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TABLE OF CONTENTS

THE STATUS OF INDIGENOUS PEOPLES UNDER THE CONVENTION ON BIOLOGICAL DIVERSITY REGIME: THE RIGHT TO BIOLOGICAL RESOURCES AND THE PROTECTION OF TRADITIONAL KNOWLEDGE

Uzuazo Etemire[*]

ABSTRACT

Indigenous people are considered as one of the most vulnerable and impoverished groups on earth, having little else but their immediate natural environment as their main hope for survival and development. The negotiation of the CBD, which is a binding regime, provides a great opportunity for indigenous people's protection with regards to their interests in biodiversity. This paper will analyse the extent to which this is accomplished by the CBD mainly in the areas of biological resources in their territories and traditional knowledge, and where applicable, whether the new Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya protocol) brings anything new to the table.

I. INTRODUCTION

Basically, biological diversity (biodiversity) refers to the variety of life-forms on earth.[1] It *"encompasses all species of plants, animals, and microorganisms and the ecosystems and ecological processes of which they are part"*.[2]

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[*] Uzuazo Etemire, Tutor and Ph.D Researcher, University of Strathclyde, Glasgow.

[1] R. RAYFUSE, BIOLOGICAL RESOURCESTHE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW, 363 (D. BODANSKYet al. eds. 2007).

[2] McNeely, J, Miller, K, Reid, W, Mittermeier, R, and Werner, T, *Conserving the World's Biological Diversity,* Gland, IUCN, World Resources Institute, Conservation International, World Wildlife Fund-US, and the World Bank-Washington DC, 1990, 17.. A similar definition is proffered under Art 2 of the Convention on Biological Diversity, June 5, 1992, 31 I.L.M. 818, (entered into force on December 29, 1993) (CBD). With about 193 members at present, it has become one of the most widely

The protection of biodiversity is considered germane due to its important intrinsic value,[3] coupled with its essential value for human beings, in terms of culture, education, science, aesthetics, recreation, and the like. In this respect, the protection of the interests of indigenous peoples who *"have little else but their environment"*[4] as their main hope for survival and development, and who are considered as one of the most vulnerable groups on earth, and counted as having a high population of impoverished and illiterate people, becomes topical;[5] not to mention the contributions they have

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ratified environmental conventions. Notably, the United States has signed, but has not ratified the convention.

3 M BOWMAN AND A. BOYLE, BIODIVERSITY INTRINSIC VALUE, AND THE DEFINITION AND VALUATION OF ENVIRONMENTAL HARM, ENVIRONMENTAL DAMAGE IN INTERNATIONAL AND COMPARATIVE LAW: PROBLEMS OF DEFINITION AND VALUATION 41-61, (2002).

4 S.BILDERBEEK, BIODIVERSITY AND INTERNATIONAL LAW 5 (1992). Most indigenous people's lifestyle is more directly dependent on the natural environment than the average urban dweller. Their culture is largely influenced by biodiversity, and they have largely adapted themselves to their natural environment and developed their values in line with natural circumstances. See, G. OVIEDO, AND L. MAFFI, INDIGENOUS AND TRADITIONAL PEOPLES OF THE WORLD AND ECOREGION CONSERVATION: AN INTEGRATED APPROACH TO CONSERVING THE WORLD'S BIOLOGICAL AND CULTURAL DIVERSITY 9 (2000), at: http://www.terralingua.org/wp-content/uploads/downloads/2011/01/EGinG200rep.pdf, visited on July 29, 2012; and Bilderbeek, (ed.) *supra* note 6, at 9. See, J. N. Turner, *Importance of Biodiversity for First Peoples of British Columbia,* written for: The Biodiversity BC Technical Subcommittee, for *The Report on the Status of Biodiversity in BC*, 2007, at: www.biodiversitybc.org/assets/Default/BBC%20Importance%20of%20Biodiversity%20to%20First%20Peoples.pdf, visited on July 27, 2012. The unique closeness between indigenous peoples and biodiversity is apparent from the passionate statements made by them in various international gatherings. For instance, the Kari-Oca Declaration, 1992, adopted by indigenous peoples at the World Conference of Indigenous Peoples on Territory, Environment and Development, held in Kari-Oca, Brazil, May 25-30, 1992, <www.idrc.ca/en/ev-30141-201-1-DO_TOPIC.html> visited on May 8, 2012, apart from identifying the earth as the 'mother' of indigenous peoples, states that '[w]e, the Indigenous peoples, are connected by the circle of life to our land and environments'.

5 There are more than 370 million indigenous people in the world living in some 90 countries, thus constituting about 5 per cent of the world's population. Though

made over generations in terms of the creation of new varieties of plants, animals and natural habitats,[6] and conserving and managing existing biodiversity,[7] which on a balance, one can arguably say outweighs the degradation they might have engendered.[8] This is evident from the continued belief of States, as expressed in numerous legal instruments, that indigenous peoples are the most legitimate custodians of biodiversity.[9]

However, over the years, indigenous peoples have suffered from, and cried out against discrimination and marginalisation from

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constituting about 5 per cent of the world's population, indigenous people constitute about 15 per cent of the world's poor, have a significantly low life expectancy, poorer health care and education, coupled with a higher rate of unemployment, compared to their non-indigenous counterparts. See, United Nation (UN), *State of the World's Indigenous People,* New York, UN, 2009, at 21-22, at: www.un.org/esa/socdev/unpfii/documents/SOWIP_web.pdf, visited on July 23, 2012.

6 See, Turner, *Supra* note 4, 2-3.

7 For instance, research has shown that indigenous peoples, despite their number, inhabit areas containing well over half of the world richest places of biodiversity. SEE, V.M. TOLEDO, INDIGENOUS PEOPLES AND BIODIVERSITY 6 (G. C. COLWELL et al. eds., 2001)and Oviedo and Maffi, *supra* note 4, at 9-10. Also, indigenous people's belief systems and adherence to their religion have indirectly helped biodiversity conservation. See, B.A. Byers et al., B, A, Cunliffe, R, N, and Hudak, A, T, "Linking the Conservation of Culture and Nature: A Case Study of Sacred Forests in Zimbabwe", (2001) 29 (2) *Human Ecology,* 187; Osemeobo, G, J, 'The Role of Folklore in Environmental Conservation: Evidence from Edo State, Nigeria', (1994) 1 (1) *International Journal Of Sustainable Development and World Ecology,*48-55; and J.A. MCNEELY ET AL., HUMAN INFLUENCE ON BIODIVERSITY 764 (V.H. HEYWOOD ED. 2005).

8 Kresh, S, III, *The Ecological Indian: Myth and History,* New York, W.W. Norton, 1999,,8 (1),Human Ecology Review*,* 72-73, (2001). See also, Kaisiepo, V, *Future Role of Indigenous Peoples*. Bilderbeek, S, (ed.), *supra* note 4, 37, where the author noted that indigenous peoples are currently being driven to environmentally unfriendly practices, as a result of situations created by foreigners, in order to survive. Others factors that may be responsible for indigenous peoples unfriendly coexistence with biodiversity includes – High population density, unsuitable local technologies, and local disorganisation. See Toledo, *supra* note 7, at 9.

9 For example see, Chapter 26 of Agenda 21; and Principle 22 of the Rio Declaration.

the hands of the governments of various States through the policies they formulate and implement at national and international levels. Consequentially, in recent times, the international community is, as it seems, increasingly recognising the close connection between indigenous peoples and their environment, and the need to protect their interests in this regard at the international level through binding and non-binding regimes.[10]

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[10] Although the United Nations (UN) Charter recognised the right to 'self-determination' of 'non-self governing territories', it was made clear by the UN that this right only extended to external colonies and not separately and specifically to the indigenous peoples live within these colonies. However, the position of indigenous peoples was given a boost by the United Nations General Assembly (UNGA) Resolution 2025 in 1970, titled the Declaration on Friendly Relations among States, which conditioned the territorial integrity of existing States on the extent to which the governments of those States 'effectively represented the whole of their population'. This Resolution has been interpreted as giving indigenous peoples the right to determine their relationship with the state. See, Barsh, R, L, "Indigenous Peoples" in Bodansky, D, *et al, supra* note 1, 829, at 831. Furthermore, in recognition of the fact that the UN Charter was not enough to protect the interests of indigenous peoples, the International Labour Organisation Convention Concerning Indigenous and Tribal Peoples in Independent Countries (No. 169), June 27, 1989, 28 I.L.M. 1382 (entered into force on Sept 5, 1991) (ILO Convention 169) which recognises indigenous people's right to collective land ownership, customary practices, etc, was adopted. However, this convention has not received wide support as it has been ratified by only 27 countries.

The international community has also gone on to adopt other non-binding regimes like the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), Oct 2, 2007, UNGA Resolution A/RES/61/295, at: www.unhcr.org/refworld/docid/471355a82.html, visited on July 26, 2012. The UNDRIP provides extensively for indigenous people's rights on divers issues. Same goes for the UN Declaration on Environment and Development, adopted at UN Conference on Environment and Development (Rio Declaration), June 13, 1992, 31 I.L.M 876, at: www.c-fam.org/docLib/20080625_Rio_Declaration_on_Environment.pdf, visited on May 19, 2012. Though these 'soft' law instruments may not be binding, they have helped to give a clear voice on the interests and position of indigenous peoples in the international arena, and are evidence of the evolving standards which are crucial in the process by which statements of principles become binding laws. See Triggs, G, *Australia's Indigenous Peoples and International Law: Validity of the Native Title*

Importantly, the negotiation of the CBD, which is a binding regime, provided a great opportunity for indigenous people's protection with regards to their interests in biodiversity. This paper will analyse the extent to which this is accomplished by the CBD mainly in the areas of biological resources in indigenous peoples territories and their traditional knowledge, and were applicable, whether the new Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity[11] (Nagoya protocol) brings anything new to the table. Before that, vital contextual issues concerning who indigenous peoples are, and the introduction of the CBD regime, will be briefly discussed.

II. INDIGENOUS PEOPLES AND THE CBD

II.I WHO ARE INDIGENOUS PEOPLE?

For clarity purpose, it is important to state that 'indigenous people' may be distinguished from terms like 'minority'[12] and 'tribal people'[13]. Nevertheless, 'tribal people' and 'indigenous people' are

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Amendment Act 1998 (Cth), 23 (2),Melbourne University Law Review, 372-415, (1999).

[11] www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf, (last visited on June 16, 2012).

[12] UN, *Indigenous Peoples and Their Relationship to Land; Final Working Paper Prepared by the Special Rapporteur,* UN Doc. E/CN.4/Sub.2/2001/21 (2001) 7, para 13; and Barsh, *supra* note 10, at 834.

[13] The definition of 'tribal people' and 'indigenous people' under Art 1(1)(a) and (b) of the ILO Convention 169, respectively, reveals clearly that unlike the 'indigenous people', 'tribal people' are not necessarily 'indigenous' in the literal sense of the word, to the country in which they live. Thus, Afro-descended tribal peoples in Central America have been identified as not indigenous to the countries they live in, just as a group of mixed European and African ancestry have been held not to be indigenous people with regards to a region in Namibia by the Human Rights Committee in a matter between *Diergaardt* v. *Namibia* (Communication no. 760/1997) reprinted in UN Doc. CCPR/C/69/D/760/1997 (2000) 2 at 2.1, at: www.un.org/documents/ga/docs/55/a5540vol2.pdf, visited on May 26, 2012.

usually used as synonyms under the UN system when matters on indigenous peoples are in issue.[14]

There is no universally accepted definition for 'indigenous people'. Still, in line with UNDRIP which states that *"[i]ndigenous people have the right to determine their identity…"*,[15] representatives of indigenous peoples at the UN Working Group on Indigenous Population rejected any attempt by governments to provide a definition of the term but endorsed theMartinez Cobo report with regard to its definition of 'indigenous people'. Cobo's definition which is widely accepted just like the ILO definition, states that:

> *"Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from the other sectors of societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories and their ethnic identity as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems. In short, Indigenous Peoples are the descendants of a territory overcome by conquest or settlement by aliens."*[16]

It is interesting to note that the CBD neither contains nor adopts any definition of 'indigenous peoples' in its Art 2 (titled 'Use

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[14] UN, *The Concept of Indigenous People:a background paper for the Workshop on Data Collection and Disaggregation of Indigenous Peoples*, held in New York, May 10-21, 2004, under the auspices of the UN Permanent Forum on Indigenous Issues, at: www.un.org/esa/socdev/unpfii/documents/workshop_data_background.doc, visited on August 1, 2012.

[15] UNDRIP, Art 33.

[16] UN, *Study of Discrimination Against Indigenous Peoples; A Report Prepared by Special Rapporteur, Mr. Martínez Cobo,* UN Doc. E/CN.4/Sub.2/1986/Add.4, (1986).

of Terms'), but quite vaguely describes "indigenous and local communities" in its preamble and Art 8(j), as those "embodying traditional lifestyles".

Dissatisfaction has been registered as regards the use of the phrase 'indigenous and local communities' in the CBD, as against the less ambiguous 'indigenous peoples' preferred by the indigenous peoples. First, the CBD does not define the term 'community', which may aid unnecessary confusion as to what actually is being referred to since the term may mean either a small or a large group when used in Latin America or Asia, respectively.[17] On the other hand, the use of 'indigenous and local' may be viewed as the convention making a distinction, but which distinction is actually unclear.[18] However, those terms may be viewed as referring to both indigenous peoples and tribal people. Also, the use of the phrase 'embodying traditional life style' gives the impression that the convention only applies to indigenous peoples who are isolated, and fossilised "in some cultural time-warp living in a never changing present", and may be used to exclude indigenous people who have adapted their lifestyle in certain respects to reflect contemporary situations.[19]

During negotiations for the Nagoya protocol, some parties still refused to accept to adopt the term 'indigenous peoples' even in the light of contemporary standards of using 'indigenous peoples' as

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[17] International Alliance of the Indigenous Peoples of the Tropical Forests, *The Biodiversity Convention: The Concerns of Indigenous Peoples*,1(4),AustraliaIndigenous Law Reporter, (1996), www.austlii.edu.au/au/journals/AILR/1996/84.html, (last visited on August 5, 2012).

[18] *Id.* 'While local community may refer to a group of people living in the same locality (which may contain both indigenous and non-indigenous people), an indigenous community is not just defined by its locality but by its indigenousness'. It has also been noted that 'indigenous communities and local communities do not have equivalent bundles of rights in human rights law'. See, Mauro, F, and Hardison, P, H, *Traditional Knowledge of Indigenous and Local Communities: International Debate and Policy Initiatives*, (200) 10 (5) EcologicalApplications, 1263, at 1265.

[19] International Alliance of the Indigenous Peoples of the Tropical Forests, *supra* note 17.

reflected in a host of current international instruments,[20] and as "used consistently by the General Assembly, Office of the High Commissioner for Human Rights, Human Rights Council, treaty monitoring bodies, specialized agencies, special rapporteurs and other mechanisms within the international system".[21]

This persistent action by the parties to the CBD is largely viewed by indigenous peoples as an attempt to obscure their status and human rights under the CBD regime, especially as in international law the term 'peoples' is seen to have a particular legal status which 'communities' may not bear *per se*.[22]

II.II THE CONVENTION ON BIOLOGICAL DIVERSITY

Primarily, the rapid decline in biodiversity[23] and the consequential lurking danger necessitated the adoption of the CBD.[24] Prior to the adoption of the CBD, other international agreements which were concerned with biodiversity conservation existed, but

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[20] Apart from UNDRIP and others, 'indigenous peoples' is also used in both the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage and the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Most recently, the term 'Indigenous peoples and local communities' is used in the agreements reached on climate change in Cancún, Mexico.

[21] Permanent Forum on Indigenous Issues, "Nagoya Protocol on Access and Benefit Sharing: Substantive and Procedural Injustice relating to Indigenous Peoples' Human Rights", a Joint Submission adopted at the 10th session of the Permanent Forum on Indigenous Issues held on the May 16-27, 2011, in New York, 20-21.

[22] *Id,* at 20.

[23] In 1992 it was estimated that around 17 million hectares of tropical forests - an area four times the size of Switzerland - was been cleared annually, and that this erosion would lead to the extinction of between 5 to 10 per cent of tropical rain forest species in less than 30 years. See, Reid, W, Barber, C, Miller, K, *et al,Global Biodiversity Strategy,* Gland, WRI, IUCN, and UNEP, 1992, 7. The rapid destruction of the world's most diverse ecosystems, have made many experts to conclude that a quarter of the earth's total biodiversity is at risk of extinction in the next couple of decades. See, McNeely, *et al, supra* note 2, at 41.

[24] CBD, Preamble.

these regimes were limited in their approach as per the biodiversity covered and in other respects.[25] Also, under most of these pre-CBD regimes, very little consideration was given to the interests of indigenous peoples, as 'protected areas' for instance, pursuant to many pre-CBD regimes, have been established on indigenous people's lands to the detriment of their interests in having free access to certain species and sustaining their cultural practices.[26] From this general lack of consideration for indigenous peoples interests, and in view of the fact that the conservation status of biodiversity was heavily influenced by the incentives and disincentives that exists within national and international policies pertaining to land tenure, forestry, agriculture, and the like,[27] the need for a more holistic Convention on biodiversity which would tackle both biodiversity issues directly and related social issues was apparent.

The concept of a 'World Convention' was initiated, not to replace existing conventions, but "to establish general obligations for the conservation of biodiversity and to provide a coherent framework for action in the future".[28] The CBD is this 'World Convention'. But as to how far it gives the indigenous peoples of the world a better standing compared to previous regimes is a difference case.

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[25] Reid, Barber, Miller, *et al,supra* note 23, 29.

[26] For instance, the Karrayu indigenous pastoral group in Ethiopia had a reserve park established on 76,000 hectares of their land which they had occupied for many years even though the land contained 15 holy sites. Apart from the food crisis they experience, having lost access to their ceremonial ground, they have converted to the religion of Islam; having a greatly reduced grazing ground, many have been forced to take up farming in unsuitable terrains; and with the rotational grazing pattern been broken, serious ecological degradation was occasion due to over-grazing of the remaining land. See, Borrini-Feyerabend, G, Kothari, A, and Oviedo, G, *Indigenous and Local Communities and Protected Areas: Towards Equity and Enhanced Conservation,* Gland and Cambridge, IUCN, 4-6, (2004).

[27] McNeely, *et al, supra* note 2, 113.

[28] C. de Klemme and C. Shine, *Biological Diversity Conservation and the Law,* Gland and Cambridge, IUCN, 17, (1993)

This remarkable framework convention has as its objectives the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.[29] Despite its acknowledgement of the intrinsic value of biodiversity, the convention has been criticised for its overbearing emphasis on conservation of resources for their *utilisation*.[30] As we shall see later, many of the conventions requirements seem to have been weakened by such terms as 'subject to national law', and 'as far as possible', and this is mainly a reflection of the accommodation of the diverse interests of the parties , without which the convention may not have been adopted. Importantly, in the light of regimes like the ILO Convention 169 and others, Art 22 (1) of the CBD, as repeated in Art 4 (1) of the Nagoya protocol, provides that the convention "shall not affect the rights and obligations of any Contracting Parties derived from any existing international agreements" but only to the extent that they are not inimical to the conservation of biodiversity – a notion which has been noted be *"pregnant with practical difficulties of interpretation"*.[31]

Apart from the States, the convention also recognised the role of other actors like the private sector. The role played by indigenous peoples in the conservation of biodiversity, and their ability to do more in this regard was alluded to.[32] However, the CBD, as well as the Nagoya protocol, avoids a rights-based approach in its

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[29] CBD, Art 1.

[30] G. Farrier,*Implementing the In-Situ Conservation Provision of the United Nations Convention on Biological Diversity in Australia: Questioning the Role of National Parks,*3 (1),The Australasian Journal of Natural Resources Law and Policy,1, at 3, (1996).

[31] THE NATURE, DEVELOPMENT AND PHILOSOPHICAL FOUNDATION OF THE BIODIVERSITY CONCEPT IN INTERNATIONAL LAW 11 (M. BOWMAN AND C. REDGWELL eds., 1996).

[32] P. Cullet,Differential Treatment in International Environmental Law 146–147(2003).

stipulations relating to indigenous peoples, despite initial calls for it in a bid to ensure a viable status for indigenous peoples.[33]

III. INDIGENOUS PEOPLES AND THE PROTECTION OF THEIR INTERESTS UNDER THE CBD REGIME

From the widely recognised role indigenous peoples have played and still play in biodiversity conservation, there is a good measure of support for the fact that *"biodiversity cannot be conserved in the long run without the support of indigenous…peoples, and without attention to their views and needs"*.[34] This section appraises the extent to which attention has been given to the views and needs of indigenous peoples under the CBD regime with respect to biological resources in their territories and their traditional knowledge.

III.I THE CBD REGIME AND THE RIGHT TO BIOLOGICAL RESOURCES

For the purpose of the CBD, 'Biological resources' is defined to include *"genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity"*.[35] In the past, it was quite usual for biological resources to be considered 'common heritage of all mankind'.[36] Under this doctrine, rights over biological resources were seen to be held in common and could not be owned or monopolised by a single group or interest.[37] However, this common heritage doctrine which

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[33] R. OLEMBO,THE POTENTIAL EFFECTIVENESS OF A NEW BIODIVERSITY CONVENTION, BILDERBEEK, S, (ED.) *SUPRA* NOTE 4, 7-8; TIMOSHENKO, A, *RECENT DEVELOPMENT OF INTERGOVERNMENTAL NEGOTIATIONS ON BIOLOGICAL DIVERSITY*, BILDERBEEK, S, (ED.) *SUPRA* NOTE 4, 64-65.

[34] McNeely, J, A, Gadgil, M, Leveque, *et al, supra* note 7, at 766.

[35] CBD, Art 2.

[36] For instance, with regards to 'plant genetic resources', the doctrine was codified under the Food and Agriculture Organisation's International Undertaking on Plant Genetic Resources (1983 and 1989).

[37] A. KISS AND D. SHELTON,INTERNATIONAL ENVIRONMENTAL LAW15-16 (1991).

largely forbade States rich in biological resources from having firm control over such resources generated certain conflicts. While the biological resources in the South continued to be governed by the common heritage doctrine, new cultivars developed by commercial plant breeders in the North where increasingly protected by industrial patents and the like; developing countries, *"home to an estimated 90 per cent of the earth's biodiversity, argued that it was unfair to treat their contributions to genetic diversity as common (and uncompensated) property while the seed lines developed by Western corporations were protected"* by law.[38] In view of this conflict, it is commendable that the express provisions of the CBD clearly deviated from the doctrine.

In that respect, the Preamble of the CBD "[reaffirms] that States have sovereign rights over their own biological resources",[39] and Art 3 provides that:

> *"States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities with their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction".*[40]

On that point, the affirmation in the Preamble of the CBD that *"the conservation of biological diversity is a common concern of humankind"*[41] may seem to connote that other States, and indeed

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[38] Z. NOAH, *BIODIVERSITY CONSERVATION AND TRADITIONAL KNOWLEDGE,*106,(2003).

[39] Note the word 'Reaffirming'. It indicated that in practices, even before the CBD was adopted, the common heritage doctrine had already been widely abrogated with regards to biological resources due to contentious debates over inequity in treatment.

[40] Art 15 (1) also recognises 'the sovereign rights of States over their natural resource'.

[41] Though it has been noted that the present legal status of the phrase 'common concern' is quit unsettles, it is generally seen as a watered-down version of 'common heritage' which merely indicates the fact that other States or groups have an interest in a resource and a common responsibility to preserve it. See Birnie and Boyle, *supra* note 28, at 128-

indigenous peoples, share in this sovereign power granted the particular state. The substantive provisions of the CBD[42] indicate otherwise, as they are *"very firmly grounded in the state-centred-pattern of thinking"*.[43] Thus, the sovereignty provisions of the CBD largely disregard indigenous people's ancestral rights to the land and territories held by them even before the creation of the state.[44] This has aided many States in sustaining the practice of treating indigenous peoples as squatters or illegal occupants in the lands which they have occupied for generations, giving the States the right to force them out of such lands, thus depriving them of their sacred sites and the natural resources to which they are used to. In this case, the stage is set for the consequential erosion of culture, due to the severance of indigenous peoples from the environment which informed their culture, and the likely negative effect on biodiversity conservation.[45]

The Karrayu story stated above[46] is an example of the land tenurial insecurity facing many indigenous peoples especially as the CBD also empowers States to establish 'protected areas' as a means of conserving biodiversity.[47] Particularly, speaking against the creation of protected areas without the consent of indigenous peoples living within, Sinafasi Makelo Adrien of the Network of Indigenous Pygmy Association has protested that *"you cannot force people to move just for*

130, for a discussion on 'common concern'. Earlier drafts of the CBD referred to 'Common heritage' but was changed after opposition, see UNEP, Ad hoc Working Group of Experts on Biological Diversity, 2nd session, Geneva, Feb 1990, para 11, cited in Birnie and Boyle, *supra* note 28, at 129.

42 See, Art 3-9, 15, 16, 19-21, and 31.

43 Bowman, *supra* note 31, at 12-13.

44 Birnie and Boyle, *supra* note 28, at 129.

45 It has earlier been alluded to that biodiversity has been one of the main causes of cultural diversity, and that cultural diversity has also contributed to biodiversity and its preservation.

46 *Supra* note 26.

47 CBD, Art 8 (1).

conservation" as this leads to the loss of their culture and sacred sites.[48] He dismissed compensation as a solution as indigenous peoples usually do not view land as a mere economic resource, and called for indigenous peoples 'right' to their land to be respected, even as he reacted to the expulsion of indigenous communities in Congo from their lands where national parks were to be established.[49]

In addition, one can sense a level of injustice in the fact that though a lot of plant varieties have been developed by indigenous peoples over the years to suit their requirements,[50] many of which can now be found in the wild, only the state (and not even in partnership with relevant indigenous peoples) maintains ownership over *all* biological resources. This leaves indigenous peoples at the mercy of state policies which are usually focused on maximizing profit from available resources and denying indigenous peoples the fruit of their labour in creating and conserving biodiversity.[51] This would seem unfair to indigenous peoples, mostly in light of the fact that the States that adopted the CBD have also adopted the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights[52] (TRIPS), administered by the World Trade Organisation, in which they allowed private rights over biological resources in line with patent laws,[53] which regime clearly excludes indigenous peoples but embraces more industrialised entities.[54]

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48 Tan,C,L,*IndigenousRights*The Star Online, February 12, 2004, at: thestar.com.my/lifestyle/story.asp?file=/2004/2/12/features/7298158&sec=features, (last visited on August 6, 2012).

49 *Id.*

50 Cullet, *supra* note 32, at 139.

51 Coombe,R J, *The Recognition of Indigenous Peoples and Community Traditional Knowledge in International Law,*14,St. Thomas Law Review*,* 275, at 281, (2001).

52 Agreement on Trade-Related Aspects of Intellectual Property Rights, April 15, 1994, I.L.M. 1197 (1994).

53 TRIPS, Art 27. See, Curci, J, *The Protection of Biodiversity and Traditional Knowledge in International Law of Intellectual Property,* New York, Cambridge University Press,,59, (2009).

54 *Infra.*

Also, Art 14 (2) of the CBD is particularly reflective of the somewhat minimal consideration given to the interest of indigenous peoples under the regime, perhaps as a result of its unilateral states sovereignty approach. According to Art 14 (2*), "[t]he Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter"*. One would have expected issues of liability and redress to be dealt with under the regime as a balancing factor to a provision like Art 15 (1) of the CBD which recognises *"the sovereign rights of States over natural resources"* and their unrestricted access to all genetic resources. Rather disappointing, this important aspect of the regime has been left for a future date. And even at that, the CBD has excluded from its purview issues of liability *"where such liability is a purely internal matter"*, thus leaving indigenous peoples at the mercy of the discretion of States, without any form of guiding regulation under the CBD. In order words, the CBD supports full access by the States to biological resources, yet contains no provisionfor liability for any damage caused by States as a result of their actions and policies.The lack of provision for liability and redress and the gaps in Art 14 (2)*"could easily be used by States as "open-season" for the plundering of indigenous territories"*.[55] This issue is critical to indigenous peoples as they mainly inhabit some of the richest areas in biodiversity in many States (which makes them potential victims) and are usually not financially buoyant enough to bankroll any restoration that may be needed.

Furthermore, in exchange for Art 15 (2) of the CBD which obliges countries of origin of genetic resources[56] to *"facilitate access to genetic resources"* by other parties and not to *"impose restrictions that run counter to the objectives"* of the CBD, the country accessing the genetic resources is obliged to share the benefits arising out of the

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[55] International Alliance of the Indigenous Peoples of the Tropical Forests, *supra* note 17.

[56] CBD, Art 2, 'Country of origin of genetic resources' means 'the country which possesses those genetic resources in *in-situ* condition'.

utilisation of the genetic resources with the country of origin.[57] Consequent upon the recognised state sovereignty over genetic resources in Art 15 (1) of the CBD, the sharing of benefits arising from the use of genetic resources is focused on the Contracting parties and there is no provision obliging them to ensure that indigenous peoples who have contributed so much to the formation and preservation of biodiversity and whose territories mainly inhabits these resources also share in this benefit. This point is particularly important in view of the position that if the States do not give attention to 'equitable sharing of benefits *within* countries' the implementation of the CBD may be problematic.[58]

In recognition of that lacuna, the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization[59] (Bonn Guidelines) have stipulated that *"benefits should be shared fairly and equitably with all those who have been identified as having contributed to the resource management, scientific and/or commercial process. The latter may include…indigenous and local communities"*.[60]However, Bonn Guidelines is not binding on the parties, though members are encouraged to develop their own legal frameworks taking the Guideline into consideration. The same as the 1998 Organisation of African States' (OAU) Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, which recommends in Art 23 (10) that States take steps to ensure that at least 50 per cent of the benefits obtained from resources are *"channelled to the concerned local community or communities in a*

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57 CBD, Art 1.

58 K. Talbott, *Implementing the Convention on Biological Diversity: Developing Linkage with Local Communities*,10 (2),TDRI Quarterly Review, 13, at 15, (1995).

59 Secretariat of the Convention on Biological Diversity, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*, Montreal, Secretariat of the Convention on Biological Diversity, 2002.

60 Bonn Guidelines, Section 48.

manner which treats men and women equitably". However, the substantial impact of these non-binding regimes is yet to be seen.[61]

Commendably, the Nagoya protocol has adopted the position in the Bonn Guidelines as regards benefit sharing *within*countries. It provides that legislative measures be taken *"as appropriate"* and *"with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities...are shared in a fair and equitable way within the communities concerned"*.[62] However, this provision is to be made *"in accordance with domestic legislation regarding the established rights of these indigenous and local communities"*.[63] As regards these provisions, indigenous peoples have objected to making their rights seem subject to national legislation by the use of equivocal phrases like 'in accordance with domestic legislation' which usually leads to abuses, as against stating unequivocally that the relevant indigenous peoples interests be protected 'through' national legislation.[64] They have also deprecated the use of the limiting phrase 'established rights'[65] as it could well be used to exclude rights based on customary use, and which distinction has been held to be discriminatory by the UN Committee on the Elimination of Racial Discrimination.[66] While on the surface this provision of the Nagoya protocol seems to have made some progress

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61 For example, the system adopted by India is one in which the benefit is credited into a National Biodiversity Fund and benefit claimers do not have the right or automatic access to a share of the benefits as the decision rests with the National Biodiversity Authority, as to whether to channel the benefit to claimers or to use it for biodiversity management activities. See, Section 27, India, Biological Diversity Act, 2002, No. 18 of 2003, *Gazette of India Extraordinary* Part II, Section I (February 5, 2003).

62 Nagoya protocol, Art 5 (2).

63 *Id.* Emphasis added.

64 Permanent Forum on Indigenous Issues, *supra* note 22, 6-9.

65 'Established' rights might only refer to situations where a particular Indigenous people or local community can demonstrate that its right to genetic resources is affirmed by domestic legislation, agreement or judicial ruling...Massive dispossessions could result globally from such an arbitrary approach inconsistent with the Convention', *Id,* atii.

66 *Id.*at11-13.

on the initial position of benefit sharing, it seems to have done little in creating the required security for indigenous people's interest in this regard.

In further demonstration of unilateral state sovereignty to the detriment of indigenous people's interest in their territories and resources, the CBD contains no framework for benefit sharing in a situation where the country of origin accesses biological resources in indigenous people's territories. This omission is not unconnected with the largely flawed reasoning of some States to the effect that any issue regarding the treatment of their citizens are inappropriate under the CBD.[67] However, even though the wordings of Art 5 (2) of the Nagoya protocol seem to suggest benefit sharing between the country of origin and its indigenous people, one cannot be sure of the position States would take on this when drafting their implementing legislation or implementing their local laws in view of the equivocal nature of Art 5 (2), and their initial position on this issue. Also, the CBD does not provide for the types of benefit that may be shared. The Bonn Guidelines has however made some suggestions[68] which have been adopted by the Nagoya protocol.[69]

From the above, it is quite clear that the CBD regime largely denies indigenous peoples any reasonable form of right or entitlement to their lands and resources, thus falling short of the standard set under the UNDRIP and the ILO Convention 169. While the former recognises indigenous peoples *"rights to their lands, territories and resources"*[70] including *"lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired"*,[71] the latter

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67 Talbott, *supra* note 58, at 14.

68 Bonn Guidelines, Appendix II, provides that monetary benefits may include: access fees, up-front payments, royalties, license fees, etc; while non-monetary benefits may include: sharing of research and development results, institutional capacity-building, participation in product development, etc.

69 *Id.* Art 4(3), and the Annex.

70 UNDRIP, Preamble.

71 *Id.*Art 26.

recognises their rights to the "ownership and possession" of the "total environment" which they occupy or use, as well as their right to protection from involuntary removal, and unwanted intrusion by non-members of their groups, and the need for States to establish a procedure to settle their land claims.[72] Further, the Committee on the Elimination of Racial Discrimination has construed the 1965 International Convention on the Elimination of All Forms of Racial Discrimination (CERD) as requiring States *"to recognise and protect the rights of indigenous people to own, develop, control and use their communal lands, territories and resources and, where they have been deprived of their lands and territories…to take steps to return those lands and territories"*, or to provide compensation or restitution in kind.[73]

The above regimes are no doubt influential in terms of setting out the aspirations of indigenous peoples, and parameters for various bodies to resolve conflicts related to indigenous peoples. For instance, the Inter-American Court relying on the 1969 American Convention on Human Rights has also drawn on the ILO convention for guidance in the case of Mayagna(Sumo) Indian Community of Awas Tingni v. Nicaragua[74] to hold expressly in favour of indigenous people's right to their land and resources, with regard to parties to the American Convention.[75] Similarly, relying on the American

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[72] ILO Convention 169, Articles 7(4), 13(2), 14(1) and (3), 16(1), and 18.

[73] General Comment XXIII (51), UN Doc. CERD/C/SR.1235 (August 18, 1997), at: daccess-dds-ny.un.org/doc/UNDOC/GEN/G97/179/75/PDF/G9717975.pdf?OpenElement, (last visited on August 6, 2012).

[74] Mayagna (Sumo) Indian Community of Awas Tingni v. Nicaragua, [2001] I.A.C.H.R. 9 (August 31, 2001). Cited in Barsh, *supra* note 10, at 847.

[75] In that case, the community filed a petition denouncing Nicaragua for failing to demarcate and protect their right to their ancestral land and natural resources. The Court found in favour of the community and ordered Nicaragua to promptly begin the process of demarcating the land and titling the indigenous communities territory in accordance with their customary law and values, thus recognising their right to their ancestral land and resources. The Inter-American Court interpreted Art 21 of the

convention and the ILO convention 169, the Inter-American court in Sawhoyamaxa Indigenous Community v. Paraguay[76] holding in favour of the petitioners, stated that: (1) traditional possession of their lands by indigenous people has equivalent effect to those of a state-granted full property title; (2) traditional possession entitles indigenous people to demand official recognition and registration of property title; (3) members of indigenous peoples who unwillingly left their traditional lands, still have property rights thereto, though lacking legal title, and are entitled to restitution thereof.[77]

However, most of these compromises ratified by governments continue to suffer from implementation problems for various reasons. For instance, the UNDRIP is not binding, with four major states with indigenous populations voting against the resolution,[78] and a good number of other States expressing reservations to the Declarations provisions, including those on land and resources.[79] The ILO Convention 169 is also considered as weak as it is only ratified by 27 countries with major countries with indigenous populations refusing to ratify it.

American Convention which guarantees every one's 'right to the use and enjoyment' of their property, in an evolutionary manner, as applicable to indigenous peoples also.

[76] [2006] I.A.C.H.R. (March 29, 2006), discussed in Steiner, H, J, Alston, P, and Goodman, R, *International Human Rights in Context: Law, Politics, Morals,* 3rd edition, New York, Oxford University Press, 2007, 1049-1057.

[77] However, it must be noted that various countries against whom such judgements have been made have been quite reluctant in complying with the Courts orders. In the *Sawhoyamaxa* casefor instance, as at 2010Paraguay was yet to comply with the Courts orders of resettling and granting title to the petitioners with regard to their traditional land from where they were displaced. See, www.amnesty.org/en/library/asset/AMR45/003/2010/en/2a4f482a-57e1-4d43-b16b b68783fe961d/amr450032010en.html, visited on February 9, 2012.

[78] They are: Australia, Canada, New Zealand, and the United States.

[79] Birnie and Boyle, *supra* note 28, at 627.

On the other hand, the suggestion by Barsh[80] that the land rights of indigenous peoples have attained customary international law due to the universality of ratification of the CERD[81] and the wide consensus achieved at the UNCED, with regard to Agenda 21,[82] seems doubtful and quite unlikely going by the equally near-universal ratification of the CBD and the breadth of consensus on the Rio Declaration[83] which suggests the contrary.

In line with Art 22 of the CBD which provides that the convention "will not affect rights and obligations of Contracting Parties derived from any existing international agreement", and for the sake of justice to indigenous peoples and the consequential positive impact on biodiversity that comes from preservation of cultural diversity, it is important that States allow the above international regimes, and the like, to orientate the CBD with regards to sovereignty over biological resources. While a revision of the CBD in this light will be appropriate, as a starting point, a temporary alternative may be for the Conference of the Parties (COP) to adopt, in accordance it its vast powers under Art 23 (4) of the CBD,[84] an

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80 Barsh, *supra* note 10, at 847, also, S.J. Anaya, and A.R. Williams, *The Protection of Indigenous Peoples' Rights over Lands and Natural Resources Under the Inter-American Human Rights System,* 14, Harvard Human Rights Journal*,* 33, at 33-34, (2001).

81 In Vuotto, *supra* note 74, at 231, the author has noted that it may be too earlier to proclaim indigenous land rights as part of customary international law, and that the Court in *Awas case* (*supra*) did not even address the issue of indigenous land rights being part of customary international law which was raised by the petitioners.

82 Agenda 21, Chapter 17.83 and 26.3 (a) (v) recognises indigenous peoples 'right to subsistence' from living marine resources, and calls on States to settle 'land and resource management' claims with regard to indigenous peoples, respectively. Chapter 26.4 (a) also indirectly acknowledges the UNDRIP.

83 While Principle 2 of the Rio Declaration provided that *'States have…the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies…'*, it only recognised the vital role of indigenous peoples in biodiversity conservation.

84 Particularly, CBD, Art 23 (4) (i) empowers the COP to *'[c]onsider and undertake any additional action that may be required for the achievement of the purposes of this convention in the light of experience gained in its operation'*.

interpretation of the provisions on sovereignty in the CBD which would not deny indigenous peoples the right to their land and biological resources.[85] Particularly, since provisions in the CBD reaffirms the fact that States have sovereignty over 'their',[86] or 'their own'[87] biological resources, it has been suggested that this could be interpreted as referring strictly to state lands to the exclusion of land and resources of indigenous peoples.[88] Thus, "where the convention refers to the sovereign rights of States, it should be made clear that this does not refer to the right of any government to alienate indigenous lands or change the laws of land ownership unilaterally, such as is taking place in Brazil and Peru".[89]

Nevertheless, indigenous peoples in few countries are gaining better tenurial security, like in Nepal where national legislations have granted communities and villages in mountain valleys considerable tenurial security over local forest resources.[90] Similarly, the Brazilian Constitution promulgated in 1988 offers some hope for the future as it provides that while the state has overall control and sovereignty over lands traditionally occupied by the Indians (and can jettison their rights), such lands are "intended for their permanent possession and they shall have exclusive usufruct of the riches of the soil, the river and lakes existing therein".[91] Though these laws seem a step forward for

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[85] Since one of the purposes of the convention is to conserve biodiversity, one reason that could be given to justify putting forth a new interpretation of the sovereignty provisions in the CBD could be that since the vital role of indigenous peoples in biodiversity conservation is widely acknowledged, recognising their right of control and management over their resources would ensure they continue to fulfil this role and are not inhibited from doing so in anyway.

[86] E.g. CBD, Art 15.

[87] E.g. CBD, Art 3 and the Preamble.

[88] International Alliance of the Indigenous Peoples of the Tropical Forests, *supra* note 17.

[89] *Ibid,* at 7.

[90] Talbott, *supra* note 58, at 16.

[91] Brazilian Constitution, Art 231 (2).

indigenous peoples, their effectiveness have been in doubt.[92] Moreover, indigenous people generally call for a right further than these- the 'right' to control and management of their ancestral lands.

Admittedly, the granting of such a right under the CBD regime will be an uphill task in terms of ensuring that the regimes overall strategy and aims remains balanced. Still, refocusing the regime, in terms of at least ensuring a progressively better status for indigenous peoples as regards their natural resources, is a worthy price to pay in order to mitigate the injustice on indigenous peoples, which will likely engender a more sustainable use of biodiversity.

III.II THE CBD REGIME AND THE PROTECTION OF TRADITIONAL KNOWLEDGE

Apart from land and biological resource rights, another concern of indigenous peoples is the protection of their 'traditional knowledge' (TK) which some have subdivided in three classes: traditional medical knowledge (TMK), traditional agricultural knowledge (TAK), and traditional ecological knowledge (TEK).[93] It is difficult to define 'traditional knowledge' (TK) as distinct from other knowledge. However, Gutfield has offered an easy but may be not so helpful way out of this difficulty by defining TK as "knowledge held by traditional peoples and communities".[94] This also seems to be the unelaborate approach adopted by the CBD in view of the wordings as relates to TK: "knowledge, innovations and practices of indigenous and local

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92 Woodliffe, J, *Biodiversity and Indigenous Peoples,*Bowman, M, and Redgwell, C, (ed.), *supra* note 31, 255, at 261.

93 However, Cottier and Panizzon have rightly rejected any activity-based approach which differentiates among the various aspects of traditional knowledge, noting that such 'terms artificially disintegrate components of a single reality and make it more difficult to enforce a viable system of legal protection'. See, T. Cottier and M. Panizzon , *Legal Perspectives on Traditional Knowledge: The Case for Intellectual Property Protection*, 7 (2),Journal ofInternational Economic Law,371, at 387, (2004).

94 G. Gutfield, *TRIPS- Related Aspects of Traditional Knowledge*, 33,Case Western Reserve Journal of International Law, 233, at 240, (2001).

communities embodying traditional lifestyle".[95] Going by the fact that traditional knowledge is very diverse both between and within peoples and communities, a general definition will be best in meeting the inclusive requirement of any definition of TK.[96] Johnson has offered a definition of TK (or what she called "traditional environmental knowledge") that is helpful in this regard:

> *"[TK is] a body of knowledge built up by a group of people through generations of living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use".*[97]

From an inclusive view, and in line with Johnson's definition, it has been found that some TK, to an extent, is scientific (though the forms of expression may seem unscientific) and can fit into the body of western scientific knowledge.[98] Also, while TK is popularly defined as handed down from generation to generation, it does not mean that there are no innovations by successive generations. In fact, Barsh, an expert on indigenous people's rights, have noted *that "[m]uch of this knowledge is actually quite new, but it has a social meaning, and legal character, entirely unlike the knowledge indigenous peoples acquire from settlers and industrialized societies".*[99] Also, TK is not only found in rural communities far removed from the cultural mainstream of the country where it is thought indigenous peoples usually dwell. It may persist in urbanised societies among indigenous peoples living in those societies who continue to hold TK.[100] Further, TK is not necessarily

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95 CBD, Art 8(j).

96 Gutfield, *supra* note 94.

97 M. JOHNSON, *RESEARCH ON TRADITIONAL ENVIRONMENTAL KNOWLEDGE: ITS DEVELOPMENT AND ITS ROLE* 4 (1992).

98 P. SILLITOE, *WHAT, KNOW NATIVES? LOCAL KNOWLEDGE IN DEVELOPMENT* 205 (1998).

99 R.L. BARSH, *INDIGENOUS KNOWLEDGE AND BIODIVERSITY, IN INDIGENOUS PEOPLES, THEIR ENVIRONMENTS, AND TERRITORIES*74-75(D.A. POSEYed.,1999).

100 G. DUTFIELD, *LEGAL AND ECONOMIC ASPECTS OF TRADITIONAL KNOWLEDGE*498 *(*K.L. MASKUSAND J.H. REICHMAN, EDS., 2005)

local and informal, as there are formalised TK systems which are well documented in ancient texts and even studied in some universities like other western knowledge.[101] Thus, TK is similar in some respects, as well as different, from scientific knowledge of western societies.

The call for the protection of TK stems from its importance to indigenous peoples and the world at large.[102] Principle 22 of Rio Declaration recognises the vital role TK plays in development. Many activities and products born out of TK are important sources of income, food and healthcare to indigenous peoples and protecting TK is same as protecting the livelihood of indigenous people. It has been noted that approximately 1.4 billion rural people rely on TK to feed,[103] while over 90 per cent of food in sub-Saharan Africa (with a great population of indigenous people) is produced with the aid of TK.[104]TK is valuable not only to those who depend upon it for their survival but also tomodern industries and agriculture. In fact:

> According to the World Health Organization (WHO, 1993), up to 80 per cent of the world's population depends on traditional medicine for its primary health needs… *"Possibly two thirds of the world's people could not survive without the foods provided through indigenous knowledge of plants, animals, insects, microbes and farming systems"* (Rural Advancement Foundation International, 1994)… For those comprising the poorest segments of societies, particularly women, indigenous people and rural

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101 *Ibid.*

102 D.A. POSEY ET AL., *COLLABORATIVE RESEARCH AND INTELLECTUAL PROPERTY RIGHTS*,BIODIVERSITY AND CONSERVATION, 892 (2005).

103 Coombe, *supra* note 51, 278.

104 UNCTAD Secretariat, *Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices,* UNCTED Background Note, Agenda Item 3, at 6, UN Doc. TD/B/COM.1/EM.13/2 (August 22, 2000), www.unctad.org/en/docs/c1em13d2.en.pdf,(last visited on August 11, 2012).

> inhabitants of developing countries, traditional knowledge is indispensable for survival.[105]

However, TK on plants, animals, and the environment has remained largely unprotected under international (and even national) law, and this has lead to its appropriation by scientists and large industries, mainly from developed societies, who go ahead to patent this knowledge with little or no compensation or recognition given to the indigenous custodians of TK and without their prior informed consent. For example, in 1995 the U.S. Department of Agriculture and a pharmaceutical research firm received a patent on a technique to extract an anti-fungal agent from the Neem tree, which grows in India. Indian villagers have long understood the tree's medicinal value. The result was widespread public outcry in the developing world. Legal action followed, with the patent eventually being overturned in 2005.[106]

Scientists and large corporations have continued to appropriate TK without regards to its holders on the ground that TK is mainly limited to the public domain and thus freely accessible to all.[107] This notion exists mainly because TK is largely perceived as not being held by a single identifiable individual but by a community without a formal structure for its protection. Thus, while western knowledge is increasingly protected by various Intellectual Property Rights (IPR) regimes, a good deal of TK has mainly been conscribed to the public domain where it is freely accessible, and indigenous peoples have continued to suffer from this injustice. The voice of indigenous

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105 *Id.*

106 Ministry of Environment and Forest, *Known Instances of Patenting on the UES of Medical Plants in India*, at: http://pib.nic.in/newsite/erelease.aspx?relid=61511, (last visited on 15 August 2012). See also, Janke, T, *Our Culture: Our Future; Report on Australian Indigenous Cultural and Intellectual Property Rights*, AIATSIS and ATSIC, 24-25, (1998), www.frankellawyers.com.au/media/report/culture.pdf, (last visited on August 11, 2012),

107 E.D. Long, *Traditional Knowledge and the Fight for the Public Domain*, 5,John Marshall Review of Intellectual Property Law, 317, at 320, (2006)..

people is clear in Clause 99 of the Indigenous Peoples' Earth Charter which states that *"[u]surping of traditional medicines and knowledge from Indigenous peoples should be considered a crime against peoples"*.[108] While the CBD does not expressly state that publicly available TK is not freely accessible, efforts by developing countries during negotiations for the Nagoya protocol to include provisions expressly subjecting such TK to *"prior and informed consent"* and *"mutually agreed terms"* was rebutted by developed countries mostly on the weak ground that this was *"outside the scope of the CBD as it only dealt with ILCs [indigenous and local communities]"*.[109] The developed countries had their way.

Nevertheless, it has been argued that the 'public domain' concept demonstrates the existence of prior act to defeat claims in patent applications and that the CBD as is, still represents some form of international protection of TK from such forms of exploitation.[110] In this respect, Art 8 (j) of the CBD provides that:

> *"Each Contacting Party shall, as far as possible and as appropriate:*
>
> *Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable*

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[108] Clause 95 of the Indigenous Peoples' Earth Charter also states that '[i]ndigenous wisdom must be recognised and encourage'.

[109] S.G. Nijar, *The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: An Analysis,* Kuala Lumpur, Centre of Excellence for Biodiversity Law, 2011, 28-29, at: biogov.cpdr.ucl.ac.be/multistakeholder/presentations/Gurdial-Nijar-NagoyaProtocolAnalysis-CEBLAW-Brief.pdf, (last visited on April 21, 2012).

[110] *Id.*

sharing of the benefits arising from the utilization of such knowledge, innovations and practices".[111]

However, this provision does not go as far as is necessary to protect TK from unjust appropriation. Clauses like 'subject to its national legislation', 'as far as possible' and 'as appropriate' does indicate that no proper or compelling obligation is confer upon States to fulfil the aspirations of Art 8 (j), as those clauses may be interpreted together as giving States the full discretion to decide whether to comply or not, or the extent to which they may comply, with Art 8(j). In this light, conferring on national legislation the responsibility of preserving and maintaining TK may be understood as a "gesture of goodwill with no possible application" by States with no national legislation that could implement this article.[112]

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[111] Similarly, Agenda 21, Chapter 15.5 (e) calls on States to 'respect, record, protect and promote the wide application' of indigenous knowledge 'with a view to the fair and equitable sharing of the benefits'. However, Decision IV/9 of the COP to the CBD has clarified that the term 'respect' is used to mean that 'traditional knowledge should be given the same respect as any other form of knowledge', and this includes western scientific knowledge. Decision IV/9 of the COP, at: www.cbd.int/decision/cop/?id=7132, visited on August 12, 2012.

[112] G. Aguilar, "Access to Genetic Resources and Protection of Traditional Knowledge in the Territories of Indigenous Peoples", (2001) 4 *Environmental Science and Policy*,241, at 244. In other cases, the few countries that have introduced laws to protect TK have usually made the laws relatively specific. For example, in India, the law only protects of indigenous farmers knowledge and not TK as a whole (see, Protection of Plant Varieties and Farmers' Rights Act, 2001, No. 53 of 2001, *Gazette of India Extraordinary* Part II,October 30, 2001); while in Peru, it is only the collective knowledge of indigenous people that is protected (see, Law Introducing a Protection Regime for the Collective Knowledge of Indigenous Peoples Derived from Biological resources, Law No. 27811, *Official Journal,* August 10, 2002). However, Decision III/14 of the COP to the CBD, at: www.cbd.int/decision/cop/?id=7110, visited on August 13, 2012, has requested 'those Parties that have not yet done so to develop national legislation and corresponding strategies for the implementation of Article 8 (j) in consultation particularly with representatives of their indigenous and local communities'.

Worse still is the fact that States are merely expected to 'encourage' the sharing of benefits arising from the use of TK, while the CBD's Preamble recognises only 'the desirability' of sharing benefits also arising from the use of TK, to the disgust of indigenous TK holder who seek protection from uncompensated appropriation of their TK. However, the article seems to shows some level of sensitivity towards indigenous peoples who are not interested in compensation, but only interested in protecting their knowledge, or a class of it, against general or commercial exploitation by foreigners, for cultural or religious reasons,[113] by giving them the opportunity to 'approve', or disapprove as it seems, their 'wide application'.[114] In this regard, the Bonn Guidelines has also provided that where TK is been accessed, it must be with the prior informed consent of the indigenous and local communities and holders of TK, obtained in accordance with their traditional practice. But as with Art 8(j), that obligation on States seemsto have been diminish by the precursor – 'subject to domestic laws'.[115]

However, the Nagoya protocol, which applies to TK associated with genetic resources within the scope of the CBD, seems to be an improvement on the relevant provision of the CBD. Unlike the CDB where state measures on access *and* benefit sharing as regard TK is made 'subject to its national legislation', under the Nagoya protocol, only measures on access to TK is to be made 'in accordance with domestic law'[116] (which clause indigenous peoples have rightly

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[113] D.J. Gervais, *Spiritualbut not Intellectual? The Protection of Sacred Intangible Traditional Knowledge*, 11 CardozoJournal of International and Comparative Law, 467, at 477, (2003).

[114] Decision V/16 of the COP to the CBD, at: www.cbd.int/decision/cop/?id=7158, (last visited on August 12, 2012, has adopted General Principles clarifying that '[a]ccess to traditional knowledge, innovation and practices of indigenous and local communities should be subject to prior informed consent or prior informed approval from the holders of such knowledge, innovation and practice'.

[115] Bonn Guidelines, Section 31.

[116] Nagoya protocol, Art 7 .

objected to and labelled 'ambiguous and questionable'[117]), while measures to ensure benefit sharing arising from TK utilization is largely unqualified and mandatory.[118] Relatedly, Art 5 (4) of the Nagoya protocol does not require States to merely 'encourage' benefit sharing as regards utilization of TK, but *obliges* them to do so by taking appropriate measures. Also, unlike the relevant CBD provision, that obligation is not made 'subject to national legislation'. Further, under Art 5 (4) of the Nagoya protocol, it is expressly stated that benefit sharing as regards TK be made *"with indigenous and local communities holding such knowledge"* upon mutually agreed terms, which express and important benefit sharing formula is absent from the CBD.

Also related to TK, the CBD recognises that 'patents and other intellectual property rights may have an influence on the implementation of this Convention' but that such impact should be allowed only to the extent that *"such rights are supportive of and do not run counter to its objectives"*.[119] However, since IPR is mostly economic-benefit-focused,[120] and an important objective of the CBD is the *"fair and equitable sharing of benefits arising out of the use of genetic resources"*,[121] it becomes quite unlikely that Contracting Parties will vary the effect of IPR on the implementation of the CBD. This inevitably exposes TK to the harsh treatment of the current IPR regimes in general, and makes whatever protection given to TK seem more like mere rhetoric's, especially as parties to the CBD have also ratified many IPR regimes.

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117 Permanent Forum on Indigenous Issues, *supra* note 21, p. i.

118 Nagoya protocol , Art 5 (4).

119 CBD, Art 16 (5).

120 The concept of IPR was developed in industrialised societies to protect the products of intellectual activities of humans so as to secure an economic incentive to those engaged in such creations. The intellectual goods and services produced were recognised as 'property'. See, WIPO, *WIPO Intellectual Property Handbook: Policy, Law and Use* (2nd edition, WIPO Publication No. 489, 2004) 2,at: www.wipo.int/about-ip/en/iprm/, visited on April 13, 2012.

121 CBD, Art 1.

Further, it is well known that current IPR regimes do not protect TK *"because they cannot fully respond to the characteristics of certain forms of traditional knowledge"*.[122] For instance, TRIPS, which favours an individualistic approach to IPR and provides some general principles with regards to patentability, States that patent shall be available for inventions in all fields of technology which are new, involving inventive steps and capable of industrial applications.[123] The hurdles inhibiting existing IPR regimes from protecting TK are diverse: many indigenous peoples do not view their TK as property;[124] though the goal of patent laws is to provide incentives for inventiveness, many indigenous peoples actually reject the commercial exploitation of their knowledge and even attribute authorship to pre-human creators or spirits;[125] the collective nature of customary rights over TK in many places is generally adverse to the notion in contemporary patent law of the inventor as an individual or a specific group of individuals;[126] the novelty requirement of various IPR regimes does not accommodate TK which is considered to be largely *"transgenerational, communally shared, and considered to be in the public domain"*;[127] and TK, it is considered, does not fit into the

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122 Aguilar, *supra* note 112, at 250.

123 TRIPS, Art 27 (1).

124 OverwalleG,V, *Protecting and Sharing Biodiversity and Traditional Knowledge: Holder and User Tools*,, 53 Ecological Economics,585, at 593 (2005). However, Dutfield, *supra* note 100, at 501, has noted that the concept of 'property' - or its equivalent- with regards to TK do exist in some traditional societies.

125 M. Blakeney, *The Protection of Traditional Knowledge under Intellectual Property Law*, 22,*European Intellectual Property Review,* 251, at 251-252, (2000).

126 Dutfield, *supra* note 100, at 503.

127 Overwalle, *supra* note 124, at 593-594. However, it must be noted that indigenous people are community-minded as against those in developed societies who are individual-minded. This is revealed in the fact that many countries in Africa with high population of indigenous people, like Nigeria, discarded their British-styled patent laws and adopted new ones in line with their traditional value, stipulating that certain products were not patentable in the interest of society as a whole. The same mind-set exists in India where it is though that 'alleviating poverty is more important than any individual's right to derive monopoly rent from an idea'. See Hurlbut, D, *Fixing the*

conventional, technically oriented, invention and innovation concept of patent laws,[128] most likely because the source of much TK are difficult to trace and has been around for a long time.[129] Even if TK holders are given IPR protection under existing IPR regimes the burden of monitoring and enforcing, and the expenses and complications in securing the protection may be too much for indigenous peoples to bear, many of whom are poor.[130] Further thoughts may therefore be needed in this regard.

Although the CBD regime could be hailed for formalising the need to compensate TK holders as there was previously no binding international legal regime regulating the use of TK, this step has been criticised by Cullet as *"institutionalising the absence of property rights"*[131] for TK holders. It is instructive to note that the situation of patent holders is still better than that of TK holders under existing IPR systems. While patent holders can stop others from using their inventions even after granting them permission to use it, the benefit sharing mechanism does not expressly provide TK holders with any form of control after access has been granted; since benefit sharing is conceived at the national level, countries of origin are not in a position to impose extraterritorial measure on users of TK; there is also the difficult of judging from the outset the exact use to which the TK will be put to and the benefit that will be derived, and; the benefits may be channelled into the general funds administered by the state as against it going directly to the holders of TK.[132] Thus, benefit

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Biodiversity Convention: Toward a Special Protocol for Related Intellectual Property, 34 Natural Resource Journal, 379, at 379-390, (1994).

128 *Id.* at 593.

129 Dutfield, *supra* note 100, at 503.

130 Posey D .A, *Can Cultural Rights Protect Traditional Cultural Knowledge and Biodiversity*? , Cultural Rights and Wrongs, France, United Nations Educational, Scientific and Cultural Organization (UNESCO)42, at 47 (1998). Coombe, *supra* note 51, at p. 280.

131 P.CULLET, *ENVIRONMENTAL JUSTICE IN THE USE, KNOWLEDGE AND EXPLOITATION OF GENETIC RESOURCES* 376 (J. EBBESSON, AND P. OKOWAEDS., 2009)

132 *Id.* at 374-377.

sharing in a whole is a weak form of *"distributive justice"* in favour of bioprospectors interested in TK, and does not address the issue of protecting TK through a rights framework.[133]

The CBD regime still falls short of the UNDRIP standards which recognises the right of indigenous peoples to 'maintain, control, protect and develop their intellectual property over [their]…traditional knowledge'[134] and obliges States, in conjunction with indigenous peoples, to 'take effective measures to recognise and protect the exercise of these rights'.[135] Even Art 39 (2) of TRIPS which provides that *"[n]atural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practice"*, has been interpreted as requiring Member States of the WTO to provide protection under their national legislation for those cultural elements which indigenous peoples wish should be protected or kept confidential.[136] In fact, some proposals as to how TK can be effectively protected have been made, coupled with some actions in these directions. These proposals include:

A new sui generis system*:* In addition to the existing IPR systems, a new IPR system fashioned to fit the needs of indigenous TK holders have been suggested. This approach could find a legal basis in Art 27 (3) (b) of TRIPS which provides for an effective *sui generis* system for plant variety protection. The different names for the new system which have been put forward in literatures and are in use by few countries include- Collective Community Intellectual Property Rights, Traditional Intellectual Property Rights', etc.[137]Yet, indigenous

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133 *Id.* at 377.

134 UNDRIP, Art 31(1).

135 *Id.* Art 31(2).

136 Evatt, E, *Enforcing Indigenous Cultural Rights: Australia as a Case-study* ,*Cultural Rights and Wrongs, supra* note 130, 57, at 77.

137 For a more expansive discussion on this issue, see, Overwalle, *supra* note 124, at 595, and Aguilar, *supra* note 112, at 251-253.

peoples have expressed concerns to the effect that there is no provision in the CBD to deal with possible situations were both TRIPS and the *sui generis* national alternative IPR regimes are not in the interest of indigenous peoples.[138]

Registry of community rights/ Database protection: Though not a 'rights' regime, keeping an official record of TK is viewed as an effective means of preventing unauthorised patenting of TK by providing a database that would prove prior art, thus destroy 'novelty' necessary for obtaining a patent. Such databases are also necessary for proceeding against the use of TK without compensation or recognition of ownership.[139]However, this system may prove inappropriate for certain sacred knowledge held in secrecy, though the system may be fashioned to include certain levels of confidentiality which may help obviate some of these concerns.[140] Also worrisome, is the fact that countries like the United States and Japan who require knowledge to be printed and published for it to constitute prior art, may not recognise such public records as prior art. This attitude by the United States and Japan has been noted as unfair, as the requirement of publication is not imposed on domestic prior art but only on foreign prior art.[141]

Though many other proposals for TK protection has been made,[142] it is important to state that whatever medium of protection is adopted by the States at the national or international level, the diversity of interests of indigenous peoples with regard to the protection of TK must be taken into consideration.A uniform

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138 International Alliance of the Indigenous Peoples of the Tropical Forests, *supra* note 17, at 735.

139 P. Drahos*Indigenous Knowledge, Intellectual property and Biopiracy: Is a Global Bio-Collecting Society the Answer?*,, 22 (6),European Intellectual Property Review,245, at 248, (2000).

140 Coombe, *supra* note 51, at 280.

141 *Id.* at 281

142 Aguilar, *supra* note 112, at 254-255, and Dutfield, *supra* note 100, at 506-518. See also, Drahos, *supra* note 139,at 245.

standard of protection may not provide an answer. To some, is commendable that the CBD places the responsibility on States to protect TK, because due to the diversity of cultures and the ideas indigenous peoples have about protection of TK, legislating TK protection closer to the concerned groups would be more helpful in resolving their concerns. However, the protection of TK cannot be achieved at the national level alone,[143] as there is need for a more robust international legal framework which can safeguard indigenous TK holders against violation of their rights by their own government and other States, and help *"reconcile the different concepts currently used in international level which hinders the development of mutually compatible regimes"*.[144] Cullet also stressed the need for an international regime when he stated that TK holders who can assert some rights at the national level would not be in a position to effectively enforce them in other countries.[145] In developing such an international regime, States must avoid the pit-fall of viewing all communities as having the same interests. However, for TK to be given effective protection at the international level there is need for corporation between CBD and other IPR regimes.[146] And the current efforts by the CBD parties in encouraging States to develop *sui generis* IPR systems to suit TK, while work with the WTO to study the relationship between TRIPS, CBD, and TK is commendable.[147]

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143 WIPO, *Elements of a Sui Generis System for the Protection of Traditional Knowledge,* Report of the Fourth Session of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, WIPO Doc. WIPO/GRTKF/IC/4/8, September 30, 2002, para's 9, 10, 26, at: www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_4/wipo_grtkf_ic_4_8.pdf,(last visited on February 15, 2012).

144 Cottier and Panizzon, *supra* note 93, at 386. See, Coombe, *supra* note 51, at 276-277.

145 Cullet, *supra* note 131, at 382-383.

146 S. Prakash, *Towards a Synergy Between Biodiversity and Intellectual Property Rights*, 2 (5), Journal of World Intellectual property, 821-831 (1999).

147 Decision VIII/5 of the COP to the CBD, at: www.cbd.int/decision/cop/?id=11017,(last visited on August 16, 2012). This corporation is in line with Art 23 (h) of the CBD which provides that the COP shall '[c]ontact, through the Secretariat, the executive

IV. CONCLUSION

From the above analysis, while it is clear that the CBD regime, to some extent, recognises the value of biodiversity to indigenous peoples, and vice-versa, this recognition is not sufficiently backed up with provisions that would assist indigenous peoples to continue to flourish in their territories without been forced to give up their way of life. In summary, under the CBD regime: indigenous peoples largely have no right or a reasonably secure level of entitlement to their land and resources, and other than the untested and highly qualifies provisions of the Nagoya protocol, nothing concrete seem to have been done to prevent indigenous people's TK from uncompensated or unethical exploitation by States and private investors.

Until indigenous people's 'rights' are firmly recognised under the CBD regime, the extinction of traditional cultural practice necessary for conservation of biodiversity would be on the increase, which will both be counterproductive to the objectives of the CBD regime and the survival of some of the best biodiversity conservators – indigenous peoples. Thus, while States, theoretically speaking, seem to be rising up to the challenge of improving the status of indigenous peoples under the CBD regime with the adoption of the Nagoya protocol, it is very clear that more still needs to be done to strengthen and secure the interestsof the indigenous peoples under the regime as well as in practice.

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bodies of conventions dealing with matters covered by this convention with a view to establishing appropriate forms of corporation with them'.

SAVE MOTHER EARTH FROM DAMAGES DURING WARFARE: A SERIOUS CONCERN

Gargi Chakrabarti[*]

ABSTRACT

International Humanitarian Law is aimed to protect persons and regulate means and methods of warfare during any armed conflict. But it is a fact that during armed conflict not only human races but their natural environment gets damaged, which produce greater and long term effect on the lives of human community; like the situation of Kuwaiti desert after armed conflict between Iraq and Kuwait. During that time oil wells of the Kuwaiti desert was put on blaze and dense clouds of black smoke was found over that area for many days. It was an example of damage to the natural environment as well as depletion of natural resource as the direct effect of armed conflict. As per International Court of Justice, State has the obligation to take the aspect of environmental protection during any armed conflict into consideration. Thus State requires to adapt constitutional provisions for protection of the natural environment specifically during any warfare. International Humanitarian Law has some provisions related to protection of environment as depicted in Article 35(3) and Article 55(1) of The Additional Protocol I of 1977 to the four Geneva Conventions. United Nations Environment Programme (UNEP) and Convention on the Prohibition or any other Hostile Use of Environmental Modification Techniques of 1976 (ENMOD Convention) are also concerned for this. This article will analyze the examples of serious environmental damages because of the armed conflicts to date; will discuss the provisions of International Humanitarian Law regarding protection of natural

[*] LL.M., M.Phil, Assistant Professor, National Law University, Jodhpur.

environment and environmental resources; liability of states in this matter; will find out whether different other international conventions are also actively working for the same motive; finally will discuss the implementation and enforcement of existing international legal regime and role of mankind to take initiative to stop further damage to Mother Earth during or after armed conflict.

I. INTRODUCTION

International Humanitarian Law is aimed to protect persons and regulate means and methods of warfare during any armed conflict. But it is a fact that during armed conflict not only human races but their natural environment gets damaged, which produce greater and long term effect on the lives of human community. The International Law Commission defined the term "natural environment" as follows in 1991:

> *"The words 'natural environment' should be taken broadly to cover the environment of the human race and where the human race develops, as well as areas, the preservation of which is of fundamental importance in protecting the environment. These words therefore cover the seas, the atmosphere, climate, forests and other plant cover, fauna, flora and other biological elements."*[1]

The situation of Kuwaiti desert after armed conflict between Iraq and Kuwait was an example of damage to the natural environment as well as depletion on natural resource as the direct effect of armed conflict. War is a curse on human civilization. It causes loss of human lives, national and individual properties; moreover it causes huge damage to the environment. Impact of environmental damage is enormous and longstanding. Humanitarian law has concern for the damage to the environment. But comprehensive understanding is required to combat the ill effects of war on environmental damage and that has

[1] GOAR 46th Session Supplement No 10 (A/46/10) 276

to be complemented by the international legal regime with proper implementation.

I.I CONCERN RELATED TO TECHNOLOGICAL DEVELOPMENT

War involves conflict not only between people of one nation to the other, but also between man and the nature. Devastating capability of the armaments were of serious concern for environment in the past; more so in modern warfare with new and improved technology of mechanical, biological and nuclear weapons with more devastating capacity. Given the fact that animal species become extinct, vegetation vanished, forests turned to desert, fertile farmland loses fertility, water become contaminated with many wastes of war. Newer chemical, biological, and nuclear weapons appeared since late twentieth century and started increasing environmental disasters since then. Even without armed conflict, military bases can produce substantial quantity of hazardous wastes, such as explosives, solvents, acids, and spent fuel that can contaminate the adjacent soil, water, and air. For example, at several bases in Germany, underground sources of drinking water have been contaminated with 'spilled jet fuel and trichloroethylene from U.S. military operations.'[2]

I.II DIRECT AND INDIRECT IMPACT OF WAR ON ENVIRONMENT

As a result of war, environment faced deforestation, soil erosion, global warming, holes in the ozone layer and desertification of farmland. It is estimated by the Science for Peace Institute at the University of Toronto that, 10 to 30 percent of all environmental degradation in the world is a direct result of the various military attacks.[3] It is estimated further by a German report that military activity is the cause of 6 to 10 % of the world's air pollution, and the world's military activity is also accountable for the production of approximately two-thirds of all chlorofluorocarbon-113 released into

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[2] John M. Broder, *Pollution Hot Spots' Taint Water Sources,* L.A. Times, June 18, 1990, at 16.

[3] Suzan D. Lanier-Graham, The Ecology of War: Environmental Impacts of Weaponry and Warfare, xxix (Walker & Company, 1993)

the atmosphere.[4] Other than these direct impacts, there are also indirect effects of war on the environment, causing serious concern. The United States military created approximately 6 million used plastic bags weekly, from their 'Meals Ready to Eat.' Soft drink cans and junk food cardboards were thrown out in the desert.[5] About 40,000 km² areas of Kuwait, northeastern Saudi Arabia, and Southern Iraq were littered with solid waste from Gulf War II.[6] These materials would produce serious and longstanding environmental degradation.

Next this article will analyze the different aspects of environmental damage in a post war situation.

II. SERIOUS ENVIRONMENTAL EFFECTS OF WARFARE

The purpose of this article is to provide an analysis of the legal aspects of environmental protection during or after warfare, as environment is a direct or indirect victim of the armed conflict. The environmental harm can happen in three distinct phases: harm caused during preparation for armed conflict, harm caused during armed conflict, and harm caused following armed conflict. All these phases are of serious concern from social point of view and needs to be minimized, if not stopped. But before going into the legal aspects, it is worth discussing the past experience of devastation of environment after wars.

II.I HIROSHIMA AND NAGASAKI BOMBING

The destructive effects of military activities on the environment are reflected in the history of twentieth century. During Hiroshima and Nagasaki bombing by USA on August 1945 world had seen some worst experiences of environmental damage. Both the cities had extensive structural destruction, in Hiroshima 67% of buildings were destroyed, in Nagasaki 27% were completely

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4 Id. at xxx.

5 Id. at 66

6 Texas Christian University. Dept. of Geology, The Gulf War Aftermath: An Environmental Tragedy 183 (Mohammad Sadiq, John C. Mc Cain eds. 1993).

destroyed and 10% were partially destroyed. All living organisms, including human being, animals and plants faced severe burns mainly flush burns caused by instantaneous heat radiation.[7] As immediate effect of explosion temperature increased by several million degrees centigrade, resulting vaporization of almost everything in the wide area, fire storms had happened as all available oxygen had been consumed; that resulted in lethal hurricane force winds and death happened because of lack of oxygen. Radioactive fallout occurred and gave severe blast effect; moreover radioactive rain had taken place.[8] Explosion of those bombs produced five million tons of shoot, which had long term effects on global temperature change; radioactive material usually found active for long time in nature and eventually produced huge impact on global food production, as well as human and animal health, like bleeding from mouth and gums, internal bleeding, hemorrhagic diarrhea, gangrene, delirium, coma, birth defects in newborn, miscarriage, cancers in children and young adults.[9]

II.II VIETNAM WAR

Vietnam War is another example of one of the worst environmental destruction of the history. USA was involved in that war as a way to stop the communist takeover of South Vietnam, between early 1960s and 1973. War strategy involved massive destruction of human life and cultivation by mechanical power as well as chemical substances. Large area of Vietnam turned out to be 'free fire zones' by use of excessive amount of explosives and herbicides; resulting in large scale crop destruction, food storage destruction, and population destruction disrupting natural and human ecological balance of that area.[10] Vietnam War had seen

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7 *The Atomic Bombing of Hiroshima and Nagasaki,* by The Manhattan Engineer Districthttp://www2.hn.psu.edu/faculty/jmanis/poldocs/a-ww2.pdf (Nov. 13, 2013)

8 Id.

9 *The Effects of Nuclear Weapons,* Campaign for Nuclear Disarmament, http://www.cnduk.org/campaigns/global-abolition/effects-of-nuclear-weapons (Nov. 13, 2013).

10 Arthur H. Westing, *The Environmental Aftermath of Warfare in Vietnam*, 23 Natural Resources Journal, April (1983) 365-389.

largest ever expenditure of bombs and shells, over 2.5 million tons of bombs used in South Vietnam alone between early 1965 and mid-1968.[11] 100,000 hectares of forest lands of Vietnam (1% of total forest lands of Vietnam) were completely destroyed along with partial damage of 5 million hectares (over 40%) of forest lands.[12] Chemical war includes use of phenoxy chemicals, usually mixtures of 2,4-D and 2,4,5-T (named as Agent Orange, Agent Blue, and Agent White; former two mixtures were used on forests and latter used on crop lands); huge amount of Agent Orange had been sprayed in Vietnam during 1962-1971. Estimated spray of Herbicide on South Vietnam was 72.4 million liters or 100,000 tons, destructed 43% of cultivated area; that resulted in severe harm to 70% of coconut plantation, 60% of rubber plantation, 110,000 hectares of forest and 150,000 hectares of mangroves. Agent Orange contained 'dioxin' as an impurity, which is both teratogenic and carcinogenic; so it caused deformities of fetuses and higher rate of liver cancers. Damage to the birds and fishes were also significant, even flooding of the large bomb craters caused enhancement of population of mosquito (Anopheles maculatus) which increased the incidence rate of malaria in that area. Moreover, further acceleration of destruction was done by use of 'napalm' (a mixture of gelling agent and petroleum which sticks on the skin and causes severe burn when set into fire) and 'Rome ploughs' (large bulldozer with sharp three meter wide blade); use of these weapons caused destruction of trees and erosion of topsoil of 325,000 hectares in South Vietnam.[13] That caused increased soil erosion and exposure of hard laterite soil which is useless for forest and agriculture. Forest destruction in Vietnam resulted in summer flooding and winter draught, having serious deleterious effects on local ecosystem.

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11 Id.

12 *Vietnam: War and the Enviornment*, Greenleft, http://www.greenleft.org.au/node/6044 (Nov. 13., 2013).

13 Elizabeth Kemf Month of Pure Light: The Regreening of Vietnam, (1990).

II.III GULF WAR

Gulf War (1990 – 1991) was one of the most toxic wars in history. Iraq destroyed the oil industry of Kuwait in that war, 789 oil wells (80-85% of Kuwait's oil wells) were set into fire, and estimated burning of oil was 10 million barrels per day for almost 100 days.[14] Daily release of heat from that oil burning was about eighty six billion watts, equivalent to that of a five hundred-acre forest fire.[15] The fire produced a blanket of shoot and smoke that would cover half of the northern hemisphere; it was also estimated by the scientists that the shoots and plumes came out of the flames were enough to change the monsoon pattern in southern and central Asia; and such huge smoke plumes after reaching a significant height could cause serious erosion to the ozone layer. Kuwaiti crude oil contains 2.44% sulfur and 0.14% nitrogen, so it was estimated that there was huge emission of sulfur-di-oxide and nitrous oxide, which caused the acid rain and subsequent damage to ecosystem.[16] Not only burning of oil but also spillage of oil into ocean caused the damage to environment. About 250 million gallons of oil spilled and soaked over 440 miles of Saudi Arabian coastline; that caused serious harm to the marine biodiversity of Gulf area, resulted in severe damage to the fishing industry of Gulf area.[17] 30,000 marine birds perished as a result of exposure to oil, and about 50% of the coral reefs on the eastern coast of Saudi Arabia was damaged or destroyed. Some of the annual flora in the region failed to set seeds because of the exposure to soot and oil mist.[18]

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[14] Donatella Lorch, *Burning Wells Turns Kuwait into Land of Oily Blackness*, N.Y.Times, March 6, 1991, at A1, A15.

[15] Mark J.T. Caggiano, *Comment, The Legitimacy of Environmental Destruction in Modern Warfare: Customary Substance Over Conventional Form,* 20 B.C. Envtl. Aff. L. Rev. 479, 480-481 (1993)

[16] Javed Ali, *The Economic and Environment Impact of the Gulf War on Kuwait and the Persian Gulf*, Comparative and Regional Studies, (Nov. 13, 2013), http://www1.american.edu/ted/KUWAIT.HTM.

[17] Id.

[18] Makram A. Gerges, *On the Impacts of the 1991 Gulf War on the Environment of the Region: General Observations,* 27 Marine Pollution Bull. 305, 306 (1993).

II.IV NATO BOMBING ON YUGOSLAVIA

The North Atlantic Treaty Organization (NATO) carried out a bombing against the Federal Republic of Yugoslavia (FRY) between March 24, 1999 and June 9, 1999. That bombing campaign caused serious harm to the environment by damaging chemical plants and oil refineries which was estimated to cause the release of pollutants, resulting disbalance of local ecosystem.[19]

II.V USE OF DEPLETED URANIUM IN WARS

Two process of nuclear fuel cycle is giving rise to depleted uranium (DU) as a waste product; (i) first when enrichment of natural uranium is done to produce fissionable uranium for nuclear reactor and (ii) second when recycling of spent nuclear fuel is done. Irrespective of the source, resultant DU is achieved as a chemically toxic and radioactive material. Moreover, DU produced by recycling also contains highly radioactive plutonium and traces of other toxic chemicals.[20] Use of DU (high energy alloys of DU) in weapon manufacturing is required for making of 'kinetic energy penetrators', which is commonly used for producing punch-hole in heavy military vehicles like tanks and artilleries.[21] USA started using DU in Navy, Army, and Air Force and the U.S. Nuclear Regulatory Commission used to issue licenses for possession and use of DU.[22] DU ammunitions were first used in Gulf War in 1991.[23] American aircraft and American and British tanks shot approximately 850,000 small calibre and 9,600 large calibre DU rounds (286,000 kg/DU) in

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19 *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia,* United Nations International Criminal Tribunal Yugoslavia, (Nov. 13, 2013), http://www.icty.org/sid/10052.

20 U.S. Department of Energy, *Commercial Recycling of Uranium and Plutonium from Spent Fuel*, (Nov. 13, 2013). http://www.eia.doe.gov/cneaf/nuclear/special/comrecyc.html; J.R. Hightower, et al, *Strategy for Characterizing Transuranics and Technicium Contamination in Depleted UF_6 Cylinders,* ORNL/TM-2000/242, (Oak Ridge National Laboratory, October 2000) .

21 The Royal Society, *The health hazards of depleted uranium munitions,* Part I (London: The Royal Society, 2001) 2; R. Pengelley, *The DU Debate: What Are the Risks,* Jane's Defense Weekly, 15 January 2001.

22 The Office of the Special Assistant to the Deputy Secretary of Defence, *Gulf War Illnesses*, (2000) p. 99.

23 Id.

Kuwait and southern Iraq.[24] American A-10 aircraft shot 83% of the total depleted uranium (by weight) released during the war.[25] In 1994-1995, American A-10 aircraft shot approximately 10,800 rounds in Bosnia, containing 3,260 kg of depleted uranium[26] and in 1999 American A-10 aircraft shot approximately 31,000 DU rounds in Kosovo, Serbia, and Montenegro, containing 9,360 kg of depleted uranium.[27] The deleterious effects of DU to human health and environment is not yet fully understood, but it is said that the harmful effects of DU depends on various factors, like the quantity released; the amount oxidized; the size of the area contaminated; the local air, soil and water conditions and characteristics; and the amount and method of cleanup. In 1997 DU, which was buried under concrete slabs at Sandia National Laboratory in New Mexico was dislodged by the rainstorm.[28] The DU was scattered in an adjacent flood plain, and more than 4,000 barrels of contaminated soil had to be cleaned up.[29] DU particles may contaminate air, water, soil and plants. The effects of DU on ecosystem are still unclear, but contamination of soil with DU may give rise to reduction in productivity of wheat. Intake of DU contaminated food and water by human or animals usually results in several health hazards, either immediate or delayed. These include cancer, immune system damage, nervous system disease, kidney dysfunction, non-malignant

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[24] Id. 102-106

[25] U.S. Air Force, *Gulf War Air Power Survey Vol. IV, Weapons, Tactics, and Training and Space Operations*, (Washington, DC: U.S. Government Printing Office, 1993) 53-54

[26] U.S. Department of Defense, news briefing by Mr. Kenneth Bacon, 4 January 2001; Office of the Special Assistant to the Deputy Secretary of Defense for Gulf War Illnesses, Medical Readiness, and Military Deployments, Information Paper: Depleted Uranium Environmental and Health Surveillance in the Balkans (Washington, DC: U.S. Department of Defense, 25 October 2001) 4.

[27] United Nations Environment Programme (March 2001) 9, 38, 147. See also, United Nations Environment Programme – Balkans, *UNEP finalises field mission to six depleted uranium sites in Serbia and Montenegro*, 4 November 2001,(Nov. 13, 2013), http://balkans.unep/ch/press011104.html.

[28] Bill Murphy, *New technology cleans up residue from Sandia's early Cold War weapons test program,* Sandia Lab News 50(23), 20 November 1998, (Nov.13, 2013), http://www.sandia.gov/LabNews/LN11-20-98/du_story.htm.

[29] Id.

respiratory disease, and reproductive effects.[30] Studies have shown that DU projectiles, when contacted with human or animal body, leads to leukaemia, anaemia, birth defects, and other serious problems.[31]

III. LEGAL MEASURES TO COMBAT ENVIRONMENTAL EFFECTS

The protection of natural environment is not of primary concern during armed conflict, but it has to have substantial concern in times of war and international legal instrument should have certain measures for the same. International Humanitarian Law (IHL) needs to protect human lives and regulate the means and methods of warfare (including the use of weapons and military tactics) during an armed conflict; the Hague Regulations respecting the Laws and Customs of War on Land of 1899 and 1907 represent the first codification of the rules for the conduct of hostilities during armed conflict. International Environmental Law (IEL), established the general principles for the protection of the natural environment that are both applicable and enforceable at the international level. The blending of IHL and IEL is required for protection of life through the protection of the environment during armed conflict.[32] The International Court of Justice has mentioned that states has to take the responsibility of the protection of environmental aspects during armed conflict as far as that relates to the state's military objectives.[33] General awareness regarding the importance of a healthy environment and the determination of various agencies created a vast number of rules for the protection and preservation of the natural

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30 Dr. David E. McClain, *Project Briefing: Health Effects of Depleted Uranium,* U.S. Armed Forces Radiobiology Research Institute (Bethesda, MD, 1999); U.S. Institute of Medicine.

31 Dr. Siegwart-Horst Guenther, *How D.U. Shell Residues Poison Iraq, Kuwait, and Saudi Arabia*, *in* Metal of Dishonor: Depleted Uranium, How the Pentagon Radiates Soldiers &Civilians with depleted uranium Weapons 168 (Rosalie Bertell et al. eds., 1997).

32 Per Koroma J (dissenting) in *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons* 1996 ICJ Reports 226 ¶29.

33 See In *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons* 1996 ICJ Reports 226 ¶30.

environment during and after warfare at both the national and international levels.[34]

III.I FUNDAMENTAL PRINCIPLES OF INTERNATIONAL HUMANITARIAN LAW

Fundamental principles of International Humanitarian Law (IHL) can be considered as the source of law according to the Article 38(1) of Statute of International Court of Justice.[35] These principles are applicable to all the states either by the ratification of the international law by the States or by virtue of the fact that these laws have acquired the status of customary law. 'Martens Clause'[36] is one of those principles, which can be extended as the basis of the protection of natural environment during war (as considered by the United Nations Environment Programme or UNEP). Four other fundamental principles of IHL also have connection with protection of environment. These principles will be discussed here in brief.

III.I.I PRINCIPLE OF DISTINCTION

Principle of Distinction is related with the difference between warriors and the civilian people, also the difference between military objectives and civilian objectives. This principle prevents the direct and intentional military attacks on the civilians. As environmental sites are mostly non-military in nature, so attack on such areas will be contrary to the principle of distinction. According to UNEP, there

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[34] Bouvier A., *Protection of the natural environment in time of armed conflict,* 73 No 285 International Review of the Red Cross567, 567 (1991).

[35] Article 38(1) of the Statute of the ICJ describes the sources of international law as "(a) international conventions (treaties), whether general or particular; (b) international custom, as evidence of a general practice accepted as law; (c) the general principles of law recognised by civilized nations; and (d) judicial decisions and the teachings of the most highly qualified publicists, as subsidiary means for the determination of rules of law."

[36] The Martens Clause has formed a part of the laws of armed conflict since its first appearance in the preamble to the 1899 Hague Convention (II) with respect to the laws and customs of war on land, this Clause state the following: "Until a more complete code of the laws of war is issued, the High Contracting Parties think it right to declare that in cases not included in the Regulations adopted by them, populations and belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the laws of humanity and the requirements of the public conscience. "

may be some controversial aspects regarding the relation of 'principle of distinction' with environmental protection; as targeting of power plants and chemical factories may cause severe environmental effects, but that attack can be authorized by Geneva Convention and can be interpreted as constituting a "direct contribution to ongoing military action".[37]

III.I.II PRINCIPLE OF MILITARY NECESSITY

The principle of military necessity suggests that "use of force is only justified to the extent it is necessary to achieve a defined military objective"[38] and contained in Fourth Hague Convention. It also refers that the destruction of enemy property is forbidden unless it is actually demanded by necessities of the war. Thus this principle is directly related with the protection of natural environment, as the environment will be an 'enemy property' and it will include protected areas, natural resources as well as plant and animal resources. These resources can be able to get protection through the principle of military necessity.

III.I.III PRINCIPLE OF PROPORTIONALITY

The principle of proportionality states that there should be a distinction between different ways by which the forces are used during warfare. It was also thought to limit the use of forces by states and the right to choose the most suitable method and technique of war. This principle is said to be violated if the collateral damage is excessive in magnitude against the direct military advantage expected. Article 57 of Additional Protocol I stated about the principle of proportionality, according to which it is mandated that balancing of military objective and unnecessary suffering has to be done. Therefore, excessive environmental damage can be termed as a violation of principle of proportionality, and thus violation of Article 57 of Additional Protocol I as well.

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[37] As per Article 52(2) of Additional Protocol I

[38] This principle is first articulated in Article 14 of The Lieber Code of 1863.

III.I.IV PRINCIPLE OF HUMANITY

According to the principle of humanity, armed forces are prohibited to use the forbidden methods of war against the civilian population. There seems to be general agreement that international agreements pertaining to the environment and the rules of customary international law may continue to find application in times of war, but only to the degree that these are not in violation of the "applicable law of armed conflict". So, the intentional contamination of natural environment and agricultural resources will lead to the violation of principle of humanity.

III.II SPECIFIC LEGAL PROVISIONS IN INTERNATIONAL LAW

The initial instruments of IHL, like The Hague Convention IV and Regulations respecting the Laws and Customs of War on Land of 1907 (the Fourth Hague Convention and Regulations)[39] as well as the four Geneva Conventions of 1949,[40] started the widespread concern about environmental damage. The concern was initiated after the grave experience of the Vietnam War and the Gulf Wars.

III.II.I ADDITIONAL PROTOCOL I TO FOUR GENEVA CONVENTIONS, 1977

Additional Protocol I to the four Geneva Conventions was resulted as a direct effect of different national liberation wars and the Vietnam War as well. Additional Protocol I is related with different

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[39] Hague Convention IV Respecting the Laws and Customs of War on Land of 1907, to which is attached the Hague Regulations Respecting the Laws and Customs of War on Land of 1907, (Nov. 13, 2013), http://www.icrc.org/applic/ihl/ihl.nsf/INTRO/195.

[40] Four Geneva Conventions include the following - Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of 1949 (the First Geneva Convention), the Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea of 1949 (the Second Geneva Convention), the Geneva Convention Relative to the Treatment of Prisoners of War of 1949 (the Third Geneva Convention) and the Geneva Convention Relative to the Protection of Civilian Persons in Time of War of 1949 (the Fourth Geneva Convention).

aspects of international armed conflict, two provisions of Additional Protocol I is related with protection of environment during war as well. These two provisions are Article 35 (3) and Article 55 (1). Article 35(3) expressly states that *"it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment"*. This damage to natural environment during war is known as collateral damage, and Article 35 (3) is applicable only when the natural environment is destroyed intentionally and by the way of use of prohibited means and methods.[41] Article 55 on the other hand gives the specific provision for protection of environment within the context of the general protection granted to civilian objects. Article 55(1) states that *"care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population."* In general it can be said that, Article 35(3) and Article 55(1) prohibits the wide-spread, long term and severe damage to the natural environment, as had been experienced in Hiroshima & Nagasaki bombing, or Vietnam War or Gulf War. Article 35 has discussed about important aspects regarding environmental protection, but it is not full proof, as it has not provided the definition of the relevant important terms, like 'natural environment', 'widespread', 'long-term' or 'severe damage'. The liability, therefore regarding environmental destruction by warfare, is difficult to ascertain, as the threshold fixed by Article 35(3) is not only high and uncertain, but also imprecise.

Article 35(3) and Article 55(1) are like the welcome provisions from environmental destruction point of view, as the Additional Protocol I is binding in nature for the State Parties; but still the universal ratification is yet to happen. That is the reason

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[41] Reyhani R, *The protection of the environment during armed conflict*, 14 No 2 Missouri Environmental Law and Policy Review329, 323 (2007)..

major environmental damage happened by the military activities by non-State Parties like United Kingdom, United States of America and Iraq. Other facts of concern are that Additional Protocol I applicable only for traditional weapons and not for nuclear weapons; and it does not apply to non-international wars. In case of Hiroshima and Nagasaki bombing, it became evident that environmental effects of use of nuclear weapons were grave and long standing; moreover, non-international armed conflicts involving non-state parties can have serious and deleterious impact on environment. So, these are proved to be important limitations of this international instrument.

III.II.II ENMOD CONVENTION, 1976

United Nations General Assembly adopted the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention) in 1976. It was adopted as a direct response to the military action taken by United States for Viet Nam War. Article 1 of the Convention necessitate that *"each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as a means of destruction, damage or injury to any other State Party"*. Article 1(2) of the Convention also requires State Parties not to assist, encourage or induce any state, group of states or international organisations to engage in such activities. Article 2 of the ENMOD Convention said, *"the term 'environmental modification techniques' refers to any technique for changing – through the deliberate manipulation of natural processes – the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space."*[42] According to UNEP, these military tactics related to *"large-scale environmental modification techniques"* which included techniques capable of *"provoking earthquakes, tsunamis, and creating a change in weather*

[42] Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention) 1976, reproduced in: Schindler, 168 et seq.

patterns."[43] The objective of ENMOD Convention is to prevent the use of environmental modifications techniques; Like Article 35 of Additional Protocol I, Article 2 of ENMOD Convention has been used the words "widespread, long-lasting *or* severe" with the intent of quantification of the damage as well as to provide the threshold of destruction. But there are certain differences in approach between these two instruments. "Widespread" as per ENMOD means *"an area on the scale of several hundred square kilometres"*; similarly the term "long-lasting" would refer to a *"period of months or approximately a season"* in ENMOD Convention, whereas in the case of Additional Protocol I, "long-term" would in fact indicate "decades".[44] Thus, the ENMOD Convention actually provides an effective environmental instrument, as it gives the measures for prohibition of technology which is yet to be invented, it has given definition of each of the three terms used for quantification of the threshold, moreover it has successfully lowered down the 'standard of liability' by using the word "or" in the phrase "widespread, long-lasting *or* severe", which means that all three factors are not required to be met, violation of any one would be enough to establish the liability. Only military or any other hostile use of the environmental technique is forbidden; but the provisions of the Convention must not hinder the use of environmental modification techniques for peaceful purposes and must not prejudice the improvement of technology for maintenance of environmental balance.[45] The military or other hostile activity against environment should be 'deliberate' and 'intentional', so the collateral damage resulting from a military activity is not included.[46]

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43 *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons* 1996 ICJ Reports 226 ¶5

44 This particular interpretation was suggested by the United Nations Committee of the Conference on Disarmament; See also, Bothe *et al* (2010) at 572.

45 Article III ¶. 1 of ENMOD Convention.

46 R. G. Tarasofsky, *Legal Protection of the Environment during Inter-national Armed Conflict*, 1993 NYIL 24, 17 et esq. (47).

III.II.III LEGAL PROVISIONS FOR NUCLEAR WEAPONS

Provisions of Additional Article I and ENMOD Convention is not applicable for nuclear weapons. But there exist some international effort regarding control of nuclear weapons. The Nuclear Nonproliferation Treaty (NPT) is the first international effort to stop the proliferation or spread of nuclear weapons.[47] The NPT was first signed in 1968 by three nuclear power holder countries, the United States, the Soviet Union, and the United Kingdom—and by 100 other states without nuclear weapons and by the mid 1990s about 168 countries had signed this treaty. Article 2 prevents the non-nuclear-weapon states to manufacture or acquire nuclear weapons. Article 3 is concerned about the prevention of use of nuclear energy for making nuclear weapons or explosive devices. The limitation of this treaty is that, these safeguards are applicable only for non-nuclear-weapon states and not for the nuclear-weapon states; the treaty has no provisions for supervision on the efforts by nuclear-weapon states to prevent the creation of nuclear weapons by them.[48]All parties to the Treaty should undertake *"to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament"*, but specific obligation are left to further intervention. In 2009 the UN Secretary-General issued a Five-Point Proposal for Nuclear Disarmament advising all NPT Parties to conform their NPT obligation to carry out negotiations on useful measures leading to nuclear disarmament.[49]There are eight treaties on nuclear-weapon-free zones and geographical regions, they are meant to prohibit acquisition, possession, stationing, testing and use of nuclear weapons

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47 *State Department*, *United States Treaties and Other International Agreements*, Vol. 21, part 1 [1970], pp. 483–494.

48 Guido Den Dekker, *The Law of Arms Control: International Supervision and Enforcement.(*2001).

49 Sergio Duarte, *The Secretary-General's Five-Point Plan on Nuclear Disarmament*, Session 6: Building Momentum, 2009 Assembly of Parliamentarians for Nuclear Non-Proliferation and Disarmament, UN Headquarters, 12 October 2009.

in the areas concerned: Antarctic Treaty, 1959;[50] Outer Space Treaty, 1967;[51] Treaty of Tlatelolco (Latin America), 1967;[52] Seabed Arms Control Treaty, 1971;[53] Raratonga Treaty (South Pacific), 1985;[54] Bangkok Treaty (South East Asia), 1995;[55] Pelindaba Treaty (Africa), 1996;[56] and Semipalatinsk Treaty (Central Asia), 2006.[57] Only single common aim of all these treaties is to increase the nuclear-free zone on earth, which will indirectly decrease the chances of nuclear war, at the same time indirectly will reduce the threat to environment because of test and use of nuclear weapons. Specific treaties are also available for prevention of unlimited test on nuclear energy; this is an important step to prevent environmental contamination by nuclear waste. Multilateral Nuclear test-ban treaties are: (1) the Limited Test Ban Treaty, 1963[58] which prohibits all nuclear test detonations in the atmosphere, in outer space and underwater, except underground and (ii) the Comprehensive Nuclear-Test-Ban Treaty (CTBT), 1996[59] which will prohibit test detonations in all environments. The CTBT opened for signature in 1996 but is still awaiting ratification by specified States.

IV. ANALYSIS OF LIMITATIONS OF LEGAL PROVISIONS

In spite of all these legal provisions concerning negative impact on environment after military activities; there is still a long way to go to get the full proof legal provision regarding this. Firstly it

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50 Available online at: http://www.antarctica.ac.uk/about_antarctica/geopolitical/treaty/update_1959.php (Nov. 13, 2013.) .

51 Available online at: http://www.state.gov/www/global/arms/treaties/space1.html (Nov. 13, 2013)

52 Available online at: http://www.armscontrol.org/documents/tlatelolco (Nov. 13, 2013)

53 Available online at: http://www.state.gov/www/global/arms/treaties/seabed1.html

54 Available online at: http://www.armscontrol.org/documents/rarotonga (Nov. 13, 2013)

55 Available online at: http://www.fas.org/nuke/control/seanwfz/text/asean.htm (Nov. 13, 2013)

56 Available online at: http://www.nti.org/media/pdfs/aptanwfz.pdf?_=1316624116&_=1316624116 (Nov. 13, 2013)

57 Available online at: http://cns.miis.edu/inventory/pdfs/aptcanwz.pdf (Nov. 13, 2013).

58 Available online at: http://www.armscontrol.org/documents/LTBT (Nov. 13, 2013).

59 Available online at: http://www.ctbto.org/the-treaty/treaty-text/ (Nov. 13, 2013).

has to be ascertained that who will be liable for the restoration of environmental balance after certain military activities. Whether this responsibility lies completely with the victim state or the other state who has initiated the war or did the harmful military activities will also be held responsible, is still unclear. The impact on environment is usually longstanding, contamination of air, water or soil generally takes long time to neutralize, moreover starts giving immediate and late effects on plant and animal health. It is difficult to minimize the harmful effects of war pollutants on environment. More so if it is not certain that who has to take the positive initiative for the welfare. Provisions of international humanitarian law and/or international environmental law should provide the effective solution for the liability of restoration. Specific legal provision for the responsibility of restoration is important, as it is a fact that despite legal provisions and international outcry for world peace, wars were prevalent in past and it will be prevalent in future; so the damage to environment also is inevitable after warfare. In present day the threat is more due to the fact of deadly terrorist activities. Terrorism is not synonymous with war in traditional technical sense, but destruction of human and natural resources are equal during or after terrorist activity. So, the negative impact on environment also is comparable after such activities. It is impossible to stop the war or terrorism, though international groups are working actively for this purpose; but for all practical purposes, priority has to be given on the welfare process and restoration. Those who are concerned about climatic change, pollution, increase in impurities in air, water and soil, global warming etc., they should quantify the effects of war on environmental degradation and should think of its solution. Environmental injury is always a global issue; if one state is a victim of a war, still its environmental impact will cause problem for all neighbouring and far away countries in various ways. So, international consensus is required on the planning and implementation of the solution and active participation of all countries are required in it.

V. CONCLUSION

Human civilization is enormously dependant on environmental balance. Ancient history gives the example that civilization can get perished because of environmental disbalance. Nature is having vast healing power, it can do restoration of itself over time even without any humanly help. But the damage to environment due to war is usually so massive and enormous that it takes huge time to come back to near normal. As war causes exclusively man-made destruction of the environment, so man has the ethical duty to help nature to restore itself. The survival of mankind may get endangered, if the balance of ecosystem goes beyond repair as after effect of war. So, human being has to be more concern about it, to maintain its own existence on earth.

ENVIRONMENTAL REFUGEES: THE GREY AREA

Tanya Singhal and Kriti Chopra[*]

ABSTRACT

The issue dealing with the plight of 'environmental refugees', has become relevant in today's times with an ever increasing importance. It has been discussed at various levels in the international arena, but no solution has been reached. With such refugees not defined under any legislation in the world, it becomes difficult to track the number of such people, which is continuously increasing with every environmental disaster taking place at some place or the other on this planet. Thus, the basic step is to first define the contours within which such refugees, who are displaced due to environmental disasters and natural calamities, would be included. This article aims to bring out the problems faced by such people, factors leading to environmental migration, especially because of not being defined which ultimately leads to their rights being affected. It also deals with the differences between migrants and refugees, and the various regional instruments which could include environmental refugees. Finally, a few measures have been suggested to ensure these refugees their rights. It is only when we become aware about the existence of 'environmental refugees' can their rights be protected.

I. INTRODUCTION

The concept of environmental refugees was introduced by Lester Brown of the World Watch Institute in the 1970s following which it became commonly used after the 1985 United Nations Environment Programme policy paper by Essam El Hinnawi entitled 'Environmental Refugees'.[1] Terms such as environmental migration,

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* Tanya Singhal and Kriti Chopra are students studying in their 5th year, BBA.LLB, Amity Law School, Noida.

1 Dr Camillo Boano, Professor Roger Zetter, Dr Tim Morris, *EnvironmentallyDisplaced People,* Refugees Study Center, Oxford Department of International Development, University of Oxford, Pg.7 (November 2008)

climate change-induced migration, ecological or environmental refugees, climate change migrants and environmentally-induced forced migrants have been interchangeably used ever since this concept was introduced.[2]

The International Red Cross estimates that there are more environmental refugees than political refugees fleeing from wars and other conflicts. The United Nations High Commissioner for Refugees (hereinafter referred to as UNHCR) says 36 million people were displaced by natural disasters in 2009. Scientists predict this number will rise to at least 50 million by 2050. According to the UN's Intergovernmental Panel on Climate Change, there are around 25 million climate refugees, while there could be as many as 150 million by 2050.[3]In the year 2010, it was estimated that there were approximately 50 million environmental refugees worldwide who would increase to 200 million by 2050.[4]

Since they have not been defined, there is a great difficulty in estimating an approximate figure of the environmental refugees existing today leading to a discrepancy in the estimates. According to the annual meeting of the American Association for the Advancement of Science (hereinafter referred to as AAAS), experts warned that in 2020, the UN has projected that there will be 50 million environmental refugees.[5] And because the numbers are not defined, tackling the problem becomes even more cumbersome. Even though the numbers are increasing with every environmental incident taking place throughout the world, the victims are unable to receive any rehabilitation. Too large a definition will be damaging to those in

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2 Olivia Dunn and Fracois Gemenne, *Defining 'Environmental Migration*, 31, Climate Change and Displacement Forced Migration Review,10,11, (2008).

3 Pinaki Roy, *Climate Refugees of the Future*, International Institute of Environment, available at http://www.iied.org/climate-refugees-future (last updated on 30 April 2009).

4 Myers, N.,*Environmental refugees: a growing phenomenon of the 21st century*, Philosophical Transactions of the Royal Society. 357(1420), 609-613, (2002). doi:10.1098/rstb.2001.0953.

5 http://www.huffingtonpost.com/2011/02/22/environmental-refugees-50_n_826488.html (Apr. 5, 2013).

need of protection the most and too small will not encompass those in need. Hence a clear definition is required to be relied upon.[6]

Since they are not defined under the term "refugee" under the 1951 Refugee Convention, the principle of non-refoulement[7], an important principle under the international law, does not apply to them. Thus, unlike traditional refugees, climate refugees may be sent back to their devastated homeland or forced into a refugee camp. Climate change may also increase the number of traditional refugees. Antonio Guterres, the U.N. High Commissioner for Refugees, has noted, "Climate change can enhance the competition for resources—water, food, grazing lands and that competition can trigger conflict."[8]

The only way these people can avail the benefits of being "refugees" is when the climate change leads to a competition for resources and that competition triggers conflict, as stated above.

The Intergovernmental Panel on Climate Change (hereinafter referred to as IPCC) predicts that sea levels will rise from a total of 0.18 to 0.6 meters (7 inches to 2 feet) between 1990 and 2100. Rising sea levels already cause problems in low-lying coastal areas of the world. For instance, about half the population of Bangladesh lives less than 5 meters (16.5 feet) above sea level. In 1995, Bangladesh's Bhola Island was half-submerged by rising sea levels, rendering 500,000 people homeless. Scientists predict Bangladesh will lose 17 percent of its land by 2050 due to flooding caused by climate change. The loss of land could lead to as many as 20 million climate refugees from Bangladesh.[9]

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6 Olivia Dunn and Fracois Gemenne, *Supra* note 2.

7 The Convention Relating to the Status of Refugees, Art. 33, 28 July, 1951.

8 National Geographic, http://education.nationalgeographic.com/education/encyclopedia/climate-refugee/?ar_a=1#page=3 (Mar. 27, 2013).

9 National Geographic Encyclopedic entry, http://education.nationalgeographic.com/media/reference/assets/climate-refugee-1.pdf.

The Intergovernmental Panel on Climate Change (IPCC) has shown that the poorest people in developing countries are bearing the burden of the impact of climate change even though they have contributed little or nothing to the problem. The consequences are drastic because they are least equipped to adapt to it.[10]

This gives rise to a pressing need for inclusion of environmental refugees under the international legislation. Since migration to different areas due to environmental incidents is inevitable, there is a need to provide such displaced persons with rehabilitation under proper legal norms. Otherwise this neglected part of the society will continue to remain in the grey area without rights while increasing by leaps and bounds in numbers every year.

II. DEFINING "ENVIRONMENTAL REFUGEES"

The end of World War I (1914-1918) saw millions of people fleeing their homelands in search of refuge, which increased even more after World War II (1939-1945). Therefore a set of guidelines and laws were assembled to protect the human rights of the refugees and this process began under the League of Nations in 1921.[11]In July 1951, a diplomatic conference in Geneva adopted the Convention relating to the Status of Refugees ('1951 Refugee Convention'). These documents explain who is a refugee, the benefits they are entitled to receive, their obligations to host countries persons who are excluded from the definition of refugee such as war criminals.[12]

The adopted definition of "refugee" sprung from the roots of refugee problem i.e. war, political status, and fear of persecution. In 1951, the United Nations General Assembly adopted Resolution 429 which defined refugees as a person who is "outside his or her country of nationality or habitual residence; having well-founded fear of being

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[10] *Who are environmental migrants?,* Towards recognition, http://www.towardsrecognition.org/who-are-environmental-migrants.

[11] The Convention Relating to the Status of Refugees, 28 July 1951 and its Protocol, 4 Oct. 1967 by UNHCR UN Refugee Agency.

[12] *Id.*

persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable, or owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it."[13]

Looking at the definition given above, it will be difficult to apply this definition directly to environmental refugees due to the presence of "fear of persecution" as a condition. Unless it is assumed that "nature" or the "environment" can be the persecutor, the term refugee does not appear suitable for directly describing those displaced by environmental factors.[14]

Initially, the 1951 Convention was more or less limited to protecting European refugees in the aftermath of World War II, but the 1967 Protocol amended the Convention and expanded its scope as the problem of displacement spread around the world, bringing international protection to people who "are forced to move for a complex range of reasons including persecution, widespread human rights abuses, armed conflict and generalized violence.[15] Even the extended definition, however, does not cover environmental refugees.[16]

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[13] Summary of the High-Level Dialogue on International Migration and Development by the President of general Assembly, UN General Assembly and Economic Social Council, 61st Session, 2006-07 (A/61/515) Available at: http://www.un.org/esa/population/migration/ga/index.html.

[14] Fabrice Renaud, Janos J. Bogardi, Olivia Dun, Koko Warner, *Environmental Degradation and Migration*, Berlin. Institute.Availableat:http://www.berlininstitut.org/fileadmin/user_upload/handbuch_texte/pdf_Renaud_Environmental.pdf (September 2008).

[15] United Nations High Commissioner for Refugees, 2003. Partnership: An operations management handbook for UNCHR's partners. http://www.unhcr.org/cgi-bin/texis/vtx/home/opendoc.pdf?id=3e5ca910a&tbl=PUBL.

[16] Goffman, Ethan, *Environmental Refugees: How many, how bad*. Available at:http://www.csa.com/discoveryguides/refugee/review.pdf. Released June 2006.

El-Hinnawi[17] defined environmental refugees as: "those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life. By 'environmental disruption' in this definition is meant any physical, chemical, and/or biological changes in the ecosystem (or resource base) that render it, temporarily or permanently unsuitable to support human life."[18]

There are different types of environmental refugees as identified by Jacobson[19]. They are of three types:

- those displaced temporarily due to local disruption such as an avalanche or earthquake;
- those who migrate because environmental degradation has undermined their livelihood or poses unacceptable risks to health; and
- Those who resettle because land degradation has resulted in desertification or because of other permanent and untenable changes in their habitat.

Bates further classifies environmental refugees based on "criteria related to the characteristics of the environmental disruption, including:

1) Its origin (natural or technological);

2) Its duration (acute or gradual); and

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17 El-Hinnawi, Essam, Researcher, United Nations Environment Programme (UNEP), 1985.

18 Ethan, *Supra* note 16.

19 Jacobson, J. L., *Environmental Refugees: A yardstick of habitability,* World Watch Paper' 86. World Watch Institute, Washington D.C. ISBN: 0-916468-87-9 (November, 1988).

3) whether or not migration was a planned outcome of the disruption."[20]

The IOM proposed a broader working definition :

> "*Environmental migrants are persons or groups of persons, who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or chose to do so, either temporarily or permanently, and who move either within their country or abroad*".[21]

This notion thus covers all the persons moving due to environmental disruptions. The environmental degradations can be divided into three types:

1. Environmental disruptions can be due to climate change. The narrower category of "climate refugees" encompasses victims of three climate change impacts : sea-level rise, extreme weather events, and drought and water scarcity (Biermann and Boas 2007 : 4)
2. They can result of disasters with natural origin (earthquake, flooding, storm) or
3. They can be of human origin (industrial catastrophe, oil slick).

Hence we can conclude that the protection of environmental refugees does not have any legal basis in international refugee law. The 1951 Geneva Convention relating to the status of refugees refers only to those fleeing persecutions.

The IOM, during the Climate Change and Migration Policy Dialogue, has taken the view that instead of viewing environmental migration as a failure of adaptation, it can be seen as representing a legitimate livelihood diversification where migration can help reduce

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[20] Diane C. Bates, '*Environmental Refugees? Classifying Human Migrations Caused by Environmental Change'*, 23, POPULATION & ENV'T, 465- 469 (2002).

[21] International Organization for Migration, November 2007.

risk to lives, contribute to income diversification and enhance the capacity of people to cope with the adverse effects of climate change.[22]

III. MIGRANTS VS. REFUGEES

Even though the terms migrant and refugee have been used interchangeably in the past, a difference is seen between the two. Migrants, especially economic migrants, choose to move in order to improve the future prospects of themselves and their families, whereas refugees have to move if they are to save their lives or preserve their freedom.[23] They have no protection from their own state, unlike migrants who enjoy protection from their governments even when abroad.[24]

The International Association for the Study of Forced Migration (IASFM) describes forced migration as "a general term that refers to the movements of refugees and internally displaced people (those displaced by conflicts) as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects".[25] Hence a forced environmental migrant would "have" to leave the residential place due to an environmental stressor whereas an environmentally motivated person "may" decide to move. It is not necessary for an "environmental refugee" to cross borders i.e. he/she can be internally displaced too.[26]

Even if all the member states are Parties to the 1951 Geneva Convention they do not have an international responsibility or

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22 *Migration and Climate Change,* International Organization for Migration, http://www.iom.int/cms/envmig, (Last visited March 30,2013).

23 UNHCR '*Flowing Across Borders'.*

24 *Supra* 10.

25 Forced Migration Online (FMO) (2007): What is Forced Migration? Refugee Studies Centre, Oxford http://www.forcedmigration.org.

26 Bates, *Supra* Note 20.

liability towards such refugees simply because they are not included under the definition of "refugee".[27]

The United Nations Environment Programme (UNEP) defines environmental refugees as "those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and or seriously affected the quality of their life." According to Organization for Economic Co-operation and Development (OECD), an environmental refugee is a person displaced owing to environmental causes, notably land loss and degradation, and natural disaster.[28]

IV. DIFFICULTY IN DEFINING ENVIRONMENTAL REFUGEES

The main reason for the lack of definition relating to migration caused by environmental degradation or change is linked to the difficulty of isolating environmental factors from other drivers of migration.[29] Thus the overlapping of economic and environmental factors makes it difficult to distinguish environmental refugees.[30]In addition to that, the different reasons for environmental degradation, the vast variety of periods for which persons remain environmental refugees, and the needs of the people involved are also points of consideration. Furthermore, the causes and consequences of an environmental disaster might be separated in time as well as in space.

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27 Aurelie Sgro,*Towards recognition of environmental refugees by the European Union*, United Nations University Institute For Environment And Human Security (UNU-EHS) and Munich Re Foundation Summer Academy Hohenkammer Castle, Munich (Germany), July 27th to August 2nd 2008.

28 Yuvraj Dilip Patil , *'Disaster Affected Environmental Refugees and Human Rights'*, Social Science Research Network. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2002497 (February 10, 2012).

29 *Olivia Dunn and Fracois Gemenne*, *Supra* note 2.

30 Miranda Huey, *Environmental Refugees, Greeniac Articles (29 June 2010) http://www.greeniacs.com/GreeniacsArticles/Environmental-News/Environmental-Refugees.html.*

In many situations, the clear cause or person responsible for the disaster is difficult to pinpoint.[31]

V. REGIONAL INSTRUMENTS

Regional instruments such as the 1969 OAU Refugee Convention in Africa, the 1984 Cartagena Declaration in Latin America have come into existence after the 1951 Refugee Convention.[32]

According to the OAU Convention Governing the Specific Aspects of Refugee Problems in Africa (1969), "the term "refugee" shall also apply to every person who, owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality".[33] Thus, the 1969 OAU Convention includes as refugees persons forced to flee 'events seriously disturbing public order'.[34] However, natural disasters have been excluded from the 'public order' ground for two reasons. Firstly, the technical meaning of "public order" is generally understood to include only human activities.[35] Secondly, the other grounds included in the extended definition (external aggression, occupation and foreign domination) are all man-made.[36] Therefore, according to a contextual interpretation ejusdem generis, the public order ground cannot include environmental

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[31] LiSER, Living Space for Environmental Refugees, http://www.liser.eu/, (Last visited April 3, 2013).

[32] The 1951 Convention on the Status of Refugees and its 1967 Protocol, UNHCR UN Refugee Agency.

[33] OAU Convention Governing the Specific Aspects of Refugee Problems in Africa, above note 24, Article 1(2).

[34] *Id.*

[35] Rankin, *Extending the limits or narrowing the scope? Deconstructing the OAU Refugee Definition Thirty Years on UNHCR*,18, (2005).

[36] Sven Pfeiffer,*Environmental Refugees: How To Ensure Adequate Legal Protection*, September 2008. http://www.academia.edu/1102742/Environmental_Refugees_How_to_ensure_adequate_legal_protection, (Last visited April 3,2013).

events.[37] A recent and relevant addition is the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention) adopted in October 2009, which builds on the 1998 UN Guiding Principles on Internal Displacement and explicitly mentions climate change.[38] Although people displaced by disasters have been permitted to remain temporarily across borders, in most cases it is apparent that African Governments have not made this an obligation under the OAU Convention.[39]

In Latin America, the 1984 Cartagena Declaration on Refugees also includes as refugees (in Article 3) persons forced to flee 'other circumstances which have seriously disturbed public order'.[40] However, the International Conference on Central American Refugees does not associate the 'other circumstances' to include natural disasters.[41]

The principle of non-refoulement, which prohibits the return of a refugee to a territory where his or her life or freedom is threatened, is considered a rule of customary international law.[42] It is binding on all States, regardless of whether they have acceded to the 1951 Convention or 1967 Protocol. A refugee seeking protection must not be prevented from entering a country asit would amount to refoulement.[43] However, the problem here arises when environmental refugees claim asylum under this principle owing to the fact that they are not recognized as "refugees" under the Convention[44]. Even

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37 *Id.*

38 Kampala Convention, Art. 5(4).

39 Alice Edwards, *Refugeestatus determination in Africa*, in African Journal of International andComparative Law, Vol. 14, 2006, pp. 204–233.

40 Vikram Kolmannskog and Lisetta Trebbi , *Climate change, natural disasters and displacement: a multi-track approach to filling the protection gaps*, 92, International Review of the Red Cross, 879, September 2010.

41 *Id.*

42 The Convention Relating to the Status of Refugees, 28 July 1951 and its Protocol, 4 Oct. 1967 by UNHCR UN Refugee Agency.

43 *Id.*

44 Convention relating to the Status of Refugees ('1951 Refugee Convention').

though there is a dire need for them to move away from their residential place due to some or the other environmental disruption leading to a well-founded fear of losing his livelihood and life, they are not given any benefit under any international legislation.

VI. FACTORS LEADING TO ENVIRONMENTAL MIGRATION

The reasons due to which environmental refugees exist can be broadly categorized under 3 heads, namely: 1) Climate Changes like rising sea levels 2) Natural disasters like cyclones, floods, volcanic eruption, earthquakes and 3) Combination of man-made and natural disasters like drought, deforestation, soil erosion, and water shortages. These are some of the forces which already displace more people than war and political repression combined.[45] If those forces were political or social, those people could be granted official refugee status by the United Nations (UN) under Resolution 429. Unfortunately, environmental refugees aren't granted refugee status. The UN is obligated to provide food, shelter, medical care, and financial aid to refugees until they can be resettled.[46] However, the UN is under no obligation to help those merely displaced by environmental forces.[47]Right now there are already staggering numbers of refugees that need help: 10 million traditional refugees, 13 million refugees displaced within their own borders, 6 million refugees who were considered 'stateless', 1 million 'people of concern'. Add to that the costs associated with climate change. The U.N. Development Program estimated that industrialized nations must provide $86 billion a year by 2015 for people most vulnerable to catastrophic floods, droughts and other disasters that scientists fear will accompany warming.[48]

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[45] http://news.nationalgeographic.com/news/2005/11/1118_051118_disaster_refugee.html (last visited March 26, 2013).

[46] Ethan Goffman, *Environmental Refugees: How Many, How Bad?*, CSA Discovery Guide (,Released June 2006) http://www.csa.com/discoveryguides/refugee/review2.

[47] *Id.*

[48] Norris, Wade, '*Defining Justice for Environmental Refugees*', Posted: October 8, 2009 04:56 PM.

Nick Stern, a noted British economist and author of the *Stern Review on the Economics of Climate Change*, warned of climate-induced migration on a massive scale. 'Hundreds of millions, probably billions, of people would have to move if you talk about 4, 5, 6 degree increases', Stern said. 'There's no way the world can handle that kind of population move in the time in which it would take place.'[49] These kind of predictions like experts and the growing concern for climate change has given rise to a new type of refugees called the 'climate refugee'. But this term is not legally recognized under the existing legislations on international refugee and asylum laws.[50] It is a controversial issue as there is little knowledge and agreement on the ways to solve the various problems it presents. Attempts have been made by many policy researchers and humanitarian agencies to voice out the problem on an international stage by pointing at the fact that 'climate refugees' represent an unrecognized category of migrant that risks falling through the cracks of international refugee and immigration policy. Considering that the most vulnerable populations are the ones most affected by the effects of climate change and that they are less equipped to deal with them.[51] Many have even gone so far as to suggest an extension of the 1951 UN Refugee Convention and its 1967 Protocol to include 'climate refugees'.[52] As yet, however, a consensus has not been reached.[53] The effects of climate change, in particular rising sea level, the phenomenon of desertification, floods and heat waves, affect the living conditions of populations insofar as they can generate

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[49] Benjamin Glahn, *Climate refugees? Addressing the international legal gaps,* International Bar Association (2009) http://www.ibanet.org/Article/Detail.aspx?ArticleUid=B51C02C1-3C27-4AE3-B4C4-7E350EB0F442.

[50] *Id.*

[51] Declaration on climate migrations' adopted at the conference on Climate migrations organized in the European Parliament, Brussels, on June 11th 2008 by the Greens/EFA group.

[52] Benjamin Glahn, *Climate refugees? Addressing the international legal gaps,* International Bar Association (2009) http://www.ibanet.org/Article/Detail.aspx?ArticleUid=B51C02C1-3C27-4AE3-B4C4-7E350EB0F442

[53] *Id.*

degradation, disappearances of territory, increased pressure on natural resources, attacks on fundamental rights and sometimes intensify certain tensions or provoke conflicts.[54] The impacts are already being felt in numerous spots such as the Sahel, strongly affected by the phenomenon of desertification, Bangladesh, which is subject to repeated floods, certain European regions, but also in several islands in the Pacific, destined to disappear under the water, leading to the future disappearance of national states.[55]

Water, both in excess and in shortage, creates problems and has the potential to create environmental refugees. The problem of excess water comes in the form of sea-level rise, floods, and natural disasters such as hurricanes and cyclones. When these natural disasters occur, people are often forced to leave their residence because the land is no longer suitable for habitation. Water shortages affect all aspects of a society, especially the economic sector.[56]Soil salinization, which occurs when salt water permeates the soil, limits crop growth. Floods, storms, and changing seashores can all cause soil salinization.[57] Water pollution and natural droughts also use up local water sources, drying up vegetation even further.[58]

Desertification now affects one third of land on Earth[59] and threatens to displace 135 million people.[60]It occurs primarily in arid and semi-arid regions when land is used and worked unsustainably, depleting the soil of nutrients and resulting in desert-like conditions.

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54 Declaration on Climate Migrations, Adopted at the Conference on Climate Migrations, European Parliament Brussels, EFA Group (June 11, 2008)

55 *Id.*

56 Katie L. Peters, *Environmental Refugees,* California Polytechnic State Univ. http://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1051&context=socssp (Winter, 2011).

57 *Supra* 31.

58 Sarah Reed, *Environment and Security,* Climate Institute (August 2007) http://www.climate.org/topics/environmental-security/index.html.

59 http://www.unesco.org/mab/doc/ekocd/chapter1.html.

60 FECYT reports, February 2010.

The sub-Saharan Africa, especially the Sahel region is deeply affected by desertification. A UN conference in 2006 anticipated that approximately 60 million people would migrate to North America and Europe from the sub-Saharan Africa by 2020.[61] The cause was held to be desertification which leads to constant depletion of cropland available, thus leading to decrease in harvest and rise in malnutrition.[62]

Earthquakes and volcanoes are other natural hazards that lead to the creation of environmental refugees. When the earthquake hit Haiti in January of 2010, the environmental problems only worsened. This earthquake created thousands of refugees who were in need of basic supplies, such as food, water, and sanitation[63].The situation in Haiti shows a combination of natural and human-induced factors that led to the creation of environmental refugees. The earthquake was the natural factor that could not have been prevented by any human actions. Volcanoes also drastically affect societies, often pushing people out of their homes because of spreading lava and ash. These types of events occur without the interaction of humans, but they have the potential to have huge effects on human life.[64]

However, the government itself is often the main cause of massive environmental displacement. In India and China, public works projects are responsible for displacing around 50 million people.[65] Dams are built with the specific intent of changing the environment in order to provide irrigation, electricity, and a steady source of freshwater through the dry season.[66] The cost is massive

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61 Lester R. Brown, *World on edge: How to Prevent Environmental and Economic Collapse,* New York, NY: Earth Policy Institute.

62 Myers, N., *Environmental refugees: Population and Environment: A Journal of Interdisciplinary Studies,* 19(2),167-182., (1997).

63 Pape, Johnson, & Fitzgerald, *The earthquake in Haiti – dispatch from Port-au-Prince*, The New England Journal of Medicine. 362, 575-577, (2010).

64 *Supra* note 57.

65 *See* http://www.climate.org/topics/environmental-security/index.html.

66 *See* http://horizonspeaks.wordpress.com/2009/07/15/controversy-are-large-dams-good/.

environmental changes along the river, including the flooding of villages with stagnant water above the dam and the soil erosion on riverbanks on the other side.[67]Those displaced generally have had no right to compensation or to be able to stay on their land. The poor and indigenous peoples are hit hardest since they usually only can settle on less fertile land.[68]

Sardar Sarovar is a classic example of a development project which is deemed to be "in the national interest." It is a case of a development project which is both directly and indirectly causing environmental displacement on a massive scale. Moreover, this project is also setting the stage for further incidents of environmental displacement in the future through a combination of less than adequate resettlement and rehabilitation of displaced persons and a general lack of attention to potential environmental impacts of the project[69]. The displacement is "environmental" because of one of two reasons. Either the people are being displaced as a result of their restricted access to the environment upon which they depend for their lives and livelihoods, or they are being displaced as a result of the development-induced deterioration of their environment to the point where it can no longer support them.[70]

The project highlighted the effects of such displacement on the refugees and their respective tribes. It affected people's economic security in some very fundamental ways. Many people who were directly displaced as a result of the project received no economic compensation whatsoever.

What must be understood here is that landlessness is an economic disaster for these people's well-being since land is their source of subsistence and knowledge of their local environment is

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67 *See* http://www.macalester.edu/environmentalstudies/macenvreview/determination.htm.

68 *Id.*

69 Laurie Uytterlinde Flood, *Sardar Sarovar Dam: A Case-study of Development Induced Environmental Displacement,* Refuge Vol. 16 No. 3, Pg.12 (August 1997).

70 *Id.*

their major skill.[71] In addition, the resettlement and rehabilitation policy did not recognize other aspects of economic livelihoods. It did not take into account economic practices such as fishing, pastoralism, and gathering. Also, the levels of economic productivity, which result from local environmental and cultural knowledge, have been ignored. Nor did the policy properly take into account the forms of economic security that arise as a result of people's social ties-"people attribute their economic security to a long established web of human and geographical linkswithin their community". These links,of course, would be destroyed where the community was not resettled as a whole.[72]

Resettlement threatens to culturally victimize people in other ways. These displaced people must adapt their lifestyle in that they are often "moving from relative isolation and independence to a highdegree of dependence on public institutions and services to protect against disastrous consequences of the move".[73] Also, the caste system and a general lack of social ties has meant that for those resettled, there is almost always little in the way of social bonding with other established communities in the area, leading to social isolation. In all cases where people have resettled, they have expressed a feeling of loss over leaving their home and their gods.[74]

The physical and psychological wellbeing of all of those who experienced a drop in the standard of their living would potentially be threatened as a result of the resettlement process.[75] In many cases, even a temporary drop in economic livelihood could result in a loss of access to an adequate and nutritious diet, which would especially affect the health of the very young. Stress and anxiety which would

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71 *Id.*
72 *Id.*
73 *Id.*
74 *Id.*
75 *Supra* note 70.

result simply from the anticipation of having to move could quite possibly have both physical and psychological affects.[76]

VII. CONCLUSION

Through the previous discussions, statistics and case studies, it is clear that environmental refugees need help. Majority of the countries do not officially recognize them. Solutions are necessary, both in the form of addressing the root causes of the creation of environmental refugees, as well as developing a protocol to deal with existing environmental refugees.

We need to expand our approach to refugees in general in order to include environmental refugees in particular. We cannot continue to ignore environmental refugees simply because there is no institutionalized mode of dealing with them. If official standing were to be accorded to these refugees, this might help to engender a recognized constituency.[77]

In 2005, the UN Under-Secretary-General Hans van Ginkel "emphasized the need to prepare now 'to define, accept and accommodate this new breed of "refugee" within international frameworks'".[78] Expanding the 1951 Geneva Convention to include environmental refugees as a way to afford assistance and protection to individuals displaced owing to environmental causes has been oft suggested by academics and professionals alike. Using the term "environmental refugee" to refer to all people forced to leave their homes because of environmental change loses the distinctive need of refugees for protection. It blurs the respective responsibilities of national governments towards their citizens and of the international community towards those who are without protection. It also

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76 *Id.*

77 Myers Norman, *Environmental Refugees: A growing phenomenon of the 21st century,* 357(42), Philos Trans R Soc Lond B Biol Sci, 609-613, (2002).

78 *See* ACUNU.org.

impedes a meaningful consideration of solutions and action on behalf of the different groups.[79]

Providing assistance and protection to environmental refugees under the 1951 Geneva Convention would merely be a temporary solution for the consequences of the problem, and would not address what is causing these individuals to be uprooted from their homes in the first place. Perhaps the concentration on "refugee" in environmental refugee needs to be altered. Attention needs to be given to the "environment," to the root causes forcing individuals to migrate. The environment needs to be taken into consideration at all points of the migration process. Policy responses need to be directed to migration before it happens, through sustainable development projects that do not displace individuals and through measures to protect and support the environment.[80]

There is also a need for advancement in the concepts of sustainable development. This applies notably to reliable access to food, water, energy, health and other basic human needs--lack of which is behind many environmental refugees' need to migrate.[81] This also includes reduction of greenhouse gases and changing the way the land is used by increasing reforestation and restoration of the land, soil etc. In big picture terms, sustainable development represents a sound way to pre-empt the environmental refugee issue in its full scope over the long run.[82]

Much could be achieved too through better targeting of foreign aid. The annual budget of the main source of multilateral aid,

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79 Sadako Ogata, *Statement by U.N. High Commissioner for Refugees*, Swiss Peace Foundation, Geneva, UNHCR (Oct. 30, 1992), *t* http://www.unhcr.org/print/3ae68fad20.html.

80 Laura Story Johnson, *Environment, Security and Environmental Refugees,* Journal of Animal and Environmental Law Vol. 1, Pg. 247 (2009-2010) http://www.jael-online.org/wp-content/uploads/2010/07/V1N2_Johnson.pdf.

81 Norman Myers. "Environmental refugees: a growing phenomenon of the 21st century." *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences* 357.1420 (2002): 609-613.

82 *Id.*

the United Nations Development Programme, is not so very much greater than that of the United Nations High Commissioner for Refugees ($1.3 billion in 1995)--meaning that the United Nations' main response in this regard tends to be rather reactive than proactive.[83] India has 27 percent of all people in absolute poverty worldwide, yet it receives only five percent of total foreign aid. Were foreign aid to be more closely directed at impoverished people in the main countries and regions concerned, it could help to relieve the problem while it is still becoming a problem, i.e. before it becomes entrenched.[84]

Through this examination, it has become clear that the issue of environmental displacement is a crisis in the world today. With the number of environmental refugees estimated at 200 million by the year 2050, environmental displacement cannot be put on the back-burner; this is an issue that must be dealt with now.[85] It must be addressed in attempt to prevent the number of environmental refugees from growing at exponential rates.

Acting early to avoid environmental refugee crises means going further than just debating whether or not environmental refugees exist. It requires more than just providing assistance and protection to environmental refugees after they have been displaced. It necessitates creating an environmental focus in development, in international relations, in conflict resolution, and in the international refugee regime.[86]

A change must be made, be it in regards to reduced greenhouse gas emissions, sustainable use of land, increased foreign aids or providing a legal status to the environmental refugees by UNHCR and international community so as to help them build up a new, successful life.

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83 *Id.*
84 *Id.*
85 *Supra* note 57.
86 *Supra* note 81.

THE FOUNDATIONAL ORIGINS OF THE EIA: A LOOK INTO THE PAST

Anumeha Saxena & Shruthi Ashok[*]

ABSTRACT

The concept of sustainable development was envisaged in the World Commission on Environment and Development: Our Common Future, 1987 as a tool to ensure that development in the present-day world does not compromise with the ability of the generations in future to meet their needs. It has now become the universal guiding tool in all efforts to preserve the environment. The international community has finally accepted that the environment can no longer be side-stepped in the name of development. It is heartening to note that in India, the Right to Environment has now been accepted as a part of the Fundamental Rights under Art 21 of the Indian Constitution. However, the guarantee of this Right is not as easy as it seems, as there are conflicting interests, which need to be balanced and seen in light of the greater picture which involves a mammoth tussle of discrimination and denial of access to resources.

In this context, the Environment Impact Assessment, 2006 ["EIA"] which seeks to address potential environmental issues at the early stages of project development and design and assist developers as well as the government identify vital issues and alleviate them accordingly, assumes great importance. The underlying theme of this paper would be whether the demands for social justice necessitated by the inherent inequalities in our society are being fulfilled by this much anticipated legislation. To effectuate it, a study of the EIA in terms of the scheme of its provisions and their judicial interpretation needs to be carried out. The purpose of the EIA will be considered, in the course of the analysis, to see whether it is being achieved or whether the EIA needs to be reconsidered.

[*] II Year, B.A., LL.B. (Hons), National Law School of India University, Bangalore.

I. INTRODUCTION

The growth of environmental concern to an international stature has been a historical development. The environment and its protection are common to countries as the suffering is not confined only to the polluting country. The relentless destruction of environment in the name of development and industrialisation continued unabated till around the 1950s. Eventually, attention turned towards issues of soil degradation, pollution of water and air, wildlife management, protection of flora and prevention of desertification.[1] The 70s laid the foundation of modern environmentalism through the 1972 United Nations Conference on Human Environment, popularly known as the Stockholm Convention.[2] The meeting agreed upon 26 principles regarding the environment such as prevention of pollution to the environment, safeguard of natural resources, judicious use of non-renewable resources, damage to environment to be minimised, protection of flora and fauna and the need for environmental education. It has been recognised as the beginning of public awareness about environmental issues.[3] Even though the Stockholm Declaration was not binding on the governments, it opened their eyes to the impending danger from environmental degradation and prompted governments to take active measures immediately.[4] Post the Conference, a series of conferences was held, treaties and agreements signed in light of the issues of the impending danger to the environment raised in the Stockholm Conference. The various objectives and policy frameworks adopted at these international conventions have had a considerable influence in the development of environmental law.

In this context of growing environmental legislation, the EIA assumes crucial importance and is one of the most successful policy

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1 ASHOK A. DESAI, ENVIRONMENT JURISPRUDENCE 292 (2002).
2 G. INDIRAPRIYADARSHINI AND K. UMA DEVI, ENVIRONMENTAL LAW AND SUSTAINABLE DEVELOPMENT, 88-96, (2010).
3 Desai, *Supra* note 1, at 88.
4 Desai, *Supra* note 1, at 97.

innovations. Practiced by more than a 100 countries, it originated in 1969 with the passing of the National Environment Policy Act, 1969 in the USA. From the late 1970s to early 1980s, it consisted of formalized guidance.[5] The emphasis lay upon ecological modeling, prediction and evaluation methods and there were certain provisions for public involvement. Initially the expansion of the policy was limited to developing countries but it experienced exponential growth after the mid-1980s. The World Bank requirement of every borrower country to undertake EIA under the Bank's supervision further added to the growth. In Europe, the European Commission Directive on EIA establishes basic principle and procedural requirements for all member states has led to increased practice of the policy. There was further enlargement when the The Convention on Environmental Impact Assessment in a Trans-boundary Context, 1997 called for consideration for trans-boundary effects and the principle of sustainability received global attention. As a number of countries began formulating the EIA legislation, India also adopted the EIA formally.

India's EIA experience started in 1976-77 with the Planning Commission asking the Department of Science and Technology to investigate into the environmental implications of river-valley projects, subsequently covering those projects which require approval of the Public Investment Board. But even till 1994, Environmental Clearance was a decision of the Central Government, lacking legislative support. In that year, Union Ministry of Environment and Forests under the Environment (Protection) Act, 1986 made the Environmental Clearance mandatory for expansion of any activity or for setting up new projects listed in Schedule 1 of the Notification.[6] The fact that this has been followed by twelve amendments in the

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[5] SADLER, ENVIRONMENT ASSESSMENT IN A CHANGING WORLD: EVALUATING PRACTICE TO IMPROVE PERFORMANCE, FINAL REPORT, INTERNATIONAL STUDY OF THE EFFECTIVENESS OF ENVIRONMENTAL ASSESSMENT, CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY, OTTAWA 27 (1996).

[6] George Cyriac and Shamik Sanjanwala, *Environmental Impact Assessment in India: An Appraisal,* 10 THE STUDENT ADVOCATE, 74, (1998).

Notification reflects that the EIA is constantly evolving to address newer issues. The most important amendment came in September, 2006 which redrafted the entire legislation to cover a wider variety of ventures with stricter enforcement.[7]

The EIA is transforming itself into an empowering legislation whose ambit is no longer is restricted to effects on natural resources but takes into consideration various stakeholders such as environmental scientists, biologists and the local population dependent on these resources. Multiple methods are being developed in different countries to tailor a legislation suited to their needs; involving every entity who is affected by the initiative. The follow up amendments stand testament to the ever growing nature of the legislation to protect the various interests involved.

II. EIA: A HARBINGER OF SOCIAL JUSTICE?

Any discussion about the utilization of natural resources is underlined and ends with the conclusion of sustainable development being the means as well as the end for the use of earth's bounty. While this looks good in theory, in practice however, the benefits and burdens arising from nature are distributed disproportionately and unfairly among the population. Therefore, at this juncture, the authors feel it's pertinent to consider the concept of social justice and whether the legislations, *especially* the EIA are able to deliver the same.

II.I THE SOCIAL JUSTICE ARGUMENT

While sustainability as a need has implications for the survival of every inhabitant of this earth, it has a very strong connection with social justice as is evident in the disproportionate effects that environmental catastrophes have on those oppressed due to different markers of caste, race, religion, sex and economic status. The relationship does not end here as these groups are the ones who are

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[7] *Id.*

made to bear the responsibility of achieving sustainable development. At the international level, this is proved by the lower levels of emissions imposed on the developing countries while those which are developed continue at a higher standard. Nationally these problems are experienced not just in countries which fare poorly in the development indices; environmental racism in the U.S.A. being the biggest example of how in a society as developed as America, people of colour disproportionately bear the burden of environmental protection policies while the associated benefits are dispersed throughout the society.[8]

Environmental justice as a need arises from precisely these reasons and focusses on actions by governmental structures and private corporations which affect the quality of environment and the quality of life of those living in communities close by. With the wide range of factors that influence the access of a community to natural resources, it is difficult to arrive at a comprehensive definition of environmental justice but for the purpose of this paper, the following working definition has been employed, "Environmental justice is concerned with the issues of rights, governance and institutions relating to the natural resources which are an essential component of livelihood and involves protection from those factors which damage these resources, having ramifications on those who utilize them."[9] The stress here is on the rights of the people to own, access and use the natural resources on which their livelihoods depend.

While certain opportunities are available for communities through the existing institutions and systems, there is a need to identify strategies to empower communities so that they can influence the government to make the transition to devolve effective command over natural resources at a local level. In India, however, akin to the distribution of any opportunity, the usage of natural resources also suffers from the deeply entrenched divisions of caste, gender, religion

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[8] S.L. Cutter, *'Race, Class and Environmental Justice*, 19 PROG HUM GEOGR, 112, (1994).

[9] PATRICIA MOORE AND FIRZUA OASTAKIA, ENVIRONMENTAL JUSTICE AND RURAL COMMUNITIES: STUDIES FROM INDIA AND NEPAL, IUCN, vii, (2007).

and economic status. The protection and implementation of laws for SCs and STs especially, is un-justifiably poor.[10]

Hence, the definition of environmental justice is slightly modified to entail that it involves fair and equitable access to and use of natural resources and participation in the decision-making and management of their utilization. This distribution should not be prejudiced on the above mentioned markers. It requires the development of a holistic and community-based paradigm for achieving healthy communities and environment.

Strands of such understanding relating to the use of resources are observed in the Constitution of our nation which states the goal of social, economic and political justice in the Preamble itself. Not only does the Preamble have little legal value,[11] the provisions in Art. 48A and Art. 51A (g),[12] which belong to the parts on Directive Principles of State Policy[13] and Fundamental Duties and combine the goals of social justice and environmental protection, cannot be used to compel the State to behave in a particular way either. Reliance is placed on existing laws of pollution to address the issues of environmental damage and enforcement of accountability for damage by non-State parties.[14] However, the issue that the authors are trying to flag here is contained in the fact that when the State itself is the offender due to its seemingly harmless laws then recourse through judicial remedies is a burdensome option.

The panacea to such an infringement is contained in the Fundamental Rights of the Constitution but as will be demonstrated in the latter parts of the paper, the Rights are invoked when an individual case is brought before the Court and despite the expansive

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10 R. Kshirasagara, Dalit Movement in India and its Leaders 1857-1956, 34, (1994).

11 M.P. Singh, V..N. Shukla's Constitution of India, 2, (2002).

12 The Constitution of India, 26 Jan 1950, Art. 48A (Ind.).

13 The Constitution of India,.Art. 51A (Ind.).

14 *See* The Water (Prevention and Control of Pollution) Act (Act No. 6/1974) (Ind.), The Air (Prevention and Control of Pollution) Act (Act No 14/1981) (Ind.), The Environment (Protection) Act (Act No. 29/1986) (Ind.).

interpretation carried out the by Courts in India, such readings cannot be used by disadvantaged communities to exercise their rights over the resources. Adding enormous litigation costs and inordinate delays in the case disposal system of our country, any citizen would be sufficiently discouraged to demand what is lawfully theirs.

A potential solution to the problem would involve engagement of local bodies in decision-making. Unfortunately, these bodies are rendered powerless because of the absence of any provision that envisages legislation and judicial decisions below the state-level. The Constitution allows only the State and Union Legislatures to exercise their powers over the natural resources. So, the only viable remedy is limited by the spirit of state sovereignty over the resources which started with the colonial rule in India and destroyed the pre-colonial modes of resource tenure altogether.[15] Concomitant with state supremacy are the legislations like the Forest Act, 1927 and the Land Acquisition Act, 1894 which transformed traditional rights into concessions and privileges subject to grant and withdrawal by the State, which have continued from the yesteryear till date.[16]

The need for better laws cannot be denied but at the same time, it is important to understand that with the existing conditions of division and discrimination, any legislation would be successful only if it extends the rights to greater and more repressed numbers and improves the access to justice. The EIA, which is an attempt to incorporate environmental protection and development together, fails miserably in this regard because of its extremely limited target group. *Prima facie* the provisions seem objective but their application in the context of the Indian society does not bring out the formal equality promised by these laws. The authors have sought to present this underlying bigoted aspect of these provisions in the following section.

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[15] Usha Ramanathan, *'Displacement and the Law'*, 31 ECONOMIC AND POLITICAL WEEKLY, 1486, (1996).

[16] *Id.*

II.II EIA IN INDIA: WHAT WENT WRONG?

The Ministry of Environment and Forest recognising the impact of the burgeoning developmental projects on the environment came out with mandatory environmental clearance procedure of EIA in 1994.[17] In 2006, the Ministry brought out a new notification in 2006 making significant changes to the procedure. Several points of contention raised in the 1994 notification were sought to be addressed through the latest notification. However, blows can be seen in various aspects of the notification, from the consultation that was involved in preparing the draft to the classification and exclusion of projects from the EIA procedure.[18]

To begin with, the EIA is a study undertaken to predict and evaluate the effect of a particular project on the environment. It examines the beneficial and adverse consequences of a project and ensures that these considerations are taken into account in the project design. The new notification of 2006 makes it mandatory for various new projects, expansion and modernization of mining, river valley, thermal projects, infrastructure, industrial units and the like to get prior environmental clearance before the commencement of the work.[19] The notification categorises projects into those which require clearance from the Centre and those from the State. Accordingly, the procedure to be followed may have slight variations, though there is a common structure.

The stages involved are four-fold, which include:[20]

1. Screening of the project

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[17] Environment Impact Assessment Notification No. S.O.60(E), dated 27/01/1994 under the Environmental (Protection) Act (Act No. 29/1986) (Ind.).

[18] Manju Menon and Kanchi Kohli, *EQUATIONS' Critique on Environmental Impact Assessment Notification*, 2006, (2006), concept note http://www.equitabletourism.org/files/fileDocuments373_uid10.pdf, (Dec. 21, 2013).

[19] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 6.

[20] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 7.

2. Scoping the environmental impact and preparing EIA report
3. Public Consultation for voicing the concerns involved and
4. Appraisal of the project

After the clearance has been granted, there is post clearance monitoring. This procedure ensures that impact of the project does not exceed the prescribed legal limit and the alleviation measures prescribed in the EIA report are implemented.[21]

Despite the laudable motives of the Indian legislature to revamp and refurbish the procedure, problems arose from the word 'go'. The process of drawing the draft and the content of the proposed law had come under severe criticism by civil society organisations, people's movements, academics and authors.[22] There were campaigns to bring about a more transparent process in the drafting of the notification, a legislation that can potentially affect natural resources, ecological well-being and the livelihood of people.[23] However, the Notification continues to be weakened by certain inefficiencies and drawbacks, which need to be addressed.

The division of the projects into the two categories is based on the '*spatial extent of the potential impacts on human health and natural and manmade resources*'.[24] This arbitrary classification of the projects based on size tends to exclude certain projects from clearance. For instance, tourism projects, which include intrusion into forests and eco-systems, are completely left out of the ambit of the EIA.[25] Small developmental projects which do not fit into either category in terms of size are also excluded from the ambit of the study.

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21 Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 10; *also see*BARRY SADLER AND MARY MCCABE UNITED NATIONS ENVIRONMENT PROGRAM: ENVIRONMENT IMPACT ASSESSMENT TRAINING RESOURCE MANUAL, 403-437 (2002).

22 Manju Menon and Kanchi Kohli, '*Environmental Decision-Making: Whose Agenda?*', 42 ECONOMIC AND POLITICAL WEEKLY, 2491, (2007).

23 *Id.*

24 Menon, *Supra* note 19, at 1-2.

25 Menon, *Supra* note 19, at 3.

Furthermore, certain projects like construction, township building, commercial complexes and houses are *excluded* from the three crucial stages of screening, scoping and public consultation. This category of projects which gets clearance is only for nominal purposes as in reality it is exempted from the EIA study altogether.[26]

Under the Public Hearing category,[27] the Notification mentions six items which are *exempted* from conducting a public hearing. This blanket exclusion on certain projects such as irrigation modernization, road and highway expansion is arbitrary and defeats the purpose of the Notification itself. If such projects, including the modernization and expansion related ones, are required to obtain prior environment clearance, then there is no logical reason for excluding it from public hearing. By doing so, it ceases to be transparent, while ignoring latent ecological impacts and turning a deaf ear to real concerns of real people whose livelihood is affected.

The statutory requirement of public hearings is not only meant to disseminate information to the various stakeholders involved but also provide them with a platform to express their concerns regarding the project. This helps in creating awareness about the impact of the project and encourages citizens to voice their concerns, objections, views and suggestions.[28] However, the procedure for public hearing laid down in the EIA is flawed. Firstly, the question to be raised is who are the people who can attend the public hearing meetings? As per the Notification, the purpose of the public hearing is to address the concerns of the local people who will be affected as a result of the project.[29] This provision excludes various other interested parties and stake holders such as scientist, NGOs,

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[26] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 7; Menon, *Supra* note 19, at 2.

[27] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 7.

[28] Rohini Chaturvedi, '*Environmental Hearings: Participatory Forums or a Mere Procedure?*', 39 ECONOMIC AND POLITICAL WEEKLY 4616 (2004).

[29] Manju Menon and Kanchi Kohli, *'Re-Engineering the Legal and Policy Regimes on Environment'*, 43 ECONOMIC AND POLITICAL WEEKLY, 15, (2008).

civil society groups etc. from voicing their concerns regarding the project. These *other* stakeholders may submit only written submission which may be rejected at the discretion of the appraisal committee.

As per the Notification, only *the draft* EIA Report will be available to the people prior to the public hearing. [30] This is problematic as it does not allow the people to have complete knowledge of the status and the potential impact of the project on the environment and surrounding areas. The public hearing, in effect, may turn out to be unproductive and a waste of time and resources if the information provided in the draft EIA Report is generic and rudimentary. Since the Notification is silent on what information is to be contained in the draft Report, it allows for people to base their decisions on the desirability of the project on partial information, thereby defeating the purpose of having a constructive Public Hearing in the first place.

Other miscellaneous problems with the Hearings are present in practice. Though the Notification mandates that the Hearings *will be held in a transparent manner, ensuring widest participation....district wise,*[31] it is experienced that in many cases, the Public Hearings for many districts are combined in one Hearing, thereby excluding certain affected locals who can't afford travel. Meetings are adjourned abruptly, everyone isn't provided an opportunity to voice one's concerns and minutes of the meeting are not recorded.[32]

Lastly, the EIA Notification is silent on the status of the Public Hearing Meetings. It does not lay down whether the concerns of the population will be mandatorily taken into consideration by the

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30 Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, Appendix IV.

31 Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, § 7.

32 Divya Badami Rao and M.V. Ramana, *'Violating Letter and Spirit: Environmental Clearances for Koodankulam Reactors'*, 43 ECONOMIC AND POLITICAL WEEKLY, 14, (2008).

Appraisal Committee or not.[33] Therefore, since there is no imposition on the authorities to incorporate the suggestions and concerns into the final report, the Public Hearing may not even be useful in its purpose of influencing the decision making process.

EIA procedures in India continue to be funded by project proponents. This means that the onus is on the applicant to file the EIA Report as per the guidelines laid down in the Notification.[34] This is opposed to a system where the EIA is conducted by an independent agency. Environment assessment conducted by the applicant itself clouds the transparency and reliability of the information in the EIA Report.

Another point, which needs to be noted, is that many of these projects are either initiatives of the government or funded by the government.[35] The situation is of the government seeking environmental clearance from the government itself. This inherent bias towards the government project makes the approval that is granted a mere formality and not a serious evaluation of the overall feasibility of the project.[36]

Recently, an interesting point regarding the time factor has been raised. The Notification mentions the Appraisal Committees are expected to convey the Terms of Reference to the applicants within the deadline of sixty days. While it mentions how long each of the four stages should take, it remains silent on the minimum time that is to be invested in each of the four stages.[37] The motive behind mentioning the maximum time period seems to be to ensure that there are no undue delays and time lags in the procedure.[38] However,

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33 *Id.*

34 Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, Appendices I, II and III.

35 Videh Upadhyay, *'A Good Late Realisation'*, 44 ECONOMIC AND POLITICAL WEEKLY, 18, (2009).

36 *Id.*

37 Menon, *Supra* note 23, at 2491.

38 *Id.* at 2493.

in the rush to get clearance, there can be a compromise in the quality of the Report that is prepared. Clearance for projects can be fast tracked by compromising the integrity of the Report.

The generic nature of the EIA form allows for the exclusion of the impact of the proposed on various entities. For instance, in Form 1[39] of the EIA report, the impact on the biodiversity and the livelihood of the local population has been ignored. The dependence of the local people on the surrounding natural resources and the consequent impact of the project on this dependence are not documented.[40] The inclusion of socio-economic data of the area of the project is not provided for, thereby reducing the comprehensibility of the assessment.

The composition of the screening, scoping and appraisal committees is an area which is not representative of the various stake holders involved. As per the 2006 Notification, these committees do not include social scientist, ecology experts or NGOs as members.[41] This change from the 1994 Notification excludes those people who are best suited to understand, evaluate and weigh the benefits over the costs of a particular project.

Another facet which has not been considered by the Notification is that of projects that are related to and dependent on one and another. Examples could be a mine and a port, a group of industries in one geographical area or a series of dams situated on the same river or a coal mine and an adjacent thermal plant. While environmental clearance for each of the projects is taken individually, the cumulative impact of the projects on the environment is not considered. Since the projects are interrelated, it becomes necessary to look at the projects as a whole. Failure to do so may result in long term adverse consequences that may not be repairable.

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[39] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, Appendix I.

[40] Menon, *Supra* note 19, at 4.

[41] Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, Appendix VI.

The EIA Notification in Sec 10 lays down the procedure for the monitoring of projects post clearance.[42] However, a small paragraph on what is expected to be done is barely adequate enough to deal with the situation. The provision merely states that the applicants are required to file compliance reports every six months to the regulatory authority.[43] In essence, this provision reduces the concept of post clearance monitoring into self-regulation by the project applicants. If no independent authority scrutinises the actual working and implementation of the procedural safeguards of the project, the point of the granting clearance will fail. This would leave the various stake holders vulnerable to the adverse consequences on the ecology, resources and livelihood.

An analysis of the bare provisions of the legislation indicates the impact of the flawed drafting on the nature and the people who are affected by such developmental initiatives the most. The *purpose* of the EIA to provide a holistic overview of the impact of projects on *all* affected entities and ensuring everyone's interests are balanced and protected is subverted to only promote the interests of the few. Paradoxically, procedural flaws such as the ones discussed work in favour of the industrialists and government entities seeking the clearance, thereby making the goal of social justice a distant dream.

III. ENVIRO-LEGAL CASES: AN INSTANCE OF JUDICIAL ACTIVISM

The objective of introducing the EIA mechanism has been incomplete as seen in the previous section; the aim of development has been severely limited to the more privileged in the Indian society, the oppressed being systematically excluded from the process. It is interesting to note the response of the judiciary to understand their perception of the problem in the cases which involve infringement of the right to environment of a citizen.

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42 Environment Impact Assessment Notification No. S.O.1533(E), dated 14/09/2006, §10.

43 Menon, *Supra* note 23, at 2491.

Over the years, litigation in this area has served to point out ambiguities and counter-productive provisions in a particular law, the loopholes in regulatory schemes or their unanticipated effects, thus, acting as serving tools for amending laws. In India, the Courts have played an instrumental role in the area of environmental law. Specifically in its interpretation of the EIA, it provides in its judgment with varying degrees of clarity what actions can be challenged and what the challenger must prove. The Courts strive to promote constitutional rights to a healthy environment and protect aboriginal rights but at the same time ensure that the public rights relating to private property are not compromised. The judiciary pronounces on the validity of executive and legislative action and applies international environmental principles in the domestic context, apart from rectifying and interpreting legislative anomalies. It also carries out comparative jurisprudence to correct deficient statutes and deter future offenders by deciding upon an adequate penalty which also provides for the rehabilitation of the damaged environment.

The most evident problem encountered in this area of law is the wide variety of situations in which the law can be possibly applied and deciding the extent to which restraint should be carried out to achieve the constitutional goals of a clean environment envisaged under Article 21 of the Indian Constitution and the industrial development of the nation to bring it at par with the developed nations of the world. The Courts at the same time have to look out for actions driven by vested interests of certain members of the executive who might collaborate with private efforts causing unjustified and irreparable damage to the environment, but being allowed because of personal benefits.

The judiciary thus, carries out the functions of combating undue political interference. It can be stated then that the role played by the judiciary in cases relating to environmental law cannot be denied and not only does it set the limit on the use of natural and

physical resources but also carries out the function of generating public awareness and political will.

Considering this, an appraisal of the EIA in terms of its content and application would be incomplete if the judicial interpretation of the same is not taken into account. The authors have carried out an analysis of the interpretation and the explanation offered regarding the same so as to achieve a wholesome understanding of the status of the EIA in the light of its objectives.

In *T.N. Godavarman ThirumulpadvUnion of India*,[44] the Supreme Court responded to the contention of the project of the U.P. Government as being in complete violation of the EIA Notification, 2006 because it did not obtain prior environmental clearance from the Central Government or the State Level Environment Impact Assessment. To resolve the matter, it applied the Dominant Nature or Dominant Purpose Test or the Common Parlance Test to determine how a common man enjoying the facilities of the project would view it. Thereby it was decided that the project did not fall within the ambit of the EIA Notification. The project was allowed subject to certain conditions which were to be overseen by an expert committee. As mentioned earlier, the wide variety of situations that are encountered in this area are a hurdle to decision-making. In this context, the authors believe that the decision was not based on the contemplation of sufficient evidence. The issue is simply whether a question of policy having widespread implications should be based on the area of land under use and the perception of common man alone.

The judiciary however, in its quest to uphold equal access to justice has sought to assure that the sanctity of the public hearing is maintained. In the case of *Adivasi Mazdoor Kisan Ekta*

[44] T.N. Godavarman Thirumulpadv. Union of India, 2010 Supreme Court of India, Writ Petition (Civil) No. 202 of 1995, (Dec 3).

SanghatanvMinistry of Environment and Forests,[45] the Green Tribunal noted that the public hearing being an important of the granting of Environmental Clearance, if it has not been carried out according to the procedure laid down under EIA Notification, 2006 it cannot be termed as a mere procedural lapse. It was hence, declared invalid and considered null in the eyes of the law. Public hearings indeed form the foundation of decision-making in this process; it is instrumental that the proceedings are correct. In *Prafulla SamantravUnion of India*,[46] the fact that the EIA on the basis of which the EC was granted was not in the public domain for the people to express their views and concerns in the public hearing and was held to be representative of non-compliance with the Notification. Regarding the issue that it had not accounted for the adverse impacts that the project was likely to inflict, a latter report was adjudged to be largely similar to the previous one and hence, its capacity to provide the basis to frame mitigative measures or safeguards was left to be checked by the Expert arm of the Ministry, the Expert Appraisal Committee. The judiciary seemingly appears to acquire a watchdog stance over the situation to prevent any deviation from the written word of the law.

But it has displayed a proclivity in allowing most projects under question. In multiple cases, when it found that the EIA was more or less complied to, it found no necessity to quash the EC. Instead it directed to carry out a cumulative assessment study afresh and to submit it to the Ministry which might stipulate additional conditions and safeguards.[47] Strict adherence to procedure is not a necessity to achieve the EC. While the authors believe that the practice appears to be valid as too strict an application would discourage initiatives altogether, the judiciary does not seem to have a

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45 Adivasi Mazdoor Kisan Ekta Sanghatanv. Ministry of Environment and Forests, 2011 National Green Tribunal, Arising out of appeal No. 3 OF 2011, (Dec 3).

46 Prafulla Samantra v. Union of India, 2009 High Court of Delhi, W.P.(C) 3126/2008 & CM No.6045/2008, (Apr 28)

47 Murugandam v. Ministry of Environment and Forests, 2012 National Green Tribunal, Appeal No. 17 of 2011(T), (May 23).

fixed scale as to what level of practice would be sufficient to allow for the EC. Another issue that is to be addressed is that the tribunals and courts often base their decision upon the data collected from certain quanta of years. The basis of any such decision is hardly explained and one is only left to wonder at how the judiciary could have arrived at such a number as well as the capacity of the judiciary to decide on such matters.

The Tribunal has taken initiative in directing the Ministry of Environment and Forests to conduct public hearing, suspending the EC until its completion. However, the directions to the Ministry to develop proper mechanisms to check the authenticity of the environmental data reported in the EIA and EMP Report[48] without any test on the part of the judiciary constitutes a very vague delineation of power. Moreover, the authors doubt if according unbridled powers to the Ministry is in keeping with the aims and effectiveness of the EIA.

The impact of the projects considered under the EIA is undoubtedly a matter of public interest, not just in terms of the possible implications of the project that need to be evaluated but also in terms of the extent to which any project should be challenged. Continuous and unfounded challenges to the projects might discourage initiatives and have an adverse impact on the economy and development of the country. In this regard, the authors agree with the observation of the Tribunal which though wanted the *locus standi* in such cases not to be considered in a restricted manner but at the same time stressed that the appellants in the case had *locus standi* by virtue of the fact that they had been working in the area in question and are concerned with the impact on ecology and environment. Thus, they have the *locus standi* to file the appeal.[49]

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[48] Jan Chetnav. Ministry of Environment and Forests, 2012 National Green Tribunal, Appeal No. 22 of 2011(T), (Feb 9).

[49] Jan Chetnav. Ministry of Environment and Forests, 2012 National Green Tribunal, Appeal No. 22 of 2011, (Feb 9).

The Courts have been vigilant enough to ascertain that the applicability of the EIA does not remain limited to the mere beginning of the project. The expansion work of a project undertaken by the petitioner without obtaining environmental clearance has been held to be violative of the mandate of the EIA. Thus, the Court allowed the cancellation of the public hearing proceeding held in respect of the proposed expansion and declared the demand of the opposite parties to start the process of environmental clearance *de novo*. The Court stated in clear terms that whenever any action of an authority is in violation of the provisions of the Constitution, there is no obligation on the part of the Court to sanctify such an illegal act.[50] An important judgment with regard to the jurisprudence of environmental law in the country and in particular, concerned with the EIA was seen in *Lafarge Umiam Mining Pvt LtdvUnion of India*.[51] It is remarkable for addressing the most frequently faced problem of fraud in representation while obtaining the EC. The Supreme Court clarified the extent of judicial review in those situations where EC has already been granted and questions are raised further with regard to the validity of the process. The decision of the Ministry was argued to have been vitiated by misinformation and non-application of mind. The Court realizing the diverse extent of the cases concerned with this area of law, held that "across-the-board" principles cannot be applied because protection of the environment is an ongoing process; it requires examination of facts and circumstances by the Court in each specific case. Moreover, in deciding whether a governmental authority has erred in granting EC, the Margin of Appreciation Doctrine would apply.

The Court held that the constitutional doctrine of proportionality should apply to environmental matters. Thus, the decision regarding utilization should be adjudged on the basis of principles of natural justice, accounting for extraneous factors

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[50] M/S Vedanta Aluminum Ltdv. Union of India, 2011 High Court of Orissa, W.P.(C) No.19605 of 2010, (Jul 19).

[51] Lafarge Umiam Mining Pvt Ltdv. Union of India, 2011 Supreme Court of India, 7 SCC 388, (Jul 27).

influencing the decision as well as the goals of legislative policy. These circumstances being satisfied, the decision of the government authority would not be questioned by the Court. The accusations of fraud and misrepresentation against Lafarge were concluded to be unfounded and it was allowed to continue its mining operations.

An analysis of judicial decisions showed the authors that judicial decisions in India have largely been supportive of new initiatives provided that the demands of the EIA have been largely satisfied. Public hearing which forms the basis of the grant of the EC has been given supreme importance; slightest corruption of which renders the EC untenable. The authors would want to stress upon the wide implications of the project that are usually under scrutiny in this area of law; in this scenario, the approach of the Courts to not restrict the *locus standi* ensures that blunders will not be overlooked. But at the same time the requirement of being affected by the activities is an essential rider which will act as a check on over-litigation. The important observation of the Court not to apply the principles across-the-board seems to capture the crux of the issue in environment-related litigation of huge variety. Moreover, the Courts have realized the possibility of foul play in later stages of the project and hence, the EC process is imposed not only at the start of the project but throughout the project. The authors however, consider the evidence analysis in these situations to be problematic; the capacity of judges to study the evidence presented and to demand the correct evidence. Another related issue is that of the role played by the Ministry in the process and that the Courts often delegate the responsibility of inspection of the progress of the projects entirely in the hands of the Ministry after the decision. The authors believe that there should be a better monitoring mechanism which is not based on the government itself.

As has been argued before, while considering whether or not a shift is required from the EIA, it is necessary to look into the environmental law litigation in the country. The implementation of

environmental law in India is largely judge-driven operation. The relaxation of the *locus standi* rules and the accompanying advent of Public Interest Litigations in India is its typical feature. Furthermore, the disputes relating to environmental law instead of being treated as claims under tort law have been pronounced as violation of Fundamental Rights. The Supreme Court and the High court can be moved under Article 32 and Article 226 respectively in matters relating to environment.

The relationship between the legislature and the judiciary is two-way. The policy statements of the government are employed as guiding tools for not only the interpretation of statutes but also demarcating the obligations of the government itself. The Indian judiciary has played an immense role in the development of the jurisprudence of environmental law in the country. It can be stated undoubtedly that it has went far and beyond its assigned part of interpretation of statutes and has evolved a number of doctrines in the area. Pronouncing the right to a clean environment as being a part of Article 21, it has assigned it the maximum judicial importance that is possible.

This is reflected in the approach of the Court in different cases .The judiciary has imposed the duty to protect and preserve natural resources on the State and its instrumentalities announcing them to be public trustees.[52] Another attempt of the court in this regard is the Precautionary Principle which is a doctrine that seeks to prevent pollution by carrying out a number of checks before the beginning of a project along with decision and implementation of adequate precautionary measures to minimize the same.[53] The balance that the judiciary seeks to attain becomes lucid when the Precautionary Principle was qualified and the Supreme Court laid

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[52] M.C. Mehta v. Kamal Nath, 1996 Supreme Court of India, 1 SCC 38, (Dec 13).

[53] Vellore Citizens Welfare Forumv. Union of India 1996 Supreme Court of India, AIR 2718, (Aug 28) .

down that it cannot be applied to the decision for building a dam whose gains and losses were predictable and certain.[54]

The Supreme Court has gone a step further and sought to make the polluter liable for the compensation to the victims of pollution and the cost of restoring environmental degradation under the Polluter Pays Principle.[55] Any activity carried on that is hazardous or inherently dangerous, the perpetrator of such activity is liable to make good the loss caused to any other person by that activity.[56] Both the Precautionary Principle and the Polluter Pays Principle have been declared to be part of the environmental law of the country.[57] The most important doctrine however, is that of sustainable development which is product of the recognition of inter-generational equity by the Supreme Court and resultant supervision of developmental projects.[58] The Court has also taken upon the responsibility to increase public environmental awareness via the media. It held the requirement that cinema halls should slides with information regarding the protection of the environment. The government should provide short films for spreading environmental awareness which should be supported by the Doordarshan and All India Radio in carrying out the transmission of information regarding environment and pollution at a greater scale.[59]

Summing up the discussion so far, it is easily seen that while the legislation conveniently skips out on the necessary provisions for environmental social justice, the judiciary oversteps in its quest to accord justice to whom it has been denied. While the expansive

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[54] Narmada Bachao Andolanv. Union of India 2000 Supreme Court of India AIR 375, (Oct 18).

[55] Vellore Citizens Welfare Forumv. Union of India 1996 Supreme Court of India AIR 2718, (Aug 28).

[56] Indian Council for Enviro-Legal Actionv. Union of India 1996 Supreme Court of India AIR 1446, (Jul 18).

[57] Vellore Citizens Welfare Forumv. Union of India 1996 Supreme Court of India AIR 2718, (Aug 28).

[58] M.C. Mehtav. Union of India, 1997 Supreme Court of India AIR 734, (Mar 17).

[59] M.C. Mehtav. Union of India, 1991 Supreme Court of India Writ Petition (Civil) No. 860 of 1991, (Nov 22).

interpretation of the judiciary works to the advantage of those who seek recourse from the Courts, it can hardly fill the gap for better laws. In the context of the EIA, it especially lacks out in the analysis of evidence as a result of which the check on the Ministry as envisioned by the EIA is rendered diluted. While this problem cannot be done away with, without institution of a mechanism for advising the judiciary on such matters and is beyond the scope of this paper, a change in the content of the laws themselves can be proposed to make them more equitable and just in the next section.

IV. TO A MORE JUST FUTURE

The indispensable nature of the EIA process for the protection of the environment makes it undesirable to get rid of the process altogether. However, for the effective guarantee of the constitutional provision of the Fundamental Right to Environment, the Ministry of Environment and Forests must seriously reconsider the existing approach. For the effective implementation of the EIA, the policy must be updated, independent regulatory agencies instituted and post clearance monitoring strengthened. On understanding the weaknesses in the process, there are certain suggestions for improvements in the practice to facilitate greater rigour in analysis, appraisal, monitoring and enforcement to achieve broader objective of protecting the environment.[60]

At the outset, any process to be considered effective in serving the desired purpose or objective must be transparent. One of the greatest ways of ensuring transparency in the EIA procedure would be the institution of an *independent* authority in charge of preparing the EIA Report. This would ensure that the Assessment Report that is prepared is true on all accounts regarding the potential impacts of the procedure, the data is accurate and the decision so arrived at would be the most prudent and viable one.

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[60] Ritu Paliwal, *'EIA Practice in India and its Evaluation using SWOT Analysis*', CENTRE FOR REGULATORY AND POLICY RESEARCH, TERI SCHOOL OF ADVANCED STUDIES, (2006). <http://www.aseanenvironment.info/Abstract/41012892.pdf> accessed on 7 December 2013.

Another important area where greater transparency can be ensured would be in the composition of the appraisal committees and the proposed independent authority that would be in charge of the assessment report. Since the issue of clearance revolves around the protection of the environment, it would only be logical if the committee has members who are experts in ecology, biodiversity, fauna, flora, geography such as scientists, geographers, social scientists and recognised NGOs. People from these backgrounds will be able to better assess the situation and provide a more scientific and detailed view of not only the current scenario but also the possible consequences in the future.

The composition of such committees gains importance in situations where the project for consideration is a one initiated by the government itself. A committee that is composed of *independent* personnel whose focus solely lie on the desirability and feasibility of a project will ensure that the biases involved in fast tracking and fraudulent granting of clearances to government projects is reduced.

The EIA procedure, in its current form, is not comprehensive enough in both the classification of projects for the purposes of the various stages involved in the clearance process and the impact that is sought to be assessed. Firstly, the Notification excludes a lot of projects from the ambit of the study. This should be remedied by bringing in *all projects, whether new, expansion, modernisation or diversification related* within the ambit of the study. As pointed out earlier, tourism related projects are excluded from the ambit of the study. However, hotels, resorts, guesthouses established near ecologically sensitive ones could affect the neighbouring environment. To take another example, construction projects of a small size are also exempted. The small size of a project does not always translate into it having no adverse impact on the environment. The exclusion based on capacity and size is arbitrary and illogical. Therefore, it would be desirable that all projects are brought under the purview of the EIA as any and every project could potentially

affect the environment and making an assumption to the contrary would only defeat the very purpose of the EIA.

To continue on similar lines, certain projects are exempted from the third stage in the clearance process, that is the Public Hearing Stage. There has been no reason provided for the exclusion of the same from this process. The Public Hearing stage is a particularly crucial one as it gives opportunities to the various stakeholders involved to bring out the issues and concerns regarding the project. If a project applicant is expected to comply with the first two stages of screening and scoping, then there is no harm in complying with the third stage as well. Given the importance of this stage, it must be complied with by all project applicants lest the EIA becomes one of mere token value.

The EIA Notification mentions the maximum time that is to be spent on the procedural aspects. It would be beneficial if the Notification also mentions a minimum time that is to be invested in the procedures to ensure that the quality of the report is not compromised in an effort to fast track the process.

The impact assessment that is to be filed should include a comprehensive report on the various impacts of the project on society, economy, biodiversity, ethnography, the livelihood of the local population and natural resources. A more comprehensive study of this nature will help make more informed decisions and devise better guidelines and standards that are to be followed.

The process of the EIA study requires an active involvement of all participants including competent authority, government agencies, various stakeholders and affected people at early stages of the EIA.[61] This will make the process more robust and gives a fair idea of issues, which need to be addressed in the initial phase of EIA. For instance, in the process of the Public Hearing there is no interplay

[61] '*Understanding EIA*', CENTRE FOR SCIENCE AND ENVIRONMENT,< http://www.cseindia.org/node/383> accessed on 23 November 2013.

between the government agency, the people and the stakeholders. This process includes only those people whose livelihood will be affected by the project. Scientists, NGOs, citizen groups who also play a major role in voicing concerns of the people must also be included in this process. Instead of allowing mere written submissions, they should be made a part of the Public Hearing process which will not only add value to the meeting but also educate the local people of the consequences and potential impacts of the project on their livelihood and resources.

The public, especially the affected local population need to be educated of the process of EIA and must be able to understand the full effects of the project before voicing their concerns regarding the same. One of the ways in which this can be done is through the inclusion of the other stakeholders in the participation process as mentioned above. Other measures would include the EIA Report that is provided for perusal should be comprehensive in the information that is provided. This would mean that the population is not provided with a *draft report* which could be partial and inconsistent in the information. Instead, the EIA should outline certain mandatory information that is to be provided in the EIA Report that is provided for perusal. This would bring about uniformity and would reduce the chances of the Report being partial in the disclosure of information. If the population is expected to decide the desirability of the project based on the report, then it becomes necessary to ensure that the report discloses all potential impacts of the project.

Another suggestion which would go a long way in helping the people understand the nature of the project and its consequences would be to ensure that the EIA report is available in local languages of the people.[62] A standard report provided either in English or Hindi requires for a translation of the subject matter to the population. However, if provided in a local language, it would ensure better understanding of the contents of the report.

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[62] *Id.*

The major issue with Public Hearing is that the suggestions and concerns raised in the meeting may not even be considered by the appraisal committee before granting clearance. Therefore, the entire exercise of conducting a public hearing would become a waste of time, money and resources. Instead, there must be a provision in the EIA Notification that binds the appraisal committee to take into consideration the concerns and suggestions that were raised in the meeting. If certain points are not considered by the committee, then adequate reasons for the same must be furnished. Therefore, a report containing the reasons as to why certain points were taken up for consideration while others weren't and what conditions and restrictions are imposed as a result of the consideration must be furnished by the appraisal committee. The report must be a public document available for the perusal of the public at large. This would ensure some accountability to the appraisal committee and give more seriousness and importance to the public hearing process to be conducted as extensively as possible.

The current procedure of monitoring involves the filing of reports every six months with the authority. Apart from the filing of these reports, the independent authority that would be established to prepare the EIA Report must also be empowered to look into the compliance of the norms and the implementation of the recommendations of the appraisal committee issued while granting clearance. Surprise visits, checking of equipment and safety procedures, continuous monitoring of the emissions would add strength to the monitoring process. Issuing strict regulations and standards will not be effective unless there are some consequences for failure of compliance. If any non-compliance of standards or rules is proved, then it must be met with punishment either in the form of a penalty or a fine, suspension of the clearance, or revocation of the clearance and closure of the project, depending on the gravity of the situation.

The government should look at the EIA from a broader perspective. The process currently only looks at individual projects.

However, there is a need to look at related and interdependent projects as whole to assess the potential impact that the projects may cause on a combined scale. This calls for an integrated approach to the process of understanding the impact of developmental projects on the environment as a whole. After all impacts are documented, then there is a need to evaluate all possible options before arriving at a decision. The pros and cons of such studies can be translated into better policy decisions by the government. The impacts and hazards that are enlisted in such reports can guide the government in formulating better policies regarding environment protection, pollution and emission standards, mandatory safety standards and evacuation procedures to be in place, disaster prevention, mitigation and management systems and the like.

This would require a multi-disciplinary effort combing the contributions of experts from various fields. This would definitely improve the quality of the policy mandate as it would include the inputs from various areas and perspectives, thereby taking into consideration all possible scenarios. Such an effort would be able to extend the reach of the EIA from a just serving as a tool to critically evaluate the desirability, feasibility and viability of a developmental project to serve as a basis for making major policy decisions which affect the ecology, resources and livelihood of the people. The aim of this paper is to ensure that these people are not merely those who are capable of making their voices heard but those who are often suppressed as the more fortunate prosper.

V. CONCLUSION

In the course of this paper, the authors have taken into account the history of environmental law litigation in the country, the provisions of the Notification and its interpretation by the judiciary.

The authors are of the opinion that the judge-driven nature of the proceedings in this area of law has been instrumental in the expansion of litigation in the area and recognition of new rights in

turn. This accompanied by the worldwide acceptance of EIA as a policy makes it indispensable in the Indian scenario.

However, on an analysis of the provisions of the EIA Notification, the authors came across several flaws in its framing which defeat the purpose of the much needed social justice. In the analysis of the judicial interpretation, while the authors were satisfied with the approach of Courts so far, the possibility of better implementation through improved analysis of data and better follow-up was recognised. The fact that the Right to Clean Environment is now a part of Fundamental Rights of the country and environmental jurisprudence world over, with the EIA being an integral component of it, the authors do not believe that shift from EIA is what the law or more philosophically the society requires. Instead, the authors propose changes to make the process of EIA more detailed in its wording and more importantly, inclusive of the historically oppressed in making their voices heard.

So, to conclude the authors believe that a policy that is fundamental to the environmental jurisprudence of the country should be sufficiently amended to embrace in its application the different parts of the society.

LAND USE BASED ENVIRONMENTAL ISSUES IN TELANAGANA

Dr.K.Vidyullatha Reddy[*]

ABSTRACT

The newly formed State of Telangana is embarking on new policies and legislations to meet the aspirations of the people. The government intends rapid industrial growth to solve its socio-economic problems; however environmental concerns should receive adequate consideration while framing policies. The author tries to briefly outline few environmental concerns that are required to be considered while framing policies or legislations in relation to land use. Land use related environmental concerns are considered as the government is planning to pool land and create land bank. The author makes an effort to assist the government to avoid future vexatious litigation in this endeavor.

I. INTRODUCTION

The State of Telangana is four months old. Telangana State emerged as a result of people's struggle and unrelenting agitation for bifurcation of erstwhile State of Andhra Pradesh. The process of the struggle and agitation for bifurcation was unprecedented in Indian history and has brought forth host of emotional, social, cultural, economic and legal issues to limelight which was otherwise not heard of. The Andhra Pradesh Reorganization Bill, 2014[1] was passed in the Parliament amidst huge protest. The State of Telangana is formed as the 29th State after receiving the Presidential assent through the Andhra Pradesh Reorganization Act, 2014 notified on 1st March, 2014 and published in the Gazette by Authority of Government of India. As the State formation is now over, the studies in relation to the process of struggle and bifurcation are more of historical

[*] Professor of Law, NALSAR University of Law, Hyderabad.

[1] Act No.6 of 2014

relevance. The demand for contemporary relevant studies in the wake of formation of the new State is its governance challenges to meet the aspirations of its people.

The formation of new State and the new government in the State coincided as the State was due for elections at the time when the State has to come into existence. The political party which was in the forefront of the agitation for State bifurcation was voted to power as the people believed that they can better appreciate the people's aspirations. However the real challenge for the newly formed government in the new State are 1) The party which led the agitation was a regional party, hence it lacks advisers at national level which might lead to limiting the intellect and broad vision; 2) The party was voted to power for the first time hence governance and administration are completely new for them; 3) people's expectations are much higher form this government than from any of the earlier governments and 4) they have to work with the employees who were bifurcated between the two States not to suit the administration but based on nativity. These are major challenges besides these there are abundant challenges emerging from bifurcation and many more issues within each of these challenges.

Broad challenges on the legal front remain the demand for bifurcation of State High Court, the enactment of new legislations to suit the new State governance. While there are host of legislations which are required to be amended, enacted etc. to govern the new State the legislations pertaining to land pose the greatest of all challenges among them. Almost all development activity requires land use and the government is keen to make strategic use of land for the welfare of its citizens and for the posterity. Land laws are complicated and the issues within them are many, they require more comprehensive approach and well thought out enactments otherwise it may lead to chaos. Land laws concern property rights, inheritance rights, community rights, society rights, sovereign rights and many more; however the interface between land laws and environmental

issues do not capture the requisite amount of attention which it deserves at the time of while framing land laws.

As a new state where the land policies are yet to be formulated, the environmental issues concerning land use should be considered by the Telangana government while embarking on policies and legislation. This paper makes an attempt to outlay the environmental issues concerning land use that should be considered by the State of Telangana while making land and land use related policies. The scope of this paper is limited to environmental issues that pose challenge for contemplated land use in Telangana.

II. LAND SURROUNDING WATER BODIES

Telangana State geographically does not border sea coast, hence the national and international laws governing ports, water front, foreshore, continental shelf, exclusive economic zone, territorial waters and the provisions of United Nations Convention on Law Of Seas (UNCLOS) has no direct impact on land use in Telangana. Coastal Regulation Zone Notification, 1991 declares the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) up to 500 meters from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) and the HTL as Coastal Regulation Zone. The notification imposes restrictions on development activity in this zone. The distance up to which development along rivers, creeks and back-waters is to be regulated shall be governed by the distance up to which the tidal effect of sea is experienced in rivers, creeks or back-waters, as the case may be, and should be clearly identified in the Coastal Zone Management Plans. As the rivers flowing in Telangana State join sea in the Andhra Pradesh State the tidal action in these rivers is experienced in Andhra Pradesh State only. Hence though Coastal Regulation laws apply to water bodies which have tidal action

the restrictions imposed on development activity as per these laws have practically no application in Telangana State[2].

Telangana government has undertaken/planning to undertake and continue infrastructure works such as construction of dams, hydro power projects, lift irrigation works, drinking water grid proposals etc. in various parts of the State on the rivers flowing in Telangana. River valley projects and hydro power projects require environment clearance as per the Environment Impact Assessment Notification, 2006[3].

Projects/industries which are set up close to water bodies require special consideration. The Government of erstwhile Andhra Pradesh Government issued Government Order in 1994 (G.O.Ms 192 dated 31-03-1994[4]) wherein it prohibited development activity within 10 kilometers (Km) radius of Osman sagar and Himayath sagar lakes as they are the drinking water sources of Hyderabad[5].

There are many lakes in Telangana and the development activity near the lakes requires careful consideration otherwise they

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2 Government of India constituted Swaminathan Committee to study the demarcation of coastal zones. The committee recommended that demarcation should be based on vulnerability mapping but not as per the present method i.e. 500 meters from High Tide Line (HTL). The committee was constituted to recommend to the government of India to come up with new notification superseding the existing notification and all its amendments. The committee suggested coastal zone management than regulation, however the existing coastal regulation zone notification provides for coastal zone management plan to be prepared and approved by coastal States.

3 The EIA notification 2006 supersedes the earlier EIA notification of 1994 and all its amendments. This notification divided the projects into A and B category depending on their environment impact. B category projects are further divided into B1 and B2. The projects listed in A and B1 require environment clearance from Central government and the projects listed in B2 require clearance from state government. River valley projects which provide irrigation to more than 10,000 hectares of land or which generates more than 50 MW of hydroelectricity are listed in A category. This notification mandates that once a clearance is granted it will be further monitored post clearance by the government. Certain expansion works elated to irrigation are exempted from procuring environmental clearance.

4 A.P.P.C.B. v. M.V.Nayudu ((1999) 2 SCC 718)

5 As per the pollution control boards official website details (www.appcb.ap.nic.in) there are 84 villages located within the 10 km radius of these lakes. There are restrictions on industrial as well as other development activity in these villages.

may lead to environmental degradation and litigation. In the case of *A.P.P.C.B. v. M.V. Nayudu*[6] the Supreme Court of India overruled the decision of the appellate authority constituted under the Water (Prevention and Control of Pollution) Act, 1974 and the High Court of Andhra Pradesh permitting industrial activity within 10 km radius of the lake listed in the above mentioned Government Order. Industry argued that they have best available technology and the industry argument was supported by scientists, however the Supreme Court held that the lakes provide drinking water for the Hyderabad City hence industrial activity cannot be permitted in prohibited zone.

III. FRAGILE LAND ENCROACHMENTS

There are active voluntary organizations in Telangana working to protect lakes from encroachments and other environmental degradation. Lakes form important drinking water source in some parts of the State, they are source for fishing and irrigation in some parts of the State. Encroachment of lakes and tanks land is another environment problem challenging the environment. In a recent land survey conducted by revenue department and Greater Hyderabad Municipal Corporation (GHMC) it was observed that three acres of tammidi kunta lake land was encroached by N Convention Centre at Madhapur[7]. This is not a lone phenomenon as there are no lake maps showing full tank level (FTL) superimposed on the existing maps of the survey of India. Citizens purchasing land are unaware of lake lands as the boundaries are not demarcated properly and at times registrations are done for these lands by revenue department. Some of them are encroached long back and the possessors claim adverse possession over the land now. An estimate suggests that 99 out of 127 water bodies identified for protection in Hyderabad are encroached[8]. The situation in rest of telangana may

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6 (1999) 2 SCC 718)

7 N Convention encroachment of lake opens can of worms?, The Times of India, http://timesof india.indiatimes.com visited on June 6, 2014.

8 Swathi V., 99 Tanks Enroached, The Hindu, http://www.thehindu.com/todays-paper/tp-national/tp-andhrapradesh/99-tanks-found-encroached/article2119385.ece, last visited on June 6, 2014.

not be very different. In villages' protection of water bodies lie in the hands of water users associations to some extent besides irrigation department and other government agencies[9]. A resurvey of land is suggested as one of the solutions to combat major problems associated with encroachments, demarcation of titles and other land litigations.

IV. LAND FOR WASTE MANAGEMENT

Land is not only required for productive purposes but also for waste management and other such activities. The extent of land requirement for these cannot be undermined. 350 acres of land in Jawaharnagar village of Shameerpet mandal, Ranga Reddy District is earmarked as landfill site for the municipal solid waste generated in Hyderabad which is deposited in this site[10]. There were already existing sites in Autonagar and Gandhamguda which have posed lot of health hazards to the nearby residents. A researcher opined that 300 acres of land will be required every seven to ten years for landfill if dumping happens in the present pattern[11] for municipal solid waste generated in Hyderabad alone leaving rest of Telangana. Waste management should be planned in such a way that least possible quantum of waste reaches the dumpsite. Waste should be recycled, converted into manure through compost or generate energy from waste and use other similar technologies to minimize quantity of waste so that we save land for productive purposes. Land is not only

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[9] Andhra Pradesh Farmers Management of Irrigation System's Act, 1997 provides for the formation of water users associations. This association is an elected body from among the ayacutdars i.e people who cultivate in the command area of that water body. They will look after proper water use and its repair or restoration works in consultation with government.

[10] Municipal Solid Wastes (Management and Handling) Rules 2000 mandate developing suitable lands and existing dumpsites into secure landfill sites to combat environmental problems. These Rules are notified by the Central Government in exercise of its powers under Environment Protection Act, 1986.

[11] Close dumping yards, make cities healthy, The New Indian Express, http://www.newindianexpress.com/cities/hyderabad/article462792.ece?service=print, last visted on June 5, 2014. (The articles talks about research findings of Ranjit Kahrvel, a research scholar on environmental engineering from Columbia University, New York, he advocates waste to energy plants to save land).

required for landfill sites but also for transfer stations where waste is deposited for short while and then sorted and sent to landfill site. There will be huge pressure on land availability and citizens do not intend to have neither the landfill site nor the transfer stations closer to their residences and offices which add to the problems[12].

The proposed 2014 guidelines relating to Common Bio-medical Waste Treatment Facility (CBWTF) circulated by Central Pollution Control Board mandates government to allot at least one acre land for each CBWTF[13]. The guidelines suggest one CBWTF for every 150 km radius and 10,000 beds[14].

At present one Treatment Storage and Disposal Facility (TSDF) for management of industrial hazardous waste is established at dundigal village, Ranga Reddy District in the State of Telangana[15], however with industrialization the demand for more TSDF's may arise. For example the state of Gujarat has 8 TSDF's in operation[16].

V. LAND FOR GREEN COVER

Forest policy in India aims to bring 33% of the total land cover under forest[17]; however it fluctuates between 22 to 24 % from 1998 to 2012 emphasizing the need for more proactive action from

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12 The attitude of the public not to have waste deposited closer to their homes and offices is often described as NIMBY (Not In My Back Yard) syndrome.

13 Guidelines on Common Bio-medical Waste Treatment Facility (CBWTF), http://www.cpcb.nic.in/wast/bioimedicalwast/Rev_Draft_Gdlines_CBWTFs_26022014.pdf

14 Bio-Medical Waste (Management and Handling) Rules, 1998 mandates generator of bio-medical waste or operator of a bio-medical waste management facility to treat the waste in accordance with the Rules. While having independent bio-medical waste treatment facility is not feasible for all generators they rely on common treatment facility.

15 Hazardous Wastes (Management, Handling and Tran's boundary Movement) Rules, 2008, Rule 4 mandates generator of waste and operator of facility to treat the waste in accordance with the Rules.

16 State-wise Availability of Common Hazardous Waste Treatment,Storage & Disposal Facility http://cpcb.nic.in/divisionsofheadoffice/hwmd/Information_TSDF.pdf, last visted on June 6, 2014.

17 National Forest Policy, http://envfor.nic.in/legis/forest/forest1.html, last vsisted on June 6, 2014.

government[18]. Khammam district in Telanagana lost 182 sq.km. of forest cover as per the state of forest, 2011 report released by Forest Survey of India (FSI)[19]. This is a major loss and no other State except the northeastern States in India recorded such a major loss ever; however large part of loss is due to large scale eucalyptus plantations which is practiced for the paper pulp industry.

Telangana State has to face the challenge of increasing forest cover, reduce depletion of forest cover besides allowing forest dwellers to claim their rights[20]. Forest Conservation Act, 1980 does not allow forest land to be used for non-forest purposes except with the permission of Central Government; however there are state legislations which allow state to exercise control over minor forest produce and protect forest land[21].

VI. LAND USE AND MINING

Projects/industries which are set up close to water bodies require special consideration. There was huge protest by the public when UCIL (Uranium Corporation of India Limited) intended to take up uranium mining near river Krishna at Nagrajunasagar in Nalgonda District. Concerns were raised about the health of the villagers and employees who would be exposed to radiation, contamination of water bodies leading to diseases besides other challenges which this project would lead to. People expressed their displeasure and created awareness among the locals and they

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[18] Id. Indian government came up with first forest policy in 1952; in 1988 another forest policy was brought forth, however in 2006 the Government of India came up with National Environmental Policy covering all aspects of environment including forests.

[19] Gollapudi Srinivasa Rao,Warangal losing its green cover, The Hindu, http://www.thehindu.com/news/national/telangana/warangal-losing-its-green-cover/article6238655.ece, last visited on June 6, 2014.

[20] Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows scheduled tribes forest dwellers can claim right over forest land if they are in possession for more than 25 years while other traditional forest dwellers can claim right if they are in possession for more than 75 years. This legislation allows forest dwellers to claim right over forest land.

[21] The Andhra Pradesh Minor Forest produce (Regulation of Trade) Act, 1971 allows the state government to regulate trade in minor forest produce besides allowing the state government to empower its forest officers to conduct search and seizure of transporting vehicles.

protested at the public hearing. Many political parties opposed the project. TRS (Telangana Rastra Samiti) was one of the political parties which opposed the project, now the party formed the government in Telangana. There was huge criticism of a former chief minister, Late Mr.Y.S.Rajashekar Reddy, who opposed the project while in opposition and supported it when he became the chief minister subsequently. Such important environment issues should not be decided based on political considerations. These decisions will have long term impact and have to be considered on the basis of thorough scientific analysis[22].

Telangana has rich deposits of coal, mica and bauxite. Cement industry flourished in Nalgonda district also due to rich lime stone deposits in certain parts of the district; however this industry causes air pollution and these are also held to be responsible for depletion of agricultural produce in the region. In most of the public hearings for power plants and cement industry people expressed concern for employment and compensation being a backward district.

Coal mines contribute to state wealth and Telangana is rich in coal resources however the State lacks thermal power generating capacity and is facing huge challenge to meet the demand for power from the industry, domestic and the agriculture sector.

VII. CONCLUSION

The environmental legislations prohibit government from using fragile land, land abutting water bodies, forest land, land which can be used for particular purposes in view of mineral resources etc. for certain purposes. If the government in exercise of eminent domain acquires such land or is already in control of such land still it cannot be used for the purposes which do not synchronize with environment objectives. Hence utilization of land for industrial purposes contemplated by Telangana government can materialize if it creates

[22] Saraswati Kavalu, Combating the Nuclear Lobby in India, http://www.dianuke.org/combating-the-nuclear-lobby-in-india/, last visited on June 6, 2014.

land bank with suitable land;[23] otherwise fast track clearances for industries which are contemplated by government may end up in vexatious litigation.

[23] Telangana to set up eight lakh acre land bank, Deccan Chronicle http://www.deccanchronicle.com dated 24-08-2014. As per the new paper reports telangana government intends to transfer eight lakh acres of land to telangana industrial infrastructure corporation. The details of land availability along with approvals shall be placed on department's websites for the information and action of potential investors. Last visited on June 6, 2014

SUSTAINABLE DEVELOPMENT OF NUCLEAR POWER

Amana Ranjan[*]

ABSTRACT

Access to power created by clean energy sources is a primary concern when considering sustainable development. Nuclear power has assumed an indispensable role in providing for energy demands without carbon base burden power. Energy conservation plays a pivotal role in a country's sustainable development plan in counterbalancing the increasing consumption of energy in developing and developed countries. Providing sufficient solid and clean power is an important issue for sustainable development and has proved to be a pressing matter for the current and future generations. While energy conservation and nuclear power is a reality that is essential to support development plans for urban areas over the world, it brings with it exponential risks as well. In light of these developments and various international obligations, India has taken an active role in setting up a legal framework for liability and responsibility of nuclear accidents by enacting the Civil Liability for Nuclear Damage Act, 2010. Though the statute has drawn some criticism, it is nonetheless a landmark transition for India into the international nuclear liability regime.

I. INTRODUCTION: NEED FOR NUCLEAR POWER AND SUSTAINABLE DEVELOPMENT OF THE SAME

Electricity demand in India has been increasing rapidly. The recent estimates show 900 billion kWh of production in 2009 which is more than triple the production levels in 1990.[1] Despite such increase, per capita representation remains around 750 kWh per

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[*] Amana Ranjan is a student studying in 4th year, B.A. LLB (hons.), West Bengal National University of Juridical Sciences, Kolkata.

[1] Arun Seshadri, Disha Venkataraman, *Nuclear Energy: The Need for Today*, available at http://www.ndtvmi.com/b8/Dopesheets/arundishav.pdf (Mar. 28, 2013).

capita for the year.[2] The World Nuclear Association has estimated the per capita electricity consumption "*to double by 2020, with 6.3% annual growth, and reach 5000-6000 kWh by 2050, requiring about 8000 TWh/yr then*".[3]

The ever increasing demand for electricity especially in a developing economy like India's, coupled with dwindling resources of coal reserves highlights the dire need for a renewable source of energy to meet the current and future needs. This is quintessential especially in the light of the fact that electricity is an important and rather determining factor in the economic development of a nation. Thus, an alternate source so as to ensure continued supply of electricity is integral in ensuring the pace of economic development.

Currently in India, 4% of the total electricity is produced using nuclear energy. At the present production scale, the same comes around 4780 MWe.[4] World Nuclear Association has estimated India to have 14, 600 MWe nuclear capacity by 2020 and has observed that India aims to supply 25% of its electricity through nuclear power by 2050.[5]

At the same time, cases of nuclear accidents and damage to environment and life makes one wary of such developments. Examples like the Chernobyl Disaster (1986), which caused thirty one on spot fatalities and latent deaths *"between 9,000 and 33,000*

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2 *Id.*

3 Nuclear Power in India, World Nuclear Association, available at http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/India/ (Mar. 28, 2013).

4 *Id.* The post further elaborates as follows, "...in December 2011 parliament was told that more realistic targets were 14,600 MWe by 2020-21 and 27,500 MWe by 2032, relative to present 4780 MWe and 10,080 MWe when reactors under construction were on line in 2017."

5 Nuclear Energy Worldwide, available at http://www.niauk.org/nuclear-energy-worldwide (last visited on March 28, 2013).

over the 70 years after, based on current radiation dose risks"[6] exemplify the imminent danger nuclear power poses to humankind.

In the light of the potential damage, the need for sustainable development of nuclear power becomes important. Despite the potential of long term use of nuclear power, one ought to be cautious while using the same so as to ensure sustainable development.

Having established the need for nuclear power and its sustainable development, Part I and Part II of the essay will delve into the issue of how to ensure such development. Part III will analyse the legal framework for liability and responsibility for damage caused by use of nuclear power in India. Part IV will conclude with the suggestions on the way ahead in the path of sustainable development of nuclear power.

II. How to Ensure Sustainable Development of Nuclear Power

This part intends to highlight the international obligations thrusted upon various countries including India with regards to sustainable development. Further, the structural and institutional security mechanisms are discussed in brief and the case study of the Fukushima nuclear accident is used to analyse the scenario of the Indian reactors if and when faced with similar circumstances. Finally, the importance of public participation and consultation before starting nuclear projects will be argued for.

II.I International Obligations

One of the first documents to develop the principle of sustainable development was the Stockholm Declaration, 1972. It reaffirmed the rights of humans to have a clean and healthy

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[6] Talea Miller, *Rating Nuclear Accidents and Incidents: Which Were the Worst?*, PBS Newshour, available at http://www.pbs.org/newshour/rundown/2011/03/worst-nuclear-accidents-in-history.html (Mar. 28, 2013).

environment to ensure dignity of life and imposed a responsibility of protecting and improving the environment for the present and future generations.[7] The Declaration specifically imposed an obligation on the states to, *"take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health"*[8]. Also, it raised a serious concern regarding the effects of nuclear weapons, calling upon states to agree on non-use of the same. Owing to the nature of nuclear power, concerns have even been raised regarding civil use of the same.

More specifically, the Earth Summit, 1992 laid down an obligation on the states to enact laws on the domestic level regarding their liability towards the victims of, *"pollution and other environmental damage"*.[9] It also enshrined the precautionary principle mandating states to take cost-effective precautionary measures to protect the environment especially from, *"threats of serious or irreversible damage"*.[10]

Further, these documents and the ones subsequently entered into by various countries of the world, linked the concept of sustainability of environment with economic development. This is of relevance here as use of nuclear power is necessitated by the economy of a country and in turn is also seen as an indicator of its development. In 2002, the Johannesburg Declaration noted that even the private players in the economy have *"a duty to contribute to the evolution of equitable and sustainable communities and societies"*[11] and that *"there is a need for private sector corporations to enforce corporate accountability"*[12]. Since nuclear power when used irrationally, has the power to cause grave and irreversible damage to the environment,

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7 Principle 1, Declaration of the UN Conference on the Human Environment, 1972 (the Stockholm Declaration, 1972).

8 *Id.* Principle 7.

9 Principle 13, United Nations Conference on Environment and Development, 1992 (Earth Summit).

10 *Id.* Principle 15.

11 Johannesburg Declaration on Sustainable Development, 2002, ¶ 27.

12 Johannesburg Declaration on Sustainable Development, 2002, ¶ 26.

sustainable development of the same has to be ensured through a joint-reading of the above international instruments signed by India.

II.II INSTITUTIONAL AND STRUCTURAL SAFETY MECHANISMS

The main objective of a nuclear safety mechanism is *"to protect individuals, society and the environment by establishing and maintaining in nuclear power plants an effective defense against radiological hazard"*.[13] The design and structure of a nuclear power plant and institutional checks in the form of regular inspections to ensure compliance with the safety standards can go a long way in preventing nuclear accidents and the resultant damage to infrastructure, workers and people in the neighbouring areas. The question thus arises if such measures have been taken in Indian nuclear reactors or not.

II.III FUKUSHIMA INCIDENT- COMPARATIVE ANALYSIS BETWEEN JAPANESE AND INDIAN REACTORS

Due to the earthquake and consequential tsunami in Japan, the Fukushima nuclear accident occurred in 2011, disabling the power supply and cooling down system of the reactors. The incident was rated seven on the International Nuclear Event Scale (INES).[14] The damage caused was subsequently attributed to the company handling the Plant and the design was reported to be devoid of many potential safety measures.[15]

Since India has two similar boiling water nuclear reactors in Tarapur, when the designs of the Indian and Fukushima reactors

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[13] International Nuclear Safety Advisory Group Report, Basic Safety principles for Nuclear Power Plants 75-INSAG-3 rev.1 INSAG-12, available at http://www-pub.iaea.org/MTCD/publications/PDF/P082_scr.pdf (Mar. 25, 2013).

[14] Fukushima Accident 2011, World Nuclear Association, available at http://www.world-nuclear.org/info/Safety-and-Security/Safety-of-Plants/Fukushima-Accident-2011/ (last visited on March 23, 2013).

[15] *See*, '*Fukushima Disaster could have been avoided': TEPCO takes Blame in strongest terms ever*, Question More live, available at http://rt.com/news/japan-nuclear-crisis-blame-053/ (last visited March 28, 2013).

have been compared, it is seen that the Indian nuclear power plants are safer since they have an in-built cooling mechanism which does not require power like the Japanese ones. Further, the volume of the reactors is larger in proportion to the energy generated from it.[16] These two basic features ensure safer cooling of the reactor which did not happen in Japan owing to the power failure due to the earthquake. Further, India was recently declared to have the safest nuclear reactors in the audit conducted by Operational Safety Division, International Atomic Energy Agency.[17]

Thus one may argue that India has taken its obligations for sustainable development of nuclear power seriously. However, the broader picture may not be so pleasing. Public involvement or consent for developing nuclear power in their vicinity has become a rather contentious issue.

II.IV PUBLIC PARTICIPATION AND CONSENT- USING KUDANKULAM CASE STUDY

The recent protests in Kudankulam against the two 1,000 MW nuclear reactors have raised many questions regarding institutional lapses such as clearances as old as three decades being utilized for constructing nuclear plants years later. Also, the issue of unaccounted environmental damage to marine flora and fauna and the careless attitude of the government prone to disregarding public opinion have been brought to the forefront.[18]

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[16] S.K. Malhotra, Head of Public Relations, Department of Atomic Energy, Government f India, Panel Discussion at 2nd NUJS Environmental La Workshop (February 23, 2013); *See generally*, P. Krishna Kumar et al, Safety Assessment and Improvements in Indian Nuclear Power Plants, available at http://www-pub.iaea.org/MTCD/publications/PDF/P1500_CD_Web/htm/pdf/topic6/6S03_P.%20Krishnakumar.pdf (last visited on March 21, 2013).

[17] *See,* IAEA: India Rajasthan Nuclear reactors 'Safe', BBC News (November 23, 2012), available at http://www.bbc.co.uk/news/world-asia-india-20440675 (last visited on March 21, 2013).

[18] *Kudankulam plant got Vague Clearance in 1989,* The Hindu (September 28, 2012) available at http://www.thehindu.com/news/national/kudankulam-plant-got-vague-clearance-in-1989/article3942905.ece (Mar. 19, 2013); *Protestors plan another sea siege*

Public participation in decision making, awareness campaigns relating to safety mechanisms inbuilt in the nuclear plants and the benefits of such development could help ward off mistrust among people in many cases. Environmental clearance especially for nuclear projects should be given for only limited durations and if construction does not start in the stipulated time, assessment reports should be re-made and public consulted again to ensure that such development does not come at the cost of public anguish or damage to environment.

Having discussed different aspects of sustainable development of nuclear power in this part the legal framework in India while be analysed which imposes liability and responsibility for nuclear accidents as is internationally obligated on states to provide for.

III. LEGAL FRAMEWORK FOR LIABILITY AND RESPONSIBILITY OF NUCLEAR ACCIDENTS IN INDIA

The Indian legal framework on this issue can be divided into phases with the enactment of Civil Liability for Nuclear Damage Act, 2010 as the landmark event marking the transition.

III.I PRE-2010 REGIME

The pre-2010 regime was primarily based on the *Union Carbide Case* and subsequent cases. The Indian courts did not apply the *Rylands v. Fletcher* principle of strict liability and instead evolved the concept of absolute liability to deal with inherently dangerous activities concomitant to an industrial economy.[19] This principle imposed an absolute and non-delegable duty on the polluter. This new principle was seen by the court as an excalibur in the hands of the public as the possibility of industrialists escaping all liability in

at Kudankulam on December 10, The Hindu (December 08, 2012) available at http://www.thehindu.com/news/national/tamil-nadu/protesters-plan-another-sea-siege-at-kudankulam-on-december-10/article4178543.ece(Mar. 19, 2013).

[19] Union Carbide Corporation v. Union of India, 1989 SCC(2)540; 1991 SCR Supl. (1)251.

cases of nuclear accidents by claiming exception under the exceptions available under strict liability principle is not present in case of strict liability.

Interestingly, despite attempts to ensure stringent punishment for the industrialists engaging in nuclear power plants in case of accidents, even the *Union carbide Case* has not been able to achieve the same. In fact recently, a New York District Court held that Union Carbide Company and its erstwhile CEO, Warren Anderson faced no direct liability to compensate the victims of the Bhopal gas tragedy of 1984.[20]

In the light of international obligations to enact national laws for the purpose of imposing such liability and as a last step in the series of negotiations towards the Indo-U.S. Civilian Nuclear Agreement, 2008 The Civil Liability for Nuclear Damage Act, 2010 was enacted, thus changing the face of law on the issue in India.

III.II THE CIVIL LIABILITY FOR NUCLEAR DAMAGE ACT, 2010- A CRITICAL ANALYSIS

This law was enacted with the purpose of facilitating India's entry into an international nuclear liability regime and it seeks to impose a no-fault liability on the operator to compensate victims and for environmental damage. It also calls for the formation of the Nuclear Damage Claims Commission (NDCC).[21] On the outset, the legislation looks like an effort on part of the government to ensure stringent operator's liability and welfare of the victims, but on a closer anaylsis of the Act, one may see major loopholes which may make the entire venture futile and redundant, if not detrimental to India.

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[20] Narayan Lakshman, *Union Carbide, Anderson cleared of Liability for Bhopal Tragedy*, The Hindu (June 28, 2012), available at http://www.thehindu.com/news/national/other-states/union-carbide-anderson-cleared-of-liability-for-bhopal-tragedy/article3581313.ece (Mar. 25, 2013).

[21] Preamble and Statement of Objects and Purpose, the Civil Liability for Nuclear Damage Act, 2010 (Hereinafter referred to as the Act).

Owing to the scope of this essay, only the major criticisms of the Act are discussed. Most importantly, the Act limits the maximum liability imposable. The maximum liability has been capped at 300 SDR[22] which is equal to 450 million USD . This in fact, is lower *viz* other countries and interestingly, lesser than the amount made payable to the victims of Bhopal gas tragedy way back in 1989.[23] Japan has a cap of 1.2 Billion USD on the operator and imposes an unlimited liability on the state.[24] Germany and Finland do not have concept of limiting operator's liability.[25] Limiting the operator's liability at Rs. 1500 Crores[26] has raised many eyebrows as no expert evaluation of potential damages in a nuclear accident was conducted while fixing such caps.[27]

Further, once the decision of NDCC is made final,[28] there is hardly any scope for judicial review.[29] Another major criticism of the Act is that it fixes the time limit for filing one's claim to twenty years which is highly inadequate considering that the effects of radioactive radiation are much more long-term. Even the 2004 protocol to the Paris Convention[30] provides for a thirty year limitation period.

Also, the Act provides for the extent of damage and economic loss caused to be notified by the government in some cases.[31] This

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22 Section 6(1) of the Civil Liability for Nuclear Damage Act, 2010 Act.

23 Even in 1989, the compensation was criticized for being highly inadequate. Dipesh Patel, *An Analysis of the Civil liability for Nuclear Damage Bill, 2010,* available at http://www.indialawjournal.com/volume3/issue_4/article_by_dipesh.html (last visited on March 19, 2013).

24 *Id*.

25 *Id*.

26 Section 6(2), the Act.

27 PRS Legislative Brief- The Civil Liability for Nuclear Damage Bill, 2010, available at http://www.prsindia.org/uploads/media/Nuclear/Final%20Brief%20-%20civil%20liability%20for%20nuclear%20damage%20bill.pdf (last visited on March 30, 2013).

28 Section 16, the Act.

29 Patel, *Supra* note 23.

30 Available at http://www.oecd-nea.org/law/paris-convention-protocol.html (last visited on March 30, 2013).

31 Section 2(g), the Act.

leads to a possibility of bias and conflict of interests, as in many cases, the central government may be liable to compensate the victims.[32]

From the above analysis of the Act, one may doubt its efficacy and utility. Unless a strong regime for liability and responsibility on the operator and the state for compensation for the damage caused is not brought into picture, it will impossible to ensure sustainable development of nuclear development.

IV. CONCLUSION

Since the need for alternate power sources has been an all time high owing to depleting coal reserves and increasing demand for electricity, use of nuclear power has becoming inevitable. Problems arise due to the potential danger it can pose to both human-life and the environment, thus necessitating sustainable development of nuclear power.

Sustainable development has come to be seen as the prerogative of the state in international environmental law jurisprudence and the obligation of protecting the environment from "serious and irreversible damage"[33] is now being extended to even private bodies indulging in potentially hazardous activities. Better safety mechanisms in nuclear reactors are the need of the hour and fortunately, India has been a one of the fore-runners in this aspect.

More importantly, public consent regarding the construction of nuclear plants is integral in ensuring safe nuclear development. Public participation in the process will ensure better compliance with the rules of the government on related matters such as steps to be taken by persons living in the vicinity of a reactor in times of accident. Also, people living in the neighbourhood of the plant site have greater awareness of the ground realities and can thus act as good sources of information regarding potential damage to

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[32] *Supra* note 27.
[33] *Supra* note 10.

environment. The example of the fishermen community in Kudankulam is worth a mention here.

In order to mandate persons involved with the establishment and working of a nuclear power plant regarding sustainable development, a liability and responsibility regime has to be brought into place. This acts as a deterrent against laxity in dealing with nuclear power in different stages and ensures justice to victims in case of accidents. Compensation for the environmental damage caused and cost of clean-up can also be claimed from the operators and state who are the two major stakeholders. Thus, this helps one ensure that nuclear power is developed sustainably.

Having discussed the loopholes in the Act, one may observe that there is still a long way to go for India in getting an effective liability regime in place. Some tend to argue that Section 46 makes the Act a supplementary remedy, thus keeping recourse to all major principles and laws which are part of Indian jurisprudence open.[34] This could be seen to provide some solace in case damage disproportionally more than current limits imposed by the Act, is suffered.

One could draw inspiration from the Organization for Economic Co-operation and Development and International Labour Organization and ensure that Corporate Social and Environmental Responsibility be closely associated with the principle of sustainable development.[35] Decisions in the industry should be made considering economic factors along with 'long term social and environmental outcomes'.[36]

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[34] *See*, Fine under the Nuclear Liability Act, 2010, Starred Question no. 287, Rajya Sabha (to be answered on December 13, 2012), available at http://www.dae.nic.in/writereaddata/rssq287.pdf (last visited on March 29, 2013).

[35] Linda Siegele and Halina Ward, *Corporate Social Responsibility: A Step Towards Stronger Involvement of Business in MEA Implementation?*, RECIEL 16(2)2007 (135); See also, http://www.mpe-magazine.com/reports/industry-guidelines-setting-the-standard-on-social-responsibility (last visited on March 19, 2013).

[36] *Id.*

Hence, one may reiterate that nuclear power is a reality of the time and thus sustainable development of same should be prioritized by both the state and private bodies.

CASE COMMENT ON THE NIYAMGIRI HILLS CASE

Dr. N. Vasanthi[*]

ABSTRACT

The Indian Supreme Court has played an important role in shaping the jurisprudence around environmental rights. The Court relying heavily on international conventions and A.21 of the Constitution of India has given recognition to international principles such as sustainable development, inter-generational equity, precautionary principle and carrying capacity. After a series of high acclaimed decisions which gave recognition to these principles, the Court began to face the hard questions of balancing interests and not only inter-generational but also intra-generational equity. The Narmada litigation and the forest case (on-going petition of Godavarman) have raised important questions of beneficiaries of development. In the years following the Narmada decision the question of environmental rights has become complicated with conflicting interpretations of the right to development and the right to livelihood under A.21. The displacement of particularly vulnerable groups of people such as indigenous people has raised several questions which could not be answered within the framework of the right to life alone. With indigenous peoples right's, the right to environment and the right to livelihood being inextricably intertwined the situations which juxtaposed one against the other often meant indigenous people lost out one way or the other.

This case comment examines the manner in which the OMC case opens up the location of indigenous peoples rights in other fundamental rights. The case is examined upon the different conceptual frameworks for indigenous rights as well

[*] Professor of Law, NALSAR University of Law.

as from the point of view of a transformational constitutionalism.

I. INTRODUCTION

The Indian Supreme Court has played an important role in shaping the jurisprudence around environmental rights. The Court has largely relied upon international conventions and A.21[1] of the Constitution of India to elaborate on environmental rights. Judicial recognition has been given to international principles such as sustainable development, inter-generational equity, precautionary principle and carrying capacity and accommodated them within the framework of the right to life under A.21. After a series of high acclaimed decisions which gave recognition to these principles, the Court began to face the hard questions of balancing interests and not only inter-generational but also intra-generational equity. The Narmada litigation and the on-going petition of TN Godavarman Thirumalpad v. Union of India (hereinafter referred to as forest case)[2] have raised important questions of beneficiaries of development.

In the years following the Narmada decision the question of environmental rights has become complicated with conflicting interpretations of the right to development and the right to livelihood under A.21. The displacement of particularly vulnerable groups of people such as indigenous people has raised several questions which could not be answered within the framework of the right to life alone.

With indigenous peoples right's, the right to environment and the right to livelihood being inextricably intertwined the situations which juxtaposed one against the other often meant indigenous people lost out one way or the other. This case comment examines the manner in which the Orissa Mining Corporation vs.

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1 India Const. Art. 21.

2 TN Godavarman Thirumalpad v. Union of India, Review Petition No.100 of 2008 in WP No. 549 of 2007, order dated 7-5-2008(SC).

Ministry of Environment & Forest & Others[3] (hereinafter referred to as OMC case) opens up the location of indigenous peoples rights in other fundamental rights. The case is examined upon the different conceptual frameworks for indigenous rights as well as from the point of view of a transformational constitutionalism.

II. BACKGROUND TO THE DECISION

The decision in OMC in 2013 arises in the context of the OMC (Orissa Mining Corporation), a State of Orissa undertaking approaching the Supreme Court to quash an order of the MoEF in 2010 rejecting diversion of 660.749 ha of forest land for mining of bauxite.[4] The OMC maintains that this order neutralizes two earlier orders of the Supreme Court.[5] The earlier orders of the Supreme Court had allowed bauxite mining subject to allocating resources towards compensatory afforestation, as well as rehabilitation of project affected families and other conservation measures.[6] The decision of the MoEF was taken on the ground that there was a violation of the rights of tribal groups including primitive tribal groups and dalit population, a violation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 along with violations of other forest legislations.[7] In the challenge to this decision the OMC submitted that the earlier judgments were binding on the parties with regard to various questions raised and decided as well as questions that ought to have been raised and decided. It was contended that it was not open to the parties to raise the question of rights under the Forest Rights Act, which were heard and rejected in the review petition[8].

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3 Orissa Mining Corporation v. Ministry of Environment & Forest & Others (2013) 6 SCC 476.
4 *Id.* ¶ 4.
5 *Id.* ¶ 2.
6 *Id.* ¶ 9.
7 *Id.* ¶ 11.
8 *Id.* ¶ 16.

III. THE DECISION

The Supreme Court in deciding the case invokes A.25[9] and 26[10] along with A.21 to establish the right to land within cultural and religious rights of Scheduled Tribes and Traditional Forest dwellers. The Court sets out the rights of indigenous people under the Indian Constitution as well as international conventions. It relies on the case Samatha v. State of Andhra Pradesh (hereinafter referred to as Samata)[11] to reiterate that land is the most important asset from which tribal's derive their sustenance, social status, economic and social equality. It refers to the V Schedule of the Indian Constitution, the Bhuria Committee report, the deliberations around the PESA along with the ILO Convention on Indigenous and Tribal Populations No. 107, ILO Convention No. 169, the Indigenous and Tribal Peoples Convention 1989 and the United Nations Declaration on the Rights of Indigenous People(UNDRIP) 2007.

The judgment then moves into a novel paradigm of invoking the cultural rights component within the ILO Convention No. 107 along with the CBD (Convention on Bio-Diversity) 1992. The Bio-diversity convention involves the local communities in the conservation of bio-diversity. The judgment also invokes the UN Declaration to speak of the "*necessity to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures, and from their cultures, spiritual traditions and philosophies, especially their rights to their lands, territories and resources.*"[12]

Bearing in mind the above objects, the Supreme Court relies on the Forest Act under which community resources, individual rights and cultural and religious rights are recognised. The Court points out that the Forest Act protects a wide range of rights of forest

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9 India Const. Art. 25.
10 India Const. Art. 26.
11 Samatha v. State of Andhra Pradesh, [1997] 4 SCALE 746.
12 *Id.* at 501 (¶ 46).

dwellers including the use of forest land as a community resource and not merely restricted to property rights.[13] These rights however conflict with rights vested in the State not by virtue of a special act but on the principle of trusteeship. The Court observes that

> "*The State holds the natural resources as a trustee for the people. Section 3 of the Forest Act does not vest such rights on the ST's or other TFD's. The PESA Act speaks only of minor minerals.*"[14]

The Court thus reserves the right of the State to permit bauxite mining by a public corporation.

Notwithstanding this, the Court then goes further to hold that the Gram Sabha shall have the authority to initiate process for determining the extent of individual and community claims.[15] The religious freedoms of Scheduled Tribes in invoked at the end of the judgment to hold that the Gram Sabha has a role of play in safeguarding customary and religious rights and the right to worship the deity Niyam-Raja has therefore to be protected and preserved.[16]

Here the Court by invoking cultural and religious rights as against rights in minerals which are vested in the State acknowledges the deeper conceptual problems that come to the fore in issues of indigenous people. The conceptual basis for the judgement i.e. the need to read of indigenous rights along with human rights is likely to provide a more nuanced understanding of indigenous rights in the future.

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13 Orissa Mining Corporation vs. Ministry of Environment & Forest & Others (2013) 6 SCC 476, ¶ 43.
14 *Id.* ¶ 50.
15 *Id.* ¶ 51.
16 *Id.* ¶ 55.

IV. COMPETING FRAMEWORKS

Benedict Kingsbury identifies five different and competing conceptual structures employed in claims by indigenous people. These five are 1) human rights and non-discrimination 2) minority claims 3) self-determination claims 4) historic sovereignty claims and claims as indigenous people, including claims based on treaties and agreements[17]. He has argued in an earlier paper[18] that the concept of indigenous people would be better served if the different justifications are accommodated instead of being made independent of each other.

Tribal rights to water, forest, land, (Jal, Jungle, zameen) has been the subject matter to intense litigation dating back to the Narmada Bachao Andolan v. State of Madhya Pradesh[19] (hereinafter referred to as Narmada judgment). The articulation of these rights has happened in different conceptual structures. The right to life was claimed with the human rights paradigm, the rights of scheduled tribes were raised as minority claims, though the self-determination and historical sovereignty claims have not been made.

In the Narmada decision the Supreme Court did not examine different conceptual frameworks and decided the case only on the ground of the right to life. Although it did consider indigenous claims, these could be easily defeated by invoking the ILO Convention which was an outdated convention by the time the decision was given i.e. 2000. Consequently, instead of examining the matter in the light of further developments in indigenous rights, the court only examined the right to rehabilitation and did hold the right to rehabilitation to be part of the Right to life but did not recognize the right not to be displaced. In fact it observed that:

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17 Benedict Kingsbury, *Reconciling five competing conceptual structures of indigenous people's claims in international and comparative law*, 34:1, N.Y.U Journal of International law and politics, p.189-250 (2001).

18 Benedict Kingsbury, *Indigenous Peoples in International Law*, 92:3, The American Journal of International Law, 414-457 (Jul.,1998).

19 Narmada Bachao Andolan v. Union of India and Ors. AIR 2000 SC 3751.

> "*The displacement of the tribal's and other persons would not per se result in the violation of their fundamental or other rights. The effect is to see that on their rehabilitation at new locations they are better off than they were. At the rehabilitation sites they will have more and better amenities than they enjoyed in their tribal hamlets. The gradual assimilation in the main stream of the society will lead to betterment and progress."*[20]

The decision of the Supreme Court invoking the much criticized ILO Convention C. No. 107 which provided for the displacement of the tribals from their land in accordance with the national laws and regulations and in the interest of national economic development reiterated the Indian government's stand against the terminology of indigenous people. Although the Indian State is willing to accept indigenous people as people deserving special status, the conceptual basis for such special status is unclear. It is ironic that one of the indicators of category of tribals is their lack of participation in the economic and political processes of the country[21], which is why special status is conferred on them. It is also significant to note that at this time world-wide there were progressive judgements on indigenous rights such as Mabo v..Queensland[22] and Delgamuukw v. British Columbia[23], which were not cited or relied upon by the Supreme Court.

One of the reasons for the World Bank to withdrawn from the Narmada project was that under Operational Directive 4.20 the World Bank imposes special requirements on projects affecting indigenous people. The directive promotes the participation of indigenous people and the recognition of customary or traditional land tenure of indigenous people. It also aimed to ensure that

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20 *Id.* ¶ 91.

21 "groups which, because they are small in numbers, geographically remote from the political center, marginal to the national economy and lacking in western education, are insignificant to any conceivable majority." *Id.* ¶ 4.

22 Mabo v. Queensland (no.2), (1992) 175 CLR 1.

23 Delgamuukw v. British Columbia (1998) 1 C.N.L.R.177.

indigenous people did not suffer adverse consequences of the development process[24].Thus the Indian state's position is at variance with the position of international institutions on the protection of indigenous rights.

One of the strongest positions with regard to the right to land was in the decision of Samata. The Supreme Court invoked Vth Schedule provisions to hold at Para 88 that

> *"It would, therefore, be clear that the executive power of the State to dispose of its property under Article 298 is subject to the provisions in the Fifth Schedule as an integral scheme of the Constitution."*

This position is however in conflict with the decisions of the Supreme Court in the ongoing forest case. In the forest case (Godavarman) in pursuit of the protection of forests, eviction orders were issued of all persons without distinguishing between those living in the forest and use forest produce and a commercial felling of trees[25]. In the decisions of Narmada and Godavarman, the Supreme Court did not invoke forest rights of persons inhabiting the forest. The dominant claim in all these cases has been around the right not to be displaced from their land which was not accepted. The decisions which took a wider view of the various conceptual frameworks around indigenous rights, such as Samata and OMC, have been able to charter a path significantly different from one based only on A. 21 rights.

None of the judgments prior to OMC including the Samata judgement invoked the entire range of international conventions regarding tribal rights available and they did not invoke other common law jurisdictions to seek answers to questions of indigenous

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[24] *Id.* ¶ 4.

[25] Naveen Thayil, *Judicial Fiats and Contemporary Enclosures*, 7(4),Conservation and Society 268-282(2009) http://www.conservationandsociety.org (last visited Sept 5, 2012).

peoples' rights. The decision in Niyamgiri, for the first time, invokes International conventions and the need to preserve social, political and cultural rights of the indigenous people. It harmonises local legislation with constitutional and international obligations to secure rights implicit within the right to land. The harmonious reading of A.21 with A.25 and A. 26 to establish various rights that are implicit in the right to land for tribal people is unique in Indian jurisprudence.

India possibly has the strongest constitutional provisions for scheduled tribes right to land. Unlike Australia for instance, where all rights were deemed to have passed on to the crown on annexation, the Constitution of India clearly provides for certain geographical territories to be reserved for indigenous people. Under A.244[26] of the Constitution of India speaks of the administration and control of Scheduled Areas and Scheduled Tribes. This administration is significantly different from that in non-scheduled areas. The enumeration of Scheduled Tribes done by a presidential order with regard to area's with a preponderance of tribal population; compactness and reasonable size of the area; under-developed nature of the area; and marked disparity in economic standard of the people. It is to be noted that the criteria are very different from each other and it is unclear if the inclusion is with reference to people who are deprived or people who are different.

There is a provision to extend or not extend the laws passed by the legislature to scheduled areas. Land alienation in these areas is restricted and several state government's have made laws prohibiting the transfer of land to outsiders[27].The provision for a separate administration and non application of laws strangely has never been invoked against the Land Acquisition Act.

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[26] India Const. Art. 244.

[27] AP Scheduled Areas Land Transfer Regulation, 1959.

The significance of the provision has not really been invoked to secure land rights for indigenous people. The text of A. 244 does not really explicitly reserve rights in the land for indigenous people. It is for this reason that it is possible for the state to make a claim that it has the right to decide on the use of the minerals underground. This has however gone uncontested in the decision in OMC.

Although the reasoning behind the decision in OMC strongly supports the idea of tribal autonomy and makes an interesting beginning to a discourse on the constitutional position of schedule V areas, it is still falling far short of the realization of the rights implicit in this constitutional arrangement.

V. COMPARATIVE LAW

There have been fundamental changes in common law countries recognising rights of indigenous people to their land[28].The Unites States, Canada and New Zealand have brought changes in their legal regime to recognize such rights. The Judiciary has often taken the lead in these cases leading to the legislations on these rights. In 1992 in Mabo[29], the Australian High Court held that refusing to recognize rights and interests in land or original inhabitants was unjust and discriminatory. This decision paved the way for a change in law and to further litigation to correct historical injustices particularly regarding ownership and possession of land. In Mayagna (Sumo) Awas Tingni Community v. Nicaragua[30] the petitioners claimed a right to judicial protection and private property for indigenous people which were upheld by the Inter-American Court of Human Rights.

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[28] Geetanjoy Sahu, *Mining in the Niyamgiri Hills and Tribal Rights*, XLIII (15), *Economic & Political Weekly*, 19-21, (2008).

[29] *Mabo* (no.2), (1992) 175 C.L.R. 1.

[30] *See* http://www1.umn.edu/humanrts/iachr/AwasTingnicase.html (last visited June 22, 2014).

In United States v. Wheeler[31] the United States Supreme Court firmly established tribal sovereignty as part of the United States' constitutional framework. In that decision the Court held that:

> *'[t]he powers of Indian tribes are, in general, inherent powers of a limited sovereignty which has never been extinguished.'*[32]

The Supreme Court of Canada's decision in Calder v. Attorney-General of British Columbia[33] held that aboriginal title existed under Canadian law[34]. The later decision in Delgamuukw[35] further elaborated on aboriginal title and rejected the State's claim that the only claim that could be made was for compensation as against a claim for ownership and jurisdiction. The Court spoke of a "spectrum of rights". It elaborated that at the one end are specific activities integral to the distinctive culture of an Aboriginal group, and at the other end is title.

Many of these changes are reflected in India in the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (hereinafter referred to as the FRA, 2006). The legislation speaks of the historical injustice done to the Scheduled Tribes and other Traditional Forest Dwellers as their rights to ancestral lands and habitat were not adequately recognized in the colonial period as well as in independent India. The Act contains many provisions which resonate with the claims made under other jurisdictions and the judicial and legislative actions in other jurisdictions. For instance, the preamble to the Act provides that it is being made to address the long-standing insecurity of tenurial and access rights of people who were forced to relocate due to State development activities. Rule 13 of the rules under this Act provide for

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31 United States v. Wheeler, 435 U.S. 313(1978).
32 *Id.* at 322.
33 Calder v. Attorney-General of British Columbia (1973) 34 D.L.R. (3d) 145.
34 *Id.* at 25.
35 *Delgamuukw* (1998) 1 C.N.L.R.177.

the acceptance of oral evidence of a village elder as proof of occupation. The Act recognizes both individual and community rights, to hold and live or cultivate lands, collect and dispose of minor forest produce and other community rights[36]. The Act recognizes that several habitations are as yet unrecorded and provides for the conversion of such villages as forest villages[37].

Anticipating the conflict of this legislation with several other legislations, particularly colonial legislations on forest conservation vesting all powers over the forest in the hands of the State, the Act provides for an over-riding clause. Apart from Indian Forest Act 1927 and the Land Acquisition Act 1894 (recently replaced with The right to fair compensation and transparency in land acquisition, rehabilitation and resettlement Act 2013), both colonial legislations, Panchayat (Extension to Scheduled Areas) Act, 1996 (PESA) and the Wild Life Protection Act 1972 are some of the legislations which operate in the same field as the Forest Rights Act. The Act states under section 13 that the provisions are in addition to and not in derogation of the provisions of any other act for the time being in force. Several difficulties have been pointed out in the implementation of the Act partly arising from the conflict with other legislations including the PESA and the Forest Act[38]. Some of the legislations have been amended to bring them in sync with the Forest Rights Act. However the 2006 amendment to the Wild Life (Protection) Act, 1972 was contested claiming that co-existence was utopian and that recognising forest rights amounts to supporting encroachers[39].

The Conceptual basis for the rights within the constitutional framework needs to be clarified notwithstanding the recognition by statute. The conflicting basis for indigenous rights needs to be

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36 Recognition of Forest Rights Act, No.2 of 2007, § 3(c).

37 *Id.* §3(h).

38 *See* http://csdindia.org/advocacy/ReportontheNationalSeminaronForestRightsAct20062.pdf (last visited June22, 2014).

39 *Id.*

harmonized to secure better protection for their rights. The role of the judiciary in this regard is not small.

VI. CONCLUSION

Michael Kirby in the MK Namyar endowment lecture[40] highlights the creative role of the common law judge. He notes that new times and circumstances give rise to new perceptions. New values affect the way in which judges view problems presented to them. He observes that the manner in which judges in other commonwealth countries deal with issues could have persuasive value in India. He further observes that where great injustices are shown to have occurred justice would have to be done which softens the edges of old cases and requires re-examination of previous precedents.

Transformational constitutionalism has a resonance in India as well with the Indian Constitution being termed as a social document intended to bring about a social revolution. Transformational constitutionalism[41] has been defined as a long term project of constitutional enactment, interpretation, and enforcement committed to transforming a country's political and social institutions and power relationships in a democratic, participatory and egalitarian direction.

Transformational constitutionalism would particularly be relevant to judges who need to take a decision whether to ground the questions of indigenous rights in the context of customary, common law or constitutional law. It has been observed that customary law could act as an obstacle to the realization of lands for indigenous people. It is also pertinent to observe that customary laws have also been invoked by indigenous people to back their claims. Thus what kind of customary laws and in what context would need to be

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[40] Michael Kirby, *The necessities and limitations of Judicial Activism*, 8, S.C.C.(J),5-21(2013).

[41] Klare, Karl and Davis, Dennis M.,*Transformative constitutionalism and the common and customarylaw* , 46, School of Law Faculty Publications (2010).. http://hdl.handle.net/2047/d20001245.

decided by courts and invoking transformative constitutionalism could hold the key to some of these questions.

In the context of Environmental rights in India, intra-generational rights would need to be read in a socio-economic and political context. The Forest rights Act does indicate the manner in which one could accommodate diverse interest. The Right to environment has so far been expressed in terms of a general right common to all people without addressing the inherent conflict between those for whom the environment is also a source of livelihood and a way of life and the others who look at conserving the environment at all costs. One of the concepts within the environmental rights movement has been the approach of environmental justice movement which seeks to balance the protection of the environment with human needs.

With regard to the indigenous people the State in India has refused to recognize the basis of indigenous rights as rights existing prior to the creation of the State[42]. It is important to note that the identification of Scheduled Areas and Scheduled Tribes is a creation of the colonial state which India on independence merely continued without a re-examination of the context. The institution of the separate administration under governor was also continued causing serious conflicting roles for the governor with the legislature of the State.

For a transformative constitutional interpretation of indigenous rights within the Indian constitution it may be necessary to examine the historical, customary and community rights and re-negotiate the terms of integration of the indigenous people. As argued by Benedict Kingsbury the different paradigms of indigenous rights would be need to be harmonized with each other. While it might be important to go back to move further with regard to indigenous rights, it is not a backward looking move, because looking at

[42] *Supra* note 7.

historical injustices is only one part of the picture. We will also have to look at other rights including accommodating tribal autonomy and sovereignty by taking a fresh look at the Constitutional framework with regard to the V and VI Schedule areas. The OMC decision is a small step in that direction.

REVISITING CURD V. MOSAIC FERTILIZER, LLC. A PERVERSION OF PRIVATE STANDING UNDER SECTION 376.313 OF FLORIDA'S POLLUTION DISCHARGE PREVENTION AND RECOVERY ACT

Levi Lawrence Wilkes[*]

ABSTRACT

This article provides commentary on the recent Florida Supreme Court case, Curd v. Mosaic Fertilizer (2010),[1] *and its decision to allow private citizen standing for recovery of natural resource damages under section 376.313 of Florida's Pollution Discharge Prevention and Recovery Act.*[2] *Private standing for compensatory damages under the Recovery Act is a topic of concern for all citizens, regardless of ideological placement. The left will find the Curd opinion has the potential for opening the door for what is traditionally thought of as a public interest and restitution statute, to be molded into a indistinguishable self-interest statute; where private damages tend to be the main focus of litigation and not the remediation of harm inflicted on the environment. The right will find years of common law and statutory precedent lost to an interpretive misnomer by the Court; perhaps, partly explained by the judiciaries want to "fill the gaps" of recoverable losses to private citizens after the BP oil spill. Nevertheless, this interpretive misnomer, if not corrected, will require businesses to encapsulate new costs for a tidal wave of potential liabilities.*

Outside the political spectrum, this article suggests that sec. 376.313 is an outlier, when compared to similar federal and state statutes on the subject of private recovery for natural resource damages. Despite the judiciaries' valiant effort to

[*] Texas A&M University-Corpus Christi (2012); Juris Doctor Candidate at St. Thomas School of Law (expected graduation May 2015).

protect private citizens who had lost their livelihood after the BP oil spill, the Court's decision has the potential to create several unintended consequences. This article explores issues, among others, involving res judicata; preemption; limited funds; and, choice of law to find that sec. 376.313 of Florida's Pollution Discharge Prevention and Recovery Act is in need of repair. To end, this article calls on the Florida legislature to make changes that allow for citizen involvement, while simultaneously not sacrificing the need for unhindered government enforcement. Creating this paradigm will allow for the overall purpose and objective of sec. 376.313 to be re-established, providing for the sustainability of our environment first and foremost.

I. INTRODUCTION

There is little doubt suggesting the environmental regulatory devices employed by the federal government during the later half of the 20th century were a fulcrum point of the realization that a sustainable environment was essential to our own future existence. To America's despair, despite these comprehensive and often broad enforcement tools, toxic spills and other human-made catastrophes continue to affect our public resources,[3] sometimes on exponential levels.[4] Such disasters have heightened the public outcry; leading courts and legislatures throughout the country to respond in various manners and to find new and workable solutions for a sustainable future.[5]

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[3] Jonathan L. Ramseur, *Oil Spills in U.S. Coastal Waters: Background and Governance*, 24 (Jan. 11, 2012), https://www.fas.org/sgp/crs/misc/RL33705.pdf (On July 26, 2010, a pipeline released approximately 800,000 gallons of crude oil of oil into Michigan's Talmadge Creek, a waterway that flows into the Kalamazoo River).

[4] On April 20, 2010, an explosion on the Deepwater Horizon/BP MC252 drilling platform in the Gulf of Mexico killed 11 workers and caused the rig to sink. As a result, oil began leaking into the Gulf creating one of the largest spills in American history. An estimated 4.9 million barrels (210 million gallons) of oil were released. available at: http://www.education.noaa.gov/Ocean_and_Coasts/Oil_Spill.html).

[5] Seee.g. Fla. Stat. § 376.30 (West 2014)(stating "[s]uch hazards have occurred in the past, are occurring now, and present future threats of potentially catastrophic

This paper seeks to explore and provide commentary on the recent Florida Supreme Court case, Curd v. Mosaic Fertilizer (2010),[6] and its' decision to allow private citizen's standing and to recover natural resource damages under section 376.313 of Florida's Pollution Discharge Prevention and Recovery Act ("Recovery Act").[7] Private standing for compensatory damages under the Recovery Act is a topic of concern for all citizens, regardless of ideological placement. The left will find the Curd opinion has the potential for opening the door for what is traditionally thought of as a public interest to be molded into a indistinguishable self-interest statute, where private damages tend to be the main focus of litigation and not the remediation of harm inflicted on the environment. The right will find years of common and statutory laws lost to an interpretive misnomer, and if not corrected, will require business' to encapsulate new costs for a tidal wave of potential liabilities into their portfolios in the future.

To begin, this paper will provide it's reader with a recent case filed in the northern district of Florida that exemplifies the modern use of sec. 376.313 and will hopefully elude the reader to the effects sec. 376.313 could have under its current interpretation. Second, some background is provided on how natural resources recovery and remediation came to fruition and how it's enforcement has traditionally been implemented. Third, this paper explains how sec. 376.313 of Florida's Recovery Act has been interpreted by the Courts to allow for private standing for natural resource damages, circumventing the traditional use of a sovereign trustee. Fourth, some discussion and analysis is provided by the writer in an attempt to explain why sec. 376.313 interpretation falls short of complying with it's statutory purpose and outside the realm of good policy. Finally, to resolve those implications the writer suggests some solutions for resolving these issues in the legislature.

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proportions, all of which are expressly declared to be inimical to the paramount interests of the state as set forth in this section . . .").

6 39 So. 3d 1216 (Fla. 2010).

7 Fla. Stat. § 376.011 (2014).

I.I MODERN DAY CONTEXT AND CONSEQUENCES

Although the Deep Water Horizon oil spill, also known as the British Petroleum ("BP") oil spill, has started to dissipate from the minds of many Americans, for some, the battle has yet to come.[8] Due to the enormity of suits brought against BP, and other culpable parties to the spill, claimants petitioned for consolidation under the Federal Rule of Civil Procedure.[9] The court appointed a Plaintiff's Steering Committee ("PSC") to represent the respective classes as a whole.[10] By April of 2012, a settlement agreement between the PSC and BP had been accomplished.[11]

On the same day as the settlement agreement was conditionally approved by the court, the PSC filed an Amended complaint for persons (individuals and entities) seeking private (non-governmental) economic losses and property damages.[12]The amended complaint was necessary to protect the interests of persons excluded from the Settlement agreement for various reasons:

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8 On April 20, 2010, the Deep Water Horizon oil tanker exploded and sank in the Gulf of Mexico taking with it 11 men and continued to leak millions of gallons of oil from the deep water well months after the explosion. Nine months after the spill an executive assessment estimated 5 million barrels had been released from the well into the Gulf. The committee found that the deep-water valve failure was linked to one overarching problem, "failure of management" by the owner and operators of the Deep water Horizon rig (BP, Halliburton, Transocean). Final Report of the president's National Commission On The BP Deep water Horizon Oil Spill and Offshore Drilling, Committee on Natural Resources U.S. House of Representatives 112th, 1st session (Jan. 26, 2011), http://www.gpo.gov/fdsys/pkg/CHRG-112hhrg63876/pdf/CHRG-112hhrg63876.pdf

9 In re: Oil Spill by the Oil Rig Deepwater Horizon in the Gulf of Mexico, on April 20, 2010, MDL 2179, 2010 WL 3166434 (Aug. 10, 2010)(transferring consolidated claimants under 28 U.S.C. §1407 to the Eastern District of Louisiana for pre-trial findings).

10 *Id.*

11 *Id.*

12 In re: OIL SPILL BY THE OIL RIG "DEEPWATER HORIZON" IN THE GULF OF MEXICO, on April 20, 2010. Ozean Marine LLC D/B/A North Light Yacht Club, LLC Plaintiff, v. BP EXPLORATION & PRODUCTIONINC; BP America Production Company; BP p.l.c.; Transocean Offshore Deepwater Drilling, Inc.; Transocean Holdings, LLC; and Halliburton Energy Services, Inc., Defendants., 2013 WL 6028294 (N.D.Fla.).

1) Persons or claims that were expressly excluded from the Settlement;
2) Persons that were impliedly excluded from the Settlement;
3) Persons that opted out due to little or no compensation under the calculation formulas embodied in the Settlement.[13]

Therefore, although the settlement agreement executed in December of 2012 is now complete, the opt-out classes and other parties not affected by the settlement agreement are working to secure their losses, some under the laws of Florida.[14] One of those complaints filed in the northern district of Florida,[15] alleges seven causes of action;[16] one asserted under 376.313.[17] The case involves a yacht dock owner claiming damages from the economic losses sustained to the business, along with punitive damages; interest; and, attorney's fees.[18] If the action proceeds to litigation, and sec. 376.313 remains unchanged from its' interpretation in Curd,[19] BP and other culpable parties may find little reprieve from their settlement agreement made in 2012,[20] and could be the recipients of what the dissent in Curd would refer to as "Cardozian" damages.[21]

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13 *Id.*

14 *Id.*

15 See id. By the end of this paper the choice or forum (Florida) for the BP litigation should come as no surprise being it is now one the most liberal statutes for private citizens in regards to public resource recovery.

16 Id. (claiming nuisance; trespass; fraudulent concealment; strict liability under Fla Stat. 376.011-376.21; strict liability under ss. 376.30-376.317; strict liability for ultra-hazardous activity; and, punitive damages).

17 *Id.*

18 *Supra* note 10.

19 *Supra* note 78.

20 See generally Benjamin J. Steinberg & Dwayne Antonio Robinson, *Making Bp's Blood Curd-Le: Duty, Economic Loss, and the Potential Cardozian Nightmare After Curd v. Mosaic Fertilizer*, 63 Fla. L. Rev. 1245, 1257 (2011).

21 Judge Cardozo warned that torts should not be without clear boundaries as to who is owed a duty from the violator because without such bounds the violator is subject to "indeterminable liability to an indeterminate class." Ultramares Corp. v. Touche, 255 N.Y. 170, 179 (1931). See also Curd, 39 So. 3d 1216, 1234 (Fla. 2010)(Judge Polston in his concurrence stated he would disallow common law recovery in order to avoid

II. BACKGROUND

II.I HISTORY OF PUBLIC RESOURCE COMPENSATION

Much of the way we conduct ourselves in society comes from tradition, more so in the context of law. We approach the topic at hand by looking to past approaches used recover for harms inflicted to natural resources. This approach provides context to the reader so they may understand how the Florida Supreme Court's interpretation of sec. 376.313 diverges from federal precedent and traditional means of natural resource recovery in the United States.

Historically, natural resources damages were sought through common law doctrines that allowed the state to act as guardian for the public interest.[22] State "trustee" rights were invoked through what was called the Parens Patriae doctrine and a later, sometimes more well-known counterpart, the public trust doctrine.[23] State and federal sovereigns were able to act in a trustee capacity for protecting the resources within their borders so long as the state did not impede on the ultimate rights of the government given in the constitution.[24] These doctrines became the cornerstone for federal resource recovery statutes implemented in the later half of the 20th century.[25]

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subjecting defendants to limitless liability to an indeterminate number of individuals conceivably injured by any negligence).

22 *See*Toxic Torts Prac. Guide § 25:3 (2013)(stating common law Trespass; Private Nuisance; Public Nuisance; Negligence; Strict Liability; Parens Patriae; and, public trust doctrine may be potential causes of action for public resource damages).

23 Allan Kanner, *The Public Trust Doctrine, Parens Patriae, and the Attorney General As the Guardian of the State's Natural Resources*, 16 Duke Envtl. L. & Pol'y F. 57 (2005)(explaining parens patriae and public trust doctrine were used by sovereign governments to enforce environmental resource damages, also known as a "quasi-sovereign" interest).

24 McCready v. State of Virginia, 94 U.S. 391, 395 (1876) (stating the State has "exclusive control over its tide-waters and their beds to be used by its people as a common for taking and cultivating fish, so far as it may be done without obstructing navigation").

25 Charles B. Anderson, *Damage to Natural Resources and the Costs of Restoration*, 72 Tul. L. Rev. 417, 427 (1997) (explaining the "public trust doctrine provides the foundation for recovery by the federal government and the states for damages to natural resources under both OPA-90 and CERCLA.").

By early 20th century, the federal government recognized a need to punish and regulate individuals and entities introducing unwanted toxins and refuse into public land and waterways.[26] Primarily, the laws used in the late 19th and early 20th century were primarily used in a penal fashion, rather than to recover and recoup damages for restorative purposes.[27]

It was not until the 1970's that environmental statutes were formed and formatted to provide monetary compensation for remediation through civil compensation and penalties.[28] The modern spectrum of environmental remediation at the federal level is made up in bulk by; the Clean Water Act ("CWA");[29] the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA");[30] and, the Oil Pollution Act of 1990 ("OPA").[31] These federal statutes were designed to plug gaps in the common law,[32] correcting inadequacies of past environmental remedies, often

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[26] 33 U.S.C. § 407 (1899)(stating "[i]t shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing there from in a liquid state, into any navigable water of the United States. . . ").

[27] *Id*. at 430.

[28] See e.g.33 U.S.C. § 1319 (2014)(stating "[a]ny person who violates section 1311, 1312, 1316, 1317, 1318, 1328, or 1345 of this title, or any permit condition or limitation implementing any of such sections in a permit issued under section 1342 of this title by the Administrator, or by a State, or in a permit issued under section 1344 of this title by a State, or any requirement imposed in a pretreatment program approved under section 1342(a)(3) or 1342(b)(8) of this title, and any person who violates any order issued by the Administrator under subsection (a) of this section, shall be subject to a civil penalty not to exceed $25,000 per day for each violation. In determining the amount of a civil penalty the court shall consider the seriousness of the violation or violations, the economic benefit (if any) resulting from the violation, any history of such violations, any good-faith efforts to comply with the applicable requirements, the economic impact of the penalty on the violator, and such other matters as justice may require. For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.").

[29] 33 U.S.C. § 1251 (2013).

[30] 42 U.S.C. § 9607 (2013).

[31] 33 U.S.C. § 2706 (2013).

[32] 42 U.S.C. § 9607 (2013) (imposing statutory strict liability to avoid expensive and time-consuming litigation inherent in proving duty, breach, causation, and damages).

through providing swift-justice solutions.[33] When CERCLA was first enacted,[34] it was believed so broad that state enforcement was not allowed.[35] However, six years after its' enactment, the ?SARA amendments to CERCLA expressly allowed State trustees to respond and enforce the federal requirements.[36]

Federal environmental remediation statutes have been reluctant to provide private citizens much power, especially when the citizen seeks recovery under a theory of property damage.[37] CERCLA provides no private right of action for damage to natural resources, limiting standing to only those deemed to be "trustees."[38] However, both CERCLA and the CWA provide private citizens the ability to enforce the violation of the statutory penalty in the absence of action taken by the government, and where other steps are taken to ensure government has been given time to prosecute the violation.[39]However, a private citizen under the CWA is not entitled

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[33] For instance, CERCLA has the ability to be applied retroactively; impose liability on successor corporations; and, imposes joint and several liabilities on polluters. See fund 1 Toxic Torts Prac. Guide § 7:21 (2013).

[34] PL 96–510 (HR 7020), PL 96–510, DECEMBER 11, 1980, 94 Stat 2767.

[35] The SARA amendments in 1986 resolved this discrepancy and provided the right to state and Indian sovereigns.

[36] City of Toledo v. Beazer Materials & Servs., Inc., 833 F. Supp. 646, 652 (N.D. Ohio 1993)(explaining that although the 1984 SARA amendments clarified the state's valid standing under CERCLA, that standing could not be extended to municipalities.).

[37] See Artesian Water Co. v. Gov't of New Castle Cnty., 659 F. Supp. 1269, 1286 (D. Del. 1987) aff'd, 851 F.2d 643 (3d Cir. 1988) (stating "legislative history makes clear that 'Congress, in enacting CERCLA, intended to provide a vehicle for cleaning up and preserving the environment from the evils of improperly disposed of hazardous substances rather than a new font of law on which private parties could base claims for personal and property injuries.'").

[38] See 42 U.S.C. § 9601 (defining "natural resources" as land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the fishery conservation zone established by the Magnuson-Stevens Fishery Conservation and Management Act [16 U.S.C. § 1801 et seq.]), any State or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.); See also Artesian Water Co. v. Gov't of New Castle Cnty., 851 F.2d 643, 649 (3d Cir. 1988) (stating "it is significant that the Act grants the right to assert claims for damages to natural resources only to governmental entities, not private persons.").

[39] Pennsylvania Envtl. Def. Found. v. Bellefonte Borough, 718 F. Supp. 431, 434 (M.D. Pa. 1989)(stating "individuals or groups which bring citizen suits pursuant to the Clean Water Act are acting as private attorneys general and, accordingly, the purpose of such a

to any special damages separate from which the government has an ability to claim.[40] OPA is structured differently, granting standing to both government and private entities; however, only for damages not deemed "natural resources."[41] Only "trustees" are allowed to recover for natural resource damages under the OPA.[42] Private entities are only entitled to recover for personal property;[43] sustenance use;[44] as well as, profits and earning capacity under the OPA.[45] Interestingly, the categories for private and public recovery potentially overlap if say the claimant is a fisherman and his earning capacity is derived from the harvest of natural resources.[46] The OPA does not provide for guidance in cases of overlap, or if one entity is entitled to standing to sue over the other, or if recovery by one entity would preclude recovery for another under a res judicata theory.[47]

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suit is to protect and advance the public's interest in pollution-free waterways rather than to promote private interests."); See also 42 U.S.C. § 9659 (authorizing suit by any person against any other person or the government where a violation is brought to the attention of the regulatory agency 60 days prior to commencing, and where there is not diligent prosecution already in place).

40 City of Evansville, Ind. v. Kentucky Liquid Recycling, Inc., 604 F.2d 1008, 1016 (7th Cir. 1979)(finding plaintiff's had not established that the CWA may have impliedly created a private right for private damages under the CWA).

41 33 U.S.C. § 2701. The term "natural resources" include[s] land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the exclusive economic zone), any State or local government or Indian tribe, or any foreign government.

42 33 U.S.C. § 2702 (stating "[d]amages for injury to, destruction of, loss of, or loss of use of, natural resources, including the reasonable costs of assessing the damage, which shall be recoverable by a United States trustee, a State trustee, an Indian tribe trustee, or a foreign trustee.").

43 *Id.* (stating'[d]amages for injury to, or economic losses resulting from destruction of, real or personal property, which shall be recoverable by a claimant who owns or leases that property.").

44 *Id.* (stating "[d]amages for loss of subsistence use of natural resources, which shall be recoverable by any claimant who so uses natural resources which have been injured, destroyed, or lost, without regard to the ownership or management of the resources.).

45 *Id.* (stating "[d]amages equal to the loss of profits or impairment of earning capacity due to the injury, destruction, or loss of real property, personal property, or natural resources, which shall be recoverable by any claimant.').

46 See e.g. 33 U.S.C. § 2702 (looking to the provisions for natural resources damage and profits and earning capacity an ambiguity exists as one seems to limit the standing to sovereigns and the other opens the same damages to any claimant).

47 See *supra* text pgs. 18-25. Res judicata and claim preclusion are subjects this paper will also explore in the context of sec. 376.313.

II.II SECTION 376.313 OF POLLUTION DISCHARGE PREVENTION AND RECOVERY ACT

The origins of Florida's Pollution Discharge Prevention and Recovery Act ("Recovery Act") stem from the early 1970's. In 1983, the Florida legislature incorporated ss. 376.30-376.319, which encompasses the subject of this article. Its' stated purpose is to provide support and compliment federal removal objectives for "pollutants,"[48] and other hazardous substances.[49]

The Recovery Act authorizes Florida's Department of Environmental Protection ("FDEP") the ability to seek restoration and administrative costs for spills and other disasters effecting Florida's ground and surface waters.[50] The specific provision of the Recovery Act at issue states:

> "*Except as provided in s. 376.3078(3) and (11), nothing contained in ss. 376.30-376.317 prohibits any person from bringing a cause of action in a court of competent jurisdiction for all damages resulting from a discharge or other condition of pollution covered by ss. 376.30-376.317 and which was not authorized pursuant to chapter 403. . . . Except as otherwise provided in subsection (4) or subsection (5), in any such suit, it is not necessary for such person to*

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[48] Fla. Stat. § 376.30 (declaring the "intent of ss. 376.30-376.317 [is] to support and complement applicable provisions of the Federal Water Pollution Control Act, as amended, specifically those provisions relating to the national contingency plan for removal of pollutants"); See also Fla Stat. 376.301(6) (1984 Supp.) (defining "Pollutants" to include "oil of any kind and in any form, gasoline, pesticides, ammonia, chlorine, and derivatives thereof, excluding liquefied petroleum gases)."

[49] See Fla. Stat. § 376.30 (declaring that "[s]pills, discharges, and escapes of pollutants, dry-cleaning solvents, and hazardous substances that occur as a result of procedures taken by private and governmental entities involving the storage, transportation, and disposal of such products pose threats of great danger and damage to the environment of the state, to citizens of the state, and to other interests deriving livelihood from the state"); See also Fla. Stat. Ann. § 376.301 (defining "Hazardous substances" as those substances defined as hazardous substances in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767, as amended by the Superfund Amendments and Reauthorization Act of 1986).

[50] Fla. Stat. § 376.30 (2013).

> *plead or prove negligence in any form or manner. Such person need only plead and prove the fact of the prohibited discharge or other pollutive condition and that it has occurred. The only defenses to such cause of action shall be those specified in s. 376.308.*"[51]

II.III MODERN INTERPRETATION OF SEC. 376.313

Two Florida Supreme Court opinions have addressed private citizen recovery rights under sec. 376.313. The earlier case, Aramark Unif. & Career Apparel, Inc. v. Easton,[52] involved a property owner who learned of a consent order between the Florida Department of Environmental Protection ("FDEP") and Aramark for a solvent leakage violation.[53] Subsequently, Easton filed suit,[54] alleging that the solvents released by Aramark contaminated his property through ground water seepage.[55] Easton failed to prove causation to his common law claims in the lower court; however, the court interpreted sec. 376.313 as imposing a strict liability private cause of action for public resource damages, and thus would not require Easton to prove causation for his statutory claim.[56] The Easton court's interpretation of sec. 376.313 conflicted with an earlier second district court holding.[57] Consequently, the first district court of appeals certified the question for review in the Supreme Court.[58] The Supreme Court certified the question, asking whether sec. 376.313 granted private standing to seek compensatory damages for

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51 Fla. Stat. § 376.313.

52 894 So. 2d 20, 21 (Fla. 2004).

53 *Id.* at 21.

54 *Id.* at 22 (asserting six common law theories along with one claim under sec. 376.313).

55 *Id.*

56 *Easton v. Aramark Unif. & Career*, 825 So. 2d 996, 999 (Fla. 1st DCA 2002) approved sub nom. Aramark Unif. & Career Apparel, Inc. v. Easton, 894 So. 2d 20 (Fla. 2004) (remanding to the trial court to apply sec. 376.313 (3) as a strict liability statute, without requiring the Appellant to prove the Appellee cause the contamination on their own property).

57 Mostoufi v. Presto Food Stores, Inc., 618 So. 2d 1372, 1376-77 (Fla. 2nd DCA 1993) (concluding sec. 376.313 could not be read in a way as to create a cause of action that did not theretofore exist).

58 Aramark, 894 So. 2d 20, 26 (Fla. 2004).

public resource damages. The Supreme Court affirmed the appellate court's holding, finding sec. 376.313 liberally interpreted allowed private citizen standing for any damages as a result from the actions taken by the Defendant.[59]

In Curd v. Mosaic Fertilizer LLC, the Supreme Court was posed with a somewhat different question.[60] In the summer of 2004, Mosaic Fertilizer was informed by FDEP and a local environmental commission that the company's outdoor storage reservoirs, used for storing phosphogypsum,[61] was dangerously close to overflowing.[62] On September 5, 2004, the pond gave way to the elements causing the phosphogypsum to flow into Archie Creek, then onward into Tampa Bay.[63] Fisherman in the area, including the plaintiff, Mr. Curd, instituted a class action for two counts of strict liability (common law and sec. 376.313),[64] and one claim in negligence.[65]

The trial court dismissed the common law claims stating the economic loss rule would not allow recovery for the fisherman who had no ownership in Tampa Bay or the species within it.[66] On Appeal, the court certified two questions: (1) whether Florida common law recognized a fisherman's special interest in the waters of Tampa Bay to allow general economic loss rule to not apply; (2) whether sec. 376.313 could allow a private right of action for damages to "public resources."[67] A lingering question remains

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59 *Id.* (indicating that a plain reading of the statute gives a private strict liability cause of action).

60 39 So. 3d 1216 (Fla. 2010).

61 Phosphogypsum is a useless by-product from mining, and must be separated and stored away from the population due to the uranium and radium found within it. Radtown USA: Radiation in Phosphogypsum, Environmental Protection Agency, availiable at: http://www.epa.gov/radtown/phosphogypsum.html.

62 Curd v. Mosaic Fertilizer, LLC, 993 So. 2d 1078, 1079 (Fla. 1st DCA 2008) decision quashed, 39 So. 3d 1216 (Fla. 2010).

63 *Id.*

64 *Id.*

65 *Id.*

66 Curd, 993 So. 2d 1078, 1080 (Fla. 2nd DCA 2008) decision quashed, 39 So. 3d 1216 (Fla. 2010).

67 Curd v. Mosaic Fertilizer, LLC, 39 So. 3d 1216, 1218 (Fla. 2010).

whether the issues are mutually exclusive; meaning if private citizen standing really applies to "any person" under sec. 376.313, or only those where a "special interest" is found.[68]

Although Aramark answered affirmatively as to whether sec. 376.313 created a private cause of action,[69] the Curd appeals court recognized the type of damages sought to be recovered were different from Aramark because the plaintiff in that case was recovering on damages to his own property, and not a public resource.[70] For this reason, the appellate court affirmed the trial court's ruling stating that sec. 376.313 did not create a private right of action for public resource damages.[71]

Upon review, the Florida Supreme Court disagreed by finding that the economic loss rule did not apply under these circumstances because the plaintiffs were fisherman, falling within a generally recognized special exception.[72] In addition, the Court further found from a four corners reading of the statute that sec. 376.313 provided an unambiguous right for private citizen recovery for public resource damage.[73] The distinguishing characteristic of Aramark, a private property claim rather than a public, was not distinguished in the Curd decision. Rather, the court rested its' holding on sec. 376.313 stating that "any person [may] recover for

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68 See Infra note 10 (this question may be answered in the pending case as the damages claimed are unlike to the recognized fisherman rights in Curd).

69 *Supra* note 52.

70 Curd, 993 So. 2d 1078, 1084 (Fla. 2nd DCA 2008) (stating the question that remains unsettled, both in the statute and the case law, is what type of damages are recoverable under the statute and by whom).

71 *Id.* at 1084-85 (stating "[i]f the legislature had actually intended this statute to create a wide array of claims by people indirectly affected by pollution, we believe the legislature would have been more direct and obvious about its intent).

72 Union Oil Co. v. Oppen, 501 F.2d 558, 570 (9th Cir. 1974)(recognizing that commercial fishermen had a right to recover for injuries to their businesses caused by pollution of public waters, and stating that the exception has been recognized on numerous occasions); Contra State of La. ex rel. Guste v. M/V TESTBANK, 752 F.2d 1019, 1021 (5th Cir. 1985)(finding the fisherman exception was contrary to history and central purpose of foreseeability in tort and declined to recognize a right to recovery without some physical damage suffered by the fisherman).

73 Curd, 39 So. 3d 1216, 1221 (Fla. 2010).

damages suffered as a result of pollution,"[74] and further explained that the provision was to be liberally deference to the overall purpose of the statute.[75] The fact damages sustained were to the public domain rather than the private played little role since the court seemed to take the word 'any person' quite literally.

The extent of sec. 376.313 liabilities remain in limbo.[76] Unquestionably however the Florida Supreme Court has opened a flood-gate for potential private suits under a belief that the "Legislature has enacted a far-reaching statutory scheme aimed at remedying, preventing, and removing the discharge of pollutants from Florida's waters and lands."[77] The following discussion seeks to analyze the Supreme Court's interpretation of sec. 376.313, and to identify potential consequences that might stem as a result.[78]

III. ANALYSIS

III.I FINDING AN ALTERNATIVE INTERPRETATION

Several reasons may lend a reader of sec. 376.313 to arrive at a different conclusion than the Aramark and the Curd Courts. First, although the Court's cited to several provisions in sec. 376.313 as evidence of the legislature's intent to provide private citizen's standing under sec. 376.313, the court failed to address the apparent discrepancy with the purpose clause of sec. 376.313; its relation to federal law; and, the historical use of natural resource recovery in the United States. Second, even if the provisions of ss. 376.30-376.317 are to be liberally construed as the Court's suggest, and the Florida legislature has written, an interpretation that augments tort law for

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74 *Id.*

75 See Fla. Stat. § 376.315 (2014)("Sections 376.30–376.319 ... shall be liberally construed to effect the purposes set forth under ss. 376.30–376.319 and the Federal Water Pollution Control Act, as amended.").

76 See Sidney F. Ansbacher et. al., Strictly Speaking, Does F.S. S376.313(3) Create Duty to Everybody, Everywhere?, Part I, Fla. B.J., September/October 2010, at 36, 42 (stating several questions and implications remain after the Curd holding).

77 Curd, 39 So. 3d 1216, 1222 (Fla. 2010).

78 *Id.*

natural resource recovery beyond what is recognized by the federal government and Florida precedent would be an unfair interpretation.

III.II PURPOSE CLAUSE OF SEC. 376.313

The purpose clause for ss. 376.30-376.317 is wholly void of any indication of rights designated for the use of private citizenry to recover compensatory damages for public resource damage.[79] The sole entity referred to, besides the legislature, is Florida's Department of Environmental Protection ("FDEP").[80] FDEP is referred to as the "enforcer," and the bureaucratic entity responsible for implementing programs for preserving surface and ground waters of Florida. FDEP designation as the enforcer is significant evidence of an intent by the Legislature to abide by the traditional notion that the sovereign should retain control over matters that affect the public as a whole, as they would most be equipped to act in the interest of the public.

Furthermore, the prohibited acts and penalties section states, *"[e]xcept as provided in s. 376.311, any person who commits a violation specified in subsection (1) is liable to the* ***state*** *for any damage caused and for civil penalties as provided in s. 403.141."*[81] Those civil penalties do not reference private citizens, or an ability of citizens to collect civil penalties.[82] The legislature's intent is quite apparent under the expressed language, as it identifies who is able to recover and is analogous with federal precedent in the area of environmental remediation statutes.[83]

In essence, the private right interpreted from Curd "para materi,"[84] is questionable as it seems to be driven from an isolated reading of sec. 376.313, instead of encorporating the purpose clause

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79 See Fla. Stat. § 376.30 (stating the "[Florida's] Legislature intends by the enactment of ss. 376.30-376.317 to exercise the police power of the state by conferring upon the Department of Environmental Protection the power. . . ").

80 *Supra* note 75.

81 Fla. Stat. § 376.302 (2014).

82 Fla. Stat. § 403.141 (2014).

83 *Supra* note 31.

84 Curd, 39 So. 3d 1216, 1220 (Fla. 2010).

and a base for interpreting the whole.[85] Even if we take into account the language of sec. 376.313, a reader is strained to find a direct statement which creates a right for private standing. Sec. 376.313 reads that "*nothing contained in ss. 376.30-376.317 prohibits any person from bringing a cause of action in a court of competent jurisdiction for all damages resulting from a discharge or other condition of pollution covered by ss. 376.30-376.317 and which was not authorized pursuant to chapter 403.*"[86] The words 'nothing . . . prohibits' suggest a preservation of rights found outside the statute for 'any person'; meaning the statute would not seek to preempt any common or statutory rights of actions already provided for the citizen.[87] Similar language is found throughout environmental remediation and natural resource statutes, often referred to as a saving's clause.[88]

Looking from a totality standpoint of the sections involved (ss. 376.30-376.317), and using them to gain an understanding of the purpose of 376.313, this article arrives at a different interpretation than the Florida Supreme Court found in Curd, but hardly a novel one.[89] Not only should we look to the statutory language itself before resolving an ambiguity in the law but this article suggests that weighting the consequences of such an

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[85] The Supreme Court sought to bolster its' argument by relying on the "liberal interpretation" clause as well. Fla. Stat. Ann. § 376.315 (stating sections 376.30-376.317 . . . shall be liberally construed to effect the purposes set forth under ss. 376.30-376.317 and the Federal Water Pollution Control Act, as amended.

[86] Fla. Stat. § 376.313 (2006).

[87] *Supra* note 83.

[88] *See* e.g.
(3) Savings provision
This subsection shall not alter the liability of any person covered by the provisions of paragraph (1), (2), (3), or (4) of subsection (a) of this section with respect to the release or threatened release concerned.
42 U.S.C. § 9607 (2014)

[89] *See* e.g. Alaska Sport Fishing Ass'n v. Exxon Corp., 34 F.3d 769, 772 (9th Cir. 1994) (stating'[g]iven the restorative purposes behind the CWA and CERCLA, it simply makes no sense to reserve a portion of lost-use damages for recovery by private parties; See also Mostoufi v. Presto Food Stores, Inc., 618 So. 2d 1372, 1377 (Fla. 2nd DCA 1993) disapproved of by Aramark Unif. & Career Apparel, Inc. v. Easton, 894 So. 2d 20 (Fla. 2004) (explaining that giving a private right of action under sec. 376.313 for pollutant discharge subverts the intent of the statute).

interpretation may have at least given some hesitation in deciding to deviate from the norm in providing a new substantive right to citizens.

III.III IMPORTANCE OF KEEPING PUBLIC AND PRIVATE INTERESTS MUTUALLY EXCLUSIVE IN ENVIRONMENTAL REMEDIATION.

This paper is written under the assumption that natural resource remediation and its' goals are best served under a traditional approach, meaning sovereign trustees should be the sole entity to recover damages under a natural resources recovery regime.[90] Several conflicts arise as one might expect, when you place what is regarded as a "public interest" in the hands of private citizens, and private attorneys. We proceed by seeking a comprehensive understanding of the implications and pitfalls private recovery may have on the system of natural resource recovery.

III.IV LIMITED FUNDS ISSUE

The purpose of environmental remediation law is to correct harms inflicted on the environment and give the public recourse for those public harms. The overarching question is then whether the public can be served when private actors are able to enforce and collect on private damages through other means then what are traditionally available. The answer to the question is the probably yes it can; but will it always? Probably not.

This hypothetical may better illustrate when the public is not best served under a private citizen suit. Imagine a business along the port of a coastal city that stores a type of toxic substance.

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[90] *See*42 U.S.C. § 9607 (stating "sums recovered by a State trustee . . . shall be available for use only to restore, replace, or acquire the equivalent of such natural resources by the State."). Contra Kevin R. Murray, Steven J. McCardell, and Jonathan R. Schofield, Natural Resource Damage Trustees: Whose Side Are They Really on?, 5 Envtl. Law. 407, 467 (1999) (concluding that natural resource damages should not be in the hands of governmental entities but rather placed in the hands of independent and disinterested trustees to protect from conflict and abuse of authority).

That toxin is subsequently released into the water after a storm. As a result, the water is contaminated resulting in significant losses to aquatic life in the area. Those waters supplied sustenance for some; recreation for others; and a livelihood for commercial fisherman in the area. The polluter's net assets amount to ten (10) million dollars. Local commercial fishermen commence an action under sec. 376.313, and are subsequently awarded six million dollars in compensatory damages and the court further awards attorney's fees in the amount of 25 percent (1.5 million).[91] Due to the first suit, the violator is forced to file bankruptcy, liquidating its' assets. The state trustee then commences an action under sec. 376.313 or another remedial statute and is awarded five million dollars.

As a result, the maximum amount of damage available to the public only amounts to 2.5 million dollars, resulting in a 2.5 million dollar deficit that will cause the sovereign to not completely redress the harm inflicted to the environment or will require its' citizens to compensate for its' loss through taxation. It is commendable that the fisherman who suffer greatly from the spill are able to recover their respective damages; however it is hard to justify why that recovery should come at the expense of the public and future generations. Moreover, if the theory of tort damages is correct,[92] those same commercial fishermen will once again be in need of a sustainable income from the sea, one that now may not be available or at the least delayed due to in part by the insufficient recovery by the state.

III.V RES JUDICATA-CLAIM PRECLUSION

Another issue that could arise should sec. 376.313 interpretations stand is the doctrine of Res Judicata (claim

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[91] Aramark Unif. & Career Apparel, Inc. v. Easton, 894 So. 2d 20, 26 (Fla. 2004) (distinguishing that although attorney's fees are not availiable at common law, 376.313 does provide for that recovery).

[92] See Rebecca Korzec, Maryland Tort Damages: A Form of Sex-Based Discrimination, 37 U. Balt. L.F. 97, 99 (2007)(stating that under traditional tort theory, victims are entitled to damages that would bring them back to "whole," or to the place they were before the tort was committed).

preclusion). Claim Preclusion is a subject that presents a multitude of issues; this paper merely seeks to introduce and bring to the attention of the reader conflicts that may arise under the new law. Claim Preclusion may occur when a final judgment is made on a claim, and that claim is sought to be re-litigated in a new trial, regardless of whether the subsequent claim has new issues.[93] Under Florida law, the doctrine of claim preclusion applies when four elements are present:

> 1) identity of the thing sued for;
> 2) identity of the cause of action;
> 3) identity of persons and parties to the action; and
> 4) identity of quality in persons for or against whom claim is made.[94]

A suit and final judgment made on behalf of a private party may subject the government and its prosecutors to res judicata on a claim, or at the very least may cause the government to be prevented to seek damages on that specific injury.[95] To the contrary however, like most federal environmental statutes,[96] Florida's Act contains a prohibition on double recovery.[97] This means any damages deemed overlapping would be frivolous for the government to seek. If the damage sustained by the fisherman is the fish population, then private recovery (or non-recovery in instances where the plaintiff loses) sought by the fisherman may be said to be the one bite at the

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93 Taylor v. Sturgell, 553 U.S. 880, 892 (2008).

94 Brown v. R.J. Reynolds Tobacco Co., 611 F.3d 1324, 1332 (11th Cir. 2010).

95 43 C.F.R. § 11.44 (1996)(stating "[i]f the authorized official is aware of reliable evidence that a private party has recovered damages for commercial harvests lost as a result of the release, the authorized official must eliminate from the claim any damages for such lost harvests that are included in the lost economic rent calculated by the Natural Resource damage assessment.).

96 See Pub. L. No. 101-380 (Oil Pollution Act of 1990)(stating "[t]here shall be no double recovery under this law for natural resource damage resulting from a discharge, including the costs of damage assessment or restoration, rehabilitation, replacement, or acquisition for the same incident and natural resource.).

97 Fla. Stat. § 376.121 (2004)(stating "[t]here shall be no double recovery under this law for natural resource damage resulting from a discharge, including the costs of damage assessment or restoration, rehabilitation, replacement, or acquisition for the same incident and natural resource. The department shall meet with and develop memoranda of understanding with appropriate federal trustees as defined in Pub. L. No. 101-380 (Oil Pollution Act of 1990) to provide further assurances of no double recovery.).

apple and the grievance would not be redress-able leading to an overall loss by the public.[98]

Examining the issue in reverse where the government is the first to gain final judgment (possibly through dissent decree), the question posed is would the private citizen be precluded from bringing a subsequent suit under sec. 376.313?[99] Under federal law, a sovereign trustee often has the power to preclude private citizen suits,[100] whether a party or not to the action.[101] This supremacy and authority is authorized because the governing body is more likely to act in the interest of both private parties, and those similarly situated in the public at-large.[102] However, sec. 376.313 does not allude to preclusion. A lack of ability for the FDEP to provide violators with assurances that they will not be subject to later suits can put the government at a disadvantage at the negotiation table, and could lead to less compliance frustrating the purpose of the environmental remediation statute.

Furthermore, a sovereign entity may be able to recover more for the same loss because of a presumption courts tend to give when creating a natural resource damage assessment.[103] This presumption

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98 See Alaska Sport Fishing Ass'n v. Exxon Corp., 34 F.3d 769, 772 (9th Cir. 1994)(explaining that allowing private recovery would severely limit the amount of damages government trustees could recover on behalf of the public in future environmental disasters and thus would not fulfill the overall purpose of CERCLA.).

99 See Jusin Vickers, Res Judicata Claim Preclusion of Properly Filed Citizen Suits, Northwestern L.R., Vol. 104, No. 4 (2010)(stating private citizen suits should not be barred from re-litigation pending no expressed clause to the contrary).

100 See e.g. Alaska Sport Fishing Ass'n, 34 F.3d at 774 (9th Cir. 1994) (stating the Consent Decree between the U.S.; the state of Alaska; and Exxon expressly released Exxon from "any and all civil claims" that the governments brought or could have brought against Exxon under TAPAA or state law. Consequently under the doctrine of res judicata, plaintiffs were barred from asserting such claims in a second suit).

101 *Id.*

102 United States v. Olin Corp., 606 F. Supp. 1301, 1305 (N.D. Ala. 1985)(stating a state is deemed to represent all of its citizens, when the state is a party in a suit involving a matter of sovereign interest, and there is a presumption that the state will adequately represent the position of its citizens.).

103 42 U.S.C. § 9607 (2002)(stating that any determination or assessment of damages to natural resources for the purposes of this chapter and section 1321 of Title 33 made by a Federal or State trustee in accordance with the regulations promulgated under section

would not likely be afforded to a private citizen. For example, take a fishing license ($100 value);[104] the government entity will often be given leeway in recovering for the "use value" rather than the market price of 100 dollars. Obviously, if the government was out to make profits that businesses and corporations seek they would charge far greater prices for a right to harvest. However, the intent of the sovereign is not a maximum profit scheme, in most instances, but rather to provide jobs and access to a greater amount of individuals in society. The market value, normally given in tort cases for a individual may not reflect those intangible values that can be compensated for.[105] If a private individual seeks compensation for the same damage, the same values do not ring true as an individual is not the lessor, and has less reasons to justify a lost use damage calculation than does the sovereign. Therefore, we might say that at least in some instances where the government is left out of the first suit, damages of a certain character may not be recovered in full and forever lost or pocketed by the violator.

III.VI PREEMPTION: WHETHER THE "SAVINGS CLAUSE" SAVES SEC. 376.313?

Yet another issue that may arise in the area of natural resource recovery is preemption. There are several categories and subcategories of preemption, but all stem from the same theory under the constitution and its' efforts to put federalism into practice.[106] Under a

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9651(c) of this title shall have the force and effect of a rebuttable presumption on behalf of the trustee in any administrative or judicial proceeding under this chapter or section 1321 of Title 33.).

[104] Florida Fish and Wildlife Conservation Commission: Commercial Saltwater Products License (2014) available at: http://myfwc.com/license/saltwater/commercial-fishing/csl-fees/. The FWC charges 100 dollars for a single resident vessel.

[105] See State of Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 463 (D.C. Cir. 1989)(stating that there is "no necessary connection between the total value to the public of a park and the fees charged as admission, which typically are set not to maximize profits but rather to encourage the public to visit the park").

[106] Alexandra Manchik Barnhill, Entrenching the Status Quo: The Ninth Circuit Uses Preemption Doctrines to Interpret CERCLA As Setting A Ceiling for Local Regulation of Environmental Problems, 31 Ecology L.Q. 487, 503 (2004)(explaining there are two main types of preemption (expressed and implied), and under implied preemption are two subcategories called conflict and field preemption).

theory of conflict preemption, federal law trumps the state if compliance with both laws would be physically impossible.[107] Second, state law may also be preempted if the law stands "as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[108] Therefore, although two statutes allow for one another expressly, a statute may be preempted by the supreme governing body if its' language would impede the objectives of the supreme in a federalism regime.[109]

Earlier this article discussed how on-point federal law expressly allows for "other causes of actions" under what is generally referred to as a savings clause.[110] By 'other' sec. 376.313 refers to both common and state laws that would not otherwise conflict with the purpose of its' own purpose in the regulated area.[111] There are several discrepancies that suggest sec. 376.313 may be overreaching its constitutional bounds and impeding federal objectives and guidelines.[112] Sec. 376.313 does not expressly state it is CERCLA's state counterpart, but rather the Clean Water Acts.[113] Nevertheless,

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107 Ronald G. Aronovsky, A *Preemption Paradox: Preserving the Role of State Law in Private Cleanup Cost Disputes*, 16 N.Y.U. Envtl. L.J. 225, 278-79 (2008).

108 Id. at 279.

109 Alexandra Manchik Barnhill, Entrenching the Status Quo: The Ninth Circuit Uses Preemption Doctrines to Interpret CERCLA As Setting A Ceiling for Local Regulation of Environmental Problems, 31 Ecology L.Q. 487, 504 (2004).

110 But see In re Oil Spill by the Oil Rig Deepwater Horizon in the Gulf of Mexico, on April 20, 2010, 808 F. Supp. 2d 943, 956 (E.D. La. 2011)(stating "[a]lthough Congress has expressed its intent to not preempt state law, this intent does not delegate to the States a power that the Constitution vested in the federal government).

111 See Alfred R. Light, *Antidote or Asymptote to Contribution: Non-Contractual Indemnity Under CERCLA*, 21 Envtl. L. 321, 333 (1991)(stating it is unlikely a state cause of action is preempted simply because it may permit recovery where federal law in the area does not, but that a claim of preemption must rest on the frustration of purpose ground).

112 At least one court has held that states do not retain an ability to extend their trustee rights to municipalities under CERCLA. Mayor & Council of Borough of Rockaway v. Klockner & Klockner, 811 F. Supp. 1039, 1049 (D.N.J. 1993)(finding "the omission of municipalities from the definition of 'state' [in CERCLA] was not accidental and that Congress had no intention of implicitly including municipalities within the word 'state'.").

113 See generally City of Portland v. Boeing Co., 179 F. Supp. 2d 1190, 1203 (D. Or. 2001) (finding it appropriate to construe the language of O.R.S. 465.255, consistently with its federal counterpart, particularly in light of the language provided by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), in effect at the

sec. 376.313 remains subject to federal preemption because it "seeks to address the same goals by imposing the same type of comprehensive statutory scheme."[114]

The first issue that suggests frustration is sec. 376.313, as applied, does not require a "trustee" to bring suit under the statute; rather it allows private citizens to bring an action. Trustees serve a greater purpose and must avoid signs of self-interest, as they are at least thought to represent the community as a whole.[115] The fiduciary capacity in this sense is unique as the government sometimes has the ability to use the recovered amount in ways outside the affected area.[116] A regulatory agency may also choose to litigate or seek maximum damages where the violator is a recidivist, or to the contrary may find that the business is a vital part of the community requiring safeguards; alternatives; or leniency in a given judgment.

Moreover, a sovereign trustee provides comfort to the violator in settlement agreements as that entity, at least in some instances, has an ability to negotiate settlement for the aggregate population should the problem be adequately redressed in the pending action.[117]

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time the Oregon legislature enacted its superfund statutes). See also Fla. Stat. § 376.30 (declaring the intent of ss. 376.30-376.317 to support and complement applicable provisions of the Federal Water Pollution Control Act, as amended, specifically those provisions relating to the national contingency plan for removal of pollutants.).

114 City of Modesto Redevelopment Agency v. Dow Chem. Co., 999345, 2005 WL 1171998 (Cal. Super. Ct. Apr. 11, 2005). See City of Portland v. Boeing Co., 179 F. Supp. 2d 1190, 1204 (D. Or. 2001) (explaining that standing "to pursue [natural resource damages] lie only in the United States, the States and Indian tribes.").

115 N.L.R.B. v. Amax Coal Co., a Div. of Amax, Inc., 453 U.S. 322, 329 (1981)(Under principles of equity, a trustee bears an unwavering duty of complete loyalty to the beneficiary of the trust, to the exclusion of the interests of all other parties).

116 Kevin R. Murray, Steven J. McCardell, and Jonathan R. Schofield, Natural *Resource Damage Trustees: Whose Side Are They Really on?*, 5 Envtl. Law. 407, 439 (1999)(explaining how damage recover is usually above and beyond what the restoration project requires leaving government trustees to use funds outside of the specific restoration).

117 (2) Settlement
A person who has resolved its liability to the United States or a State in an administrative or judicially approved settlement shall not be liable for claims for contribution regarding matters addressed in the settlement. Such settlement does not discharge any of the other potentially liable persons unless its terms so provide, but it reduces the potential liability of the others by the amount of the settlement.

Moreover, regulatory departments will sometimes provide leniency or cost reductions to violators who are quick to act and report their violations.[118] If the violators choice is between potential leniency by the regulatory agency and potentially unlimited liability from private citizen actions, a violator is less likely to divulge such information.[119] Therefore, because sec. 376.313 would discourage violators from reporting mishaps it may impede federal objectives in having a timely and orderly cleanup process.[120]

Again, harms to the environment have been apparent throughout history,[121] comparatively then there is a reason why

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(3) Persons not party to settlement

(**A**) If the United States or a State has obtained less than complete relief from a person who has resolved its liability to the United States or the State in an administrative or judicially approved settlement, the United States or the State may bring an action against any person who has not so resolved its liability.

(**B**) A person who has resolved its liability to the United States or a State for some or all of a response action or for some or all of the costs of such action in an administrative or judicially approved settlement may seek contribution from any person who is not party to a settlement referred to in paragraph (2).

(**C**) In any action under this paragraph, the rights of any person who has resolved its liability to the United States or a State shall be subordinate to the rights of the United States or the State. Any contribution action brought under this paragraph shall be governed by Federal law.

42 U.S.C.A. § 9613.

[118] City of Modesto Redevelopment Agency v. Dow Chem. Co., 999345, 2005 WL 1171998 (Cal. Super. Ct. Apr. 11, 2005)(stating that "CERCLA creates an incentive for settlement by protecting settling parties from contribution actions by non-settling parties, and allowing settling parties to seek contribution from non-settling parties, thereby allowing non-settling parties to be assessed with "disproportionate liability.").

[119] Matthew C. Stephenson, *Public Regulation of Private Enforcement: The Case for Expanding the Role of Administrative Agencies*, 91 Va. L. Rev. 93, 118 (2005)(explaining that some environmental standards are long-term goals which the agency will work with violator and private suits can stifle or hinder that relationship.).

[120] Fireman's Fund Ins. Co. v. City of Lodi, California, 302 F.3d 928, 948-49 (9th Cir. 2002)(finding local municipality environmental remediation law that imposes stricter compliance conflicts with CERCLA as it would foster uncertainty and discourage site cleanup).

[121] Eckardt C. Beck, About EPA: The Love Canal Tragedy, [EPA Journal - January 1979] available at: http://www2.epa.gov/aboutepa/love-canal-tragedy. One of the nation's most infamous man-made natural disasters occurred in the mid 1900s when a former canal company had to abandon ship after fluctuations in the economy. Left with the land and a large ditch, the canal was then used as a municipal landfill. The toxic materials were later covered up with dirt in the 1950's and sold to the city for a dollar. At a later point in time, homes and a school were built on the land. Residents and visitors to the area developed numerous health problems, and women developed birth

statutory environmental regulation had not become a reality until the 1970s and 80s. The age-old debate is that regulation stifles economic growth. Right or wrong, because of this stereotype and reluctance to push the envelope, government will be careful to enact the right amount of regulation curbing industrial hazards while keeping the economy on an even keel.[122] A sovereign then will usually seek to impose liability to the extent the market will bare because its' citizenry although demanding of its' environmental cleanliness,[123] can be equally concerned with the prices at the gas pump. An interested citizen is neither able to contemplate the expense that involve enforcing an environmental remediation statute,[124] nor can they adequately represent the dis-interested public.[125] For these reasons, a private citizen should not be afforded the power in enforcing an environmental remediation statute such as sec. 376.313, especially when that goal is for private redress.[126]

In City of Modesto Redevelopment Agency v. Dow Chemical Co.,[127] the court found that the plaintiff's state law claims were

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defects as a result of the high toxicity levels. The incident lives infamously in American history, commonly referred to as the "Love Canal" disaster.

122 United States v. Olin Corp., 606 F. Supp. 1301, 1305 (N.D. Ala. 1985)(stating there is a presumption that the state will adequately represent the position of its citizens).

123 Matthew C. Stephenson, *Public Regulation of Private Enforcement: The Case for Expanding the Role of Administrative Agencies*, 91 Va. L. Rev. 93, 114 (2005)(analogizing that private citizens are less likely to incorporate social costs of enforcement as the EPA has been shown to do). The author further explains that maximum enforcement is not necessarily, or even usually, optimal to environmental enforcement due to the use of private attorney's who seek statutory fees or tax deductions.

124 Joseph A. Fischer, All CERCLA Plaintiffs Are Not Created Equal: Private Parties, Settlements, and the Ucata, 30 Hous. L. Rev. 1979, 1985 (1994)(explaining because of the immense cost involved in toxic tort litigation many private parties will not, or cannot, afford to bring a CERCLA recovery action unless they are able to reduce the costs and decrease the risks of cost recovery through settlement).

125 *Supra* note 32.

126 Sidney F. Ansbacher et. al., *Strictly Speaking, Does F.S. S376.313(3) Create Duty to Everybody, Everywhere?, Part II*, Fla. B.J., November 2010, at 32, 34 (finding federal courts have uniformly held private natural resource claims are barred in favor of statutory trustees). See also Natural Resource Damage Assessments, 51 FR 27674-01 (CERCLA clearly indicates that damage to privately-owned natural resources are not to be included in natural resource damage assessments).

127 Nos. 999345 & 999643, 2005 WL 1171998, 14 (Cal. Super. Apr. 11, 2005).

preempted where there is "no binding commitments that the plaintiff will spend the proceeds of any judgment . . . on [the] proposed remediation."[128] Again this harkens back to the meaning of the Act and other remediation statutes objectives aimed at redressing the harms inflicted on the environment, and not to any one individual or class.[129] Private citizens as was the case in Curd are then able to recovery under the guise that they are acting as a "private attorney generals"; yet unlike an attorney general the private citizen is able to redress their own injury without accountability for public concerns. By allowing private recovery we pervert precedent and undermine those involved whose goal is the betterment of the earth.

III.VII CHOICE OF LAW: THE SHUTTS ISSUE

The BP litigation highlights another potential issue involved with sec. 376.313 interpretation.[130] In Phillips Petroleum Co. v. Shutts,[131]royalty owners possessing rights to leases from which petitioner produced gas brought a class action suit against the company to recover interest on royalties that were suspended pending a final administrative approval of gas prices. One of the issues disputed in the case was the choice of law to be applied, as the action was filed in Kansas but upwards of 99 percent of the gas leases in question and 97 percent of the plaintiff class members had no apparent connection to Kansas.[132] Although the Kansas Supreme Court sought to uphold its' states substantive law and the ability to use it uniformly on all class members the United States Supreme

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128 *Id.*

129 Florida Power & Light Co. v. Allis Chalmers Corp., 893 F.2d 1313, 1317 (11th Cir. 1990)(stating "[a]n essential purpose of CERCLA is to place the ultimate responsibility for the clean-up of hazardous waste on those responsible for problems caused by the disposal of chemical poison.).

130 In re: OIL SPILL BY THE OIL RIG "DEEPWATER HORIZON" IN THE GULF OF MEXICO, on April 20, 2010. Ozean Marine LLC D/B/A North Light Yacht Club, LLC Plaintiff, v. BP EXPLORATION & PRODUCTIONINC; BP America Production Company; BP p.l.c.; Transocean Offshore Deepwater Drilling, Inc.; Transocean Holdings, LLC; and Halliburton Energy Services, Inc., Defendants., 2013 WL 6028294 (N.D.Fla.).

131 472 U.S. 797 (1985).

132 Shutts, 472 U.S. 797 (1985).

Court disagreed stating "Kansas must have a 'significant contact or significant aggregation of contacts' to the claims asserted by each member of the plaintiff class, contacts "creating state interests," in order to ensure that the choice of Kansas law is not arbitrary or unfair."[133]

In the remaining BP litigation, a similar dilemma may result due to the liberalized interpretation of sec. 376.313. Allowing private citizens recovery where similar state laws have not creates a situation ripe for forum shopping and has the potential to put a heavy burden on Florida courts.[134] It is difficult to provide an accurate percentage of the affected area of Florida waters in comparison to other states and the federal waters involved. Nevertheless, it is fair to say the bulk of injury affected by the oil spill was not Florida waters. Despite this realization, should the case filed in the northern district of Florida go forward,[135] and settle for those "similarly situated" as the complaint asserts, then claimants may have backed their way into what might be characterized as a failure to state a claim in a neighboring state.[136]

III.VIII FINDING SOLUTIONS

There are various ways sec. 376.313 could be put into compliance and achieve its' goals;[137]however, these changes will likely

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133 *Id.* at 821-22 (1985)(citing (Allstate Ins. Co. v. Hague*,* 449 U.S., 302, 312–313 (1981)).

134 See Robert Force et. al., *Deepwater Horizon: Removal Costs, Civil Damages, Crimes, Civil Penalties, and State Remedies in Oil Spill Cases*, 85 Tul. L. Rev. 889, 981-82 (2011)(findingof the four states most directly affected by the Deepwater Horizon blowout--Louisiana, Mississippi, Alabama, and Florida--only Florida (and possibly Louisiana) has enacted legislation that supplements the provisions of OPA by allowing private party recovery; See also Dr. Ronen Perry, Differential Preemption, 72 Ohio St. L.J. 821, 852 (2011) (stating "non-preemption may result in an inconsistent array of state legislation, impairing uniformity.").

135 *Supra* note 11.

136 *Supra* note 14.

137 See Derek Dickinson, Is "Diligent Prosecution of an Action in A Court" Required to Preempt Citizen Suits Under the Major Federal Environmental Statutes?, 38 Wm. & Mary L. Rev. 1545, 1582 (1997) (stating "courts need to control inventive litigants' attempts to use citizen suits for purposes not intended by Congress, yet still keep citizen suits fairly easy to bring and to prove; also noting both that the inclusion of citizen suit provisions reflects skepticism over the prospect of government enforcement, and that

now require involvement from the Florida legislature. Probably the most efficient and sound option is to mimic the safeguards provided in federal remediation statutes as they have been proven as workable policies. This paper further suggests that while at the drafting table that sec. 376.313 also incorporate procedures to avoid the problems riddled in similar statutes. This next section discusses the available options to the Florida legislature should they wish to adopt use of citizen suits, particularly those suits involving recovery of natural resource damages.[138]

III.IX DEFINING THE EXISTING LANGUAGE IN SEC. 376.313

Should the Legislature decide allowing for private standing under a natural resource recovery statute is in the best interest of the environment, the first issue needing to be addressed is the language contained in sec. 376.313 referring to "any person" as being able to initiate a suit. Ironically, in many instances a municipality is not able to bring a remediation suit without being designated as a "trustee" by the governor of the state.[139] The entities status as a trustee acts as safeguard to prohibit self-interested citizens and attorneys from the special remedies provided to the public. A municipality, with its' jurisdictional limits, may only seek to gain a remedy for the portions affecting its land and occupants although the problem may be more prevalent. The same issue arises by allowing an individual to initiate

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the citizen suit provisions indicate some congressional caution about giving private parties the power to enforce regulatory statutes"); See also Charlie Garlow, Environmental Recompense, 1 Appalachian J.L. 1, 11 (2002)(finding safeguards would need to be put in place that costs and damages to the environment would be in priority to private restoration costs).

138 But see P. Alex Quimby, Analyzing Uncertainty: Issues of Purely Economic Losses and Preemption Facing Individuals Injured by an Oil Spill, Vol. 4, No. 1, Sea Grant Law and Policy Journal 79, 106 (2011)(advocating for the United States Legislature to act on the issue of oil spill liability and provide uniformity, predictability, and fairness). Citations omitted.

139 Michael J. Wittke, *Municipal Recovery of Natural Resource Damages Under CERCLA*, 23 B.C. Envtl. Aff. L. Rev. 921, 946 (1996)(finding reason for why municipalities were not included after the SARA amendments to CERCLA). The author found bias toward local industry; lack of expertise; lack of resources; and, a lack of centralized authority as reasons to not allow municipalities trustee status. Besides the bias toward local industry, the other factors would certainly be relevant for not allowing a private citizen standing.

a suit, as they are not necessarily concerned with other affected parties, creating a potential for inconsistent regulation on violations.

Another language issue needing to be addressed in sec. 376.313 is the portion allowing for "any damages" to be recoverable.[140] The wording comes with it several issues and the legislature will want to address whether a person requires having a "special damage" and if so what those specific special damages may be as the line in this instance must be arbitrarily drawn somewhere as we all believe our respective damages are special. For example, what if a shrimp fisherman could readily supply bait despite a spill, yet they could not sell the bait shrimp because the other commercial fisherman are not able to harvest due to a moratorium imposed because of the spill. Is the commercial fisherman's claim for recovery more or less viable than the shrimpers? What about the mom and pop shop that used to sell the fisherman breakfast before their journey for the day? Interesting questions like these must be addressed to define what is recoverable in a later suit.[141] Answering these questions will provide guidance for plaintiffs to avoid frivolous lawsuits and burdening the court. Moreover, a more defined liability scheme would allow violators to assess potential losses in their portfolios and provide them with figures for which they may use in negotiating settlements.

III.X RESTORATION OVER PRIVATE COMPENSATION

Another issue is the way damages recovered by private citizens may be used and what safeguards should be implemented to insure an equitable distribution of funds between the citizen and the public. As one scholar states federal restorations statutes presume "restoration is the basic measure of damage [and that] [t]he trustee must retain

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[140] *See* infra note 84.

[141] The Curd Court adopted the second district court of appeals finding that the economic loss rule only applies in situations of a purely contractual nature; or where a product damages itself; and, in cases where an intentional tort can be proved. Curd, 39 So. 3d at 1223 (Fla. 2010) (finding that because the fisherman's claims did not fall under the economic loss rule the private citizens had valid standing to redress the harm).

collected damages in a revolving account, to be used solely to reimburse assessment costs and to restore, replace, or acquire equivalent natural resources."[142] If sec. 376.313 was precipitated from its federal counterpart than it would follow that sec. 376.313 was not intended to diverge from its fellow federal counterparts on such a key issue as to whom may recover, and for what purposes they may recover. Nothing contained in the Curd decision indicates that the damages recovered by Curd were put into a constructive trust to provide for restoring Tampa Bay or the surrounding waters, or were given directly to the agency in charge.[143] These statutes impose a strict liability stick for avoiding burdensome and timely litigation so that the harms inflicted on the environment can be redressed as immediately as possible, if the harm is not redressed by the suit why would we give a plaintiff such a powerful device?

III.XI PROVIDING LEGAL AVENUES FOR CITIZENRY

Other issues arise outside the context of the language of sec. 376.313, and concern government enforcement. As sec. 376.313 stands, there is an unfettered ability to a plaintiff to initiate a suit under sec. 376.313 regardless of government enforcement. This is highly irregular as statutes of the sort provide citizen enforcement only where the government is not diligently prosecuting the violation.[144] Linked to the idea of diligent prosecution is another

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[142] Sidney F. Ansbacher et. al., Strictly Speaking, *Does F.S. S376.313(3) Create Duty to Everybody, Everywhere?, Part II*, Fla. B.J., November 2010, at 32, 33 (discussing the OPA and its limitations on citizen suits).

[143] Barry Breen*, Citizen Suits for Natural Resource Damages: Closing A Gap in Federal Environmental Law*, 24 Wake Forest L. Rev. 851, 879 (1989) (suggesting that monies recovered by a private citizen could be paid directly to the government agency that would normally be recovering to avoid misuse).

[144] *See* e.g. 33 U.S.C. § 1365
(b) Notice
No action may be commenced--
(1) under subsection (a)(1) of this section--
(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

requirement imposed on citizens to provide the government with adequate notice.[145] This allows the agency to make a fair assessment of the facts and case before it and decide whether to pursue on it own accord.

Sec. 376.313 also fails to address intervention. The language under the Federal Rules of Civil Procedure seem to suggest that a third party would have absolute right to intervene.[146] However, not addressing these issues would undoubtedly burden the government in its' enforcement of natural resource recovery.[147] In many instances, even a federal trustee would not act unilaterally against a violator.[148]Instead, a trustee council will likely be formed, made up of federal and state entities, as well as Indian nations allowing all related issues surrounding a spill to be addressed before providing the violator with a unified plan to which they must agree in settlement.[149]

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145 *Id.*

146 Fed. R. Civ. P. 24. The Federal rules provide that a citizen has an absolute right to intervene should they claim "an interest relating to the property or transaction that is the subject of the action, and is so situated that disposing of the action may as a practical matter impair or impede the movant's ability to protect its interest, unless existing parties adequately represent that interest."

147 Contra David R. Hodas, *Enforcement of Environmental Law in A Triangular Federal System: Can Three Not Be A Crowd When Enforcement Authority Is Shared by the United States, the States, and Their Citizens?,* 54 Md. L. Rev. 1552, 1620 (1995)(finding that state enforcement agencies have documented the serious inadequacies of their enforcement efforts -- even in states considered to be committed to environmental protection.).

148 See NOAA Gulf Spill Restoration: Co-Trustees (2014) available at: http://www.gulfspillrestoration. noaa.gov/about-us/co-trustees/.

149 See e.g.
The federal government Trustees involved in the BP oil spill include the following:
- U.S. Department of the Interior, as represented by the National Park Service,U.S. Fish and Wildlife Service, and the Bureau of Land Management;
- NOAA, on behalf of the U.S. Department of Commerce;
- U.S. Department of Agriculture;
- U.S. Department of Defense (DOD);
- EPA;
- various agencies of the state of Louisiana, including the Coastal Protection andRestoration Authority, Oil Spill Coordinator's Office, Department ofEnvironmental Quality, Department of Wildlife and Fisheries, and Department ofNatural Resources;
- state of Mississippi Department of Environmental Quality;
- state of Alabama Department of Conservation and Natural Resources, andGeological

IV. CONCLUSION

This paper has shed light on the Curd opinion and how its' interpretation has changed the landscape of public resource recovery for private citizens in Florida, and possibly even those with claims outside the state. By taking a historical approach, and first examining public resource recovery statutes this paper was able to put into context and cast doubt on the interpretation of sec. 376.313 laid out by the Florida Supreme Court. Further, this paper highlighted potential conflicts that may arise in the future litigation spanning from, but not limited to issues such as res judicata; preemption; limited funds; and choice of law issues. Finally, the paper suggested some solutions for augmenting sec. 376.313 should the legislature find the Curd opinion has gone beyond what was contemplated by Florida's Discharge and Recovery Act by providing private citizens with the authority normally only provided to the sovereigns.

The cost of not doing so could effect adversely on the economics of the state through burdens on the court system and growth of industries within the state; thus an honest assessment is needed to find whether those rights are consistent with the long-term goals of Florida. This paper was written to show its' reader that sec. 376.313 broad enforcement power can present more problems then it prevents. However, keeping in mind contemporary standards and the need for more effective enforcement, this paper hopes to prompt the Florida Legislature to act by providing sufficient procedures and guidelines so that its' government is not be impeded in its' overall objective, environmental sustainability, but that citizens may serve a vital watchdog role in the future.

Survey of Alabama;

- state of Florida Department of Environmental Protection, and Fish and WildlifeConservation Commission; andvarious agencies of the state of Texas, including the Texas Parks and WildlifeDepartment.

Adam Vann & Robert Meltz, The 2010 Deepwater Horizon Oil Spill: NRDA under the Pollution Action (July 24, 2013) Retrieved from: http://www.fas.org/sgp/crs/misc/R41972.pdf.

NALSAR University of Law
Post Box No.1, NISA Hakimpet, 'Justice City',
Shameerpet, R.R.Dist. Hyderabad - 500078, Telangana, INDIA

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