Customary International Law as a Judicial Tool for Promoting Efficiency

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(1) Introduction

The 1997 decision of the International Court of Justice (ICJ) in the *Gabcikovo-Nagimaros* case[1] reshaped international law on transboundary resources in the disguise of adhering to customary principles. Aside from praise for the efficient norms it prescribed, the decision raises a fundamental puzzle: from where did the ICJ draw its authority to rewrite international law? Clearly, the ICJ paid no attention to the traditional sources of international law – general and consistent state practice coupled with *opinio juris*, namely the "belief that this practice is rendered obligatory"[2] – to trace the evolution of customary law. Such faithful inspection could not have led the ICJ to the same conclusions. In September 1997, when the *Gabcikovo-Nagymaros* decision was rendered, state practice and *opinio juris* were rather precarious stilts to serve as the foundation of modern transboundary resources law. Instead of compiling, inspecting and analyzing state practice, the ICJ took a short cut by invoking the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses ("the Watercourses Convention") [3] under the unsupported assertion that the Watercourses Convention reflected contemporary customary law.[4] This was a bold move: the Watercourses Convention had been adopted less than four months earlier, had no signatories at the time, and its entry into force was far off. Even more disturbing, it had numerous opponents, which included key regional players – China and Turkey – as well as pairs of riparians such as Egypt and Ethiopia, France and Spain, India and Pakistan, and other states involved in regional disputes over water, such as Bolivia, Israel, and Uzbekistan.[5] The puzzle becomes even more complex when one examines how the ICJ read and applied the Watercourses Convention: the Court distorted the logic of the Convention and treated it as an empty vessel into which it injected its own, contradictory vision, pouring "new law in old bottles."[6] In spite of all this, the decision withstood scholarly scrutiny and was received with resounding enthusiasm.[7]

This Essay responds to thisthe puzzle by arguing that in its decision in the *Gabcikovo-Nagimaros* case, despite these unexplained doctrinal irregularities, the ICJ was acting within its general authority under international law. The ICJ activated its unique legislative role in the international system, the role that empowers it to "leapfrog"[8] over international law when seized with questions of management or control of global and transboundary resources. This is the power, under certain conditions, to create new law in the pretext of "finding" the customary international norms. The ICJ has, in fact, an the authority to invent the custom. It can fulfill this function when these leaps produce more efficient norms, provided that at the relevant time it is the only institution capable of making the leaps. This residual function becomes relevant when high transaction costs prevent states from negotiating bilateral or multilateral agreements. The Watercourses Convention is but one, recent example of the predicament in which states taking part in multilateral negotiations over a framework agreement refuse to make concessions or even indicate future readiness to offer concessions, because the situation does not ensure reciprocal concessions. In global processes of this kind, states stick to non-cooperative positions in anticipation of the subsequent negotiations over the more local issue of resource they share with their neighbors. The result – in our first example, the Watercourses Convention – can only be disappointing. In such circumstances, the ICJ is often the sole institution capable of taking the necessary steps towards the development of the law, a sort of trustee acting in the best interests of the states and the global

community. States accept this role and welcome such leaps, because they have a general interest in such a residual judicial-legislative function.

This Essay combines a positive analysis and a normative one. In addition to proving that this is what international adjudicators have been doing, I argue that this is exactly what they should do. The Essay proposes that when bilateral or multilateral negotiations fail to reach efficient outcomes or when such negotiations never take place due to conflicting state interests, the international legal system has granted the ICJ the power – and duty – to offer legislate efficient norms and remedies. Moreover, the use – or, put correctly, the abuse[9] – of customary international law is the main vehicle for executing this function. The Essay explores the link between efficiency and the doctrine onf customary international law. Despite recent challenges to its utility and value,[10] this Essay argues that the doctrine plays a crucial role in the international arena. It analyzes why face-value application of the doctrine often fails to yield customary norms, suggests that in such circumstances the ICJ or other tribunals "cheat" by inventing what they refer to as custom, and explains why they are fully authorized and expected to do so. Further, the Essay suggests that when these judges "cheat," they follow the principle of efficiency – but not fairness – as their undeclared guideline. My argument, ultimately, is that this legislative function of international adjudicators is itself grounded in customary international law.

(2) Customary International Law as a Proxy for Efficiency

The argument developed in this Section is that the doctrine on customary international law is inherently linked to the principle of efficiency. Efficiency justifies the doctrine. Put differently, efficiency is the underlying principle – the *grundnorm* – of customary international law.

An efficient norm in this context is a norm that offers the optimal allocation of the world's resources among states. A legal and political environment consisting of sovereign states is one important constraint imposed on the range of possible optimal outcomes: state sovereignty – as it is understood today – entails the authority of states to use resources under their sole ownership at their discretion, even inefficiently.[11] The second constraint is the lack of global mechanisms for the redistribution of welfare among states. Hence, the efficient outcome is that which allocates resources optimally among states rather than among individuals. It can be expected – but not guaranteed – that this external pull towards optimality will in itself create a pull within states towards optimal allocation among individuals. As I argue below, considerations of fairness in the allocation of resources among states do not play a role in this context, although in recent years human rights considerations – including considerations of human subsistence – do emerge as an important constraint marginally affecting the range of optimal outcomes. The third and final constraint concerns the institutional limitations of the ICJ and other tribunals. Their choice of strategies to develop customary law is influenced by their limited enforcement and managerial powers.

At the foundation of the argument linking custom with efficiency lies the observation that general and consistent state practice – the necessary component for constituting customary international law – will develop if, and only if, such practice is efficient from the perspectives of most of the governments taking part in the process.[12] This observation is consonant with the same observation regarding the evolution of so-called social norms.[13] When general and persistent state practice takes shape, it moulds itself around rules that the strongest and most active governments find to be efficient.[14] Regarding such rules

as legally binding reduces coordination costs, and also imposes costs on inactive or weak actors who did not take part in shaping the rules or on actors who seek to deviate from them. When a certain practice becomes inefficient due to changed circumstances, states begin to exert pressure, or act unilaterally, to modify the custom so that it reflects the efficient practice under the new conditions. The prime and perhaps oldest examples of efficient state practice yielding to clear customary norms are the laws on warfare and on diplomatic immunity.

The norms on diplomatic immunity or on the conduct of hostilities reinforce themselves through reciprocity, without the need to invoke legal arguments or to resort to adjudication. The killing of prisoners of war, for example, or the opening of the diplomatic mail, will trigger similar responses from the adversary. These examples suggest that state practice can often be used as a relatively reliable proxy for efficiency. Indeed, when Hugo Grotius invented in his celebrated treatise *De jure belli ac pacis* (1632)[15] the method of observing state practice as a basis for determining the law,[16] he was in fact using state practice to discover efficient norms. At that time, in a world ruled by papal edicts, state practice as such enjoyed no legitimacy. Grotius referred to state practice in the classic world because he thought it would make sense for states in the emerging Westphalian order to study and emulate general and consistent behavior. The Grotian invention caught on not only because it paved the way to "neutral" – i.e., not religiously based – rules, but also because it made sound economic sense: consistent state practice was a good proxy for efficient behavior.

That the Grotian enterprise was clearly bent on efficiency is made explicit in his first treatise *Mare liberum,* published in 1609,[17] arguing for the norm of freedom of navigation on the high seas. At that time, this issue had crucial economic implications and therefore proved a bone of contention among European powers. Having little state practice to base his claim upon, Grotius grounded the principle of freedom of navigation directly on considerations of efficiency, using the following analogy:

If any person should prevent any other person from taking fire from his fire or light from his torch, I should accuse him of violating the law of human society, because that is the essence of its very nature […] *why then, when it can be done without any prejudice to his own interests, will not one person share with another things which are useful to the recipient, and no loss to the giver?*[18]

Grotius presented this principle which he imported from Greek sources as grounded in "the law of human society," a *grundnorm* of the newly asserted law of nations. At the same time, it was, of course, a definition of efficiency later reformulated by Pareto. Per Grotius, then, international law is based on efficiency and the doctrine on customary law is one of the tools for reflecting efficiency.

But this proxy, as with any proxy, is not always an accurate reflection of efficiency. Market failures often prevent states from adopting a consistent practice or from adapting an existing practice to changed circumstances. In such circumstances the faithful application of the doctrine on customary international law will produce inefficient norms. I contend that when this happens, and the proxy fails, international adjudicators, especially the ICJ judges, create new norms implicitly. When they identify a market failure that prevents the formation of an efficient practice, these international tribunals step in and try to change the Nash equilibrium[19] of the inter-state game or at least try to create conditions that will bring about a change in the equilibrium and thus correct the failure. I further argue that the international community has recognized such a role as lawful.

Note that I do not argue that judicial intervention will *in and of itself* yield a law that is always or even often efficient.[20] Relatively high litigation costs, a lengthy adjudication process and various political costs associated with such litigation often prevent potential claimants from bringing suit, especially if the gains from judicial intervention are public goods[21] or if one or both litigants are poor. But these costs work in both directions, and in fact, in the international context, these costs deter more the states that subscribe to the old, inefficient norm from bringing a suit against the state whose efficient breach heralds the dawn of the new norm. The valid expectation that international tribunals will approve efficient practices as binding law provides an additional assurance for potential defendant states to act unilaterally and "leapfrog" over the prevailing customv. Thus, potential judicial intervention *indirectly* facilitates the evolution of state practice towards efficiency.

One important caveat to this argument concerns the courts', especially the ICJ's, own institutional limitations. Similar to domestic courts, international tribunals are concerned with their own reputation. They have an acute sense of the limits on their enforcement and managerial powers, and they do not wish to produce judgments that will remain unheeded and ineffective. Therefore they adopt two types of norms. One type promotes litigation, in those contexts where litigation is likely to offer efficient outcomes. For other contexts, where direct or indirect negotiations is likely to yield efficiency more than litigation, the courts will adopt a different set of norms. Thus, for example, the determination where lies the boundary between two states is rather simple exercise of judicial authority, which is likely to be respected by the litigants and yield efficient outcomes. On the other hand, courts would be much less successful in establishing, for example, joint management institutions to manage transboundary resources. When judicial intervention is likely to resolve disputes efficiently, like in cases of boundary delimitation, judges will favor clear rules that assign well-defined private property rights to states, such as the rule of *uti possidetis juris* that calls for simple cartographic exercise. The more vague is the norm, the more uncertain will be the outcome of the potential litigation, and therefore the parties to the dispute will prefer to negotiate.[22] Hence, when judicial intervention is less likely to provide efficient outcomes, and direct or indirect negotiations seem to be preferable, tribunals will tend to adopt vague standards, essentially assigning states shares in "club-goods" or "common-pool resources." Thus, for example, because joint management is generally a more efficient modality for using transboundary resources than litigation, the evolving customary law has kept the applicable norms on the vague side, keeping states away from litigation.[23]

(3) Customary International Law and Market Failures

The often-high transaction costs in the global market prevent the development of general and persistent state practice in many areas. In the context of the allocation and management of global or transboundary resources there are two different sources of market failure: international and transnational. The international market failure results from conflicts of interests *among* states, conflicts that preclude states from agreeing on certain practices as legally binding. In a diffuse global environment, international collective action is required for the creation and enforcement of international norms. Such cooperation is costly, and yields public goods that all can share. Therefore, effective international norms depend on the readiness of the few to supply and enforce goods for all to share, and such goods tend to be under provided. The lack of effective norms results in poorly defined property rights of states in transboundary and global resources.

The second type of market failure, the transnational market failure, is a result of conflict of interest *across* states, as certain domestic interest groups – like employers and investors – impose externalities on other, usually the larger domestic interest groups, using their stronger influence on the respective national governments.[24] Thus, for example, industries in neighboring countries that have influence on their respective governments are likely to push for a treaty (or state practice) that condones pollution regardless of the environmental damage. Because in most states there are obstacles to giving ample voice to the larger, less enfranchised domestic groups, state practice tend to favor the relatively more effective minorities of the international community. This is particularly true in the sphere of transboundary resource management, where transnational conflicts are abundant.[25]

The first, international type of market failure will fail to yield general and persistent practice in the first place, or fail to modify that practice to accommodate technological and other changes, because some states will refuse to recognize as legally binding practices that benefit other states. Such disputes will result in conflicting conceptions regarding the binding customary norm. The second, transnational type of market failure may yield general and persistent practice only if the groups with similar interests control all governments involved. In such circumstances, state practice can reflect efficient outcomes only for the elite and small domestic interest groups that capture their governments. That practice is not likely to reflect an optimal allocation of resources from a global perspective.

When either type of market failure prevents the formation of general, persistent *and efficient* state practice, efficiency, as the *grundnorm*, calls upon adjudicators, primarily the ICJ, to step in and impose an efficient norm. Their decisions have the capability to alter the equilibrium at which states are situated in the game to a more efficient one. The key to the potential contribution of these adjudicators is their readiness to invent **"**customary law." Judges respond to this call to create new law, and the international community subsequently endorses their response. A number of decisions illustrate this point.

The first example relates to the issue of freedom of navigation on a river shared by two states or more. One possible equilibrium is reflected in a norm denying the existence of freedom of navigation and prescribing that each state has the sovereign power to prevent any foreign ship from access to the river at its discretion, or to charge access fees. A different equilibrium is reflected in a norm under which ships of all states enjoy freedom of navigation on the river. The second equilibrium – which is similar to the reduction of other trade barriers – is more efficient than the first because it reduces the costs of inter-state commerce and hence improves overall welfare. As is often the case, however, states refuse to agree to move from the first inefficient equilibrium to the second, more efficient one. A lower riparian, for example, who controls access to the sea, may demand concessions that not all of the upstream riparians would like to shoulder. It is at this juncture that judicial intervention can be instrumental. The judgment handed down by the Permanent Court of International Justice ("PCIJ") in the *Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder*[26] is a case in point. This case involved a dispute concerning the scope of authority assigned in the Versailles Treaty to an international commission established to administer international navigation on "the Oder." Poland, the upstream state, refused to recognize the commission's jurisdiction over the tributaries of the river situated wholly within its territory. The PCIJ had to interpret the relevant treaty provision with little guidance from the text or from state practice. Moreover, in light of its previous landmark decision in the *Lotus* case,[27] Poland's adversaries were the ones who had the burden to prove Poland's obligation to defer to an international regime. Despite these hurdles the Court opted for the efficient outcome, invoking the desire to allow international access to all navigable parts of the river, explaining that such

an outcome was mandated by "the requirements of justice and the considerations of utility."[28] This decision has since been resorted to, without any hesitation, as proof of the existence of a duty to allow free navigation on international watercourses,[29] and even as a basis for the rather radical assertion that international rivers are shared resources.[30]

The *Trail Smelter Arbitration* is yet another example of adjudication that nudges states towards a more efficient equilibrium despite a lack of relevant state practice.[31] In this case, the tribunal found Canada in violation of a duty to prevent activities within its territory from causing injury in or to the territory of another state. Absent clear pronouncements of this principle by other international tribunals, the tribunal followed, "by analogy," in the footsteps of three decisions handed down by the U.S. Supreme Court.[32] Although it did not rely explicitly on the efficiency argument, the tribunal did point to the saliency of this factor as part of its reasoning. It asserted that "great progress in the control of fumes has been made by science in the last few years and this progress should be taken into account."[33] Despite meager evidence of state practice to support the decision, the norm prescribed was never questioned. It has since become a cornerstone of international environmental law.[34]

A third example is the arbitration in the matter of *Lac Lanoux*.[35] Spain argued that its treaty with France, as interpreted according to general international law, provided it with the right to approve any changes, however slight, France would want to introduce to the flow of a shared river before it entered Spanish territory. Spain hoped its refusal would lead France to offer her a larger share of the revenues from its planned hydro-electrical project. This was viewed by the tribunal as an inefficient claim, one that if accepted would have reduced the upper riparian's incentive to use transboundary resources more efficiently. The tribunal rejected Spain's claim. In doing so, the tribunal did refer to "international practice" and to customary international law,[36] yet it did not provide any example of such practice to support its findings. Instead, it emphasized the inefficiency of Spain's assertion of what the tribunal regarded as "a 'right of veto', which at the discretion of one State paralyses the exercise of territorial jurisdiction of another."[37] Despite its weak doctrinal foundations, the *Lac Lanoux* decision is hailed as an important milestone in the development of international freshwater law.[38]

The final example explores a slightly different context in which international adjudicators are given the opportunity to intervene in a situation of market failure and set a new, more efficient norm. This is the case of a challenge to the validity of an established customary norm in light of new technology, new scientific findings, or a change in natural conditions that render past practices inefficient and require the adoption of new, more efficient rules. Such developments create a time lag between what is established as customary law and the more efficient behavior dictated by the new reality. At such junctures, a wedge is created between efficiency and custom, as well as corresponding pressure to amend the law. Absent market failures, such pressure ultimately leads to efficient outcomes. But when market failures prevent such legal modifications, judges are given the opportunity to intervene. Such an opportunity was seemed to present itself to the ICJ judges who presided over the *Fisheries Jurisdiction* case in 1974.[39]

Reacting to over-fishing by British and German fishing fleets in the North Sea, in 1972, Iceland extended its Exclusive Fisheries Zone from a twelve- to fifty-mile limit. This move was in clear violation of the old customary norm of freedom on the high seas. But it was in line with the demands of efficiency and sustainability: it was aimed at preventing a tragedy of the commons due to over-fishing. Iceland had been preoccupied with this possible tragedy since 1948, when the *Althing* passed the Law concerning the

Scientific Conservation of the Continental Shelf Fisheries.[40] Furthermore, the *Althing*'s resolution in 1972 provided, *inter alia*, that "effective supervision of the fish stocks in the Iceland area be continued in consultation with marine biologists and that the necessary measures be taken for the protection of the fish stocks and specific areas in order to prevent over-fishing."[41] The extension of the zone of unilateral appropriation resulted in about 90% of the fisheries in the North Sea becoming the private property of Iceland, the coastal state. Commanding sole authority over the exclusive zone, Iceland could now manage alone the harvests and thereby prevent depletion and ensure sustainable yields. This outcome was also in the long-term interests of states with large fishing fleets who had already started to compete among themselves and over-fish. Approval of Iceland's unilateral measure was mandated on efficiency grounds. But it was contrary to prevalent state practice at the time. The ICJ, however, refused to leapfrog the law and side with efficiency and sustainability. Instead, it resorted to the traditional search for past practice accepted as law. Coming as no surprise, in examining past practice, the Court could detect no customary norm that allowed coastal states to extend their exclusive spheres of economic interest beyond the twelve-mile territorial sea zone. Iceland, and the efficiency principle, lost. At that very stage, however, the law was transforming rapidly, as the Court itself indicated in subsequent judgments. Between 1976 and 1979, about two-thirds of the exclusive economic zones and exclusive fishery zones of up to two hundred miles had been unilaterally created,[42] with the relevant states choosing not to wait for the results of the ongoing negotiations of the UN Convention on the Law of the Sea. This practice enabled the ICJ, a decade after its *Fisheries Jurisdiction* decision, to rule that a custom had emerged in support of the legality of an exclusive economic zone of two hundred miles.[43]

The reason for the decision in the *Fisheries Jurisdiction* case was not the Court's disregard for the principle of efficiency. Rather, the judges chose to defer to the governments that were negotiating the Third Conference on the Law of the Sea. They explicitly acknowledged that their legislative role is residual and becomes relevant only after states have failed to come to an agreement:

The very fact of convening the third conference on the Law of the Sea evidences a manifest desire on the part of all States to proceed to the codification of that law on a universal basis, including the question of fisheries [...]. Such a general desire is understandable since the rules of international maritime law have been the product of mutual accommodation, reasonableness and co-operation. In the circumstances, the Court, as a court of law, cannot render judgment *sub specie legis ferendae*, or anticipate the law before the legislator has laid it down.[44]

Iceland's extension of its exclusive fisheries zone did, indeed, deviate from the prevailing practice at the time; but I submit, this measure was not unlawful. It was the quintessential first step towards the establishment of a new, more efficient, norm through new state practice, the first challenge to the old law heralding the birth of the new law. Iceland's unilateral act, like the previous Truman Proclamation of 1945, which had stated the United States' unilateral extension of its jurisdiction to its continental shelves,[45] was an exemplary case of how science and technology postulate the need to change international law.[46] It was, therefore, commensurate with the abstract, basic norm of efficiency. Nevertheless, in view of the fact that multilateral negotiations on a new law were under way, there was no immediate need for judicial intervention. As it turned out, this specific international market in fact proved efficient, and no judicial intervention was ultimately required.

These examples, like the previously mentioned 1997 *Gabcikovo-Nagimaros* decision,[47] provide ample evidence to the argument that international courts and tribunals often decide to take the leap and declare new law. They take this responsibility in light of the adverse environmental and health consequences of the continuation of the prevailing practice of states, provided no contemporaneous negotiations render their intervention unnecessary.

These international adjudicators also have to pretend that they are not doing what they actually are doing. They conceal the new law in "old bottles."[48] They play down their legislative role in a wise effort to escape controversy and questions about their personal accountability. After all, the legal system within which they operate does not explicitly recognize their legislative role. By stressing their conformity with the duty to apply "international custom, as evidence of a general practice accepted as law,"[49] these judges invoke their unique expertise – as the oracles of the mystic "custom" – that few can challenge. Although at first their norms are novel, these leaps that are consistent with efficiency are likely to be accepted as reflecting the law and to produce consistent *future* practice. The aftermath of these decisions and the fact that the decisions are subsequently widely and undisputedly accepted as valid pronouncements of international law despite their weak doctrinal basis suggest that states accept the role of tribunals as legislators of efficient norms. Put differently, this positive reaction to the judicial leaps suggest the existence of a custom that tribunals are authorized to prescribe efficient norms when market failures preclude states from reaching such norms independently.

To conclude, when states or any other players interact, they rationally find themselves in Nash equilibria that may be inefficient. A judicial declaration of one equilibrium as the one that is binding as custom is likely to lead all players to modify their activities to conform to the judicially sanctioned equilibrium. This equilibrium will thus become the new practice, the new custom. This suggests that one state's deviation from prior practice in favor of a more efficient one need not be regarded as a breach if the deviation conforms to the underlying norm of efficiency. Rather, such a deviation has a very good chance of becoming, sooner rather than later, and certainly with the help of an intervening court, the new practice, the new norm.

But my argument is not only descriptive, but also prescriptive. In the following Section I argue that in prescribing new norms concerning the allocation of transboundary and global resources, international adjudicators exercise a legitimate function under customary international law. International adjudicators – at the ICJ or elsewhere – are fully authorized to divert from current practices and "detect" a new custom when their prescription creates a new equilibrium that allocates resources more optimally. The justification for their authority lies in the efficiency of their norm and in the fact that the norm would soon be reflected in state practice.

(4) Judicial Findings on Efficiency

There are two major questions regarding the legitimacy of judicial prescription of efficient norms: How can adjudicators assess that the proxy, customary international law, does no longer reflect efficiency, and adopt an efficient alternative despite the fact that persistent and general practice is yet to be formed? Why should we expect these adjudicators to seek these goals and trust their judgment?

To answer the first question, I argue that adjudicators can and do resort directly to scientific evidence. An assessment of the relevant data and its scientific evaluation raises evidentiary issues, but such issues are

not foreign to the adjudication process, which often involves expert evidence. The litigants or the tribunals themselves can appoint expert witnesses and even assistants to the tribunal. In the *Trail Smelter* arbitration, for example, the two sides appointed scientists – one from each side – to assist the tribunal.[50] When undisputed scientific findings show that a new norm can promise more efficient outcomes, outcomes states cannot reach due to market failures, it is up to the judges to base their decisions on the best available scientific evidence as providing the neutral and efficient norm. This scientific evidence can then be seen as offering the direct guidelines to efficient norms. The study of economics and game theory, sociology and psychology, replaces the study of historical facts in the intellectual quest to establish a neutral foundation for international law.

Thus, for example, this science-based theory on the sources of international law suggests that if economic efficiency postulates effective joint management of shared ecosystems, international law should endorse it and fashion norms that will reduce the transaction costs involved in negotiating and establishing such cooperative regimes. Because states balk at conceding to this postulate without eliciting concessions from their neighbors, state practice will often prove to be inefficient. The equilibrium is reluctance to cooperate. Judges and other third parties can overcome this impasse. This observation explains the shortcomings of the 1997 Watercourses Convention and, in contrast, the landmark decision in *Gabcikovo-Nagymaros*.

In fact, the ICJ seems to have hinted that it has done exactly this. The link between science, sustainable development, and the law is captured best in the following passage:

Owing to new scientific insights and to a growing awareness of the risks for mankind — for present and future generations — of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight […] not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.[51]

In the same vein, the ICJ should use the same science-based approach to shape and mould other legal issues. One example, related to transboundary resources, involves transboundary gas and oil deposits straddling land or maritime boundaries. It is beyond dispute that so-called “unitization”—namely, the formation of a single authority to exploit such deposits -- is a prerequisite for efficient utilization of oil and gas deposits.[52] Such a single authority will be able to exploit the underground pressures to propel captured deposits to the surface to benefit all riparians. When such deposits straddle international boundaries, unless a joint development agreement is reached among the co-owner states, only a fraction of the deposit could be exploited. Does this suggest that states sharing such resources have a duty under international law to form such joint regimes? If one follows the doctrine on customary law, the answer will be negative. Indeed, a recent examination of state practice typically concluded with the following observation:

"[The] survey of bilateral state practice indicates, as a preliminary conclusion, that a rule of customary international law requiring cooperation specifically with a view toward joint development or transboundary unitization of a common hydrocarbon deposit has not yet crystallized."[53]

Although such a conclusion may be a fair description of an existing situation, judges or arbitrators who have the power and duty to modify the law in the face of market failures cannot share it. They cannot let pass the opportunity to transform the existing equilibrium of the inter-state game into a new and self-enforcing equilibrium of cooperation. A hint in that direction was recently given in the second phase of the Arbitral Award in the Eritrea-Yemen Arbitration.[54] In the process of delimiting the maritime boundary between the two states, the tribunal considered the possibility that petroleum deposits would be found to straddle the boundary. Although it admitted that so far no general customary law has been developed to require unitization, the tribunal carefully tailored a specific norm pertaining only to the two litigants. It found that the parties are

bound to inform one another and to consult one another on any oil and gas and other mineral resources that may be discovered that straddle the single maritime boundary between them or that lie in their immediate vicinity. Moreover, the historical connections between the peoples concerned, and the friendly relations of the Parties that have been restored since the Tribunal's rendering of its Award on Sovereignty, together with the body of State practice in the exploitation of resources that straddle maritime boundaries, import that Eritrea and Yemen should give every consideration to the shared or joint or unitised exploitation of any such resources.[55]

Recourse to science, of course, is not a panacea. The available scientific evidence may eventually be proven wrong. Experts may, for example, agree at a certain point in time that based on the state-of-the-art scientific knowledge, joint management is the most efficient way to resolve conflicts concerning international common pool resources, be it fisheries, forest, freshwater, or oil. Such an opinion may, in principle, eventually be proven wrong. At that stage, a new theory will suggest a more efficient norm that will then become the new norm. Another complication factor is risk and its assessment. The recourse to science does not eliminate all uncertainties concerning the potential risks of a new use or a new technology. Thus, science does not relieve decision-makers of their duty to make policy choices regarding the potential nature of the risks and their allocation. International adjudicators are less capable of making such choices for the litigants and thus tend to let the states to negotiate these choices directly.

Why do judges in the ICJ, in other judicial institutions, or ad-hoc arbitrators subscribe to the goal of efficiency? Why should we trust their judgment? Here I can only hint at possible responses. I would suggest that judges in international institutions, and particularly in the ICJ, are relatively immune to inducements that would lead them to favor partiality (aside from ad-hoc judges that are expected to give a voice to their state's concerns). Reaching the height of their professional career, ICJ judges act behind an almost perfect Rawlsian veil of ignorance. As lawyers whose reputation is global, arbitrators too have no strong incentive to promote partial and inefficient norms. Be the reason as it may, ultimately they adopt the goal of efficiency.

(5) Efficiency and the Contemporary Crisis of Customary International Law

The emphasis on efficiency, as lying at the heart of customary international law, can salvage the doctrine from grave doubts about its authority and utility. As all international lawyers know, the doctrine on customary international law does not provide clear answers as to what constitute custom. The doctrine is malleable, open to conflicting policy considerations, to wishful thinking, to abuse.

On the most immediate level, viewing customary law as a proxy for efficiency resolves the inherent paradox concerning the evolution of custom:[56] if custom evolves and is modified through unilateral action, how does the doctrine explain the first deviation from the previous custom? Is it an illegal defection? Does subsequent practice absolve the deviating state from responsibility? Must a tribunal, faced with a complaint against the deviating state, find against the harbinger of the new law and, thereby, arrest the development of the law? Grounding the doctrine of customary international law on efficiency offers a solution to the seeming paradox: if the deviating state asserts a new norm that is more efficient than the old one, the deviation should not be considered a violation. Thus, in the example of the *Fisheries Jurisdiction* cases,[57] the ICJ was in a position to accept Iceland's unilateral move as legal, prior practice notwithstanding. As I argued, the ICJ should have done so, and its refusal to do so can only be justified in light of the simultaneous efforts to negotiate this matter multilaterally.

The emphasis on efficiency also responds to the growing criticisms of the utility of the doctrine: Robert Jennings warned of the inconsistency between doctrine and reality, suggesting that "Perhaps it is time to face squarely the fact that the orthodox tests of custom – practice and *opinio juris* – are often not only inadequate but even irrelevant for the identification of much new law today;"[58] W. Michael Reisman warned against resorting to custom as a tool for clarifying and implementing policies in an advanced and complicated civilization;[59] The particular discrepancy between state practice and appropriate norms in the sphere of the environment has been noted by Oscar Schachter, who wrote, "[t]o say that a state has no right to injure the environment of another seems quixotic in the face of the great variety of transborder environmental harms that occur every day."[60] Other commentators have conceded that the list of customary norms concerning the environment is rather short[61] and that the actual identified norms lack precision: "their legal status, their meaning, and the consequences of their application to the facts of a particular case or activity remain open."[62]

The doctrine on customary law does, indeed, fail if its role is to provide positive norms based on general and persistent state practice simply because on many important questions there is no such practice. This shortcoming tempts scholars to employ a less rigid scrutiny of state behavior, peppered with value judgments. This practice is as ancient as its inventor, Grotius.[63] But breaking loose from the doctrinal examination of state practice exposes the judge to the opposite danger: the danger of subjectivity and, hence, loss of legitimacy.[64] Attempts to reconcile inconsistent practice by invoking normative arguments deliver a blow to the effort to establish a value-neutral basis of international law, digestible by all states. In a divided globe, this is a source of crisis for the doctrine. The search for prevalent state practice necessitates a choice between past-looking and inefficient neutrality on the one hand, and teleological forward-looking subjectivity on the other.

Basing the doctrine of customary international law squarely on efficiency redeems it from a third and final flaw. Presented as a neutral doctrine, the only normative basis the doctrine on customary international law can have is state consent: custom reflects the express or implied consent of states to be

bound by it. But clearly, state consent can no longer provide the normative basis, the *Grundnorm*, for international obligations. State consent is no more a satisfying normative basis than the idea of positivism in domestic law. A global system redefined as subject to basic principles of human rights cannot be described as preserving the unfettered discretion of states to accept or decline the evolution of the law in conformity with the basic norms. If we regard sovereignty as having no inherent value, but instead having only an instrumental value, as a useful concept for allocating powers among peoples in a global system, then also state consent, in itself, cannot have any normative value.[65] In other words, the seemingly positive, neutral basis of the doctrine not only yields indeterminate outcomes, but also is not satisfactory from a normative perspective. Basing the doctrine on efficiency relieves the need to reconcile custom with consent. It provides an alternative, neutral ground for determining "custom."

(6) Efficiency, Equity and Fairness: Contradiction or Affinity?

Thus far I have argued that efficiency is the underlying principle of customary international law. This argument serves as the basis for the claim that the process of defining and redefining customary international law could be based on a study, informed by scientific assessments, of the efficient rules. But can we argue that efficiency is the only principle that nurtures the evolution of customary law? What about equity considerations – should judges who leapfrog international law factor in equity considerations? At first blush the response should be positive, given the fact that the doctrine on equity in international law is well developed and quite often used. The prevalence of equity in different legal contexts of international law may suggest that an underlying policy of equity – equity-as-fairness – permeates quite a number of international norms, constituting "an important, redeeming aspect of the international legal system"[66] that may clash and even take precedence over efficiency. Where a tradeoff between efficiency and fairness is possible, emphasis on fairness may lead to the adoption of policies that are less efficient, but distribute more equitably the benefits and risks across the relevant groups. The interplay between equity-as-fairness and efficiency raises also the question as to whether in addition to moving international law to the "Pareto frontier," namely, to the zone of the most efficient outcomes, tribunals can also choose among the efficient outcomes the outcome that distributes the gains most equitably. These questions call for an inquiry into the relationship between the two principles: equity-as-fairness and efficiency.

These two questions are more acute in the international context than in the national one. In national systems governments pursue efficiency not because they eschew fairness, but because they design legal or market-based mechanisms to redistribute risks and benefits among citizens. Thus, they achieve fair results without sacrificing efficiency. But in the international system, such a solution is problematic because there are no readily available institutions for making and implementing decisions on distributing or redistributing among states the added benefits from the more efficient allocation of global resources. In addition, international tribunals may be less informed than national courts or legislatures to be able to make responsible choices on the Pareto-frontier. In the international context, therefore, we often face a tough choice between efficiency and fairness.

My observation is that international law, due to its institutional limitations in assessing fairness, favors efficiency over it, and recognizes not a doctrine of fairness (or equity-as-fairness), but a doctrine of *equity-as-efficiency* which is far removed from fairness considerations. The international legal doctrine on equity does not require the subjecting of efficiency to fairness arguments. Rather, equity in

international law is a doctrine used to achieve efficiency. Hence, I argue, there is a convergence, rather than a clash, between the two concepts. A careful analysis of the use of the concept of equity in international law supports and complements my previously outlined observation that efficiency considerations stand at the basis of customary international law.

The gist of my argument is that the concept of equity in international law does not serve distributive functions. Instead, equity in the application of the law (as distinct from equity *ex aequo et bono*, namely, equity rendered outside the law)[67] serves two functions, both of which are mandated by efficiency. First, equity grants discretion to decision-makers, primarily judges and arbitrators, where existing norms are too crude to be applied to specific matters, such as in cases dealing with the delimitation of maritime boundaries. Second, equity creates incentives for users of global or transboundary resources to act efficiently by cooperating with their neighbors.

Equity as Discretion

Just as the doctrine of administrative discretion provides authority to administrative agencies to implement statutory policies in specific instances, so the doctrine of equity allows negotiating states to seek ways to resolve their differences within the confines of international norms that provide only rough principles. Similar to administrative discretion, this delegation of authority minimizes the costs of legislation. The doctrine of equity authorizes judges or arbitrators to balance all the considerations which international law prescribes as relevant to the intricacies of the particular case.[68] "'Equite'é peut eêtre deéfinie comme la solution qui convient le mieux aá chaque cas qui se presente. Elle est donc autre chose que l' 'Equity' du Droit anglo-saxon."[69] In other words, equity provides decision-makers with the discretion to implement general policies on an ad hoc basis. The use of equity does not guarantee outcomes that are "fair," if by "fair" we mean that at least some attention is paid to distributive effects. It guarantees an economy of law prescription and enforcement.

This function of equity-as-discretion is evident in the areas of territorial and maritime boundary delimitation. In the delimitation of territorial boundaries in the de-colonized world, equity considerations have played only a marginal role. The reigning principle is *uti possidetis juris*, namely, the supremacy of pre-independence boundaries.[70] This principle promotes stability and certainty and, hence, is efficient. It eschews fairness consideration, even if a most precious resource is kept only on one side of the border. Equity considerations become relevant only when the *uti possidetis* rule fails to provide a clear answer.[71] And even then, equity allows decision-makers the discretion to weigh a host of *natural* factors, none having to do with distributive concerns.[72]

The doctrine on equity is also effective in settling questions of maritime delimitation of continental shelves or exclusive economic zones between two or more neighboring states with opposite or adjacent coasts. Here, again, equity grants discretion to judges and authorizes them to balance all the relevant conflicting factors and interests.[73] The judges do not necessarily use their discretion to achieve fair outcomes. An examination of the many decisions rendered by the ICJ, its Chambers, and other tribunals, reveals that the major consideration has been the geography of the particular area, again, in an effort to offer clarity. In one such decision, the ICJ explicitly rejected as irrelevant the consideration of the relative wealth of the two neighboring states. It ruled out the possibility that the relative economic wealth of the two litigants would influence its decision "in such a way that the area of continental shelf

regarded as appertaining to the less rich of the two States would be somewhat increased in order to compensate for its inferiority in economic resources," explaining that

[s]uch considerations are totally unrelated to the underlying intention of the applicable rules of international law. It is clear that neither the rules determining the validity of legal entitlement to the continental shelf, nor those concerning delimitation between neighbouring countries, leave room for any considerations of economic development of the States in question.[74]

Geographic considerations prevailed because the continental shelf and the exclusive maritime economic zones in question were viewed as the natural prolongation of the landmass. Sovereignty over the landmass is the starting point for judicial discretion. The ICJ developed a notion of a conceptual nexus between the land – sovereignty over land being the basis for the claim – and the shelf or the exclusive economic zone to be delimited.[75] As the ICJ stated,

Since the land is the legal source of power which a State may exercise over territorial extensions to seaward, it must first be clearly established what features do in fact constitute such extensions.[76]

Judicial disregard of the relative economic conditions in the relevant countries has been most clearly manifested in the case concerning the delimitation of the continental shelf between Libya and Malta.[77] The ICJ emphasized that equity entails

the principle that there is to be no question of refashioning geography, or compensating for the inequalities of nature; ... the principle that ...[equity does not] seek to make equal what nature has made unequal; and the principle that there can be no question of distributive justice.[78]

Thus, the considerable difference in the economic strength of Libya and Malta was regarded as an irrelevant consideration.[79] A Chamber of the ICJ did consider the economic interests of communities residing within the disputed area (i.e., the local population that relies on the fisheries for subsistence), but it made it clear that these interests would not be assigned great significance and would influence the decision only marginally:

What the Chamber would regard as a legitimate scruple lies rather in concern lest the overall result ... should unexpectedly be revealed as radically inequitable, that is to say, as likely to entail catastrophic repercussions for the livelihood and economic well-being of the population of the countries concerned.[80]

Theoretically, the concept of equity-as-fairness could have been invoked in the sphere of delimitation of contiguous river boundaries. Equal access to navigable watercourses could have constituted quite a cogent principle. It is, therefore, rather telling that the Beagle Channel arbitration mentions it as the *last* consideration guiding its decision, giving precedence to geographic considerations. According to the tribunal, it was guided "in particular by mixed factors of appurtenance, coastal

configuration, equidistance, and also of convenience, navigability, and the desirability of enabling each Party so far as possible to navigate in its own water."[81]

Equity as an Efficient Incentive

The second function of equity is demonstrated in the sphere of allocation of transboundary resources such as freshwater. It is in this context that the claim for equity-as-fairness seems to be most evident, as in the call in the Watercourses Convention for “equitable and reasonable utilization”[82] of shared watercourses. But also here I argue that equity serves the goal of efficiency. The Watercourses Convention sets forth as its objective “attaining optimal and sustainable utilization [of international watercourses] and benefits therefrom.”[83] This reflects a long-standing conception, in the words of the *Institut de droit international*, "that the maximum utilization of available natural resources is a matter of common interest," as well as the aspiration to "assur[e] the greatest advantage to all concerned."[84] Equity is a convenient notion the quest for achieving "maximum benefit to each basin State from the uses of the waters with the minimum detriment to each,"[85] while being sensitive to the divergent economic conditions among riparians. Thus, the International Law Association (ILA), in its 1966 Helsinki Rules emphasize that states are bound by "a duty of efficiency which is commensurate with their financial resources."[86] This is further explained by the ILA as follows:

State A, an economically advanced and prosperous State which utilizes the inundation method of irrigation, might be required to develop a more efficient and less wasteful system forthwith, while State B, an underdeveloped State using the same method might be permitted additional time to obtain the means to make the required improvements.[87]

Furthermore, the report of the International Law Commission explicitly emphasizes that,

Attaining optimal utilization and benefits does not mean achieving the “maximum” use, the most technologically efficient use, or the most monetary valuable use […] Nor does it imply that the State capable of making the most efficient use […] should have a superior claim to the use thereof. Rather, it implies attaining maximum possible benefits for all watercourse States and achieving the greatest possible satisfaction of all their needs, while minimizing the detriment to, or unmet needs of, each.[88]

This concern with “equity of needs” is reflected in the list of factors mentioned as relevant in the process of determining what constitutes “reasonable and equitable” allocation. Included among these factors are “the social and economic needs of the watercourse States concerned”[89] and of “the population dependent on the watercourse in each watercourse State.”[90] Although these factors are preceded by “geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character,”[91] such natural factors play a minor role. It is generally accepted that the natural factors provide only the factual basis for the analysis of the respective needs,[92] a telling contrast to the equity analysis in the sphere of maritime boundary delimitation.[93]

Equity as “equity of needs” is well entrenched in the practice related to federal or international

freshwater.[94] In fact, there exists no evidence to support the contrary proposition, namely, that waters should be allocated, for example, according to the contribution of each state to the basin's waters or according to the length of the river in each state's territory.[95] "Equity of needs" if efficient because it creates the proper incentives for users to invest in efficient uses of a shared watercourse: efficient (or "beneficial") existing uses enjoy qualified supremacy in the balancing of the riparians' equitable shares. As Article 8(1) of the ILA Helsinki Rules states,

[a]n existing reasonable use may continue in operation unless the factors justifying its continuance are outweighed by other factors leading to the conclusion that it be modified or terminated so as to accommodate a competing incompatible use.[96]

As explained in the commentary to the Helsinki Rules,

failure to give any weight to existing uses can only serve to inhibit river development. A State is unlikely to invest large sums of money in the construction of a dam if it has no assurances of being afforded some legal protection for the use over an extended period of time.[97]

But only efficient projects deserve protection. The principle of optimal utilization – that protects only "beneficial uses"[98] – implies that existing uses that are wasteful do not merit continued respect.[99] Thus, existing uses enjoy priority,[100]

[b]ut a contemplated use will nevertheless prevail over an existing use if the former offers benefits of such magnitude as is sufficient to outweigh the injury to the existing use.[101]

"Equity of needs" is also efficient for the creation of the "constructive ambiguity" of the legal norm that is so important for creating the proper incentives for states to commence negotiations. As noted earlier,[102] the vague standard "equity of needs" increases the uncertainty of litigation, and therefore draws riparians to negotiate and thereby – hopefully – begin a process that may lead to long-term cooperation in the management of the shared resource. Such a vague standard that instructs states to provide information not only on the natural characteristics of the shared transboundary resource but also on their existing and potential needs, prompts an informed discussion over existing and potential needs, which sensitizes negotiators to the constraints of their partners and the limitations on their room for political maneuvering and enables them to explore ways to accommodate the interests of all parties. Therefore the vague standard offered by the "equity of needs" doctrine increases the potential for initiating efficient bilateral or regional cooperation.

Finally, "equity of needs" raises the potential of domestic support for negotiated or judicial allocation of entitlements. Domestic users, especially the strong agricultural interest groups, will simply resist new allocations that severely curtail their existing uses. Moreover, it would be much more difficult to implement reallocation plans. The conditional priority assigned to existing uses assists in reducing domestic opposition to the ratification and implementation of agreements.

For these reasons, the use of the "equity of needs" principle in the transboundary resources sphere

facilitates efficiency. It creates efficient incentives for users of the resource to act collectively, and increases the likelihood that the negotiated settlement will be domestically ratified and obeyed. In other words, invocation of "equity of needs" was not – or not only – motivated by fairness considerations but rather was designed to achieve efficient allocation of transboundary resources.

(7) Efficiency and Human Rights

A question of tradeoff seems to exist when the goal of efficiency clashes with human rights considerations. The human rights perspective generates a host of principles concerning, for example, the management of transboundary resources affecting individual and group rights. This perspective informs us about the obligation to ensure the bare necessities on a per capita basis to all individuals who depend on specific transboundary resources. In particular, it mandates a sufficient supply of clean air and water for personal consumption for all individuals, regardless of nationality, financial resources, or other distinguishing factors. It requires minimum and equally distributed exposure to risks. It entails the protection of minority groups – their property and culture – against government-sponsored development projects that disregard them.[103] At these junctures, efficiency may seem to be subordinated to basic human rights considerations. There can be no tradeoff, for example, between water for basic domestic needs and water for irrigated cash crops. In the same vein, the unequal distribution of risks of pollutants among different regions or groups of people infringes on the principle of equal treatment of individuals. Damming rivers or diverting flows from one basin to another may increase the availability of water for some people, but, at the same time, create adverse environmental and social effects for others. In such cases, equality requires a careful balancing between the interests of the different communities and fair representation of the affected groups in the various stages of the decision-making process. Granting voice in the decision-making process and paying respect to individual and communal interests enhance the quality of the decisions that take due account of their concerns, increase the legitimacy of such agreements, and, thus, strengthen the durability and success of collective action. This is why ultimately human rights considerations uphold the principle of efficient allocation of resources. Under conditions of growing scarcity, of recurring crises and natural disasters, the law of human rights postulates sustainability as a goal of international law. In the context of transboundary resource management, states are required to pursue policies that provide efficient and sustainable uses.

(8) The Doctrine in National Courts: Serving a Different Function

One important caveat to the thesis presented here involves the use of customary law by national courts. National courts use the fuzziness of international custom not as a tool for achieving efficiency in the use of transboundary and global resources, but as a means to forward national goals. As I demonstrated previously, based on a comparative analysis of national courts' jurisprudence in this regard, customary international law is one of the principal "avoidance doctrines" these courts use in order to defer to their executive branch. [104] Thus, the method of inquiry used by a national court in examining the existence of a custom is likely to reflect its national affiliation. Even when they use similar approaches to identifying custom, they would reach different conclusions, and in any event, the outcome is likely to conform with national interests. It is especially rare for a national court to invoke customary

law against its own Executive. Moreover, even cases in which enforcement of international customary law was sought against a foreign government or foreign officials, courts hesitated, and acquiesced only where encouraged to do so by the Executive.

This parochial attitude towards customary international law is one component of a general hands-off judicial policy. Judicial interference with the executive's performance in the international realm is deemed an illegitimate intervention in international affairs, regardless of the domestic implications. The basic attitude has been that in international affairs, "[o]ur State cannot speak with two voices on such a matter, the judiciary saying one thing, the executive another,"[105] and the executive's voice is preferred because of an inherent "advantage of the diplomatic approach to the resolution of difficulties between two sovereign nations, as opposed to the unilateral action by the courts of one nation."[106]

International adjudicators understand intuitively the institutional constraints within which national courts operate, and hesitate to invoke them as evidence to the emergence of customs despite the fact that such judicial decisions are officially recognized "as subsidiary means for the determination of rules of [international] law."[107] They do refer to national courts decisions when these are decisions of federal courts seized with disputes over allocation of resources among states or provinces.[108] In such litigations federal courts are institution-wise in a situation that is similar to international tribunals.

(9) Concluding Observations

Efficiency, in the sense of efficient allocation of resources among states, has been all along the driving force behind the development of international law in general and customary international law in particular. State practice has often proven a reliable proxy for determining what constitutes efficient behavior for all states to follow. This proxy enabled international tribunals and other actors to impose sanctions on free riders or others seeking to deviate from the efficient norm. But this proxy fails when global or regional conditions lead states to pursue inefficient behavior. In such situations, tribunals and other third parties can make a difference by pushing states towards new, more efficient Nash equilibria. The argument developed in this Essay is that the judicial authority to nudge states towards efficient equilibria exists in international law. This authority is derived from the principle of efficiency that nurtures much of international law and particularly its customary law. Where state practice fails to follow the efficient mode of behavior, international adjudicators are authorized to inform themselves directly on the best available scientific research. Judges in international tribunals, especially at the ICJ, therefore have a unique role in the advancement of international law. They have the genuine opportunity to translate science into law, an opportunity the states themselves often fail to seize. In a sense, tribunals have the opportunity to declare as law what states would have agreed to had they decided behind a Rawlsian veil of ignorance under the assurance of reciprocity. This explains why judicial solutions may offer far greater promise than internationally negotiated framework conventions. The history of the evolution of international freshwater law culminating in the ICJ decision in the *Gabcikovo-Nagymaros* case[109] demonstrates this point.

This analysis also explains why states pay so much attention to the decisions of the ICJ, despite the fact that ICJ decisions are technically not binding on states that have not taken part in the specific litigation and also the fact that the ICJ is not bound by its own prior decisions.

This analysis further demonstrates the need to redirect the focus in the study of customary international law. The analysis of customary law cannot remain confined to the study of past precedents. In order to remain true to the underlying goals of international law, it must encompass the scientific insights in the fields related to the subject matter under scrutiny, in the quest of refining knowledge about the efficiency or inefficiency of prevailing practices.

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[1] Gabcikovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports 1997, p. 7, *reprinted in* http://www.icj-cij.org/idocket/ihs/ihsjudgement/ihsjudframe1.htm; 37 I.L.M. 167 (1998).

[2] North Sea Continental Shelf (F.R.G. v. Den./Neth.), I.C.J. Reports 1969, p. 3, at para. 77. The Permanent Court of International Justice first enunciated the doctrine of *opinio juris* in the Lotus Case (France v. Turkey), P.C.I.J. Reports, Series A, No. 10 (1927) at 28: "only if such [practice] were based on their being conscious of having a duty to abstain would it be possible to speak of an international custom." *See also* Military and Paramilitary Activities in and against Nicaragua (Nicar. v. U.S.), Merits, Judgment, 1986 I.C.J. Reports, p. 14, at para. 207; The Paquete Habana, 175 U.S. 677 (1900).

[3] United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (adopted on May 21, 1997), *reprinted in* 36 I.L.M. 700 (1997). See id. for the details of the votes cast.

[4] The *Gabcikovo-Nagymaros* case, *supra* note 1, at para. 86.

[5] Obviously, these states abstained from committing to regional cooperation in a general, framework convention before entering into direct negotiations over the use of their regional resources. On some of the disputes among these riparians see Eyal Benvenisti, Sharing Transboundary Resources: International Law and Optimal Resource Use (Cambridge University Press, forthcoming, 2001).

[6] A.E. Boyle, *The* Gabcikovo-Nagymaros *Case: New Law in Old Bottles*, 8 Yearbook of International Environmental Law 13 (1998). *See* in general, Benvenisti, *supra* note 5 (Chapter 7).

[7] *Boyle*, *supra* note 6, *id*. *See also* Charles B. Bourne, *The Case Concerning the Gabcikovo-Nagymaros Project: An Important Milestone in International Water Law*, 8 Yb. Int'l Envnt'l L. 6, 11 (1997); A. Dan Tarlock, *Safeguarding International River Ecosystems in Times of Scarcity* 3 U. Denv. Water L. Rev. 231, 244-47 (2000).

[8] David Caron, *The Frog that Wouldn't Leap: The International Law Commission and Its Work on International Watercourses*, 3 Colo. J. Int'l Envtl. L. & Pol'y 269 (1992).

[9] One could argue that the doctrine on customary international law is more important for enabling its own abuse than for performing its stated goal of offering customary norms: If general and consistent state practice exists, there is little need for a doctrine that would render that practice obligatory.

[10] Jack L. Goldsmith & Eric A. Posner *A Theory of Customary International Law* 66 U. Chi. L. Rev. 1113 (1999).

[11] Nico Schrijver, Sovereignty over Natural Resources (1997).

[12] Goldsmith and Posner's story about customary international law (supra note 10) begins and ends with this observation. Their story fails to notice the real bite of the doctrine: its potential for serving as an empty vessel for judicial application of efficiency considerations.

[13] Robert D. Cooter *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant* 144 U. Pa. L. Rev. 1643 (1996).

[14] As Michael Byers observed, "[T]he customary process operates to maximise the interests of most if not all States by creating rules which protect and promote their common interests;"Michael Byers, Custom, Power and the Power of Rules 19 (1999).

[15] Hugonis Grotii, De ivre belli ac pacis libri tres. In quibus jus naturae & gentium: item juris publici praecipua explicantur (1632).

[16] David J. Bederman, *Reception of the Classical Tradition in International Law: Grotius' de jure belli ac pacis*, 10 Emory Int'l L. Rev. 1 (1996).

[17] Hugo Grotius, The Freedom of the Seas (Ralph von Deman Magoffin trans., James Brown Scott ed., Oxford Univ. Press 1916).

[18] *Id.*, at 38 (emphasis added).

[19] A Nash equilibrium is defined as "a steady state of the play of a strategic game in which each player holds the correct expectation about the other players' behavior and acts rationally." Martin J. Osborne & Ariel Rubinstein, A Course in Game Theory 14 (1994).

[20] Cf. The continuing debate whether the common law is efficient: Paul H. Rubin, *Why Is the Common Law Efficient?*, 6 J. Legal Stud. 51 (1977); John C. Goodman, *An Economic Theory of the Evolution of the Common Law*, 7 J. Legal Stud. 393, (1978); George L. Priest, *The Common Law Process and the Selection of Efficient Rules*, 6 J. Legal Stud. 65 (1977); Robert Cooter & Lewis Kornhauser, *Can Litigation Improve the Law Without the Help of Judges?*, 9 J. Legal Stud. 139, (1980); Eric A. Posner, *Law, Economics, and Inefficient Norms*, 144 U. Pa. L. Rev. 1697 (1996); Cooter, *Decentralized Law*, *supra* note 13.

[21] For a similar argument in the domestic context see Cooter, *Decentralized Law*, *supra* note 13, at 1694.

[22] See Eyal Benvenisti, Collective Action in the Utilization of Shared Freshwater: The Challenges of International Water Resources Law, 90 American Journal of International Law 384, # (1996).

[23] As indeed is the outcome of the Gabcikovo-Nagymaros case, supra note 1.

[24] On this issue, see the discussion in Eyal Benvenisti *Exit and Voice in the Age of Globalization* 98

Mich. L. Rev. 167 (1999).

[25] *See* Eyal Benvenisti, Sharing Transboundary Resources: International Law and Optimal Resource Use ## (Cambridge University Press, 2002).

[26] PCIJ, Ser. A, No. 23 (1929).

[27] *See supra* note 2.

[28] *Supra* note 25, at 27.

[29]Lucius Caflisch, *Regles generales du droit des cours d'eau internationaux*, 219 Recueil des cours 9, 32-33, 109-110 (1989-VII).

[30] The Gabcikovo-Nagimaros dispute, *supra* note 1, at para. ##

[31] The Trail Smelter Case (U.S. v. Canada), 3 UN Reports of Arbitral Awards, 1905, *reprinted in* Annual Digest of Public International Law Cases 315 (1938-40).

[32] *Id.* at 318.

[33] *Id., id.*

[34] Phillipe Sands, Principle of International Environmental Law 191 (1995); Patricia W. Birnie & Allan E. Boyle, International Law & The Environment 89-90 (1992).

[35] *Lake Lanoux* Arbitration, 24 I.L.R. 101 (1957).

[36] *See, for example,* Birnie & Boyle, *supra* note 33, at 130.

[37] *Id.* at 128.

[38] Sands, *supra* note 33, at 348-49; Birnie & Boyle, *supra* note 33, at 102-03.

[39] Fisheries Jurisdiction Case (United Kingdom v. Iceland), ICJ Reports 1974, p. 2. See also the parallel and almost identical Fisheries Jurisdiction Case (Federal Republic of Germany v. Iceland), ICJ Reports 1974, p. 175.

[40] *Id.* para. 19.

[41] *Id*. para. 29.

[42] R.R. Chrchill & A.V. Lowe, The Law of the Sea 144-46 (1988).

[43] Continental Shelf (Libyan Arab Jamahiriya/Malta), Judgment, I.C.J. Reports 1985, p. 13, para. 34.

[44] Fisheries Jurisdiction case, *supra* note 38, at para. 53.

[45] Whiteman, 4 Dig. Int'l L. 752 (1946).

[46] H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. Pol.

Econ. 124 (1954); Colin W. Clark, *Restricted Access to Common-Property Fishery Resources: A Game-Theoretic Analysis, in* Dynamic Optimization and Mathematical Economics 117 (Pan-Tai Liu ed., 1980). See also Yoram Barzel's analysis of the conversion of the North Sea into owned property, Yoram Barzel, Economic Analysis of Property Rights 101-02 (2d ed., 1997).

[47] *Supra* note 1.

[48] Boyle, *supra* note 6.

[49] Article 38(1)(b) of the Statute of the International Court of Justice.

[50] *Supra* note 30, at 318.

[51] *Supra* note 1, para. 140.

[52] Gary D. Libecap, Contracting for Property Rights (1989). Rainer Lagoni, *Oil and Gas Deposits Across National Frontiers*, 73 A.J.I.L. 215, 224 (1979).

[53] David M. Ong, *Joint Development of Common Offshore Oil and Gas Deposits: "Mere" State Practice or Customary International Law?*, 93 A.J.I.L. 771, 792 (1999).

[54] Eritrea-Yemen Arbitration (Award Phase II: Maritime Delimitaion), December 17, 1999 http://www.pca-cpa.org/ERYE2.

[55] *Id.* at para 86.

[56] On this paradox, see Byers, *supra* note 14, at 130-33.

[57] *Supra* note 38.

[58] Robert Y. Jennings, *The Identification of International Law, in* International Law: Teaching and Practice 3, 5 (Bin Cheng ed., 1982).

[59] *See* W. Michael Reisman, *The Cult of Custom in the Late 20th Century*, 17 CAL. W. INT'L L.J. 133, 134 (1987).

[60] Oscar Schachter, *The Emergence of International Environmental Law*, 44 J. Int'l Aff. 457, 462-63 (1991):

[61] Sands, *supra* note 33 at 184, lists the following norms as customary: the responsibility of states not to cause environmental damage and the principle of good neighborliness and international cooperation. These are the only principles sufficiently established to give rise to customary obligation. Birnie and Boyle, *supra* note 33, at 92-94, suggest that the customary duty of states is to take adequate steps (due diligence) to control and regulate sources of serious global environmental pollution or transboundary harm within their territories or subject to their jurisdictions.

[62] Sands, *supra* note 33, at 236.

[63] David Bederman, *supra* note 16, at 37-39: "Grotius assigned varying significance to natural law dictates and to customary international law evidences in his consideration of different international law

doctrines. […]. He purported to scientifically approach the historical record of State practice, although he was prepared to modify (and even distort) that evidence in order to fashion rules of enduring significance to modern nations. Grotius thus embodied the contemporary ambivalence of legal scholarship."

[64] Jonathan I. Charney, *Universal International Law*, 87 A.J.I.L. 529, 545-46 (1993).

[65] See Martti Koskenniemi's critique of the principle of state consent in Martti Koskenniemi, From Apology to Utopia 270-73 (1989).

[66] Thomas M. Franck, Fairness in International Law and Institutions 79 (1995).

[67] On the different contexts of equity, see Ruth Lapidoth, *Equity in International Law*, 22 Isr. L. Rev. 161 (1987).

[68] Continental Shelf (Tunisia/Libyan Arab Jamahiriya), Judgment, I.C.J. Reports 1982, p. 18, at para. 24 (Jimenez de Arechaga, J., sep. op.). See also Masahiro Miyoshi, Considerations of Equity in the Settlement of Territorial and Boundary Disputes 173 (1993).

[69] A. Alvarez, *Preliminary Communication*, 40 Annuaire de l'Institut de Droit International 151 (1937).

[70] Miyoshi, *supra* note 67, at 153-54.

[71] Frontier Dispute (Burkina Fasu/Mali), Judgment, I.C.J. Reports, 1986, p. 536, para. 149 ("to resort to the concept of equity in order to modify an established frontier would be quite unjustified.").

[72] Land, Island and Maritime Frontier Dispute (El Salvador/Honduras: Nicaragua intervening), I.C.J. Reports 1992, p. 351, at para.58 ("economic considerations of this kind could not be taken into account for the delimitation of continental shelf areas … still less can they be relevant for the determination of a land frontier…").

[73] *See, e.g.*, North Sea Continental Shelf Cases, *supra* note 2, at 3, para. 93; Continental Shelf (Tunisia/Libyan Arab Jamahiriya), *supra* note 67, para. 107; Application for Revision and Interpretation of the Judgment of 24 February 1982 in the Case Concerning the Continental Shelf (Tunisia v. Libyan Arab Jamahiriya), Judgment, I.C.J. Reports 1985, p. 192, at para. 35. On the role of equity in balancing different factors in the context of maritime delimitation, see generally Francisko Orrego Vicuna, The Exclusive Economic Zone 211-22 (1989); Prosper Weil, Perspectives du droit de la delimitation maritime 282-85 (Paris 1988); Malcolm D. Evans, Relevant Circumstances and Maritime Delimitation 90-94 (Oxford 1989); Miyoshi, *supra* note 67.

[74] Tunisia v. Libyan Arab Jamahiriya 1985 case, *supra* note 72, at para. 50. *See also* Tunisia v. Libyan Arab Jamahiriya 1982 case, *supra* note 67, at para. 107; Louis F.E. Goldie, *Reconciling Values of Distributive Equity and Management Efficiency in the International Commons*, *in* The Settlement of Disputes on the New Natural Resources 335, 338-39 (Rene-Jean Dupuy ed., 1983); L.D.M. Nelson, *The Roles of Equity in the Delimitation of Maritime Boundaries*, 84 A.J.I.L. 837 (1990); Derek W. Bowett, *The Economic Factor in Maritime Delimitation Cases*, *in* 2 International Law at the Time of its Codification: Essays in Honour of Roberto Ago 45, 61-62 (1987).

[75] North Sea Continental Shelf Case, *supra* note 2, paras. 19, 96. *See also* Aegean Sea Continental

Shelf Case (Greece v. Turkey), I.C.J. Reports 1978, p. 3, at para. 86; Research Centre for International Law, University of Cambridge, International Boundary Cases: The Continental Shelf, Vol. 1, at 12 (1992); Eli Lauterpacht, Aspects of the Administration of International Justice 124-30 (1991); Weil, *supra* note 72, at 56-61 (1988); Evans, *supra* note 72, at 99-103. Sovereignty over the land as the source of title over the territorial waters was confirmed by the ICJ in the Anglo-Norwegian Fisheries Case (United Kingdom v. Norway), I.C.J. Reports 1951, at 116, 133.

[76] North Sea Continental Shelf Case, *supra* note 2, at para. 96.

[77] *Supra* note 42.

[78] *Id.* para. 46.

[79] *Id.* para. 50. *See also* Evans, *supra* note 72, at 186, and the decision of the ICJ in Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway), I.C.J. Reports 1993, p. 38, at paras. 79-80.

[80] Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada v. United States of America), I.C.J. Reports 1984, p. 246, at para. 237; Evans, *supra* note 72, at 189, 200; Weil, *supra* note 72, at 274-80.

[81] Beagle Channel arbitration (Argentine v. Chile) (1977), 52 I.L.R. 93, para. 110. *See also* the Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder, supra note 26, at 27-28, Eli Lauterpacht, *River Boundaries: Legal Aspects of the Shatt-Al-Arab Frontier,* 9 I.C.L.Q. 216-22 (1960).

[82] Watercourses Convention, Article 5, heading.

[83] Watercourses Convention, Article 5(1).

[84] *See* the Institute of International Law's Resolution on the Utilization of Non-Maritime International Waters (Except for Navigation) adopted at its session at Salzburg (Sep. 3-12, 1961), (49 (II) Annuaire de l'Institut de Droit International 370 (1961) (*trans. in* 56 AJIL 737 (1962)), Preamble and Article 6.

[85] *Id.* at 486.

[86] Commentary on the Helsinki Rules, ILA Report of the Fifty-Second Conference 484, 487 (1967).

[87] *Id.* at 487.

[88] ILC Report on the Law of the Non-Navigational Uses of International Watercourses, Yearbook of the International Law Commission 1994 (Volume II, Part Two), at 85, 97. *See also* Commentary on the Helsinki Rules, *supra* note 85, at 487: "A 'beneficial use' need not be the most productive use to which the water may be put, nor need it utilize the most efficient methods known in order to avoid waste and insure maximum utilisation."

[89] Article 6(1)(b) of the Watercourses Convention. A similar consideration appears in Article V(2)(e) of the 1966 Helsinki Rules, *supra* note 85.

[90] Article 6(1)(c) of the Watercourses Convention. A similar consideration appears in Article V(2)(f) of the 1966 Helsinki Rules, *supra* note 85.

[91] Article 6(2)(a) of the Watercourses Convention. The Helsinki Rules specify these natural factors as the first three on the list; Article V(2)(a)-(c).

[92] *See* Bonaya A. Godana, Africa's Shared Water Resources 58 (1985): "Factors (a) to (c) mentioned in Article V of the Helsinki Rules merely re emphasise the need for an accurate assessment of the nature and extent of the interdependence between utilisation in the different basin states."

[93] On maritime boundary delimitation see *supra* text to notes 72-80.

[94] *See, e.g.*, Gerhard Hafner, *The Optimum Utilization Principle and the Non-Navigational Uses of Drainage Basins*, 45 Aust. J. Publ. Intl. Law 113, 124-26 (1993). Patricia Buirette, *Genese d'un droit fluvial international general*, 95 R.G.D.I.P. 5, 38 (1991); Gunther Handl, *The Principle of 'Equitable Use' as applied to Internationally Shared Natural Resources: Its Role in Resolving Potential International Disputes Over Transfrontier Pollution*, 14 Rev. Belge de Droit International 40, 46, 52-54 (1978); Jerome Lipper, *Equitable Utilization*, *in* The Law of International Drainage Basins 16, 41, 45 (A. Garretson, R. Haydon & C. Olmstead eds., 1967); Charles Bourne, *The Right to Utilize the Waters of International Rivers*, 3 Can. Yb. Int'l Law 187, 199 (1965); William Griffin, *The Use of Waters of International Drainage Basins under Customary International Law*, 53 Am. J. I. L. 50, 78-79 (1959).

[95] Lipper, *supra* note 93, at 44: "Factors unrelated to the availability and use of waters are irrelevant and should not be considered. For example, the size of a particular state in relation to a co-riparian or the fact that the river flows for a greater distance through one state than another is not in itself a factor to be considered in determining what is an equitable utilization (although it may prove relevant on the issue of 'need')."

[96] The 1966 Helsinki Rules, *supra* note 85, art. 8(1). In the same vein, see the IDI's Salzburg Resolution, *supra* note 83, arts. 3, 4.

[97] Commentary to the Helsinki Rules, *supra* note 85, at 493.

[98] As Lipper defines this term, "a use, to be entitled to protection, must afford sufficient economic and social benefit to the user so that it is reasonable, under all the circumstances, that its continuation be considered." *Supra* note 93, at 63.

[99] Colorado v. New Mexico, 459 U.S. 176, 103 S.Ct. 539, 74 L.Ed.2d. 348 (1982) (a more efficient future use may outweigh an existing wasteful one); Lipper, *supra* note 93, at 46 (a more efficient use by another state is not dispositive, but it is a relevant consideration).

[100] Lipper, *supra* note 93, at 58. *See also* Caflisch, *supra* note 29, at 158-60.

[101] Lipper, *supra* note 93, at 58.

[102] Supra text to notes 22-23.

[103] *See* Benvenisti, *supra* note 5, Chapter 7.

[104] Eyal Benvenisti, *Judicial Misgivings Regarding the Application of International Norms: An Analysis of Attitudes of National Courts*, 4 Eur. J. Int'l L. 159 (1993).

[105].The Arantzazu Mendi, 1939 App. Cas. 256, 264 (H.L.) (granting immunity to the nationalist government of Spain by the British House of Lords following recognition by the Foreign Office as a de facto government).

[106].United States v. Alvarez-Machain, 504 U.S. 655, 669 n.16 (1992). On this see Eyal Benvenisti, *Exit and Voice in the Age of Globalization*, 98 Mich. L. Rev. 167 (1999).

[107] Article 38(1)(d) of the Statute of the International Court of Justice.

[108] See, for example the Trail Smelter case, *supra* note 30 (relying on the US Supreme Court's cases dealing with inter-state pollution).

[109] *Supra* note 1.