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UNDERSTANDING SUSTAINABLE DEVELOPMENT: INTERNATIONAL GENESIS AND INDIAN DEVELOPMENT

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Abstract

The world's consciousness towards the environment witnessed the never before awakening in the early 1970s which is largely attributable to socio-environmental incidents at that time. In the background of such developments, the first international meeting concerning the environment was held in Stockholm in 1972 calling for the international corporation for "preservation and enhancement of the human environment". However, it took the world twenty years to constructively recognise the relevance of striking balance between the need for development and exploitation of natural resources and in the year 1992 at Rio the States of the world were called upon to apply with "precautionary approach" in situations which pose "serious or irreversible threat to the environment", to achieve sustainable development. Ever since sustainable development has been adopted in several international instruments and has become inclusive in many domestic laws of the world. Which is reflective of the growing acceptance and universal application of such principles. India is one of the few countries of the world, where the adoption of the international environmental principle of sustainable development is statutorily mandated upon the country's dedicated environmental court, the National Green Tribunal in imparting environmental justice. The present paper studies the genesis and evolution of sustainable development at the international level and its gradual amalgamation into the Indian domestic law through precedents set by the Supreme Court. The paper through the analysis of the Supreme Court judgements on sustainable development aims to study to what extend sustainable development is understood and adopted into the Indian environmental regime. The purpose of the paper is to provide the historical context of the evolution of sustainable development in the Indian environmental regime to understand how sustainable development is understood and applied in the Indian environmental context.

Keywords: Sustainable Development; Environmental Law and Principles; Supreme Court of India; Environmental Jurisprudence.

I. Background

"If 'sustainability' is anything more than a slogan or expression of emotion, it must amount to an injunction to preserve productive capacity for the indefinite future."

-Nobel Laureate, Robert Solow (1993, p. 163)

The world's consciousness towards the environment witnessed the never before awakening in the early 1970s. This is largely attributable to socio-environmental incidents such as the deadly air pollution caused by a zinc plant in Donora, Pennsylvania in 1948 which made a large number of the population take ill; the effect of a radioactive accident in the Marshall Islands put people at increased risk of cancer; the effects of water pollution was seen as a result of the oil spill near the city of Santa Barbara in 1969 which contaminated lakes, rivers, oceans and groundwater; Rachel Carson's Silent Spring detailing extinction of birds due to increased use of pesticides; Minamata Disaster resulting from consumption of shellfishes from Minamata Bay which was contaminated due to discharge of industrial wastewater containing methyl mercury; mass destruction of forest due to use of chemicals like Agent Orange in wars and scientific research in the field like the first "Earthrise" picture of earth's surface from the space exposing its beauty and vulnerability (Blake, 2012).

In the background of such developments, the first international meeting concerning the environment was held in Stockholm in 1972 calling for the international corporation for "preservation and enhancement of the human environment" (United Nations General Assembly (UNGA), 1972, prem.). However, it took the world twenty years to constructively recognise the relevance of striking balance between the need for development and exploitation of natural resources and the environment and in the year 1992 the United Nations Conference on Environment and Development (UNCED) held at Rio de Jenario in its Principles 11 and 15 called upon States of the world to apply with "precautionary approach" in situations which pose "serious or irreversible threat to the environment", to achieve sustainable development (UNGA, 1992).

Brundtland in 1987 first defined the term sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Chap. 2, para. 1). Ever since sustainable development has been adopted in several international instruments become inclusive in many domestic laws. The present paper studies the genesis and evolution of the sustainable development principle at the international level and its gradual amalgamation into the Indian domestic law through precedents of the Supreme Court (SC). Through the analysis of the SC judgements, the paper aims to study to what extend sustainable development is understood and applied in the Indian environmental context.

Methods and Material

The research methodology adopted in the present paper is broadly qualitative doctrinal. Both these research methods are combined to demonstrate the application of sustainable development principle and its components of polluter pays and precautionary principle into the Indian environmental jurisprudence. The study is desk-based research. An academic literature study of various United Nations reports, conventions, treaties and books and articles of the eminent scholars and some of the decisions of the international court is undertaken to understand the concept, meaning, development and components of sustainable development at the international front. Applied doctrinal research methodology is adopted to analyse the judgements of the SC to know the incorporation of the sustainable development principle and its components into the Indian environmental jurisprudence.

II. International Development of Sustainable Development

As a concept sustainable development may be understood as one that creates an obligation to "integrate environmental considerations into economic and other social development and to take into account development needs in crafting, applying, and interpreting environmental obligations" (Sands, 1994, p. 293).

The UNCED of 1992 is considered the harbinger of sustainable development in the international legal arena with 12 (twelve) of its principles out of 23 (twenty-three) expressly refer to the expression sustainable development. Despite being non-binding, the Rio Declaration provided the foundation for several binding environmental treaties and conventions based on the principle of sustainable development like the United Nations Framework for Climate Change, Convention on Biodiversity amongst others. The Rio Declaration is "viewed as the keystone of the conceptual articulation of sustainable development" (Barrel, 2012, p. 379).

Brundtland in 1987 coined the term sustainable development in a report commonly known as *Our Common Future* which defined it as that includes the requirement of economic development of the present generation without conceding to the 'ability' of future generations to meet their economic needs. The definition of sustainable development incorporates two aspects; one of 'needs', particularly the essential needs of the world's poor and the other of "limitation" of the environment's ability to meet present as well as the future needs (Sands, Peel & MacKenzie, 2012, pp. 252-253)

The term sustainable development was expressed for the very first time in 1980 in the World Conservation Strategy, which is considered the predecessor to Brundtland Report, 1987. But between the World Conservation Strategy and the Brundtland Report, the World Charter for Nature in 1982 emphasised: "conservation" to be the "underlined principle" of sustainable development and provided specific "conservation principles" for maintaining an equilibrium between development and the environment (UNGA, 1982, Annex. I).

Though the genesis of sustainable development can be traced back to the Pacific Fur Seal Arbitration of 1893 (Sands, 1994, p. 306). The Stockholm Declaration of 1972 is regarded as the starting point of the modern concept of sustainable development, though it does it mention the

term sustainable development but through its principles, particularly principles 4 and 13, introduced the concept of linking economic development with environmental protection (Barrel, 2012, p. 379).

The year 1992 may be regarded *landmark* (Barrel, 2012) in the evolution of the principle of sustainable development as the UNCED integrated the elements of sustainable development in its principles (UNCED, 1992, Principle 3); recognising that in sustainable development environmental protection has a vital part (UNCED, 1992, Principle 4) and asking all States to cooperate in different spheres (UNCED, 1992, Principles 6,7,8,9,&21) and involve all sections of society from women to youth to indigenous people (UNCED, 1992, Principles 20,21&22) to achieve sustainable development. Ten years after the UNCED, the Johannesburg Declaration on Sustainable Development in 2002 while reinforcing the commitment and recognising serve threats to sustainable development added social development as the pillar to sustainable development along with economic development and environment protection (United Nations, 2002, prem.).

After UNCED quite a few international instruments acknowledged as well as stress the need for sustainable development. Amongst the few environmental treaties are the United Nations Framework Convention for Climate Change (UNFCCC), Kyoto Protocol, Convention on Biological Diversity and United Nations Convention to Combat Desertification. The UNFCCC accords sustainable development as a right and makes it binding, as Article 4 uses the term "should", for the parties to promote sustainable development and take account of the climate change in the social, economic and environmental programme (UNFCCC, 1992, Articles 4(1)(d) & 4(1)(h)(i)). The 1995 Agreement on the Establishment of WTO incorporates sustainable development amongst its goals allowing "optimal use of the world's resources in accordance with the objective of sustainable development". The Treaty on European Union includes "a balanced and sustainable development to be achieved" (UNFCCC, 1992, Article 2).

The Rio+5 in 1997 added the social aspect (the third pillar) to sustainable development with the United Nations General Assembly recognising that sustainable development necessitates the integration of economic, environmental and social aspects and affirmed that protection of the environment and development of the society and the economy were symbiotic and jointly strengthening constituents of sustainable development (UN General Assembly, 1997, paras. 3 & 23). The Johannesburg Summit for Sustainable Development in 2002 re-emphasized the need to balance the three components of sustainable development and stressed on implementation of the principle.

The concept of sustainable development has evolved in the last 30 years and is found to be articulated and disseminated through many UN initiated programmes. In this short span, its acceptance has been immense which is reflected in a vast number of treaties adopting it in its framework (Barral, 2012, p. 380).

International Courts and Development of Sustainable Development Principles

The role of the International Court of Justice (ICJ) post-1992 in the development of sustainable development and the concepts related to it is undeniable. In 1995 the ICJ in *Nuclear Tests Case*

specified that the order passed by it was "without prejudice to the obligations of States to respect and protect the natural environment" (*New Zealand v. France,* 1995, para 64). In its Advisory Opinion to the UN General Assembly on *The Legality of the Threat or Use of Nuclear Weapons* the ICJ while referring to Principle 24 of the Rio Declaration stated that "the environment is not an abstraction, but represents the living space, the quality of life and the health of human beings, including generations unborn". The ICJ recognising international law principle of no harm to be part of international environment law concluded that

The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is part of the corpus of customary international law relating to the environment (International Court of Justice [Advisory Opinion], 1996, para 29, pp. 241-242)

In the case of the *Gabcikovo-Nagymaros* Dam project, the ICJ emphasized that the " …. need to reconcile development with protection of the environment is aptly expressed in the concept of sustainable development". Judge Weeramantry in his dissenting opinion further added that sustainable development is "part of modern international law by reason not only of its inescapable logical necessity, but also by reason of its wide and general acceptance by the global community", reaffirming that "in the area of international law…there must be both development and environmental protection, and that neither of these rights can be neglected" (Sands, 1999, pp. 390-396).

Equally relevant is the pronouncement made by the World Trade Organisation's Appellate Body in the *Shrimp Turtles* case (1998) (between the United States and India, Pakistan, Malaysia and Thailand) in which it took a different view from the earlier GATT panel decision in the Tuna/Dolphin Case and made several references to sustainable development and environmental concerns. While interpreting the exception Article XX (g) of GATT, permitting States to take measures for "conservation of exhaustible natural resources" the Appellate Body observed the "contemporary concerns of the community of nations about the protection and conservation of the environment" and that the Preamble of the World Trade Organisation Agreement "explicitly" acknowledges the objective of sustainable development, a concept which in the Appellate Body's view "has been generally accepted as integrating economic and social development and environmental protection"(Sands, 1999, pp. 396-401).

Components of Sustainable Development

From the various treaties, conventions, agreements and international judicial decisions, the sustainable development principle is derived to be both substantive as well as procedural in nature. The substantive nature of the principle is reflected in Principles 3 to 8 of the Rio Declaration which provides for (i) sustainable use of natural resources, (ii) integration of environmental protection and economic development, (iii) intra and inter-generational equity, and (iv) right to development. The principles 10 to 17 of the Rio declaration providing for "public participation in decision making", "access to information" and "environmental impact assessment" constitute the procedural aspect of sustainable development (Birnie, Boyle & Redgell, 2008, p. 123). In addition

to the above, the legal aspect of sustainable development as set out by the International Law Association New Delhi Declaration of Principles of International Law Relating to Sustainable Development are (i) "precautionary principle" (ii) "principle of good governance" (iii) "principle of integration and interrelationship" (iv) "principle of common but differentiated responsibility" (v) "duty of states to ensure sustainable use of natural resources" (vi) "principle of equity and eradication of poverty" and (vii) "principle of public participation and access to information and justice" (International Law Association, 2002, pp. 213-216).

The present paper deals with the precautionary and polluters pay approach of sustainable development. The precautionary principle vide Principle 15 the Rio Declaration provides that

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The Bergen Declaration on Sustainable Development, 1990 specifies that precautionary principles must form the basis of policies for attaining sustainable development. It requires agencies at all levels must endeavour to "anticipate" and "prevent" factors that cause environmental degradation. The particular feature of the precautionary principle lies in obligating a preventive action specifically in absence of "scientific certainty" to take steps to prevent "serious and irreversible damage" to the environment. Most importantly the principle strikes sustainability between environment and economic concerns by placing "onus of proof" on the economic actor to establish that developmental actions undertaken do not threaten the environment (Stevens, 2002, p. 13).

The polluter pays principle envisaged in Principle 16 of Rio Declaration requires the State "authorities to internalize the environmental costs" and "..the use of economic instruments, taking into account the approach that the polluter should in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment." The required internalization of cost under the polluter pays principle is attained through a mechanism that institutes a regime based on strict liability and an obligation on the economic actor to take insurance in addition to providing insurance (Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes, 1992)

III. Development of Sustainable Development: Indian Context

In the year 2010 India, keeping abreast with countries like Australia and New Zealand incorporated the principles of sustainable development along with legal components of precautionary principle and polluters pays principle into its legislative frame of the National Green Tribunal Act, 2010 (NGT Act) (NGT Act, 2010, sec. 20). The sustainable development incorporation was not directly influenced by the international legal arena but to a large extent contributable to the development of the concept and the principles by the SC through precedents.

Indian Constitution and Environment

The SC is the highest judicial forum in India, which derives extensive powers from the Indian Constitution. The Indian Constitution may be regarded as the backbone of Indian environmental jurisprudence since using its Constitutional powers the SC has filled the massive gaps in the Indian environmental legal framework. However, when the Indian Constitution had come into force it did not provide for the environment *per se*.

As the post-Stockholm effect, the Indian Constitution was amended in 1976 and the word socialism was added to the preamble of the Constitution along with Articles 48Aand 51A(g) which directly affected the environmental regime in India (Constitution of India, 1950, 42nd Amendment). Until then Article 42[1], Article 43[2], Article 48[3] and Article 49[4] were facilitating environmental conservation in one way or the other. With the 1976 Amendment protection of natural resources and environmental protection formed part of constitutional mandate (Constitution of India, Art. 48A and 51A (g)). In *M.C. Mehta Case* the SC interpreted Article 51A(g) to cast a duty upon the Central Government to introduce mandatory lessons in educations institutions across India on "protection and improvement of the natural environment (*M.C. Mehta v. U.O.I*., 1983).

The protection and conservation of the environment regime got further impetus in India due to the recognition of the term socialism in the Constitution. The inclusion of the term socialism within the basic structure of the Indian Constitution indicated the prioritization of social concerns over individual interests. Which added thrust to the cause of environment protection in India as environmental degradation is not just an individual problem but a social concern (Constitution of India, pream.).

The SC has been instrumental in incorporating sustainable development principles into the Indian environmental legal regime by interpreting international environmental principles within the constitutional mandate of India. The SC for such interpretation has most effectively used the Constitutional provisions of Articles 14, 21 and 32. These Articles have emerged as the strongest pillars for the development of Indian environmental jurisprudence.

Meaning of Sustainable Development as interpreted by Indian Courts

Sustainable Development has a different meaning for different countries. For the developed countries sustainable development implies a reduction in consumption and enhancement of efficiency in the utilisation of energy and natural resources. In the context of India sustainable

[1] "State to make just and humane conditions of work"

[2] "Securing living wage is not enough. State should endeavour to ensure decent standards of life"

[3] "State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves…"

[4] "to protect every monument or place or object of artistic or historic interests, declared by or under law made by Parliament to be of national importance, from spoliation, disfigurement, destruction, removal, disposal or export"

development was explained to be understood to imply that the kind of development that is undertaken should be able to "....be sustained by nature/ecology with or without mitigation" (*Narmada Bachao Andolan v. Union of India*, 2000, para. 123). The High Court of Uttarakhand while citing L.K. Singh's article *Sustainable Development: Fact and Interpretation* defines sustainable development as

"..Development is the process by which people meet their needs and improve their living conditions. Only when such development leads to social, economic and cultural betterment that satisfied the needs and values of the all interest groups, not only of the present day but of future also by conserving natural resources and diversity of life, it becomes sustainable…." (*Naveen Chandra & Anr. v. State of Uttarakhand & Ors*., 2017, para. 77)

It is a "complex and broad concept incorporating the principles of Ecological sustainability, Social sustainability, Economic sustainability and Cultural sustainability which in one way or other are applicable to all developmental activities". (*Naveen Chandra & Anr. v. State of Uttarakhand & Ors*., 2017, para. 78)[5].

Components of Sustainable Development as adopted and interpreted by Supreme Court

The Tamil Nadu Tanneries case brought the concept of sustainable development into the Indian environmental regime. The SC recognised that sustainable development accords "balancing" effect between development and ecology invalidating the "traditional concept" that ecology and development are opposed to each other. Referring to salient features of sustainable development derivable from the Brundtland Report the Court interpreted "precautionary principle" and "polluter pays principle" as two "*essential"* components of sustainable development. The SC relying on the *constitutional mandate* of Article 21 guaranteeing protection of life and personal liberty and provisions of Articles 21,47,48-A, 51-A(g) providing for protection and conservation of the environment and natural resources and various statutory provisions contained environmental statutes like the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act,1981, and the Environment (Protection) Act, 1986 held that "precautionary principle" and the "polluter pays principle" is "accepted as part of law of the land" (*Vellore citizens' Welfare Forum v. Union of India*, 1996, paras. 10, 13 &14).

The "principles of "polluter pays" and "precautionary principle" have to be read with the doctrine of "sustainable development". The Court relying on the definition of sustainable development provided in the Brundtland Report established that in matters relating to development and ecology the "required standard is that the required standard is that the risk of harm to the environment or

[5] Naveen Chandra & Anr. v. State of Uttarakhand & Ors., (Uttarakhand High Court, 28th March, 2017).
https://services.ecourts.gov.in/ecourtindiaHC/cases/display_pdf.php?filename=7yg5D%2FmJmLJFbv9l4Wl3vd7A1azMQDSl%2BB4VIeAM30qsG0M1vgxV6tYuuRrL5Rqh&caseno=WPPIL/16/2016&cCode=1&appFlag=

to human health is to be decided in public interest, according to a "reasonable person's" test" (*Tirupur Dyeing Factory Owners Association v. Noyyal River Ayacutdars Protection Association*, 2009, pp. 26 & 334).

The permits of forest-based industry were cancelled holding that recognizing the "principle of intergenerational equity" is central to the conservation of forest resources and sustainable development (*State of H.P. v. Ganesh Wood Products*, 1995). In another case, the licences of wood-based industries were suspended and the direction was issued stating that the number of wood-based industries to be permitted to operate would be as per the sustainable availability of forest produce in the area. The court categorised that industrial requirements were was secondary when compared to the issue of maintenance of the environment, ecology and bona fide needs of the locals (*T.N. Godaverman Thirumulkpad v. Union of India*, 1998).

In the Taj Trapezium case remediation of damaged environment was interpreted to be part of sustainable development (*M.C. Mehta v. Union of India*, 1997). The Aravali Case witnessed re-emphasises that the sustainable development principle forms part of Articles 21, 48A and 51A(g) of the Constitution in the SC suspending all the mining leases in the area of Aravali Hill Range on account of environmental degradation caused by mining based on the principle of sustainable development. The Court held

Mining within the principle of sustainable development comes within the concept of "balancing" whereas mining beyond the principle of sustainable development comes within the concept of "banning". Balancing of the mining activity with environment protection and banning such activity are two sides of the same principle of sustainable development. They are part of precautionary principle (*M.C. Mehta v. Union of India*, 2009, para 19).

Polluter Pays

The 'polluter pays principle is a rule of strict liability applied in environment pollution cases to compensate the victims and to punish the wrongdoers. The doctrine of strict liability was propounded by the SC in the Oleum Gas Leak case and awarded compensation to victims against private companies. In the later judgments, it was reiterated that "..Once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity". It was noted that the principle would be violated if there were a substantial adverse ecological effect caused by an industry (*Indian Council for Enviro-Legal Action*, 1996, para. 65).

In the Bhopal Gas Leak case principle of polluter pay formed the basis for the approval of the settlement of claims of victims. The Bhopal gas disaster ruling is taken as a limitation of the application of the law because of which a disaster of this extent and nature could neither be prevented nor remedies could be rendered promptly.

The case involving the construction of a motel on the banks of river Beas hindering the natural flow of the river and polluting it the polluter pays principle was effectuated. Even the State was found to be breaching public trust doctrine in leasing ecologically fragile land. In the 10 lakhs of

damages awarded the Court included the cost of ecological restoration (*M.C Mehta v. Kamal Nath*, 2002). The SC regarded it to be its "duty to intervene" in the event the Government or the concerned authorities fail to take action against economic actors when their activity results in violation of the right of life of a citizen by causing pollution. This was held in a case where chemical industries were operating without obtaining the requisite licenses and were discharging toxic effluents in absence of any treatment equipment plant. As a result of this, the well water got contaminated and its consumption by the people of the surrounding areas caused widespread diseases and deaths. The report of the National Environmental Engineering Research Institute, submitted on the direction of the Court, found 720 tonnes lying in the area which was not removed despite the order of the Court. Holding the case to be maintainable under the writ jurisdiction of Article 32 the SC directed the State and the concerned authorities to perform the legislative duties under various environmental acts. Determining the liability of economic actors on the polluter pays principle the Court held the authorities guilty for the contamination of soil and underground water and for the damage to the village in general (*Indian Council for Enviro-Legal Action v. Union of India*, 1996)

The SC's directions on abatement of public nuisance and healthier sanitary planning in *Ratlam Municipality case*; closing down of tanneries and pollution sources of pollution river Ganga in M.C Mehta; stoppage of foundries and refineries causing degradation of world heritage the Taj Mahal in M.C Mehta; monitoring of activities of tanneries to prevent groundwater contamination in Vellore Citizens Welfare Forum and strict regulation and control of traffic for combating vehicular pollution in M.C Mehta illustrate the reach of the precautionary principle.

The SC has employed in the above cases that by ensuring strict compliance with the relevant environmental law mitigation and prevention of pollution can be attained.

Precautionary Principle

The precautionary principle should have been analysed much before when it was in the wake of the Bhopal Gas Disaster. However, in the year 1996, the SC finally analysed and held it to be "part of law of the land". In the event of difficulty in establishing a link between constitutional mandates under various Articles of the constitution and the principle, the international character of the principle should be borne in mind which makes its application "convenient" for judicial forums to apply it for environmental protection purposes. The Court explained that application of the precautionary principle in "municipal law" implies firstly for a State to anticipate, prevent and attack the causes of environmental degradation. Secondly, the absence of scientific certainty must not be used to delay the action of prevention when the damage to be caused is serious and irreversible. Thirdly, under this principle, the "onus of proof" lies with the economic actor to prove that the activity is "environmentally begin". The Court stated that "inadequacies in science" led to precautionary principle which in turn led to "special principle of burden of proof in environmental cases" wherein the onus of proving that the actions bear no injurious effect lies on the person who intends to alter the "status quo" of environment. The precautionary principle advocates that in the event of identifiable risk of irreversible harm it is 'appropriate' to place a burden of proof on the

proponent of activity that has the potential of being harmful. Such a proponent has to provide the "required standard of proof" to demonstrate the "absence of a reasonable ecological or medical concern" associated with its activity (*Vellore Citizens' Welfare Forum v. Union of India*, 1996, paras.36 & 38).

Having established the principle, the SC continuously spread its application the principle to several cases. Adherence to the precautionary principle was stated to be a pre-requisite to permits granted to an industry operating with hazardous substances (*Research Foundation for Science, Technology and Natural Resource Policy v. Union of India,* 2012, para. 10(7)).

The principle of polluter pays and precautionary were held to be forming the essential "core" of Article 21 of the Indian Constitution (*Amarnath Shrine, In Re: Court on Its Own Motion v. Union of India*, 2012, para. 15).

The forest advisory committee constituted by the SC submitted before the court that the irreversible damage to the environment could only be checked by application precautionary principle which is the only principle available for such purpose (*Orissa Mining Corporation Ltd. v. Ministry of Environment and Forest*, 2013).

Noting the application of the precautionary principle to prevent future environmental degradation, the Court held that this principle aided by other international environmental principles can be instrumental in the implementation of national policy for development, control and use of atomic energy for mankind in the general and economic development of the country as a whole (*G. Sundarrajan v. Union of India,* 2013).

In the *Mullaperiyar dam case,* the Court reiterated that for application of the said principle there must exist scientific uncertainty regarding irreversible damage to the environment, therefore, a competent public authority must anticipate and prevent such damage by attacking the cause for such environmental damage (*State of Tamil Nadu v. State of Kerala,* 2014).

The SC summed the jest of all the above decisions in concluding that the concept of sustainable development covers the development that meets the needs of a person without compromising the ability of the future generation to meet their own needs. It means the development, that can take place, can be sustained by nature/ecology with or without mitigation. In such matters, the required standard is that the risk of harm to the environment or human health is to be decided in the public interest, according to a reasonable person test (*Tirupur Dyeing Factory Owners Association v. Noyyal River Ayacutdars Protection Association &Ors*., 2009)

The effectiveness of the environmental protection regime depends upon the strict implementation of laws that bear the soundness of formulation. Which need to be further strengthened by the mechanism of the organisational framework which contributes greatly to the achievement of the right to environment. As observed by the SC in one of the cases that "..Violation of anti-pollution laws not only adversely affects the existing quality of life but the non-enforcement of the legal provision soften results in ecological imbalance and degradation of the environment, the adverse effect of which will have to be borne by the future generations.."(*Indian Council for Environment Legal Action Case v. Union of India & Ors.*, 1996, para. 26)

IV. Conclusion

The principle of sustainable development has been expressly incorporated by several countries into their municipal laws making its implementation a substantive municipal requirement. In Australia, the National Environment Protection Council aims to incorporate the concept of "ecologically sustainable development" in the assessment and approvals of natural resources and land use. Canada's Environmental Protection Act specifies sustainable development in a number of its sections including the Preamble which states that Canada intends to achieve sustainable development through sustainable use of natural, social and economic resources. New Zealand has specific legislation on sustainable development. The Environment Conservation Act 1995 and the Environment Conservation Rules 1997 of Bangladesh expressly provide for precautionary and polluter pays approach along with the obligation to undertake Environmental Impact Assessment which is integral sustainable development. The National Environmental Standards and Regulations Enforcement Agency Act of Nigeria mandates to development of the Nigerian environment and natural resources sustainably with sustainable development categorically specified in section 2 as an objective of the Enforcement agency.

In the case of India, it is interesting to view the development of sustainable development through international conventions parallelly with the development of the Indian environment law; one finds a simultaneous evolution of both. In Stockholm, in 1972 the world for the first time gets introduced the approaches of "precaution", "preservation", "prevention" which are viewed as some of the ways to ensure sustainable development. Based on the prevention and precaution approach towards environment India, post-Stockholm India enacted the Water (Prevention & Control of Pollution) Act, 1976 and the Air (Prevention & Control of Pollution) Act, 1981 to control and prevent water and air pollution from causing "irreversible" or "serious damage" to the environment. With Rio Deceleration at the international forum, sustainable development came to prominence which was furthered by Convention on Biodiversity, 1992 (CBD) giving the approach a formal bindingness. The same formal blindness of the principle is found in Indian environment law when in 2002 India enacted the Biological Diversity Act (BDA) based on sustainable utilisation of biological resources and equitable sharing of benefit arising out of such use of natural resources. The BDA is the first and the only enactment to expressly incorporate the sustainability aspect into legal regimes in India. Finally, in 2010 India environmental legal regime finds the international principles of sustainable development, precautionary and polluter pays translated into statutory recognition in the National Green Tribunal Act, 2010 establishing the National Green Tribunal, a specialised court for environmental matters. Which mandates the National Green Tribunal to be driven by these principles for imparting environmental justice.

The incorporation of international environmental principles into the municipal laws of a country is reflective of the growing acceptance and universal application of such principles. India has incorporated and accepted the international environmental principle of sustainable development in its municipal law. It is one of the few countries of the world which mandates the adoption of this principle by its dedicated environmental court. How well is this principle applied remains a question to be studied. While the apex environment court of India, the SC continues to augment

varied aspects of sustainable development into the Indian environmental jurisprudence. What international conventions and treaties have contributed to the evolution of sustainable development principles in the global arena, the SC has contributed the same at the domestic front in India.

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