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THE DEVELOPMENT AND APPLICATION OF THE PRECAUTIONARY PRINCIPLE IN SOUTH AFRICAN ENVIRONMENTAL LAW

by

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Submitted in partial fulfilment of the requirements for the degree of

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Date: 15 February 2023

Supervisor: Prof. Tumai Murombo

DECLARATION

I declare that this research report is my own unaided work. It is submitted in partial fulfilment of the requirements for the degree of Master of Laws (by Coursework and Research Report) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

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TABLE OF CONTENTS

DECLARATION.....2

ABSTRACT.....4

1. INTRODUCTION.....5

a) Overview of the Precautionary Principle.....6

b) Research question and problem.....9

c) Research objectives.....10

2. THE APPLICATION OF THE PP IN ILLUSTRATIVE INTERNATIONAL AND FOREIGN JUDGMENTS.....11

a) Canada.....15

b) Australia.....16

c) Netherlands.....17

3. AN ANALYSIS OF THE APPLICATION OF THE PP IN SOUTH AFRICAN COURTS AND COMPARATIVE ANALYSIS OF THE PP, THE PRINCIPLE OF SUSTAINABILITY, THE PREVENTATIVE PRINCIPLE, AND THE ENVIRONMENTAL DUTY OF CARE.....19

4. RECOMMENDATIONS.....28

5. CONCLUSION.....30

BIBLIOGRAPHY.....31

ABSTRACT

The Precautionary Principle has advanced considerably as an international environmental principle over the past few years, and it has been enacted in the international and domestic laws of several countries, including South Africa. Furthermore, the PP has been applied and tested in various judgments in different jurisdictions and fora. This research report seeks to interrogate the codification of the PP in international environmental conventions such as the Rio Declaration on Environment and Development, the United Nations Framework Convention on Climate Change, and the Vienna Convention on the Protection of the Ozone Layer and other international statutory instruments.

While this study does not purport to perform a comprehensive comparative analysis of other domestic environmental law frameworks, it does refer to environmental law frameworks in Canada, Australia, and the Netherlands with the overarching goal of drawing comparisons and eliciting best practises that may inform amendments to South Africa's legal framework. The report also tracks and investigates the impact of the PP's incorporation into South African statutes such as the National Environmental Management Act 107 of 1998 and its application by courts and tribunals, including the Constitutional Court of South Africa. Lastly, the study draws conclusions from the findings and makes recommendations for how policymakers, legislators, and our courts can better use and apply the PP as an internationally recognised principle of environmental law to advance environmental sustainability and management.

Keywords: Precautionary Principle, Environmental Sustainability and Management, International Environmental Law

1 INTRODUCTION

Article 15 of the Rio Declaration contains a widely accepted definition of the precautionary principle (PP) which provides that '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'.[1][2]The purpose of the PP is to aid decision-makers in acting rapidly in the face of scientific uncertainty when the risks are high. Given that the PP emerged in recent decades, its formulation, definition, and application make it a legal principle that remains evolving and thus, continues to attract divided opinions from various academic quarters.[3]Critics frequently view the PP as a tool that stifles progress and leads to over-regulation, whereas supporters see the principle as an essential tool for avoiding severe environmental damage.[4]

Despite some international treaties not having provided a clear pathway of the PP in international customary law, its usefulness, especially in international environmental law, has grown rapidly in recent years. Sustainability, cooperation, intergenerational equity, shared heritage, stewardship of the planet's resources, and the polluter-pays principle all play a role in this development's overarching theme of interconnectedness.[5]

From an international law perspective, PP's primary function to promote multilateral state action in response to serious environmental threats, particularly by encouraging states to act in response to the early warning signs of such endangerments even when scientific evidence is inconclusive. This is notable in areas such as climate change given the political interventions and objectives in refining the application of the PP.[6] It is common for advocates of the PP to highlight the supposedly

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[1]Rio Declaration on Environment and Development (1992) available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf, accessed on 11 November 2022.

[2]A-MJP Janssen and NF Rosenstock 'Handling Uncertain Risks: An Inconsistent Application of Standards' (2016) 7 *EJRR* at 1.

[3]European Parliamentary Research Services 'The Precautionary Principle Definitions, applications and governance (In-depth Analysis)' (2015) at 4.

[4]JF Pinto-Bazurco 'The Precautionary Principle' *Earth Negotiation Bulletin, Brief #4* (2020) available at https://www.iisd.org/system/files/2020-10/still-one-earth-precautionary-principle.pdfaccessed on 20 November 2022.

[5]J Glazewski and L Plit 'Towards the application of the Precautionary Principle in South African Law' (2015) 26 *Stell LR* at 199.

[6]CE Foster *Science and the Precautionary Principle in International Courts and Tribunals* (2011) at 20.

positive practical environmental effects of the PP and its contribution to safeguarding human health and the environment against a wide range of threats.[7] In contrast, many critics of the PP raise concerns regarding the PP's anti-development and progression, the limitation of the legal scope of the PP, whether the PP forms part of customary international law and what triggers its application.[8]

Despite the widespread acceptance of the PP and the way it has influenced the creation and interpretation of various legal formulations, agreements, and instruments, such as domestic constitutions, statutes, and regulatory processes, the PP is still regarded as soft law because it is not a legally binding rule of law. It must be borne in mind that the PP is not an unchanging tenet, but rather one that evolves and improves in tandem with the rest of society.[9] As evidenced by the assessment and management of risk as envisioned in section 2 of the National Environmental Management Act, the PP has been incorporated into South African domestic law with a risk-averse and cautious approach (the NEMA).

a) Overview of the Precautionary Principle

Recent years have seen the PP become firmly established as an international environmental law principle through its adoption and influence in several international environmental conventions and judicial developments. Considering the resolutions made during the 1980s North Sea Ministerial Conference,[10] the PP has become deeply entwined with global environmental law. As a measure to curb air pollution and climate change as well as in other environmental domains like conserving endangered species, preserving biodiversity, and disposing of hazardous waste, PP has now been codified in several instruments regulating the use of the oceans and international watercourses. In 1992, at the Earth Summit in Rio de Janeiro, its significance as an international environmental principle was further acknowledged. To that end, Foster submits that the PP is fundamental to environmental law and Union policy in the European Union (EU).[11] In support of the claim that the PP has evolved into an environmental law principle, Sobotta points to the

[7]C Raffensperger and JA Tickner *Protecting Public Health and the Environment* (1999) at 4.

[8]J Morris *Rethinking Risk and the Precautionary Principle* (2000) at 9.

[9]H Klug 'Between Principles & Power: Water Law Principles & Governance of Water in Post-Apartheid South Africa' (2021) 150 *Daedulus* at 221.

[10]Declaration of the International Conference on the Protection of the North Sea (1980).

[11]Foster op cit note 6 at 19–20.

Maastricht Treaty as evidence of PP being a principle of EU environmental law espoused in Article 191(2) of the TFEU.[12] [13]

The PP has widespread support in developed countries, especially within the EU. It is based on the German environmental law principle of *Vorsorgeprinzip* (literally 'care for the future principle'), which is widely regarded as a precursor to the PP.[14] The process of the PP is related to the foresight required to identify potential future hazards and the proactive action taken to avert or manage the causes before the adverse outcomes ensue, as the PP is concerned with taking anticipatory steps to avoid risks and occurrences which are uncertain in the future.[15]

The Vienna Convention was one of the earliest treaties to call for the adoption of precautionary measures.[16] Additional affirmation of the PP can be found in the Montreal Protocol's preamble.[17] Several treaties which came into effect subsequently adopted precautionary measures or made the application for a precautionary approach possible.[18]

In addition to the PP having been incorporated in international instruments dealing with climate change, marine fisheries, hazardous waste transportation, chemicals regulation,[19] it has also been given effect to in our domestic law. Within the South African context, section 24(b)(iii) of the Constitution[20] gives effect to the notion of sustainable development insofar as it includes the right

[12]Maastricht Treaty of 1992.

[13]C Sobotta 'Recent applications of the precautionary principle in the jurisprudence of the CJEU – a new yardstick in EU environmental decision making?' (2021) *ERA Forum*at 723.

[14]J Glazewski and L du Toit *Environmental Law in South Africa* 2 ed (2005) at 18.

[15]ND King, H Strydom and F Retief *Environmental Management in South Africa* 3ed (2018) at 78.

[16]Vienna Convention on the Protection of the Ozone Layer of 1985.

[17]Montreal Protocol on Substances that Deplete the Ozone Layer of 1987.

[18]Glazewski and Plit op cit note 5 at 197.

[19]See the 1992 Convention on Biological Diversity; 1992 United Nations Convention on the Protection and Use of Transboundary Watercourses and International Lakes; 1994 Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Further Reduction of Sulphur Emissions; Vienna Convention on the Protection of the Ozone Layer of 1985;1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; 1996 London Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters; Montreal Protocol on Substances that Deplete the Ozone Layer of 1987; Ministerial Declaration of the Second International Conference on the Protection of the North Sea (November 1987); Convention on the Prevention of Marine Pollution by Dumping and Other Matter of 1996;2000 Cartagena Protocol on Biosafety to the Convention on Biological Diversity; 2001 Stockholm Convention on Persistent Organic Pollutants and 2018 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean.

[20]Constitution of the Republic of South Africa, 1996.

to have the environment protected for the benefit of present and future generations. This constitutional provision paved the way for the enactment of NEMA given that the Constitution provides that everyone has the rights to live in an environment that is not harmful to their health and well-being.[21] S 2(4)(a)(vii) of NEMA provides that sustainable development requires the consideration of all relevant factors, including that a risk-averse and cautious approach be applied, which concedes to the limits of current knowledge about the consequences of decisions and actions.[22]

In *Fuel Retailers Association,*[23] the court emphasised that the NEMA's approach is one of avoiding risks and being cautious. This means that we have to take into account how little we know about the effects of an environmental decision right now and the PP is used where there is insufficient have enough scientific information to know how the proposed development will affect the future.[24] The court also decided that a precautionary approach was needed because section 24(7)(b) of NEMA requires an examination of the potential impact, including the cumulative effects, of the proposed development and social and economic conditions, as well as a full assessment of the expected impact. Reiterated in *Fuel Retailers Association* is the importance of striking a balance between environmental protection and social and economic development, which includes the role of sustainable development in the South African context.[25] The Constitutional Court ruled that the Constitution envisions a setting in which environmental considerations and socio-economic considerations will be balanced through sustainable development objectives.[26]The PP was invoked in this case, necessitating the implementation of adequate precautionary measures to prevent the contamination of underground water supplies.[27] This position was also adopted and confirmed in *HTF Developers.*[28] Therefore, the overarching goal of sustainable development is to treat the

[21]Glazewski and Plit op cit note 5 13–14.

[22]J Glazewski 'The Nature and Scope of Environmental Law' in J Glazewski (ed) *Environmental Law in South Africa* (2016) at 1–27.

[23]*Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province* 2007 (6) SA 4 (CC).

[24]Ibid at paras 81 and 98.

[25]*Fuel Retailers Association of Southern Africa* case supra note 27.

[26]Glazewski and Plit op cit note 5 at 191.

[27]*Fuel Retailers Association of Southern Africa* case supra note 27 at para 45.

[28]*MEC, Department of Agriculture, Conservation v HTF Developers (Pty) Ltd* 2008 (2) SA 319 (CC) para 65.

environment as a legally protected human right without losing sight of other, more pressing concerns, such as the needs of society and the economy.[29]

From a practical perspective, Sunkin, Ong and Wight submit that in its most progressive formulation, the PP has the potential to overturn the well-established burden of proof.[30] In contrast to the usual practise of allowing a development project to go forward unless there is proof of significant environmental impacts, the PP states that such a project must be put on hold unless it can be demonstrated that it will not result in severe environmental degradation or pollution. Considering this, the PP serves as a guide for the application of environmental law in situations of scientific uncertainty.[31]

In an interesting take on the ongoing academic debate over the PP's move to reverse the burden of proof, Foster argues that today's international courts and tribunals are overwhelmed by cases involving issues like climate change litigation and overfishing that were not present when their predecessors were in office. A court or tribunal adjudicating such a case must apply a level of scientific rigour and scrutiny appropriate to the nature of the dispute at hand.[32] Courts must now reimagine how justice should be delivered on complex and pivotal questions of fact and law, making the deliberation and consideration of international cases a technical exercise.[33] The next section of the report considers the PP and its application in various international and foreign judgments. Subsequently, the report delves into the crucial part the PP has played in decision-making concerning risks encountered in the context of scientific uncertainty.[34]

b) Research question and problem

The primary objective of the PP is to anticipate and minimise potential serious or irreversible environmental risks or harm under conditions of scientific uncertainty and therefore it preserves sustainability. Put differently, it is the environmental equivalent of the adage 'prevention is better

[29]*BP Southern Africa (Pty) Ltd v MEC for Agriculture, Conservation and Land Affairs* 2004 (5) SA 124 (W) para 144D.

[30]M Sunkin, DM Ong and R Wight *Sourcebook on Environmental Law* (1998) at 30.

[31]Ibid.

[32]Foster op cit note 6 at 241.

[33]Ibid.

[34]Ibid.

than cure'.[35] Several national and international laws enacted for the purpose of environmental protection, management, and sustainable development have been modelled after the PP.[36] Furthermore, it has been recognised in various judgments and decisions of international and national courts and tribunals. Despite widespread agreement among international courts and tribunals that the PP is an important tool for weighing risks within the realm of environmental scientific uncertainty, it is not yet established that the PP is a norm of customary international law or a rule of law.[37] Therefore, opinions on the PP's legal standing in the international community remain divided.[38]

Considering these considerations, the main research question that this report will seeks to answer is: *Has the PP been sufficiently applied and developed in South African and international courts, given its potential and critical role in environmental law decision-making?*

c) Research objectives

This research report provides an in-depth analysis of how the application of the PP has been a subject of different interpretations by international courts, tribunals, and South African courts resulting in its development and refinement over the years. It further analyses the development of the PP as an environmental principle. The report begins its discussion of the PP's development and application by providing an overview of the PP and its application in various jurisdictions. The second section evaluates the PP's application in various international judgements and provides a critical appraisal of the PP's application and development by South African courts, as well as a brief comparative analysis of the PP, the principle of sustainability, the preventative principle, and the environmental duty of care. Finally, the report makes suggestions for how the PP can be better applied and developed in the context of environmental law.

[35]M Kidd *Environmental Law* 2 ed (2013) at 9–10.

[36]C Som, LM Hilty and AR Kohler 'The Precautionary Principle as a Framework for Sustainable Information Society' (2009) 85 *Journal of Business Ethics* at 493.

[37]Foster op cit note 6 at 21 and 241. Also see *Southern Bluefin Tuna, New Zealand v Japan, Provisional Measures, ITLOS Case No 3,* 38 ILM 1624, ICGJ 337 (ITLOS 1999), 27th August 1999, International Tribunal for the Law of the Sea.

[38]Foster op cit note 6 at 243. Also see how the Appellate Body noted the view that the PP has crystallised into a general principle of customary international law but refrained from adopting this view.

2. THE APPLICATION OF THE PP IN ILLUSTRATIVE INTERNATIONAL AND FOREIGN JUDGMENTS

Whether the PP should be an accepted international customary legal principle is hotly contested by proponents and critics of the principle. The United States of America is opposed to recognising the PP as a customary legal principle because, in its view, it does not contain the necessary rigour and tenets found in legal rules. The PP is not treated as a rule of law because it cannot serve as a precedent. Rather, it is considered an approach that ought to be adopted.[39] Thus, it is argued in this context that the PP has not yet met the requirements for formal recognition as a principle of law. The EU, for instance, takes a very different view, and its courts have established minimum requirements through precedent that leaves more room for interpretation when applying the PP.

In addition, the Treaty on European Union,[40] which was officially adopted in 1992, contains a provision devoted to the environment that is predicated on the PP and describes how preventative action should implemented to stop any environmental damage and lessen the risk that it will have a negative impact on the environment.[41] In 2002, the EU also released a statement on the PP, principally clarifying that the PP is to apply within the general framework of risk management and that the officials responsible for such assessments are free to decide whether or not to act depending on the extent of the risk involved.[42] A number of European courts have dealt with several cases wherein the PP was applied and through that, these courts have held that the PP is an integral part of EU law and have formulated a criteria for the application of the PP.[43] One such case was *Gowan Comercio International e Sevicos Lda v Ministerodella Salute,*[44] wherein the European Court of Justice recognised the importance of the PP in EU decision-making and, by extension, confirmed the importance of the PP within the risk management phase. With this conclusion in hand, the court also laid out the base requirements for future risk assessments.[45]

[39]Glazewski and Plit op cit note 5at 196.

[40]The Maastritcht Treaty of 1992.

[41]Glazewski and Plit op cit note 5 at 202.

[42]Ibid 203.

[43]Ibid.

[44]*Gowan Comercio International e Sevicos Lda v Ministerodella Salute* [2010] I-9693 para 48.

[45]Glazewski and Plit op cit note 5 at 204.

The court in *Pfizer Animal Health v Council* held that before any preventative measures could be implemented, a scientific risk assessment would need to be conducted.[46] This would allow experts to evaluate the potential for harm to human health from a given product or procedure and the severity of any potential consequences.[47] Through the years, the EU courts have formulated a strict body of jurisprudence that has endorsed the PP and established the parameters within which the PP can be applied. The PP has also been endorsed in other jurisdictions. Nevertheless, it is still important to evaluate how international courts and tribunals, and most importantly, South African courts, have applied and developed the PP. What follows is a discussion of how the PP has evolved from a purely theoretical foundation to a more practically applicable principle, and how this evolution has been reflected in legal jurisprudence.

Several international courts, tribunals and organisations have formulated perimeters and the extent to which the PP can be applied. Since the dawn of the Maastricht Treaty, precaution has been incorporated as a principle in the EU's environmental legislation, more specifically in its Article 191(2).[48] Given the importance and scope of the PP, one might assume that it would make it obligatory for the EU to apply the principle in most of its actions. While the PP is often interpreted as prohibiting precautionary measures, the CJEU has often ruled that such measures are permissible. This is evident from cases such as *Wadden Sea*,[49] *Prato Neveso Termo Energy*,[50] and *Southern Bluefin Tuna*[51] which were decided by CJEU. For the most part, the CJEU agrees with the position that authorities may take preventative measures when there is doubt about the existence or severity of risks to human health.[52]

[46]Case T-13/99 *Pfizer Animal Health v Council* [2002] ECR II-3305 paras 155 and 165.

[47]Glazewski and Lisa Plit op cit note 5 at 204–205.

[48]Article 191(2) Treaty on the Functioning of the European Union of 1958 (TFEU).

[49]Case C-127/02 *Waddenvereniging and Vogelbeschermingsvereniging*, EU:C:2004 para 43 et seq. and 58 et seq case C-243/15 *Lesoochranarskezoskupenie VLK*, EU:C:2016:838, para 66, and most recently case C-411/19 WWF Italia and Others, EU:C:2020:580 para 48.

[50]Case C-212/18 *Prato Nevoso Termo Energy*, EU:C:2019:898.

[51]*Southern Bluefin Tuna* cases (*New Zealand v Japan; Australia v Japan*) supra note 37 paras 140, and 111-14.

[52]Sobotta op cit note 13 at 723–724.

In its judgment concerning the fishing of mussels in the *Wadden Sea*,[53] the CJEU used the PP to implement a restrictive interpretation of the Habitats Directive's protection of a protected site.[54] According to the CJEU's analysis, the existing regime ensures that plans and projects are only approved when there is no reasonable scientific doubt that they will compromise the integrity of the site in question. Further, in recent cases, the CJEU has extended the restrictive interpretation regarding exemptions from the rules one species protection under the Habitats Directive and in regard to waste law imperatives.[55] In a broader sense, the PP is a useful guide for understanding how to apply the Habitats Directive and is a cornerstone of the EU's policy of strong environmental protection under Article 191(2) of the TFEU.[56]

The EU has stated on several occasions that detecting the potential negative impact of a certain action is crucial to the proper implementation of the PP, particularly when deciding between initiatives that potentially have a large impact on a site. Secondly, it is vital to conduct a careful risk assessment based on the most up-to-date and reliable scientific evidence available. Therefore, all environmental assessments required by EU law and member states should take this approach into account.[57] This was reiterated by the court in the *Prato Neveso Termo Energy* case which concerned 'end-of-waste' and the primary issue before the court was whether or not governments have the authority to decide when certain substances are no longer considered waste, and are therefore exempt from the stringent requirements of waste law.[58]

The court ruled that the PP mandates that Member States refrain from establishing criteria for end-of-waste status until sufficient scientific information has been gathered and evaluated. In addition, it was decided that if there was any lingering doubt about the substance's intended application, it should be assumed to be harmless to the environment and people. Because of the limited discretion

[53]Case C-127/02 *Waddenvereniging and Vogelbeschermingsvereniging*, EU:C:2004 para 43 et seq. and 58 et seq., case C-243/15 *Lesoochranarskezoskupenie VLK*, EU:C:2016:838, para 66, and most recently case C-411/19 *WWF Italia and Others*, EU:C:2020:580 para 48.

[54]Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (1992) OJ L 206/7.

[55]Case C-674-17 *Luonnonsuojeluyhdistys Tapiola*, EU:C:2019:851, para 66

[56]Sobotta op cit note 13 at 724–725.

[57]Case C-236/01 *Monsanto Agricoltura Italia and Others*, EU:C:2003:431 para 113, Case C-333/08 *Commission/France*, EU:C:2010:44 para 92, and Case C-616/17 *Blaise and Others*, EU:C:2019:800 para 46.

[58]Case C-212/18 *Prato Nevoso Termo Energy*, EU:C:2019:898.

and the persistence of the presumption of uncertainty, the Court has imposed a stricter form of precaution.[59]

In a convincing argument, Foster submits that international courts and tribunals have recognised the crucial role to be played by the PP in decision-making regarding the risks within the context of scientific uncertainty.[60]For instance, in the *Southern Bluefin Tuna* case,[61]the International Court of Justice (ICJ) ruled that parties should use caution and forethought to ensure conservation measures are taken to protect the southern bluefin tuna stock.[62]

In *MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea* (*Ireland v United Kingdom*),[63] and in accordance with Part 12 of the United Nations Convention on the Law of the Sea (UNCLOS) as well as general international law, the International Tribunal for the Law of the Sea (ITLOS) emphasised that the duty to cooperate is a vital principle for preventing pollution of the marine environment.[64] The ITLOS examined several issues of international environmental law pertaining to the seabed beyond national jurisdiction, concluded that UNCLOS contains 'an obligation to ensure,' and clarified that this legal obligation included the obligation to apply the PP in accordance with Principle 15 of the Rio Declaration.[65] The ITLOS further held that if there be compelling reasons for a potential risk, despite the absence of sufficient scientific evidence, the sponsoring states are required to act.[66] Importantly, the tribunal grappled with the need to strike a balance between prudence and caution, necessitating cooperation between Ireland and the United Kingdom in sharing data on the risks or ramifications arising from the use of the Mox Plant and developing strategies appropriately designed to avoid those risks.[67]

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[59]Sobotta op cit note 13 at 729–730.

[60]Foster op cit note 6 at 241-242.

[61]*Southern Bluefin Tuna* supra note 37 paras 111–114, and 140.

[62]Foster op cit note 6 at 241-242.

[63]*MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea* (*Ireland v United Kingdom*) 41 (2002) ILM 405.

[64]Glazewski and Plit op cit note 5 at 199.

[65]Advisory Opinion of Seabed Disputes Chamber of the International for the Law of the Sea, Decision SDC (1 February 2011) para 135.

[66]Ibid at para 131.

[67]Foster op cit note 6 at 242.

In an earlier case involving the *Gabcikovo-Nagymaros Project* (Hungary/Slovakia),[68] the ICJ was tasked with considering how to implement emerging principles of international environmental law relating to the mitigation of environmental damage. The ICJ did not specifically reference the PP as one of the new norms, but it did recognise the importance of the PP in the evolution of environmental protection law. Furthermore, the ICJ ruled that these contemporary principles and guidelines should be taken seriously and given due weight.[69]

Similarly, the World Trade Organisation Appellate Body (Appellate Body) has on numerous occasions acknowledged the significant role played by the PP including its relevance within international trade law following the *ratio* laid down in *Gabcikovo-Nagymaros Project*. The Appellate Body has stressed the importance of prudent and precautionary government action in situations where risks cannot be undone. Even though it did not formally adopt this view, the Appellate Body made a passing remark that the PP has developed into a general principle of customary international environmental law.[70] Trouwborst argues that the PP and other principles of international environmental law are often given recognition in legal provisions, lending credence to the Appellate Body's conclusion.[71]

a) Canada

Canada is one of the countries which adopted the PP into its legal system. This was achieved when the Harmonisation Accord,[72] was adopted in January 1998 pursuant to action by the governments of the respective provinces of Canada which undertook to play their role in establishing consistent environmental measures to prevent inter-jurisdictional disputes and to apply common environmental principles including the PP.[73]

The Canadian Federal Government issued "A Canadian Perspective on the Precautionary Approach/Principle Discussion Document" (Discussion Document) in 2001 expanding on the

[68]*Gabcikovo-Nagymaros Project* (Hungary/Slovakia), Judgment of 25 September 1997, ICJ Reports paras 140 and 111–114.

[69]Foster op cit note 6 at 242–243.

[70]Foster op cit note 6 at 243.

[71]Foster op cit note 6 at 244.

[72]Canada-Wide Accord on Environmental Harmonization, 1998.

[73]Glazewski and Plit op cit note 5 at 206.

approach/principle. Notably, the document provides, *inter alia*, various mechanisms and guiding principles that outline its scope of application. In summary, the main principles include transparency; accountability; and public participation, which entails sound scientific information, and societal guides for acceptable risk levels. More importantly, the Discussion Document recognises the PP as a lawful and unique decision-making tool.[74] In *Wier v Canada (Health),*[75] the court determined that the PP mandates the Minister use his or her discretion to launch a special review into whether or not the pesticide poses an unacceptable environmental risk to amphibians in transient wetlands.[76]As a result, the legal system in Canada has acknowledged and incorporated the principle into both its legislative framework and its judicial decision-making procedures.

b) Australia

The PP was first incorporated into Australia's environmental policy in May 1992 following the promulgation of the *Rio Declaration* in the same year. The PP was adopted after the three spheres of government namely, the Commonwealth, the States and Territories and the Australian Local Government Association had assented to the Intergovernmental Agreement on the Environment (IGAE). However, the legal status of the IGAE is that of a non-binding legal document and a policy *albeit* enjoying some level of prominence and high-level policy.[77] The IGAE provides for the PP as one of four principles earmarked to enlighten and guide all environmental projects and policies in Australia.[78]

In *Telstra Corporation Limited v Hornsby Shire Council,*[79] the court noted that there are two conditions precedent before the PP can be triggered and applied, namely: the existence of a threat of grave or irreversible damage to the environment, and the absence of scientific assurance.[80]Since one can never know for sure that an action will not have unintended consequences, the court ruled that the triggering event relating to the lack of full scientific certainty is an unrealistic measure of

[74]Ibid at 207.
[75]*Wier v Canada (Health)* 2011 FC 1322 para 100.
[76]Ibid para 101.
[77]Glazewski and Plit op cit note 5 at 210.
[78]Ibid.
[79]*Telstra Corporation Limited v Hornsby Shire Council*2006 NSWLEC 133.
[80]Ibid paras 129 and 140.

the extent. Instead, the presence of substantial scientific uncertainty should serve as the gold standard.[81]

The court held that the PP does not invoke a zero-risk precautionary standard, rather more precautionary measures are needed which will ultimately be guided by the extent of the seriousness and irreversibility of the impending threat and the degree of uncertainty.[82]In addition, the judgment highlighted that the PP does not seek to prohibit nor stifle development. Thus, the PP should not be applied in isolation but rather within the context of ecologically sustainable development, which includes intergenerational equity, biodiversity conservation, and ecological integrity preservation.[83]

More recently, in *Wildlife of the Central Highlands Inc v Vic Forests*,[84] the plaintiff argued that harvesting the forests would be premature because they housed endangered species and the Commonwealth and State bushfire responses had not yet concluded. The inclusion of the PP in the applicable Code of Practice for timber production was central to the plaintiff's case, and they argued that it warranted a wait-and-see approach pending the completion of ongoing governmental responses. Even though it resulted in a massive expansion of the construction and application of the Code, the Supreme Court of Victoria accepted the plaintiff's submission (in the context of the implementation of the PP). Such a building was warranted considering the unprecedented devastation caused by the recent bushfires. As a result, a preliminary injunction was granted.

These judgments are supportive of the argument that the PP plays a significant role in the decision-making process.

c) Netherlands

The 2019 ruling of the Supreme Court of the Netherlands in *Urgenda Foundation v Kingdom of the Netherlands* has been hailed as a landmark decision that paved the way for concerned and

[81]Ibid para 144.
[82]Ibid paras 157–164.
[83]Ibid paras 179–183.
[84]*WOTCH Inc v Vic Forests* (No 7) [2020] VSC 817.

affected individuals around the world to pursue climate litigation to protect human rights.[85] A Dutch environmental group (the Urgenda Foundation) and 900 Dutch citizens brought suit against the Dutch government to compel it to do more to prevent global climate change.[86] The Dutch government was ordered by a Hague court to cut its greenhouse gas emissions by 25% below 1990 levels by 2020. The government's pledge to reduce emissions by 17% was found to be insufficient to fulfil the state's fair contribution to the United Nations goal of keeping global temperature increases within two degrees Celsius of pre-industrial conditions. This was due to the state's obligation to safeguard its citizens from harm, including the effects of climate change, in accordance with the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR).[87]

Considering the catastrophic nature of climate change's effects and the high probability of its occurrence, the court ruled that the state must take action to mitigate the phenomenon. The court cited the 'no harm' principle of international law, the doctrine of hazardous negligence, the principle of fairness, the precautionary principle (PP), and the prevention principle (PP) from the UN Framework Convention on Climate Change and European climate policy, despite not applying Article 21 of the Dutch Constitution.[88] The court did not prescribe how the government must act in order to fulfil the reduction order; however, it proposed a number of potential solutions, including taxation or emission trading schemes. The court's ruling was the first of its kind, mandating that a state enforce limits on its greenhouse gas emissions for reasons other than compliance with statute. The decision was upheld based on Articles 2 and 8 of the EHCR, which guarantee the right to a private and family life as well as the right to a home and to communicate freely with others.[89]

In addition, it is submitted that the Supreme Court of the Netherland's enunciation of these principles in the *Urgenda* judgement will lend much-needed aid to the current global legal and political pressure being applied by citizens to their respective governments to take immediate

[85]*Urgenda Foundation v. The Netherlands* [2015] HAZA C/09/00456689; aff'd (9 October 2018) (District Court of the Hague, and The Hague Court of Appeal (on appeal)) (affirmed by the Supreme Court, 20 December 2019) para 1–3.9.

[86]Ibid.

[87]Ibid paras 71–75.

[88]Ibid

[89]Ibid.

action against climate change through the application of the PP. Interestingly, prior to the *Urgenda* case, it was demonstrated that convincing courts of the catastrophic consequences of climate change and the related impact on an individual's human rights is not necessarily the biggest hurdle for human rights-based climate change litigation. Climate change is a challenge that necessitates concerted national policy-driven responses and proving that the courts are an appropriate mechanism through which to address this challenge is difficult.[90]

The next section of the report analyses the application of the PP in SA courts and offers a comparative analysis of the PP, the principle of sustainability, the preventative principle, and the environmental duty of care.

3. AN ANALYSIS OF THE APPLICATION OF THE PP IN SOUTH AFRICAN COURTS AND COMPARATIVE ANALYSIS OF THE PP, THE PRINCIPLE OF SUSTAINABILITY, THE PREVENTATIVE PRINCIPLE, AND THE ENVIRONMENTAL DUTY OF CARE

Thus far, this report has discussed the application of the PP in international law and its application in regional courts and the domestic courts of foreign countries in notable cases. The report now turns to a substantive examination of the PP and its application, particularly in the South African courts. The findings of this examination will be contrasted with how the PP is applied in Canada, Australia, and the Netherlands. The report will proceed by providing a comparative analysis of the preventative and precautionary principles, the principle of sustainability, the general duty of care for the environment, and how these legal approaches are interrelated and pursue a mutual substantive goal of promoting sustainable development.

Fundamentally, the application of the PP is relevant in environmental law, especially where context suggests that the primacy of the environment or society may be threatened but where scientific facts may not have fully crystallised.[91] In *Space Securitisation*, it was noted that the PP consists of four parts, namely: (i) the commitment to act before formal justification of proof, (ii) the requirement of ensuring a proportional response, (iii) the readiness to provide ecological space, and (iv) lowering margins for error.[92] It is argued that the PP is a useful tool for policymakers and

[90]Ibid.

[91]*Space Securitisation (Pty) Limited V Trans Caledon Tunnel Authority* [2013] 4 All SA 624 (GSJ) para 48.

[92]Ibid.

legislators to limit or restrict new threats and risks while ensuring that progress in industry, science, and technology is not unduly hampered. Furthermore, social responsibility requires not only that the public be protected from new sources of harm as a result of innovation, but that advances in science and technology be encouraged to aid in poverty alleviation and provide novel solutions to health crises, for example.[93]

Apart from the NEMA being the primary legislation giving effect to the PP, Glazewski and Plit submit that this principle also finds expression indirectly in the following Specific Environmental Management Acts (SEMAs): the National Environmental Management: Air Quality Act 39 of 2004, the National Environmental Management: Biodiversity Act 10 of 2004, the National Environmental Management: Integrated Coastal Management Act 24 of 2008 (which does not specifically mention section 2 of NEMA but rather requires interpretation and application in conjunction with NEMA), the National Environmental Management: Protected Areas Act 57 of 2003, and the National Environmental Management: Waste Act 59 of 2008. The PP also finds application in the Minerals and Petroleum Resources Development Act 28 of 2002.[94]

As alluded to above, the court in *Fuel Retailers Association* determined that the PP is particularly important in the context of s 24(7)(b) of the NEMA, which requires an investigation of the potential impact, including the cumulative effect of the proposed development on the environment and socioeconomic conditions, and an assessment of the significance of that potential impact.[95] These elements are regarded as critical for achieving sustainable development, which implies that initiatives for economic growth, social progress, and the sustainable use of the environment and its resources must be considered.

It was further noted in *Fuel Retailers Association* that the PP required the environmental authorities as well as the relevant Department of Water Affairs and Forestry (as it was known at the time), to insist on adequate precautionary measures to safeguard against the contamination of underground water.[96] Water is a natural resource that needs to be protected for the benefit of both current and future generations because it is a valuable, irreplaceable, and finite commodity. This

[93]See in this regard Z Hlioui and O Yousfi 'CSR and Innovation: Two Sides of the Same Coin' in B Orlando (ed) *Corporate Social Responsibility* (2022) 1.

[94]Glazewski and Plit op cit note 5 at 216.

[95]*Fuel Retailers Association of Southern Africa* case supra note 27 para 81.

[96]Ibid para 98.

is echoed in s 24(b) of the Constitution, which states that everyone has the right to have the environment protected for the benefit of current and future generations, and it is maintained that water is an inextricably linked component of the environment.[97]

The court in *Fuel Retailers Association* further declared that the PP is applicable in cases where the potential effects of a proposed development are uncertain due to a lack of available scientific knowledge. The precedent established in the *Fuel Retailers Association* case not only crystallises the PP's application in our law and the considerations inherent in such application, but it also emphasises the important point that the PP has a wider scope of application that extends far beyond the parameters of the NEMA. Furthermore, most environmental legislation promotes sustainable development, and the PP, as a principle endorsed under s 2(4)(a)(vii) of the NEMA finds application in most environmental statutes.

In *HTF Developers*, the Constitutional Court maintained that the principles set forth in s 2 of NEMA support an approach to the environment and environmental activity that is consistent with international norms, including taking into account all pertinent interests in the process of environmental management.[98] It is posited that taking this approach gives effect to the state's constitutional obligations enshrined in sections 24 of the Constitution, which deal with environmental rights, and s 39(1)(b), which requires a court to consider international law when interpreting the Bill of Rights. What is more, s 233 of the Constitution mandates the courts to favour an interpretation of legislation that is consistent with international law over any alternative interpretation that runs against international law. Taken together, the aforesaid constitutional provisions oblige our courts to investigate the content of international law rules and bring our statutory rules in line with international norms governing the protection of the environment.

In *WWF South Africa*,[99] the court started by looking at s 24(b) of the Constitution as an overarching provision of national environmental management laws. According to this constitutional provision, everyone has the right to environmental protection for the benefit of current and future generations through reasonable legislative and other measures that prevent environmental degradation,

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[97] Additionally, the right of access to water is guaranteed in s 27(1)(b) of the Constitution which mandates the state to take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of the right.

[98] *MEC, Department of Agriculture, Conservation and Environment and Another v HTF Developers (PTY) LTD* 2008 (2) SA 319 (CC).

[99] *WWF South Africa v Minister of Agriculture, Forestry and Fisheries* 2019 (2) SA 403 (WCC).

encourage conservation, ensure ecologically sustainable development and use of natural resources, and promote a healthy economy and society. The court applied the PP by firstly, recognising and invoking the constitutional environmental rights enshrined in section 24 of the Constitution. It was then emphasised that these constitutional imperatives are given effect to by the suite of environmental management laws such as s 2 of the NEMA which, *inter alia*, gives effect to the PP.

The court in *WWF South Africa* noted that the PP envisages an environmental management process that puts people and their needs first and remarked that the PP aims to be a guiding tool towards environmental undertakings that must strictly be socially, economically, and environmentally sensitive.[100] Most importantly, the PP exists to aid and advance a cautious approach that takes into account the limitations of existing scientific knowledge on the consequences of environmental decisions and actions, as well as the adverse impact on people's environmental rights that may result.[101] It must be noted that the PP's application to any given decision or action may be relaxed through the provision of better (or conclusive) scientific evidence on the potential impact of the said decision or action. Thus, the PP should be seen as an inherently flexible principle which may be relaxed in its application where environmental harm is minimal or non-existent.

The case of *Sustaining the Wild Coast NPC* is a recent judgment in which the PP was invoked and developed in favour of South African communities and the environment.[102] The court issued an interim interdict against the respondents, prohibiting them from conducting a seismic survey without NEMA-compliant environmental authorisation. The court correctly found that expert evidence established a reasonable apprehension of real harm to marine life and that the harm was imminent. The court noted that the PP had to be applied if there were any doubts about the harm.[103] It is worth noting that the court thoroughly examined the environmental rights guaranteed by section 24 of the Constitution, as it did in the cases of *Fuel Retailer Association*, *WWF South Africa*, and *HTF Developers*.[104]

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[100]Ibid para 13.

[101]Ibid.

[102]*Sustaining The Wild Coast NPC And Others v Minister of Mineral Resources and Energy* 2022 (2) SA 585 (ECG).

[103]Ibid para 37.

[104]*MEC, Department of Agriculture, Conservation and Environment and Another v HTF Developers (PTY) LTD* 2008 (2) SA 319 (CC) at para 65.

Regardless of the foregoing, a recent practical example of where the PP should have been used was the planned hydraulic fracturing or fracking in the Karoo. Kantor submits that the PP is part of the legal framework and constitutional body of principles that must be considered when deciding whether to allow fracking.[105] The planned fracking fell under the purview of the PP because it involved a case in which the uncertainty surrounded the severe risk that would cause a reasonable decision-maker to refuse an application for such an activity to be undertaken given the potentially severe consequences as contemplated in s 24(4)(b)(i) of NEMA.[106]

The court in *HTP Developers* also cited s 2(4)(a)(vii) of NEMA, which explicitly provides that sustainable development necessitates considering all relevant factors, such as avoiding unnecessary risks and acting cautiously due to the lack of complete information about the consequences of various options. The court found that NEMA's approach was risk-averse and cautious, balancing the limitation on present knowledge about the consequences of an environmental decision. The PP will find application where there is uncertainty about the long-term effects of the proposed development due to a lack of scientific knowledge.[107] Glazewski submits that given the lack of evidence about the safety of fracking in the Karoo and extent of the risks involved, South Africa should tread with caution and apply the PP whilst complying with the long-term sustainability goals and principles as contemplated in the Constitution.[108]

It is submitted that in the broad context of environmental law while considering the tenets of the PP, regard must be had to the underpinning notion of environmental law that sustainable development intricately links the PP, the preventative principle, and the general duty of care for the environment even though they are all distinct environmental principles. These principles or approaches are aimed at promoting sustainable development and environmental regulation. In this regard, Fuggle and Rabbie opine that it was confirmed in *Fuel Retailers Association* that NEMA does not provide guidance on the weight to be afforded to any specific factor or norm nor does it create any hierarchy of factors/norms or impose how these factors/norms must be considered or integrated.[109] One must be mindful that not all these factors or norms will be relevant at all material

[105]P Kantor 'Fracking – a cautious and risk averse approach' (2011) 515 *De Rebus* 32.

[106]Ibid.

[107]Ibid.

[108]J Glazewski and S Esterhuyse (eds) *Hydraulic Fracturing in the Karoo* (2016) at 443.

[109]King, Strydom and Retief op cit note 15 at 141.

times and even if that were to be the case, these principles will not necessarily be afforded the same weight in each matter.[110]

Sustainable development as contemplated under NEMA is the integration of social, economic and environmental factors into planning, implementation, and decision-making so as to ensure that development serves present and future generations.[111] Glazewski notes that sustainable development is defined as an ecological tenet which envisions the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[112] Inherent in this are two key notions: the concept of 'needs,' in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs.[113]

What is evident from the definition is that environmental endeavors should be mindful of the current social, economic, and environmental context, including extending the same courtesy and consideration towards future generations. The environment and the people who live in it should be sensitive to the inherent risks of development, preserve the environment it for future generations and not endanger it. Furthermore, it is submitted that there should always be an alternative approach to the environmental risk-controlling measures where scientific accuracy and environmental facts are not immediately available or conclusive on the anticipated risks.

The principle of sustainable development was highlighted in *Groundwork & Vukani* where it was held that in the context of the environmental rights provided by the Constitution, s 24(a) and s 24(b) of the Constitution are distinct rights with distinct obligations, nevertheless they are both underpinned by a set of common principles.[114] One of the most important principles here is the principle of sustainable development which is integrally linked with the principle of intergenerational justice. At the heart of sustainable development is the notion that every person,

[110]Ibid.

[111]J Glazewski and L du Toit *Environmental law in South Africa* (2013) at 1–17.

[112]Ibid.

[113]Glazewski and Plit op cit note 5 at 24.

[114]*Groundwork & Vukani Environmental Justice Alliance v Minister of Environmental Affairs* Case No. 39724/2022 paras 40–41.

not just the state, carries this responsibility and must consider the long-term impact of pollution on future generations.[115]

The concept of sustainable development was given due consideration by the International Court of Justice (ICJ) in the case of *Gabcikovo-Nagymaros Dam.*[116] The ICJ applied the principle of sustainability to balance the need for economic development with the protection of the environment when it was presented with the question of new scientific developments and a growing awareness of the risks involved in the unabated inference with nature for economic and other reasons.[117] Another case that took into account the need for environmental protection alongside other rights was *Kyalami Ridge Environmental Association*, which focused on the tension between the right to housing guaranteed by s 26 of the Constitution and environmental protection.[118] According to the Constitutional Court's analysis, the respondents' concerns about the environment were outweighed by the government's obligation to meet its obligations related to the right to housing. The court in *BP Southern Africa*, for example, endorsed sustainable development after applying a comparable balancing exercise,[119] and the decision emphasised the significance of considering socio-economic factors in environmental decision-making.[120] The concept of sustainable development has become deeply rooted in our legal jurisprudence, and it will be up to future generations to strike a balance between environmental concerns and the need for justiciable social and economic progress.[121]

The framing and contextualisation of the PP within the context of sustainable development has gone a long way towards providing a useful guide for the PP's interpretation and application. This is because the PP directly promotes sustainable development and environmental protection from serious irreversible harm for current and future generations. This sentiment was echoed by the court in *BP Southern Africa*, which held that sustainable development is the foundation upon which environmental legal norms have been developed both internationally and in South Africa,

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[115]Ibid.

[116]*Hungary v Slovakia* 1997 ICJ Reports 7 para 140.

[117]King, Strydom & Retief op cit note 15 at 81.

[118]*Minister of Public Works v Kyalami Ridge Environmental Association* 2001 (7) BCLR 652 (CC).

[119]*BP Southern Africa* supra note 29 para 144D.

[120]Glazewski and Plit op cit note 5 at 81.

[121]*BP Southern Africa* supra note 29 para 144D.

as contemplated by s 24 of the Constitution.[122] The conceptual framing of the PP around sustainable development has also assisted our courts immensely in the application and interpretation of the PP and this is evidenced by the judgments discussed above.

Some fundamentalists still regard the PP as arbitrary and unscientific because it is based on ideological value judgements and may jeopardise human progress. These fundamentalists argue that because it is a matter of common sense and the PP should not be elevated to the status of a principle.[123] However, this viewpoint is based on a maximalist interpretation of the PP, which assumes that scientists can accurately predict environmental and health threats and even go so far as to provide technical solutions to these hazards, and that the most cost-effective way to act is to act only when hazards occur. A minimalistic interpretation of the PP, on the other hand, is based on the fact that scientists cannot predict environmental health threats with certainty.[124] Additionally, it is submitted that the PP may assist in establishing regulatory mechanisms by streamlining business and societal interests with a view that companies will not need to pay the full cost of adverse environmental and health effects because of the decision-making process.[125] It is submitted that the PP provides a framework for better dealing with and balancing public health and environmental imperatives, as well as reducing the challenges associated with scientific demonstration prior to justifying preventative measures.[126]

In terms of the preventative principle, activity which may result in environmental pollution must be prohibited.[127] This is reinforced by s 2(4)(a)(viii) of NEMA which provides that any negative impacts on the environment and environmental rights must be anticipated and prevented, and where they cannot be altogether prevented, must be minimised and remedied. Furthermore, the idea that ecosystem disruption and biological diversity loss should be avoided, or at the very least mitigated and corrected, is an expression of the preventive principle. This is reflected in the mandate, which calls for minimal and correctable environmental and cultural heritage impacts

[122]Glazewski and Plit op cit note 5 at 218.

[123]G Marchant and K Mossman *Arbitrary and Capricious: The Precautionary Principle in the European Union Courts (*2004) at 12.

[124]European Parliamentary Research Services supra note 3 at 12.

[125]Ibid at 12–13.

[126]Ibid at 13.

[127]Glazewski and du Toit op cit note 111 at 1–28.

whenever possible.[128] It is posited that this is essentially what is anticipated by the PP and the preventative principle and the PP fulfil a similar function as the environmental management principles contemplated under NEMA, which are purposed at achieving sustainable development.[129] The preventative principle, which is compatible with sustainable development, calls for action to be taken as early in the process as possible (ideally before such damage manifests) to minimise environmental harm.[130]

S28 of NEMA imposes a general duty of care and remediation of environmental damage on anyone who may or is causing harm, environmental degradation, or depletion to the environment. A similar duty of care arises under s 19 of the Water Act, which is commonly referred to as the environmental duty of care provisions.[131] The duty of care, like the PP, the preventative principle, and the concept of sustainability, is one of the primary pillars aimed at attaining sustainable development. The duty of care requirements are retroactive in application and cover both existing pollution and future environmental harm. It was confirmed in *Hichange Investments* that it is trite practice that the threshold for what is contemplated as significant pollution will not be particularly high. [132]

Notwithstanding this point, one can infer that the PP has gone through notable development in South African courts, and it is also apparent that it does not exist and operate as a single or separate legal principle, but it is part of a group of environmental law tenets. In other words, the PP, the preventative principle, and the environmental general duty of care, all function together as environmental management principles working towards achieving sustainable development. As a result, the conceptual framing and contextualisation of the PP as embedded in the constitutional framework and environmental legislation, as well as the principle of sustainability have greatly aided South African courts in effectively applying and eventually developing the PP in our case law jurisprudence. This was evident in *Fuel Retailers*, where the court determined that the PP imposed an obligation on environmental authorities and the Department of Water Affairs and

[128]Ibid at 17 and 53–54.

[129]Ibid.

[130]M Martuzzi and J Tickner *The precautionary principle: protecting public health, the environment and future of our children* (2004) at 146.

[131]National Water Act 36 of 1998.

[132]*Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd t/a Pelts Products* 2004 (2) SA 393 (E). See also A du Plessis *Environmental Law and Local Government in South Africa* (2015) at 265.

Forestry to take adequate precautionary measures to protect against underground water contamination.[133]

In addition, the court in *Fuel Retailers* ruled that the PP should be applied in cases where there is a lack of available scientific knowledge and doubt about how the proposed development will affect the area in the future. This confirms the court's interpretation of the PP as consistent with sustainable development and demonstrates that the PP extends beyond the purview of NEMA to apply to environmental management legislation-governed activities.[134] Moreover, section 39(1)(b) of the Constitution provides that South African courts must consider international law when interpreting the Bill of Rights.[135] Therefore, given the PP's origins, section 39 of the Constitution essentially mandates that our courts take into account international law and this has provided a pathway for courts in applying the PP when faced with such issues.[136]

Importantly, the national environmental management principles are not merely a checkbox exercise, but rather a requirement that any proposed development activities must meet. They serve as primary principles and normative guidelines for ensuring environmental management and cooperation.[137] The next section of the research report will provide recommendations and concluding remarks.

4. RECOMMENDATIONS

Considering the above discussion, it is evident that the PP has undergone significant development in its application to both international and domestic law. However, there is still much room for improvement in terms of its application. Below are a few recommendations on how policy makers, competent authorities and courts can better utilise and apply the PP:

First, the PP is still considered as soft law despite being accepted and recognised in international treaties, conventions and various domestic laws as a principle that plays a decisive role in international environmental law.[138] There is a need for uniformity, reform, and consistency in the

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[133]*Fuel Retailers Association of Southern Africa* case supra note 27at para 98.

[134]Glazewski and Plit op cit note 5 at 216.

[135]S 39(1)(b) and (c) of the Constitution op cit note 20.

[136]Glazewski and Plit op cit note 5 at 216.

[137]King, Strydom and Retief op cit note 15 at 145.

[138]Glazewski and Plit op cit note 5 at 195–196.

application of the PP before it can be fully recognised and enjoy the binding status of an international customary law principle. Furthermore, from the perspective of international environmental law, there is room and flexibility for legal reform to enable a new approach in the application of the PP, which enables the reversal of the burden of proof in disputes involving scientific uncertainty through the exercise of the inherent jurisdictional powers of international courts and tribunals. The legal standards for employing the PP under the new regime, however, should be crystallised by this reform and development in the law.[139]

Secondly, another proposed approach to dealing with scientific uncertainty is ongoing awareness to litigation alternative dispute resolution mechanisms such as mediation in respect of interstate disputes.[140] Whenever possible, conflicts over the direction of planned activities ought to be settled through collaborative governance measures taken by the various parties involved.[141] Co-operative governance will go a long way in providing sustainable and long-term solutions to disputes and pave the way for settlement discussions between the parties to the dispute.

Thirdly, from a policy and practical perspective, there are several methods that can be applied to determine the suitability of taking precautionary measures. The cost-effectiveness analysis is one of these tools, and it is designed to help policymakers determine in advance what level of risk can be tolerated while keeping costs to a minimum.[142] Despite this, technological advancement will play a critical role in the transition to a decarbonised, greener, and more sustainable economy. The PP can be trusted to deal with the myriad of issues and unknowns that arise during such a time of change.[143]

Lastly, there is a greater need for education, improved research capacity and better access to information in developing countries such as South Africa relating to the implementation of the PP. Education and information can achieve an improved capacity and positively influence citizens about the importance of environmentally friendly choices.[144] This makes it possible to fully understand the risks associated with the materials and activities, as well as to pinpoint knowledge

[139]Foster op cit note 6 at 276.

[140]Foster op cit note 6 at 347.

[141]Ibid.

[142]European Parliamentary Research Services supra note 3 at 13.

[143]European Parliamentary Research Services supra note 3 at 23.

[144]Martuzzi and Tickner op cit note 130 at 202.

gaps, high-priority pollutants, and risky activities, and to ensure better adherence to environmental and health regulations. Accountability is ensured by information access. Improved research capacity plays a vital role in rapid identification of environmental hazards and in the broader prevention strategy.[145]

5. CONCLUSION

Although there are still differing views on the PP, it has been developed not only as a policy tool but also through jurisprudence in numerous jurisdictions both domestically and internationally. The PP is still a valuable tool for advancing sustainable development, including environmental management in cases of scientific ambiguity and environmental preservation and protection. Policymakers in South Africa are urged to consistently apply the PP timeously and in the appropriate context, such as when there are significant infrastructure developments as evidenced by recent rulings from our domestic courts. It is evident from the report that the PP's commitment to environmental rights and sustainable development as cornerstones has made it possible to realise environmental preservation for future generations. This report dealt with the PP's creation and implementation in general. Secondly, it offered a critical analysis of the PP's use and evolution in South African courts, as well as an evaluation of its use in various international judgements. Finally, this report offered a review of the PP, the principle of sustainability, the preventative principle, and the environmental duty of care. In conclusion, specific suggestions were made on how the PP could be better applied and developed in the context of environmental law.

[145]Martuzzi and Tickner op cit note 130 at 202–203.

BIBLIOGRAPHY

Constitution of the Republic of South Africa, 1996.

Legislation

Canada-Wide Accord on Environmental Harmonization, 1998.

Minerals and Petroleum Resources Development Act 28 of 2002.

National Environmental Management Act 107 of 1998.

National Environmental Management: Air Quality Act 39 of 2004.

National Environmental Management: Biodiversity Act 10 of 2004.

National Environmental Management: Integrated Coastal Management Act 24 of 2008.

National Environmental Management: Protected Areas Act 57 of 2003.

Case Law

BP Southern Africa (Pty) Ltd v MEC for Agriculture, Conservation and Land Affairs 2004 (5) SA 124 (W).

Case C-212/18 *Prato NevosoTermo Energy*, EU:C:2019:898.

Case C-236/01 *Monsanto Agricoltura Italia and Others*, EU:C:2003:431.

Case C-333/08 *Commission/France*, EU:C:2010:44.

Case C-616/17 *Blaise and Others*, EU:C:2019:800.

Case C-674-17 *LuonnonsuojeluyhdistysTapiola*, EU:C:2019:851.

*Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Conservation and Environment, Mpumalanga Province and Others*2007 (6) SA 4 (CC).

Gabcikovo-Nagymaros Project (Hungary/Slovakia), Judgment of 25 September 1997, ICJ Reports.

Groundwork &Vukani Environmental Justice Alliance v Minister of Environmental Affairs Case No 39724/2022.

Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd t/a Pelts Products 2004 (2) SA 393 (E).

MEC, Department of Agriculture, Conservation and Environment and Another v HTF Developers (PTY) LTD 2008 (2) SA 319 (CC).

Minister of Public Works v Kyalami Ridge Environmental Association 2001 (7) BCLR 652 (CC).

MOX Plant Case (*Ireland v United Kingdom)* 41 (2002) ILM 405.

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.

Space Securitisation (Pty) Limited V Trans Caledon Tunnel Authority and Others [2013] 4 All SA 624 (GSJ).

Sustaining The Wild Coast NPC And Others v Minister of Mineral Resources and Energy And Others 2022 (2) SA 585 (ECG).

Sustaining the Wild Coast NPC v Minister of Mineral Resources and Energy and Others [2022] 1 All SA 796 (ECG).

Telstra Corporation Limited v Hornsby Shire Council 2006 NSWLEC 133.

Urgenda Foundation v The Netherlands [2015] HAZA C/09/00456689; aff'd (9 October 2018) (District Court of the Hague, and The Hague Court of Appeal (on appeal)) (affirmed by the Supreme Court, 20 December 2019).

Wier v Canada (Health) 2011 FC 1322.

WOTCH Inc v VicForests (No 7) [2020] VSC 817.

WWF South Africa v Minister of Agriculture, Forestry and Fisheries 2019 (2) SA 403 (WCC).

International Conventions/Treaties

Habitat Directive: Council Directive 92/43/EEC of 21 May 1992.

Montreal Protocol on Substances that Deplete the Ozone Layer of 1987.

The Rio Declaration on Environment and Development (1992).

Treaty on European Union (Consolidated Version), Treaty of Maastricht, 1992.

United Nations Framework Convention on Climate Change of 1992.

Vienna Convention on the Protection of the Ozone Layer of 1985

Books and Book Chapters

A du Plessis *Environmental Law and Local Government in South Africa* (2015).

C Raffensperger and JA Tickner *Protecting Public Health and the Environment* 1 ed (1999).

CE Foster *Science and the Precautionary Principle in International Courts and Tribunals* (2011).

D Resnik *Precautionary Reasoning in Environmental and Public Health Policy* 86 ed (2021).

J Glazewski 'The Nature and Scope of Environmental Law' in J Glazewski (ed) *Environmental Law in South Africa* (2016).

J Glazewski and S Esterhuyse *Hydraulic Fracturing in the Karoo* (2016).

J Glazewski and L du Toit *Environmental Law in South Africa* 2 ed (2005).

J Morris *Rethinking Risk and the Precautionary Principle* 1 ed (2000).

M Kidd *Environmental Law* 2 ed (2013).

M Martuzzi, JA Tickner and the World Health Organisation *The precautionary principle: protecting public health, the environment and the future of our children* World Health Organization. Regional Office for Europe (2004).

M Sunkin, DM Ong and R Wight *Sourcebook on Environmental Law* 1 ed (1998).

N King, H Strydom and F Retief *Environmental Management in South Africa* 3 ed (2018).

Z Hlioui and O Yousfi 'CSR and Innovation: Two Sides of the Same Coin' in B Orlando (ed) *Corporate Social Responsibility* IntechOpen (2022)

Journal Articles

A Trouwborst 'Prevention, Precaution, Logic and Law: The relationship between the precautionary principle and the preventative principle in international law and associated questions' (2009) 2(2) *Erasmus Law Review* p. 105–127.

A Trouwborst 'The Precautionary Principle in General International Law: Combating the Babylonian Confusion' (2007)16(2) *Review of European Community and International Environmental Law* p. 185–195.

A-M JP Janssen and NF Rosenstock 'Handling Uncertain Risks: An Inconsistent Application of Standards' (2016) 7(1) *European Journal of Risk Regulation* p. 144–154.

C Sobotta 'Recent applications of the precautionary principle in the jurisprudence of the CJEU – a new yardstick in EU environmental decision making?' (2021) 21 *ERA Forum* p. 723–735.

C Som, LM Hilty and A R Köhler 'The Precautionary Principle as a framework for a sustainable information society' (2009) 85(3) *Journal of Business Ethics* p. 493–505.

H Klug 'Between Principles & Power: Water Law Principles & Governance of Water in Post-Apartheid South Africa' (2021) 150(4) *Dædalus: Institutions, Experts & the Loss of Trust* p. 220–239.

J Glazewski and L Plit ‘Towards the application of the Precautionary Principle in South African Law’ (2015) 26(1) *Stellenbosch Law Review* p. 190–219.

Theses

P Sandin *The Precautionary Principle: From Theory to Practice* (Thesis in Philosophy, The Royal Institute of Technology, 2002).

T Morodi *The precautionary principle and public environmental decision-making in South Africa: an ethical appraisal* (Doctor of Philosophy, Stellenbosch University, 2016).

Other sources

Advisory Opinion of Seabed Disputes Chamber of the International for the Law of the Sea, Decision SDC (1 February 2011).

Internet References

European Parliament, Directorate-General for Parliamentary Research Services and D Bourguignon ‘The Precautionary Principle: Definitions, applications and governance: in-depth analysis’ (2016) Publications Office, available athttps://op.europa.eu/cs/publication-detail/-/publication/166bad38-a2f9-11e5-b528-01aa75ed71a1#:~:text=Definitions%2C%20applications%20and%20governance%20%3A%20in-depth%20analysis%20The,hazard%20is%20uncertain%20and%20the%20stakes%20are%20high, accessed on 12 December 2022.

J F Pinto-Bazurco ‘The Precautionary Principle’ (2020) International Institute for Sustainable Development, available at: https://www.iisd.org/system/files/2020-10/still-one-earth-precautionary-principle.pdf, accessed on 7 December 2022.