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The Minimal Significance of State Responsibility Concept in Resolving Environmental Disputes

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Abstract

The objective of this article is to show that the principle of state responsibility is significant in theory, but not in practice in resolving environmental disputes. This may be attributed to the following reasons: the principle is not well-established in environmental law. Moreover, it needs to be designed in a single instrument that is solid and clear to be considered by the arbitrators, and this instrument should define the principle and its parameters, in addition to its procedural aspects. The explored defects of this principle leading to its insignificance include: the extent of liability, the magnitude of the harm, the forms of reparation, the required standard of care and some enforcement issues. This article also presents several sections to determine the principle's efficiency-i.e., whether it is modified or not in terms of invocation and enforcement, with reference to environmental case law. This study also provides some suggestions and an alternative to this principle.

Keywords: State responsibility, Civil liability, Environment, Environmental law, Transboundary environmental damage.

1. Introduction

Since the emergence of environmental law at the international level, international bodies have acknowledged the need for effective procedures to encourage states to implement environmental treaties. Despite the presence of some general procedures of compliance such as setting targets for the state parties to achieve -as the 1998 Kyoto Protocol adopted- or subjecting infringing states to monetary penalties, there have been infringements by some states leading to interstate disputes. The broadest instrument-establishing mechanism for settling interstate disputes is Art.33 (1) of the UN charter 1945 which states that:

> "The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice."

One of the important approaches to tackle international disputes is by relying on the concept of state responsibility. In environmental law, it has been mostly invoked in cases involving transboundary pollution damages. The essence of state responsibility arises from states undertaking obligations set in either form of treaties or acknowledged as customary law.

States are bound by any treaty if they have manifested a form of direct or indirect consent, ratification, or an undertaking to implement the treaty in domestic law and ensuring compliance of the terms by all bodies of the state. By taking these steps, states are generally bound by the treaty- that is to say, should any state party fails to implement it effectively or monitor its bodies efficiently, or should any state's organs or non-state organs under the direct control of the state party fail to comply with any of the required terms, state responsibility may be invoked by the injured party, thus international responsibility accumulates over the state in breach.

One of the main reasons of treaties' violation – especially those concerned with the environment- is that most of the treaties only lay down a framework or general principles, and require state parties to take the necessary measures they see fit. For example, the 1979 Convention on Long Range Transboundary Air Pollution necessitates further actions to be taken by state parties to enrol it into their national systems; however, perceptibly not all states would be efficient or punctual in doing so. The only solution to this issue is the inclusion of implementation measures within the treaty itself or at least some procedural aspects or standards to be followed when implementing the treaty. This has been successfully adopted in UNCLOS and has been proven to be clear and efficient. (Hart, 2008) comments on agreements by the state parties saying:

> "[The] Implementation Agreement could add real value by giving substance to these provisions of UNCLOS, improving co-ordination between sectors, and clarifying responsibilities to 'protect and preserve' based on modern developments".

In addition to the international treaties, a state is responsible under customary international law, the rules that have been practiced by the state and supported by opinio juris -the belief of a legal obligation to do such acts- provided that the state is not a persistence objector to the rule as the case of Libya v Malta (1985) indicates. There are some complications in enforcing customary law in the case law due to the non-codification of this kind of law. In cases dealing with environmental disputes, many states have rejected responsibilities over breaching customary rules. For

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example, the USSR in the Chernobyl incident asserted that it was not bound by or in breach of customary law when it failed to provide information or notify the affected states.

It is apparent now that modern environmental law conventions largely focus on preventing environmental damages, conservation of the natural resources, and encouraging states to refrain from performing or permitting activities potentially leading to environmental damages instead of repairing the harm after it is done. In the case of a state failure to adhere to its environmental obligations and thus causing harm to other states, there is a requirement upon the perpetrators to repair, restitute, compensate, satisfy or formally apologise to the affected bodies or states for the environmental wrong. These requirements are called liabilities, and the liabilities of states or any international organization have been defined by Goldie (1985) as:

> "[The] consequences of a failure to perform [a] duty, or to fulfil the standards of performance required. That is, liability connotes exposure to legal redress once responsibility and injury arising from a failure to fulfil that legal responsibility have been established".

State responsibility is, perhaps, a misleading term because it does not only refer to states alone, as may some believe; rather, it has emerged at a time when states alone were considered the subjects of international law. In practice, any international body or person under the rules of international law can be subject to responsibility, and thus become liable. The application of state responsibility in environmental disputes is strongly connected to the International Law Commission's [ILC] Draft Articles on the Responsibility of States for Internationally Wrongful Acts which mainly codify customary international law. These articles been widely accepted and applied by international arbitrators to the extent that they are accepted by the international community. Art.1 of this Draft states that 'every internationally wrongful act of a state entails the international responsibility of that State'. This is the starting point of establishing the principle.

The upcoming sections would explore the application of the concept of state responsibility in environmental case law, and how it appears to be effective only in theory. Nonetheless, in practice the concept did not appear as significant in resolving the disputes as it should be. Cases of environmental disputes are mostly pointing to the role of civil liability proceedings in transboundary environmental wrongs. Perhaps seeking civil liability should be the perfect replacement to the establishment of state responsibility in such cases. In civil liability, the victims are most likely interested in remedies for the wrongs suffered than in state responsibility actions.

2. Theoretical Significance of State Responsibility

The notion of state responsibility is strongly significant in resolving environmental disputes, given that it is effectively set and applied. It applies widely to many situations, such as transboundary air or toxic pollution, acid rains, and damages as a result of hazardous or non-hazardous activities, hence, states often have a choice to resort to it. Indeed, states have acknowledged the significance of this principle; there had been several calls to enact an international set of rules dealing with such liabilities. For example, Principle 22 of The Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972) recognized the gap in the law concerning environmental responsibility and urged that

> States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.

There has not been any significant progress in the area until The United Nations Conference on Environment and Development (Rio, 1992) reaffirmed the need for international law generating liability for damages to the environment in Principle 33:

> States shall develop national law regarding liability and compensation for the victims of…. environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Unfortunately, as Sands (2003) agrees there is no single instrument which establishes the generally applicable international rules with regard to state responsibility and liability in Environmental Law. The previous instruments- Rio and Stockholm conventions- set non-binding legal principles; they are only designed to commit governments to ensure environmental protection and developments of rights and responsibilities. Rules on liability of states may be found under different conventions, some ILC reports and customary law are applied by judges in international case law, yet not all conventions and ILC reports are legally binding to every state.

Generally, state practice shows unwillingness to establish a single instrument of international liability; Sands (2003) contends that this might give rise to the fear of imposing excessive costs on them; nonetheless, states would normally gather to produce internationally binding instruments if they regard the matter in question as necessary. Surely, they are not taking the principle as a matter of high importance in resolving their disputes neither do they observe its advantages. State responsibility says that states will act with due diligence in matters affecting their neighbouring states; they would place high scrutiny on their agents, and would notify the neighbouring states in case of potential harms, which in effect would reduce transboundary harm disputes and help find consensus or solutions among the states.

Another advantage of state responsibility is that it works as a deterrent; the injured state is able to subject all of the wrongdoers to trials and get compensated from each one in accordance to Art.47 ILC Rep. on State Responsibility, so no entity can escape liability. It can also as Art.48 elaborated have a standing in behalf of the community as a whole, or groups of the injured, many breaches indeed will be committed without fear of litigations if such rules do not exist. This contention has been firstly rejected by the Court asserting it was early for Environmental Law to accept such claims in Behring Sea Fur Seals Arbitration (1999) when the USA argued that it has the right to protect Fur Seals even if

they are outside the three mile limit of its territorial water, the tribunal rejected the claim and exercised its powers in enacting a binding regulation. If this occurs nowadays, there is no reason why it should not be acceptable as both states' practice and the ILC Report on State Responsibility permits states to initiate claims on behalf of the community as a whole.

It might be maintained that Art.48 may give rise to politically-motivated invocation and may allow counter measures to take place. However, by observing Art.54 of the same report, one could assume that this would rarely materialise in practice, the Court would only allow countermeasures that it sees as lawful to be taken, such as the collective measure taken by states against Iraq's invasion of Kuwait in 1990 to freeze Iraqi's assets under the authorisation of the Security Council. Besides, no state would like to incur costs by initiating international litigations unless the matter is of grave concern to it.

Accordingly, various elements have to be established for the state responsibility principle. There should be an environmental damage as a result of an act or omission of states, or actions of individuals attributable to those states, as Professor Eagleton (1928) puts it: '[a] State owes at all times a duty to protect other States against injurious acts by individuals from within its jurisdiction'. Moreover, locus standi should be established, material damages and causation should also be proven and parties have to consent to the jurisdiction of the ICJ or the arbitrator. Although these requirements are effective in not opening the floodgate of litigations to the ICJ and in regulating the mechanism of invocation, they place hardships, cost money and time to be applied, and potentially leave some injured parties without effective remedies.

The main issue of the principle is the absence of guidance in interpreting its elements; they can only be explained by observing the Court's practice and some of the enacted treaties; deficiencies of this principle are explored below.

3. Practical Deficiencies of States' Responsibility

Issues hindering the popularity of the state responsibility in environmental law are the difficulties facing the international community in defining its parameters such as: the extent of liability, the magnitude of the harm, the forms of reparation, the required standard of care and some enforcement issues. Indeed, these differ from one case to another; for instance, nuclear damages are mostly hard to repair compared with oil spillage incidents causing sea pollution which can be cleaned. Each element is discussed below in details.

3.1 Damages

The existence of environmental damage is the main criterion to initiate state responsibility claims. Several definitions of the environment exist; the widest is mostly easier to adopt as The World Commission on Environment and Development stated 'the environment is where we live'. The problem is based on the meaning of the term Damage and the degree of harm required accumulating liability. Should there be an adverse effect? Should there be pollution or would depletion of natural resources be sufficient? Should the harm be significant? Should it be proven beyond reasonable doubt and what is the threshold? The knowledge of such requirements is essential for the wronged party prior to initiating a proceeding based on state responsibility before the Court.

The Trail Smelter Case established that only apparent harm should be compensated. The Canadian lawyers managed successfully in the case to narrow down the definition of the compensated damage, by excluding the invisible harm and harm that is not proven or 'even if [proven], too indirect and remote to become the basis, in law, for an award of indemnity'. In the case, economic injury to the properties and livestock along with the injury to the businesses, and to the cleared and uncleared lands were put forward by the USA to be measured. Most injuries were rejected by the tribunal; firstly, there was a lack of proof in regard to the economic injury. Secondly, injury to business enterprises was considered too remote, and for the cleared and uncleared land, the reduction of value and production was indemnified; nevertheless, a definition of damage in a pure sense was not provided by the judges.

The scope of damage has been expanded in the case of water pollution of Ciudad Juarez in 1961. A case where Mexico complained about offensive odors from two American companies who were said to be polluting the air with fumes and throwing fetid offal in the Rio Grande, causing both physical and economical damage to the residents of Ciudad Juarez. The USA accepted responsibility of the companies' acts and had taken measures to control the odors. As a result of this ruling, according to (Lester, 1963) damage currently includes 'any artificial change in the natural quality of any particular natural [resources]-water hereto- rather than a more narrow definition in terms of use or damage'.

Prior to the case of Ciudad Juarez, the tribunal in The Lake of Lanoux Arbitration recognised the possibility of environmental damage to water; nevertheless, it rejected the Spanish claim about the potential damage to its environment if France decided to divert the waters of a shared water source flawing from Lake Lanoux as part of a hydroelectric project. The ruling assumes that in the absence of the proof of damage, a state could not bring a claim. This makes state responsibility a reactive rather than a preventive principle as it hinders states from initiating claims for potential damages.

The case law implies that it is for the Court to determine the parameters of damage and when to award indemnities, since the ICJ is not bound by the doctrine of precedents; a state cannot be sure whether it is going to be indemnified and what is the form or amount of damage it is going to obtain. States might be discouraged from invoking claims and enduring costs in the absence of a general standard for measuring the damages and with the possibility of getting it being imprecise or minimal.

In the absence of an international agreement for establishing the threshold of the damage, state practice assumes that damages have to be substantial to trigger liabilities. It suggests that claims are justified if the injury leaves serious consequences -this is apparent in the Trail Smelter Arbitration (1939), or the damage caused is irreparable in Nauru v. Australia case, or if it is more than minimal in Hungary v Slovakia (1997). The major difficulty

arises in cases of nuclear damages. For example, after the Chernobyl accident, several instruments established different thresholds to the requisite level of radioactivity such as the International Commission on Radiological Protection; several individual states also adopt their own radioactive dose limits affecting human bodies, farms, and businesses. Despite the efforts, these divergent thresholds are impractical for states, and are likely to create controversy among litigants.

To conclude, according to case law and state practice, there is no clear interpretation and threshold of damage incurring international liability. Each case has been resolved according to its circumstances. There is no harmony in the law, thus, injured states might be affected internationally; it might not get indemnified- and might be domestically subject to litigations by its individuals. The latter has been manifested in the Chernobyl incident when several states had to compensate their affected individuals as a result of the radiation such as the UK, Germany, and Sweden.

3.2 Liabilities

When it comes to liability, debates are on whether it should be subjective or objective in nature. The ILC Report on State Responsibility requires faults to establish responsibility; since this leaves the uncovered environmental harm caused without fault, it created a parallel basis for remedies calling them liabilities. Therefore, a state can be liable even if it acted in a manner not violating environmental law but causing a non-tolerable injury to other states, this is specified in Art. 2 of the ILC Draft Articles on the Prevention of Transboundary Harm from Activates. Liabilities help fulfil the purpose of state responsibility, and ensures reparation. In cases involving liabilities, states are likely to raise the standard of care requirement which could be seen as a mitigating factor in case law. Generally, in environmental disputes, due diligence is not an easy standard to administer in the absence of binding international standards. Arbitrators are unlikely to accept it a s a defence, and even if they did, they would place a heavy burden of proof on the party trying to rely on it -mostly the source state.

The reasons why an injured party brings claims include seeking cessation of the act, reparation, or compensation either for a pure environmental damage or a consequent damage to health and properties. In order to attain that, the court would initially distinguish between ultra-hazardous and non-hazardous activities. Absolute liability should be imposed on the former. Since the source state is aware of the nature and the risks involved in carrying out activities such as nuclear plants, it should be absolutely liable for harm if it occurs, and a proof of fault should not be required.

It might be argued that strict liability -in which various defences might be available- could be imposed in some cases where the source state has been due diligent. However, it should not completely exempt it from liability, and damage should be minimally payable. For example, in the Trail Smelter Arbitration (1939), the USA tried acting with due diligence by increasing the height of the plants' stacks albeit worsening the situation more than the lower stacks. Damage was indeed payable, but the act has been taken into consideration by the tribunal.

Furthermore, it must be asserted that fault-based liability should not be considered in environmental cases because it would require the court to set standards of care, and would also add more burdens to the injured state. If the source state managed to prove an absence of fault, the injured party would be left without a remedy, and this is not acceptable as it undermines the principle of state responsibility. The source state should rather reduce the probability of environmental interstate disputes by undertaking mitigating factors prior to its actions, namely, notification of the harms, and consultation on preventative measures to the likely being injured states.

The ILC Articles on the Prevention of Hazardous Harm includes initiative procedures to prevent environmental harms; nevertheless, they are lengthy in time and lack incentives and binding aspects that would induce states to employ them. For example, Art.11 -setting certain procedures in the absence of notification- requires the likely to be affected state to send a written request asking for information under Art.8 if the source state failed to send a notification. Upon receiving the request and when the source state decided not to notify, both had to enter into consultation -Art.9- to reach a consensus.

By the time resolutions are reached, the damage might have already accrued or worsened; a requirement of cessation of the act during negotiation should be imposed rather than merely urging the source state to arrange feasible measures to minimize the risk under Art.11 (3).

3.3 Reparation

Forms of reparations are varied under state responsibility, the ILC on State Responsibility in Art. 34-39 elaborates the forms of restitution, compensation, and satisfaction. It has to be said that these forms of reparations seem effective and attainable theoretically; nonetheless, in reality they are not so as the case law shows. For example, in the Trail Smelter case, the payment to the USA was late and the amount was minimal. In other incidents, reparation might not be feasible due to the severity of the harm such as in the Fukushima incident, while in others, the source state cannot be sued or coerced to pay for the damages such as in the case of the USSR in the Chernobyl incident.

One issue regarding reparation is that it cannot be easily managed. For instance, in the case of compensation, it is mostly hard to quantify environmental damage in monetary values, and thus disputes might be ignited again. Similarly, restitution is almost hard in many cases, as completely wiping out environmental damages may not be feasible. In Canada Claim against the Union of the Soviet Socialist Republics for Damage Caused by Soviet Cosmos 954, the Canadian soil was rendered unfit for use as a result of the satellite crash, restitution was impossible and, therefore, compensation was paid upholding Canada's right to make additional claims since the damage cannot be determined precisely in nuclear contamination.

Satisfaction seems as the easiest and last resort form of reparation as it requires nothing from the source state except acknowledgment of the breach and a formal apology. However, most states are reluctant to express their regret for the wrongful act. They either regard it as an act affecting

their sovereignty and status at the international level, or they may consider it as embarrassment and humiliation.

3.4 Standing Issues

There are several elements to be elaborated to determine if a state is able to have a standing at the international level to the point of invoking claims. The state has to be injured as a result of another country's act as Art.42 ILC's on State Responsibility stressed. A state is injured if it was individually affected by the breach, which normally occurs in bilateral agreements, or if the breach affected every other state to which the obligation is owed such as the breach to the Treaty of Antarctica, or if the invoking state is significantly affected by the breach and is distinguished from all injured states.

Where the breach of one state affects every other state party, all should be equally injured, and thus should have a standing as long as it is feasible to do so. Nevertheless, the source state might not be factually able to compensate all injured parties, thus, there should be distinctions between primary and subsidiary litigations as Crawford (2001) elaborated: the treatment of collective damage should distinguish between primary beneficiaries and those states with legal interests in compliance, accordingly some states might not even be compensated.

Standing issues mostly arise if a third party is involved in the proceeding. Deciding a case might necessarily get a third party involved and affect its rights; hence, the third party intervenes to protect itself. This has been problematic as recent history shows that the ICJ has accepted third-party intervention only in two incidents. In Land, Island and Maritime Frontier Dispute (1990) and in the case of Cameroon v. Nig. This potentially renders the effected party without reparation especially if one of the parties involved is not consenting to the jurisdiction of the ICJ. For example, in the Monetary Gold Case, in a dispute between Italy on one side, UK, France, and the USA on the other side, the Court declared it is without jurisdiction to adjudicate upon the merits of the claim because doing so would require the Court to decide whether Albania wronged Italy and Albania was not consenting to the Court's jurisdiction.

Additionally, even if the injured state is likely to be granted locus standi and to succeed by invoking the principle of state responsibility, most states are reluctant to do so. (Stephens, 2009) added that they are greatly reluctant even if the environmental damage is so severe. Recent practices demonstrate that states prefer other means to solve their problems; either by negotiation, mutual agreements, or diplomatic consensus. This has been apparent even in regional instruments that have a clear mechanism of state responsibility such as Art.259 TFEU giving member states the right to bring actions for infringement of the EU legislations against other parties. The article had been rarely used by states. Only six cases have been brought so far, and none invoked an environmental issue, and only three of the former five have been closed by a final judgment.

An Additional reason for the reluctance of invoking the principle is the fear of countermeasures or relationship tensions between the states in dispute. These reasons can be extracted from the Chernobyl disaster in which the explosion of the nuclear power plant reactor produced a radioactive cloud that flew over several countries including Sweden, Germany, and Switzerland. None of the states initiated any claim against the USSR, rather, they offered to cooperate, and no obligation was imposed upon the USSR. It was suggested that they feared being in the same situation in the future and might be held liable as well. Their reaction could also be seen through the lens of sympathy to the affected state.

Another obstacle in locus standi is that the ICJ cannot give a ruling or even an advisory opinion if the state in question does not consent to its jurisdiction. In Status of Eastern Carelia (1923), the PCIJ refrained from issuing an advisory opinion on the interpretation of disputed bilateral treaty between Finland and Russia over East Karelia, for the reason of Russia's refusal to participate in the proceedings and its non recognition of the jurisdiction of the League or the Court itself -stated in the Advisory Opinion, 1923 PCIJ (ser. B) No. 5. As a result, many environmental issues cannot be resolved at the international arena under the concept of state responsibility.

3.5. Enforcement

The final hurdle of the principle of state responsibility is the absence of enforcement mechanisms. Nothing can be done if the source state refrains from abiding by the arbitral ruling, and states cannot be coerced to compensate if they refrain from doing so. It could be contended that the injured state can rely on Art. 22 of the ILC's Report on State Responsibility by countermeasures against the responsible state in order to compel it to cease the unlawful act or repair the injury. However, this contention is not feasible in practice as it seems only to work with powerful states. If the injured state is weaker than the source state, countermeasures may worsen the situation rather than solve the problem. It may lead to more economic or diplomatic tensions, thus, most of the weak injured states prefer not to use such a tool.

Another suggestion is subjecting the source state to penalties in the event of failure to comply with the judgments, but this is also hard to administer considering the number of states. Moreover, this solution has been adopted by the EU, and proved the potentiality of unfairness. For instance, states may still not pay for the only detriment is them being in debt, and the injured party gets nothing.

As a result of these impediments to the principle of state responsibility, an easier regime that is not connected to politics and governments must be employed. A system that is practical in time and money and ensures fairness and compensation, and a mechanism for the injured be it a state, an international or national body or even an individual must be employed. This is provided by a civil liability regime which is already employed in nuclear cases, and should be considered in transboundary environmental damages in general.

4. Civil Liability in Nuclear Cases

Customary law established state responsibility in civilian nuclear energy in Cosmos 954. This has not proved popular as the Chernobyl incident clearly showed the refusal of states to accept liabilities for nuclear transboundary harms. Prior to the Chernobyl incident, states applied

different principles in relation to nuclear power. Assuming the importance of the field and the associated risks which are seen as barriers for development, they realized that both the public and the operators needed protection. Victims have to be assured that sufficient protection and compensation are provided. Similarly, operators must not be discouraged from investments due to financial debilitating liabilities. Accordingly, neither ordinary tort rules exposing investors to unlimited liabilities and involving technical complexity in allocating wrongdoers, nor international liability are sufficient hereto. Therefore, a regime of a civil third-party liability with states being responsible as guarantors of the operator's strict liability with the accumulated residual liability on them has been internationally established. Acknowledged principles for the liability of nuclear damage have been adopted in these instruments such as the strict and exclusive liability upon the operator who has to be insured limiting the liability in time and amount.

Since a single nuclear incident would attract several litigations, different national courts may apply different laws if civil liability is adopted. This establishes the need for a united instrument ruling the area. For instance, in The Japanese Fishermen Case, the USA subjected several Japanese fishing vessels to excessive level of radiation and contaminated a number of fishing boats and men as a result of unlawful hydrogenic bomb testing in the Marshall Island Trust Territory. Although a tribunal has been established to determine the extent of the damage, the USA managed through diplomatic means to pay two million dollars as compensation to Japan. If the matter has not been diplomatically settled, the tribunal might have to award. If the incident happened between different countries, the calculation of the damage may also be different in the absence of a guiding international instrument to calculate the nuclear damages.

This article deals with two categories of nuclear damages. First, where the source state carries an internationally wrongful activity causing nuclear pollution such as atmospheric nuclear tests, for which objective standards should be applied; state responsibility under customary law mostly invoked by the injured parties. For example, in Australia v. France and New Zealand v. France, the two states objected to France carrying out nuclear weapon tests in the Pacific Ocean as being contrary to international law and creating anxiety and fear of environmental and health damages to the nations of both countries. Even though the case has ceased to exist when France announced a termination of conducting the tests, judge Ignacio-Pint asserted:

> "I see no existing legal means in the present state of the law which would authorize a state to come before the court asking it to prohibit another state from carrying out on its own territory such activities, which involves risks to its neighbour."

This establishment is controversial as it renders states as with no power to stop each other from operating activities which might cause transboundary damages in the absence of certain evidence. States desire a preventative system along with remedial one.

An additional example is dumping radioactive substances into a territorial sea causing damages to other states. The 1958 USA pacific Nuclear Tests shed further light on the state responsibility principle. Fortunately during that period, the USA government announced responsibility to compensate any damages or economic losses caused by the tests while taking all precautionary measures required. It even allowed Japan to initiate compensation claims after the tests if any evidence displaying economic loss was presented. Such situations required state responsibility and did not prove controversial.

A third important example is when a state uses nuclear weapons against another. This indeed should not be justified even if it is for self-defence. The Hiroshima atomic bombing on Japan by the USA caused devastating environmental, property and health harm, yet the USA was not sued or condemned by the international community. State responsibility should be imposed in such situations to regulate the use of power. In fact, the court used its discretion to reject giving an advisory opinion requested by the World Health Organization (1996) in the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, invoking lack of jurisdiction in the matter. In the advisory opinion to the same question requested by the General Assembly, the Court could not conclude the unlawfulness of the use or the threat of use of nuclear weapons in the extreme circumstances of self-defence, which places high anxiety on the states and more demands to regulate such powers.

The second category is where the source state operates nuclear plants on its territory. This carries the risk of nuclear disasters occurring either through technical or human error, thus neighbouring states are always threatened by a potential harm. Absolute liability is always applicable as a mean of solving inequities between nuclear and non-nuclear states.

Customary law limited the doctrine of sovereignty -allowing lawful activities resulting in extra territorial damages- by the good neighbourliness doctrine bringing state responsibility into operation, even though this is questionable in nuclear cases. Numerous nuclear incidents have taken place in different nuclear energy countries. The 1986 Chernobyl incident in Ukraine and the 2011 Fukushima plant incident in Japan created unlimited international reactions.

Prior to the incidents, states promoting peaceful use of nuclear power recognized the need to establish a regulating instrument to provide legal certainty, eliminate discrimination and subject all claimants of state parties to similar laws. Two major nuclear civil liability instruments have been concluded, namely the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and the 1963 Vienna Convention on Civil Liability for Nuclear Damage. Both incorporated similar fundamental principles; nevertheless, parties of the Paris convention added two supplementary public funds in the Brussel's convention after recognizing the impossibility of the operator to compensate damage or loss to any person or property in cases of accidents; one was from the source state and the second was a contribution from the state parties. The Chernobyl incident resulted in motivating states to merge the two conventions together to provide more protection to the largest number of

victims and regulate the operators' interests.

Despite the international efforts to attract as many states as possible to join in, both of the Paris and Vienna Convention systems have suffered from relatively limited participation. In fact, most of the nuclear plants are located in non-convention parties such as Canada, China, India, and the USA, and most of them are also among the most populated countries in the world. This poor participation could be ascribed to the unpopularity of certain terms of the conventions such as the limited liability, for states may not see the reason for restricting compensation of their victims. However, these terms would at least guarantee some sort of compensation even if it is minimum as in reality and individual victims may get nothing from the source state similar to Chernobyl. Another reason could be that the conventions may benefit transboundary victims more than nationals; this appears to be true as professor Lamm in 1998 remarked:

> [After] the Chernobyl accident, the then Soviet Union refused to pay compensation to any foreign victims, some people believed that if the Soviet Union had been a party to the Vienna Convention, foreign victims would at least have had a chance to receive some compensation.

Since both Chernobyl and Fukushima incidents show states' refrainment from initiating claims, civil liability –which has been called for by nuclear conventions- is the ultimate solution for nuclear cases to avoid complexities and insure compensation. In the case of Chernobyl, the USSU was internationally liable for the damage caused as a result of the negligence of the workers in the plant if actual damage and causation were proved by the injured states. Initially, a flurry of litigations threatened the USSR, but have been soon dropped recognizing the uncertainties of indemnities and the impossibility of enforcing payment (Malone, 1987).

Reasons for such hesitations include: the direct and indirect damage materialized was severe and non-calculable in monetary terms. The USSR itself experienced life losses, health issues, and serious contamination rendering large areas unfit for inhabitancy. The Chernobyl incident highlighted several deficiencies in the applicable law. The standards for determining liability are not clear. Should these standards be faults as a result of negligence or recklessness, or strict liability as a result of transboundary ultra hazardous harms, or liability for the unreasonable interference in the natural resources of another state; state responsibility normally applies to the latter. Secondly, there is uncertainty of the recoverable damages in terms of subsequent economic loss and injuries to properties and businesses. Lastly and more importantly is the lack of means of enforcement. The USSR is not a party in any international liability or compensating regime. It is not consenting to the ICJ as an arbitrator, even if there was a litigation, decisions of the ICJ were only enforceable through the Security Council of the UN in which the USSR has the veto power.

Another highlighted issue is the absence of global early warning system of nuclear incidents, and the absence of obligation to inform the states if such incidents occur. The USSR failed to notify other states in adequate time alleging that there is no international obligation to inform other states in events of accidents. Moreover, in the absence of safety standards for the nuclear plants at that time, the Chernobyl plant used an outmoded graphite reactor which was abandoned by many countries after the fire in 1957 at Britain's Windscale graphite reactor, yet there was no consequence. If civil liability was adopted, it will be hard for operators to escape liability easily in such situations.

The recent Fukushima incident did not attract international liability claims because transboundary damage was minimal causing no threat to people, livestock or corps in other states due to the location of the incident. However, domestic damage was substantial. If there has been interstate litigation, it will be beyond the financial capacity of Japan as the government had to assess TEPCO by paying $1.16 billion only for domestic litigants. Whether states' supplementary funding would suffice if transboundary harm was caused is even questionable. International reaction was more humanitarian in the case; however, further deficiencies of the current state of nuclear law have been highlighted. The leakage of contaminated water which was used to cool the operators caused severe water pollution. Accordingly, the marine life emigrating to the Japanese coast is and will continue to be exposed to radioactive substances. However, (Stephen, 2011) thought and we agree that the impact of these substances is not yet clear, and at worst it would not only affect Japanese people.

There is indeed much work done at the international arena to regulate nuclear energy as a result of the previous incidents, such as the 1994 IAEA Convention on Nuclear Safety, and the two 1986 Conventions Relating to Early Notification of Nuclear Accidents and the assistance to the countries affected by such accidents. International community response has been a compromise; indeed they should cooperate to channel legal liability and encourage other state to become parties of relevant conventions which seem to provide clear rules for individuals, states, and operators.

Despite these efforts, Fukushima demonstrated a lack of enforcement. The Japanese plant was not up to the standards required by the 1994 Vienna convention. The design and operational features adopted by TEPCO were no longer the standards requires by the convention. Thus, in theory Japan violated the convention and the consequences of such violation were not apparent. It can be suggested that the consequences of breaching the nuclear conventions cannot be determined as the international community continues to encourage states to become parties rather than add more burdens on them. Nuclear cases require designated rules, and state responsibility is not significant because the major concern currently is the protection of the human population; it can, therefore, be achieved through regulated civil liability actions.

5. Conclusions: an Alternative Regime to State Responsibility

Since state responsibility does not guarantee that individual victims will be compensated in transboundary harms, civil liability regime does. The difference between state responsibility and civil liability is that the former refers to the liability of a state under public international law and the latter means the liability of natural or legal person under

the domestic legislation including the legislation established to implement the provisions of international treaty obligations. Civil liability should be in a better place to deal with transboundary harms. It is not profoundly burdensome for national courts to ensure that several forms of protection of the public are devised and liability is imposed on the wrongdoer. Since transboundary damages would still occur however diligent the state has been in regulating harmful activities, the ILC took an initiative step publishing the 2006 Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities which adopts a civil liability regime.

Civil liability converts transboundary cases into a national matter. It enables victims to gain an effective access to national courts of the source state and sue the polluter. Also, it allows them to have the choices of both forum and the applicable law. Since most pollution is caused by individuals rather than states, civil liability applies the polluter pays principle, which is more forward than the state responsibility principle which involves lengthy and risky procedures to be taken by their states.

For the regime to operate effectively, equal access to information, equal access to national courts and remedies should be available to the foreign individuals without any discrimination on the base of nationality, geographical location, or residence. This has been called upon by the ILC on the 2006 report, and has also been adopted by the Organisation for Economic Co-operation and Development (1977) in Recommendation on Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution, Para.4 (a):

> Countries of origin should ensure that any person who has suffered transfrontier pollution damage or is exposed to a significant risk of transfrontier pollution, shall at least receive equivalent treatment to that afforded in the country of origin in cases of domestic pollution and in comparable circumstances, to persons of equivalent condition or status.

Civil liability has also played an important role in different countries' constitutions such as Spain and France, and proved effective. For example, Sandoz chemical spillage in Rhine has been resolved successfully without international proceedings, and should Canada adopt civil liability, the Trail Smelter Arbitration (1939) would be nationally solved. Individuals are already trying to resolve transboundary environmental disputes by other lengthy means such as Human Rights' Conventions which require local remedies to be exhausted and whose benefits are mostly restricted to the individuals who suffer losses not to the community at large.

Indeed, there are obstacles in the civil liability regime; however, they can be overcome. Firstly, the availability of international law in the source state depends on the extent of the incorporation of international law into the domestic law. This can be overcome by encouraging states to incorporate international instruments domestically. Another obstacle involves the wide discretions of national courts. Some jurisdictions deny access to cases involving foreign entities or might claim denial as a result of foreign courts being in a better position to deal with the claim. A suggested solution is when courts adhere to the forum non conveniens maxim requiring courts to consider relevant factors such as damage assessment and compensation to decide what legal system are in a better position to deal with the case.

Additionally, there are difficulties facing litigants in terms of language differences and unfamiliarity with legal systems. In some cases, they might face difficulties in the choice of law, or they might also be forced to one forum if access has been denied in their preferred forum. Moreover, sufficient procedural rights and environmental protection might not be guaranteed. These obstacles can be maintained by different means. In the case of unfair denial to access or remedy, violation of human rights' conventions may be invoked. The civil liability regime is easier to maintain as many conventions are linked to each other, thus, individuals would eventually be compensated. The major obstacle of this regime is the prevention of justice due to civil wars, corruption, or intimidation by the state, even though these rarely occur and can be solved by invoking international conventions. All in all, the civil liability regime will ensure compensation to the injured, in addition to the efficiency in time and procedures and the ability to solve interstate environmental disputes. It is already available to deal with internal environmental damage, yet there is only a need to extend it to include transboundary claims.

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