Back to the Future: Viewing Emerging Climate Risk Through a Precautionary Lens

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This piece explores the utility of the precautionary principle as a tool available to investment tribunals tasked with assessing measures adopted by States to address climate-related risks. To date, little has been said about the potential benefits of investor-State dispute settlement (ISDS) tribunals embracing a principle-based approach to assessing the impact of State climate-action policies. Similarly, limited attention has been devoted to the normative challenges faced by ISDS adjudicators seeking to apply the precautionary principle when interpreting environmental norms. Yet, there is a growing recognition that the prevailing approach to risk assessment fails to capture certain climate change risks.

ISDS adjudicators are predominantly required to interpret obligations imposed on States by investment treaties, some of which are derived from investment law and reflected in customary international law. Such obligations usually encroach upon State attempts to implement progressive environmental policies. To determine the legality of progressive State environmental measures, ISDS adjudicators rely on the tort principle of cause and effect. The case of *Burlington Resources Inc. v. Republic of Ecuador*, in which a tribunal awarded Burlington USD 378.9 million for expropriation of its investment, is a recent example (albeit Ecuador successfully counterclaimed for breach of contract and domestic environmental protection laws). This case illustrates how expansive investment protection standards dissuade States from unilaterally implementing environmental policies.

Against this backdrop, this blog post explores the utility of the precautionary principle as a tool to assess risks associated with sustainable development and evaluate State climate change policies in ISDS claims. It contends that adjudicators should reconsider the central role of the tort principle of cause and effect when precautionary regulatory measures are taken in the context of foreseeable, but non-imminent, risks. This innovative approach would permit adjudicators to recognize climate consciousness when determining whether State acts, such as regulation based on projected air contamination, meet an objectively reliable risk threshold.

The Precautionary Principle: An Underutilized Public International Law Standard

The precautionary principle is not a novel feature of international adjudication, although its legal status within the corpus of public international law remains unsettled. It has been incorporated into numerous international conventions and declarations, most notably the Rio Declaration, which has been hailed as its “classic” formulation. It is closely aligned with the notion of precaution. Its definition requires

consideration of intergenerational risk and the temporal allocation of environmental resources.

Analysis of the numerous formulations of the precautionary principle reveals that its hallmark is the need for swift intervention to prevent "the risks of grave or irreversible damage". Sometimes characterized as *lex ferenda*. it is best construed as a standard, not a concrete obligation. Due to its forward-looking nature, it is well-suited for use as a tool to analyse the appropriateness of long-term mitigation efforts to address uncertain risks.

The potential for greater adoption by adjudicators of a precautionary approach reignites the collective causation discourse explored by Andre Nollkaemper and other notable scholars. Collective causation suggests that climate change harms may be characterised as the effect of the actions of multiple actors or causes. There is also a growing debate as to whether international adjudicators should recognize and afford broader legal status to risk reduction measures intended to protect and conserve ecosystems.

Considering the uncertainties surrounding the exact nature of the precautionary principle, whether, and if so the extent to which it may be used to oblige ISDS adjudicators to analyse risk in a particular way is unclear. As René von Schomberg has observed, applying the principle in a public policy context requires the consideration of various "normative dimensions", encompassing both "prescriptive statements" and "value judgements", as opposed to "factual scientific statements".

To demonstrate how the precautionary principle can be integrated into the deliberative process and harmonized with other norms, the balance of this blog post discusses a recent ISDS case in which the principle was raised and conducts a comparative analysis of existing risk assessment methods. It considers the forward-looking nature of the precautionary principle, and the potential benefits of affording legal recognition to precautionary steps taken by States. It concludes that wider application of the principle would better equip ISDS tribunals to address the limitations of scientific knowledge, which is of particular relevance in environmental contexts, in which cautious use of new, somewhat untested, technologies may be justified to prevent serious or irreversible environmental harm.

Preservation of Ecosystems versus Reduction of Oil Contamination: The Saga of Burlington v. Ecuador

Burlington v. Ecuador is but one example of a tribunal failing to endorse regulatory measures taken by a State when evidence was presented that such measures were taken on a precautionary basis to support progressive climate policies.

This case concerned Burlington, a U.S.-affiliated investor that was assigned production-sharing contracts (PSCs) for the exploration and exploitation of Blocks 7 and 21 of certain oil production facilities in Ecuador in 2001. Due to rising oil prices, Ecuador revised its tax regime, subjecting Burlington to new tax regulations. Burlington claimed that the new law forced it to abdicate its rights under the PSCs, as the introduction of the tax regime led to the seizure of shares, which

was tantamount to indirect expropriation. The project was subsequently halted by Burlington.

Following suspension of Burlington's operations, Ecuador took over the facilities, claiming that suspension of operations would have led to the depletion of Blocks 7 and 21, causing irreparable harm and a devastating impact on the ecosystem of that area. In support of its claim, Ecuador presented a polygenic risk score report (PRS report) listing four risks that would have materialized if not addressed immediately. Ecuador stressed that the continued suspension of operations at the blocks would have caused reservoir, mechanical, and environmental damage, as well as economic loss to the State.

In refuting Ecuador's claims, Burlington claimed that the PRS report did not provide a clear account of real risks. Rather, it identified abstract or remote risks. In this context, Burlington equated harm with seriousness and reinforced its position by asserting that it had fulfilled its due diligence obligations by implementing measures consistent with the International Standardization Organization's ISO 14015 Environment Management Standard. Such standard articulates guidelines for parties conducting environmental due diligence assessments to identify and reduce potential environmental harm prior to the commencement of projects.

Burlington asserted that its oil contamination assessment was based on scientifically identifiable measures and the possibility of any real threat emerging was slim. The tribunal was therefore confronted with complex issues concerning the assessment of oil site contamination. The State's risk assessment not only highlighted imminent risks, but also identified a strong likelihood of persistent and cumulative risks arising. However, when seeking to determine the justiciability of such risks, the tribunal failed to attribute value to the role that precaution had played in the State's actions. Instead, the tribunal relied on traditional risk assessment principles, which only recognize risks that have already manifested.

Adopting a traditional approach to risk assessment, the tribunal concluded that Burlington's actions had not violated any international environmental standards. The reliance of ISDS tribunals on traditional environmental risk assessments is also evident from the awards in *Mamidoil Jetoil Greek Petroleum Product Societies SA v. Albani* and *Lone Pine Resources Inc. v. The Government of Canada.*

Relying on a Tightly Framed Doctrine of Harm

Conventional approaches to environmental risk assessment use two parameters to detect, assess and aggregate risk: adverse outcomes that may arise, and the likelihood of such outcomes occurring. Recommendations are then made to prevent imminent threats established to a scientific certainty. This approach is ill-equipped to deal with emerging environmental risks because traditional methodologies lack "a definitive basis for assigning probabilities" when presented with uncertainties. Ambiguity makes it impossible to establish risk to a scientific certainty.

Many climates change-related risks are cumulative, delayed, and remote in nature, and therefore only identifiable by a degree of "likelihood" using existing

scientific methods. Emerging risks are typically assessed by adopting a Bayesian interpretation of probability, whereby reasonable expectation is used to express the probability that an event will occur.

However, many conventional environmental risk assessment methods fail to treat probability as a degree of belief or to utilize Bayes' Theorem to compute and update probabilities after obtaining the data. The result is that remote risks are rarely established to a degree of scientific certainty that would satisfy an ISDS tribunal that precautionary State regulatory action was justified.

Nevertheless, risk assessments are helpful to international investment tribunals, albeit assessors must both identify risks and satisfy a tribunal that there is a cause-and-effect relationship between events and outcomes. This reflects the traditional approach of investment tribunals to risk. Delayed or remote risks are not deemed justiciable due to the lack of a causal link between the event and the alleged harm or outcome.

Adherence to a tightly framed doctrine of harm removes the impetus for tribunals to take a longer-term view of risk. This undermines growing unanimous scientific consensus connecting changes in greenhouse gas emission, such as methane and ground-level ozone (smog), over time to human activities. Oil and gas exploration is a significant source of methane, a greenhouse gas that is 25 times more potent than carbon dioxide.

For example, traditional environmental risk assessment leads to the unavoidable conclusion that greenhouse emissions are not the instant result of destructive oil and gas exploration. It therefore fails to capture delayed climate change risks, such as the conclusions drawn from the IPCC's extended natural behavioral studies that were conducted to assess carbon risks in Brazil, Russia, India, China and South Africa. Methodological flaws prevent risk assessments from elucidating the effects of intervening activities and exposure in a way that could substantiate persistent and cumulative risks.

Adjudicating Harm, Science, and Evidence Through the Lens of Prudence

The precautionary principle encourages policymakers and adjudicators to err on the side of caution and attribute probative force to dynamic, changing risks that carry normative weight. Although international conventions describe the precautionary principle in different ways, each definition identifies *urgency* and *irreparable harm* as the core conditions to trigger the application of the principle. Thus, if such conditions are met, any precautionary measures taken as a result should arguably be legitimized.

In the ISDS context, application of the precautionary principle offers significant potential benefits. It enables tribunals to recognise risks that it may be difficult to establish to an objective degree of scientific certainty, and to diverge, when appropriate, from rigid adherence to the doctrine of harm. It allows tribunals to take a longer-term view of risk, properly contextualizing and potentially legitimizing State

environmental measures taken to reduce the risk of probable harm that will not manifest imminently, but in the medium to long term.

Notably, viewing measures taken by States through a precautionary lens incentivizes tribunals to recognize and, when appropriate, support progressive climate action policies. Tribunals are empowered to attribute greater weight to evidence of risks that are, by their very nature, inevitably based on 'insufficient scientific evidence'. Accordingly, it expands tribunals' capacity to recognize State precautionary actions as a justifiable exercise of the right to regulate. States would, for example, be able to meaningfully address projected seismic exploration harms by tightening environmental regulations. More importantly, tribunals would be able to familiarize themselves with the concept of delayed harm and treat evidence of such harm as viable, leaving space for States to innovate and engage in climate change advocacy where permitted.

By embracing the precautionary principle, tribunals will be better equipped to recognize that existing risk assessment methodologies are not without flaws and may fail to appraise risks holistically. By acknowledging the important role of precaution in the taking of climate-related measures, tribunals can avoid disregarding important emerging data and intervening activities that may otherwise justify appropriate and prudent acts taken by States pursuant to their right to regulate.
