; 39 ILM 1027 (2000); UN Doc. UNEP/CBD/ExCOP/1/3, at 42 (2000) [hereinafter Cartagena Protocol].

⁷⁰ Article 3 (3) United Nations Framework Convention on Climate Change 1992, 771 UNTS 107; S. Treaty Doc No. 102-38; U.N. Doc. A/AC.237/18 (Part II)/Add.1; 31 ILM 849 (1992) [hereinafter UNFCCC 1992].”

⁷¹ “Trail Smelter Arbitration (United States v. Canada) Arbitral Trib. 3 U.N. Rep. Int’l Arb. Awards 1905 (1941); United States v. Canada (1938 and 1941) 3 R.I.A.A. 1905.

Case (United Kingdom v. Albania) suggests that the obligation arises only when there is a known threat to the environment.⁷²

The principle was relied upon by Hungary in *1989 Danube Dam Case (Slovakia v. Hungary)* to justify its suspension and subsequent abandonment of the works on the Gabčíkovo–Nagymaros project, for which the treaty on the construction and operation of the Gabčíkovo–Nagymaros Barrage System attributed responsibility to Hungary.⁷³ Hungary claimed that continuation of the project might result in serious environmental damage. The ICJ rejected Hungary's argument by observing that backing out of treaty obligations required a grave and serious threat of imminent nature.⁷⁴ Hungary had failed to prove serious and imminent damage likely to result from carrying out the project. The ICJ held further that serious uncertainties existed with regard to future harm to the environment.⁷⁵ As explained by Sands, the decision did not endorse precautionary principle as it required certainty and imminence of harm for taking remedial action.⁷⁶

Likewise, the principle was discussed before WTO Appellate body in 1998 *Beef Hormones Dispute (US/Canada v. EU)*.⁷⁷ The EU resorted to the precautionary principle to explain its ban on import of beef produced in the US and Canada with artificial hormones by arguing that, 'it's impacts on human health were uncertain.'⁷⁸ The Appellate body rejected the EU's argument by stating that it was difficult to say that the principle was a rule of customary international law, and the appellate body was not in a position to override the trade agreements between the parties on the basis of a general principle (of international law).⁷⁹ On the other hand, the principle was endorsed unequivocally by the International Tribunal on the Law of Sea (ITLOS) in its judgment

⁷² Corfu Channel Case (United Kingdom v. Albania); Merits, International Court of Justice (ICJ), 9 April 1949, available at: <https://www.refworld.org/cases,ICJ,402399e62.html> [Retrieved 24 January 2019].

⁷³ Gabčíkovo-Nagymaros Project, Hungary v Slovakia, Judgment, Merits, ICJ GL No 92, [1997] ICJ Rep 7, [1997] ICJ Rep 88, (1998) 37 ILM 162, ICGJ 66 (ICJ 1997), 25th September 1997, International Court of Justice [ICJ]."

⁷⁴ Id.

⁷⁵ Id.

⁷⁶ "Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* 274 (2nd edn Cambridge University Press 2004)."

⁷⁷ "DS26: European Communities — Measures Concerning Meat and Meat Products (Hormones)" World Trade Organization. Available at https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm [Retrieved 25.01.19].

⁷⁸ Id.

⁷⁹ Id.

in 1999 *Southern Bluefin Tuna Case (Australia/ New Zealand v Japan)*.⁸⁰ In this case, Australia and New Zealand applied for provisional measures to suspend the experimental fishing conducted by Japan in order to preserve the stock of Southern Bluefin Tuna fish. The plea was accepted by ITLOS and provisional measures were ordered preventing the parties from carrying out experimental fishing.⁸¹

The tribunal stated in its judgment:

“Although there is scientific uncertainty about conservation of fish stock, the parties should act with prudence and caution to prevent serious harm to the stock of Bluefin Tuna fish.”⁸²

In any case, the jurisprudence of the tribunal has been inconsistent with respect to interpretation of the precautionary principle. For example, in 2001 *Mox Plant Case (Ireland vs. UK)*, Ireland requested for issuance of provisional measures to halt the operation of a Mixed Oxide Plant of the UK on the basis that the operation of the plant was likely to damage the marine environment of Irish Sea.⁸³ The ITLOS, while declining the request for provisional measures, ordered both parties to enter into consultations and exchange of information for monitoring the effects of plant on marine environment of Irish Sea.⁸⁴

Considering the foregoing, it is clear that the precautionary principle represents one of the most important policy considerations in present day international law. However, keeping in view its multiple expressions in international documents and reluctance of the international courts and tribunals to make express reference to it, this remains a moot point whether the principle embodies a rule of customary international law.⁸⁵

⁸⁰ “*Southern Bluefin Tuna, New Zealand v Japan, Provisional Measures, ITLOS Case No 3, (1999) 38 ILM 1624, ICGJ 337 (ITLOS 1999), 27th August 1999, International Tribunal for the Law of the Sea [ITLOS].*”

⁸¹ Id.

⁸² Id.

⁸³ “*MOX Plant Case, Ireland v United Kingdom, Order, Request for Provisional Measures, ITLOS Case No 10, ICGJ 343 (ITLOS 2001), 3rd December 2001, International Tribunal for the Law of the Sea [ITLOS].*”

⁸⁴ Id.

⁸⁵ Agne Sirinskiene, ‘The Status of Precautionary Principle: Moving Towards a Rule of Customary International Law’ 4 *Jurisprudence* 350 (2009) at 351.”

3. Controversy surrounding the status of precautionary principle in international law

3.1 Reasons underlying the reluctance of International Courts and Tribunals to make express reference to the precautionary principle

The recognition of precautionary principle in jurisprudence of international courts and tribunal has been inconclusive. For example, in *Danube Dam Case* of 1989, the majority opinion of the ICJ out-rightly rejected the principle by suggesting that ‘certainty’ and ‘imminence’ of harm would be required to allow breach of bilateral treaty in anticipation of environmental damage likely to result from its operation. Clearly, the international courts and tribunal at the time demanded scientific certainty and proof of imminent threat to allow anticipatory action in the wake of environmental damage. However, after the introduction of new threats to the environment, concerning which certain minimum evidence exists, such as climate change and GMOs, the approach of the international courts and tribunal is bound to change. Obviously, the international courts are supposed to apply relevant international treaties to settle the environmental disputes between the states, and many of the modern treaties now include the principle that scientific uncertainty should not be used as a reason to postpone cost effective action to address potential threat to the environment. Thus, in *Southern Bluefin Tuna Case* of 1999, the ITLOS granted provisional measures to preserve the stock of Bluefin Tuna fish which was likely to be diminished by experimental fishing.

Analogous to differing opinion of international courts and tribunals about the requirements of ‘imminent threat’ and ‘scientific certainty’, their approach also differs with respect to current status of the precautionary principle under international law. For example, in *Beef Hormone Dispute* of 1998 the WTO appellate tribunal observed that it was difficult to say that the principle embodies customary international law and the tribunal would not over-ride trade agreement merely on the basis of a general principle of law. Likewise, in 2001 *Mox Plant Case (Ireland vs. UK)*, albeit two judges held in their separate opinions that the tribunal had tacitly validated the precautionary principle by stating that, ‘prudence and caution requires the states to enter into consultations,’ no express reference was made to the principle in the majority judgement.⁸⁶

⁸⁶ “MOX Plant Case, Ireland v United Kingdom, Order, Request for Provisional Measures, ITLOS Case No 10, ICGJ 343 (ITLOS 2001), 3rd December 2001, International Tribunal for the Law of the Sea [ITLOS].

Correspondingly, in 1995 *Nuclear Test Case (New Zealand v. France)*, the principle was invoked by New Zealand to suggest that nuclear activities of France were dangerous for the environment of the Pacific, and the precautionary principle rooted in customary international law called for the abandonment of such activities.⁸⁷ The application of New Zealand was dismissed when French President made legally binding unilateral statement that France had completed the tests and it did not plan to make any further tests. However, the ICJ made no reference to the customary status of precautionary principle in its judgment.⁸⁸

The reluctance of international courts and tribunals to make express reference to the precautionary principle and their propensity to refrain from commenting upon its current status is understandable, considering the fact that there is no uniformity in state practice in regard to the use of the principle.⁸⁹ States appear to be generally willing to apply the principle in the fields of ozone layer depletion, ocean dumping and whaling but they are unwilling to apply the same in the fields of regional fisheries and trans-boundary pollution caused by the industrial activities.⁹⁰ For instance, soft law declarations on driftnet-fishing may have led the state parties to place a ban on such fishing, practically; this has only resulted in adoption of a more cautious approach rather than imposing a complete ban.⁹¹ In addition, the principle lacks guidelines with respect to determining acceptable levels of environmental risk; neither does it suggest what action should be taken to minimize the risk associated with a potentially dangerous human activity.⁹²

3.2 Does the Precautionary principle reflect a rule of customary international law?

It is claimed by some that the precautionary principle is now part of customary international law, and is binding upon states irrespective of their treaty obligations;⁹³ anyhow, this view is not shared by the international community as a whole.⁹⁴ Thus, in 1998 *Beef Hormones Dispute*

⁸⁷ Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v France) case, Order, [1995] ICJ Rep 288, ICGJ 58 (ICJ 1995), 22nd September 1995, International Court of Justice [ICJ].

⁸⁸ Id.

⁸⁹ Patricia Birnie, Alan Boyle & Catherine Redgwell, *International Law and the Environment* 120 (3rd edn., Oxford University Press 2002)."

⁹⁰ Id. at 118-120.

⁹¹ Id. at 82-84.

⁹² Id. at 118-120.

⁹³ Sirinskiene, *supra* note 85 at 354.

⁹⁴ Recuerda, *supra* note 23 at p.22.

(*U.S./Canada v. EC*), the European Union maintained that the principle was at present a part of customary international law. The United States denied this argument and stated that the principle was merely an approach, and Canada referred to the principle as an emerging principle of international law.⁹⁵ In the end, the WTO Appellate tribunal accepted the argument of the U.S and Canada.⁹⁶ By way of comparison, in *Southern Bluefin Tuna Case* although the tribunal awarded provisional measures suspending experimental fishing in the Pacific with a view to conserve the depleting stock of tuna fish, it refrained from commenting upon the position of precautionary principle in international law.⁹⁷

According to Churchill & Freestone, customary law argument derives from an extravagant interpretation of the precautionary principle, at the same time this is equally true that comparing the principle with an approach is also a very restrictive interpretation of the principle.⁹⁸ As a matter of fact, present status of the principle lies between these two extremes which means, neither the breach of precautionary principle entails sanctions, nor can it be left to the policy makers to let them apply it as per their whim.⁹⁹

Conclusion:

Principle 2 of the Rio Declaration 1992 obliges the states not to cause injury to the atmosphere of other states or common places.¹⁰⁰ It has been maintained that the principle reflects customary international law.¹⁰¹ Expounding the principle, it was observed by the Arbitration Tribunal in 1957 *Lake Lanoux Arbitration (Spain v. France)* that:

⁹⁵ Id.

⁹⁶ Id.

⁹⁷ “Southern Bluefin Tuna, New Zealand v Japan, Provisional Measures, ITLOS Case No 3, (1999) 38 ILM 1624, ICGJ 337 (ITLOS 1999), 27th August 1999, International Tribunal for the Law of the Sea [ITLOS].”

⁹⁸ Churchill & Freestone, *supra* note 57 at 75.

⁹⁹ Id.

¹⁰⁰ Principle 2, Rio Declaration 1992.

¹⁰¹ “Geoffrey Palmer, ‘New Ways to make International Environmental Law’ 86 AJIL 259 (1992) at 264.

“A state has the duty to give notice when its actions may impair the environmental enjoyment of another state.”¹⁰²

Principle 15 of the Rio Declaration 1992 embodies the precautionary principle, according to which if an exercise seems likely to damage the environment, even if proof of its impact is not decisive, remedial actions should be taken to eradicate or control the practice. In the view of Palmer, all principles of the Rio Declaration 1992 are inter-related, and they should not be read in isolation with each other.¹⁰³ Principle 2 read with Principle 15 establishes a duty of care and caution which implies that supposing a state is not certain about the harmful effects of its activities, it is not entitled to ignore the interests of other states likely to be impacted by its activities.¹⁰⁴ Principle 2 codifying a rule of customary international law is binding upon states, whether or not they are parties to the relevant instrument.¹⁰⁵ It follows that although the precautionary principle in itself is not a rule of customary law, it may, in some situations derive the authority of custom in combination with other rules of international law carrying the force of custom.¹⁰⁶

So far, states have shown more inclination to abide by the precautionary principle if the activity desired to be regulated pertains to common concerns of mankind, because in suchlike situations the duty of precaution is supplemented by the commitment to the best interests of future generations.¹⁰⁷ As more and more evidence is coming out to reinforce these threats, the obligation for taking precautionary measures is likely to be validated enough to compel the states to act upon it in other areas of environmental management in the same spirit.

According to Birnie & Boyle the worldwide recognition of the precautionary principle clearly indicates that the principle does have a legal position in international law, however keeping in view the reluctance of international courts and tribunals to refer to it expressly, the principle may

¹⁰² Lake Lanoux Arbitration (France v. Spain) (1957) 12 R.I.A.A. 281.”

¹⁰³ Palmer, *supra* note 101 at 268.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at 260.

¹⁰⁶ *Id.* at 261.

¹⁰⁷ *Id.* at 263.

not be said to have acquired the status of customary international law.¹⁰⁸ The unwillingness of the international tribunals and courts owes much to lack of uniformity in state practice concerning application of the principle. While states appear to be generally willing to apply the principle to control ozone depletion, ocean dumping and whaling, they are disinclined to apply the same in regulating regional fisheries and trans-boundary pollution caused by the industrial activities. Moreover, the principle is silent about the concept of environmental risk; neither has it specified the level of risk which should be deemed normal nor suggested the kind of action that should be taken to address the risk.

Against this backdrop, it can be argued that although the principle is expressed as an obligation in Rio Declaration, it still remains a guiding principle of international environmental law.¹⁰⁹ Nevertheless, the ratification of Kyoto Protocol 1997¹¹⁰ by a vast majority of states in spite of the US opposition indicates that the international community has come to agreement that scientific uncertainty about seriousness of a threat to the global environment should not be matched with in-action, where minimal evidence exists, cost effective measures should be taken to prevent the anticipated harm.¹¹¹ If the potential threat signifies an 'irreversible damage' like ozone depletion, desertification and loss of biological diversity, the duty of precaution becomes even more onerous because in that situation the duty would be supplemented by commitment to protect the interests of the future generations.¹¹² Therefore, it can be argued that the principle at present can be regarded as an emerging rule of customary international law which in future is likely to crystallize into a rule of customary international law.¹¹³

¹⁰⁸ Patricia Birnie, Alan Boyle & Catherine Redgwell, *International Law and the Environment* 120 (3rd edn., Oxford University Press 2002).

¹⁰⁹ *Id.* at 87.

¹¹⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998).

¹¹¹ Sadeleer, *supra* note 11 at 172.

¹¹² *Id.*

¹¹³ Sandin, *supra* note 6 at 470.”