

Conservation of Biological Diversity vis a vis Bio-imperialism, Bio-piracy and Bio-politics of the Developed Nations and India's Interest

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Abstract— Biological diversity is a very vast idea, exemplifying as it effectively depicts the difference among every living creature, including diversity inside species, among species, and among environments. Hereditary assets are the natural material in all animals, plants, and microorganisms; the idea alludes to genetic material with specific or potential use or incentive for mankind. Conservation of biodiversity is essential to keeping up the eventual fate of life on Earth as we humans are already aware of it. On the other hand, the absence of such protection will without a doubt lead to a heavy blow to the environmental balance along with loss of hereditary material, and disturbance of regular procedures. If we are talking about the emerging problems in 21st century related to conservation of biodiversity, we must accept that one of the most genuine environmental issues looking all through the Globe is because of obliteration of biodiversity. It is accounted for that some of earth's plants and creatures are as of now being smothered and therefore biological impoverishment is happening everywhere throughout the globe. Now a day's Bio-imperialism, Bio-piracy and Bio-politics become an issue and somehow it hampers the rights of Indigenous people and their traditional knowledge. In the light of conservation of biological diversity this research paper examines the impact of Bio-imperialism, Bio-piracy and Bio-politics of the Developed Nations and India's interest.

Keywords— Conservation, Biological diversity, Environment, Bio-imperialism, Bio-piracy, Bio-politics, Developed Nations, Traditional Knowledge.

I. INTRODUCTION

Biological diversity is an expansive idea, epitomizing as it does the changeability among every single living life form, including diversity inside species, among species, and among environments. Hereditary assets are the innate material in all creatures, plants, and microorganisms; the idea alludes to hereditary material with genuine or potential use or incentive for humankind. Hereditary diversity or changeability is a vital condition to support imperativeness in both wild and tamed plants and creatures, and furthermore for the advancement of as good as ever items.

Preservation of biodiversity is basic to keeping up the fate of life on Earth as we probably am aware it. On the other hand, the absence of such protection will without a doubt lead to proceed with disposal of living things, loss of hereditary material, and disturbance of common processes. In perspective on the enormous scale misuse of helpful diversity of different plant species from woods and open territories, especially for therapeutic and other monetary plants, and the predominance of delicate biological systems in numerous piece of the nation. Dialog of the relative benefits and confinements of biodiversity prospecting understandings in understanding the goals of the CBD has been the subject of a captivated and frequently passionate discussion.

The Conservation of Biological Diversity establishes perhaps the best challenge, as environmental corruption world-wide has prompted species annihilation at a heretofore extraordinary rate. Appraisals of the quantity of existing species in the world differ from around 5 to 100 million, of which just some 1.4 million have been depicted experimentally. As the new biotechnologies make it conceivable to use the maximum capacity of the world's hereditary assets (it is presently conceivable to move any quality into any life form), the financial motivator to save biological diversity increments. Subsequently, the enthusiasm for hereditary material is emerging from environmental worries, just as being founded on mechanical improvements. Aside from the moral and tasteful estimation of species diversity, we should

take note of that humankind relies upon hereditary assets for sustenance, medications, and for crude materials in the compound ventures. The universal discussion on hereditary assets is concerned with protection, yet the same amount of with the appropriation of advantages got from utilizing this material. The primary theft of the worldwide hereditary assets is found in the Third World, yet it is the developed nations that have the biotechnology to misuse these assets. This potential clash was acknowledged by the World Commission on Environment and Development which asked: 'Industrialized countries looking to receive a portion of the monetary rewards of hereditary assets should bolster the endeavors of the Third World countries to moderate species' and 'developing nations must be guaranteed a fair portion of the financial benefit from the utilization of qualities for business purposes.

II. INTERNATIONAL CONCERN OVER THE ISSUE OF GLOBAL BIODIVERSITY

Biodiversity can be influenced by an assortment of components, for example, environmental change, quantities of life forms are modified, and geology has been influenced, shifting physical substratum, time and heredity whenever adjusted. Because of persistent strike on the earth by people these components are by and large unreasonably modified after some time. One of the most genuine environmental issues looking all through the Globe is because of obliteration of biodiversity. It is accounted for that some of earth's plants and creatures are as of now being smothered and therefore biological impoverishment is happening everywhere throughout the globe. The pace of eradication today contrasted with the noteworthy standard through geologic time is magnificent and frightening. More species of the world's plants and creatures might be lost in our lifetime than in the mass annihilations that cleared the dinosaurs from the earth sixty-fifty lakhs years back. The world's tropical woodlands, famously known as "supports of life," are the common living space for a lot of this biodiversity. These tropical woodlands spread uniquely about 6% of the land surface of this planet; however they contain over portion of the World's biodiversity. Sadly, these regions have effectively lost around 1 million species in the previous decades.

The United Nations Environment Program has announced that the earth will lose around one fourth of its assessed 30 million species in the following twenty to thirty years, a misfortune which will bargain the capacity of future ages to address their issues. Human movement is to a great extent in charge of this circumstance. The thriving world populace now more than five and a half billion is spreading into and assuming control over the living space of a huge number of different species. The fiscal direction of human progress requests consistent advancement and perpetual action, the two of which result in soil debasement, sea asset exhaustion and with industrialization, air pollution and even the gap in the sensitive ozone layer encompassing this planet. People are on the double the issue and furthermore, incidentally, its definitive exploited people. The International Union for Conservation of Nature records "Compromised Species", which uncovers that an aggregate of 15,589 species face annihilation. One of every three creatures of land and water and practically 50% of all freshwater turtles are compromised; one of every eight winged animals and one out of four warm blooded animals are known to be in danger, tragically because of environmental harm brought about by humankind.

The proceeded with misfortune at the present rate, it is assessed, would demolish up to 15 percent of the world's species throughout the following a quarter century, with twenty to seventy five species for each day being censured by 2040. Understanding the gravity of the circumstance a few governments made a guarantee to address biodiversity misfortune at the 2002 World Summit on Sustainable Development by setting the objective of essentially diminishing the present pace of loss of biological diversity continuously 2010, resounding a comparable objective concurred by gatherings to the Convention on Biological Diversity prior that year. Dangers to biodiversity might be a consequence of an immediate human activity like chasing or aberrant human exercises like territory annihilation or adjustment because of modern or rural exercises; however the setback is simply the limit of biological systems to recover.

Further, populace development, increment in asset utilization, numbness about species and biological systems, misguided arrangements, and impacts of worldwide exchanging frameworks are the components that add to biodiversity misfortune in living spaces. The presentation of outlandish species into another

environment additionally compromises the local species. Contaminations strain biological systems and diminish or wipe out populaces of touchy species. Ozone consumption, environmental change and an unnatural weather change are additionally changing living spaces and dispersion of species. Researchers in this way caution even a one degree increment in the 'normal worldwide temperature' on the off chance that it comes quickly, will push numerous species over the verge.

III. BIO-IMPERIALISM, BIO-PIRACY AND BIO-POLITICS OF THE DEVELOPED NATIONS

Mankind has been prospecting biodiversity from the very day break of the human progress. Altered utilization of bio-assets for nourishment, drug and other material prerequisites had been the customary type of bio-prospecting. Current prospecting includes efficient research and techniques. Bio prospecting basically implies - an action including study, investigation, documentation and assessment of biological assets and their subsidiaries and additionally related TK, prompting recognizable proof and additionally disengagement of economically profitable items (qualities, biochemical) mixes, subordinates as well as some other substantial and in-unmistakable segments including IPR secured procedures, innovations and administrations got from wild or tamed biodiversity. With the appearance of new devices and systems, the intensity of bio prospecting has been unbelievably expanded.

Underdeveloped nation individuals are still at the less than desirable end the extent that the advancement of uncommon worth included items and natural advances are concerned. The developed nations, then again, are rising as super controls with their biotechnological quality. This North-South separation has been in presence for a considerable length of time and will keep on remaining along these lines, until the biodiversity-rich nations of South, endeavor their best to create ability in biotechnology, bioinformatics and related advancements. The significant worries of the developing nations with respect to access to and move of hereditary assets and biotechnology are: (1) anticipation of bio theft and misappropriation, (2) advancement of universal frameworks of security of TK and (3) implies for reasonable and evenhanded advantage sharing and innovation move. One of the key issues associated with prospecting and commercialization of TK-determined advances and items is the insufficiencies in giving security of TK through suitable protected innovation laws and strategy measures at national and universal levels. Expanding rates of allocation or abuse of TK for getting IPR rights without recognizing the job and commitment of TK holders are mounting with the ongoing blasts in bio prospecting including the utilization of hereditary assets and related TK. Building up legitimately restricting instruments and systems to guarantee the earlier educated assent of TK holder(s) and touching base at Mutually Agreed Terms (MAT) for advantage sharing, outsider exchanges, IPR cases, and commercialization of the items or innovations got from the utilization of TK related with hereditary assets are different worries that are being talked about and de-bated at universal discussions, for example, Convention on Biological Diversity, Food and Agricultural Organization, World Intellectual Property Organization, United Nation Environment Program, and so forth.

Bio-piracy is a term that was first instituted by the Canada-based NGO Rural Advancement Foundation International (RAFI, presently the Action Group on Erosion, Technology and Concentration [ETC Group]) and is typically ascribed to lobbyist Pat Mooney. So as to touch base at a meaning of bio-piracy one must value the recorded setting inside which the term emerged. In the first place, Western protected innovation proprietors have regularly denounced Third World states and financial on-screen characters of "pilfering" or unlawfully "appropriating" the licensed innovation privileges of industrialized elements, particularly licenses and copyrights. In the wake of biotechnological innovations and the protecting by Western states and elements of indigenous people groups bio social assets, got without their lawful educated assent, Third World States fight that industrialized states, business substances, and research organizations are "pilfering" their biological assets. Hence, the Third World applies the expression "bio-piracy" to depict what it sees as a misappropriation of indigenous people groups information and bio social assets, particularly using protected innovation instruments. In the event that the encroachment of licenses, copyrights, and trademarks comprises scholarly robbery, at that point so does the inability to perceive and remunerate

indigenous and conventional people groups for the manifestations emerging from their insight. Inalienable to the bio-piracy talk are the ideas of unapproved apportionment/burglary of biological diversity and its related conventional learning. The idea of bio-piracy concerns law, morals, profound quality, and decency. The term was developed because of developing dissatisfactions about the appointment and restraining infrastructure of long-held restorative and horticultural learning about nature, just as the related physical assets (plants, creatures and their parts). The progression of these assets and information, regularly 'from biodiversity in the South to prescriptions, beautifying agents and yields in the North, has been focused by NGOs as a dishonest unfairness with respect to organizations and specialists dominantly from Japan, the US, Europe and different pieces of the Western world.

Bio-piracy additionally alludes to the topsy-turvy and solitary development of plants and TK from the South toward the North through the procedures of global organizations and the patent framework. As Rosemary Coombe has properly called attention to, this procedure is portrayed by the non-acknowledgment of the scholarly commitments of holders and specialists of conventional learning towards the improvement of the plants. RAFI connected bio-piracy professes to prove that transnational seed organizations were wanting to utilize eliminator advancements for seed cleansing, in this manner hindering rancher re-utilization of seeds. Thusly, RAFI had the option to feature the continuous legitimate and specialized regulation of ranchers from the worldwide south.

At present, biologically different nations with developing economies and restricted logical framework infrequently take an interest in the quick logical and innovative advances that make new and fluctuated utilization of their hereditary assets, yet a significant number of them try to do as such. Organizations and research foundations situated in developed nations look for diversity and curiosity in the hereditary assets they study and use, and many look outside their outskirts for new leads. The requirement for access to hereditary assets by industry from one viewpoint, and, on the other, the advantages looked for by biologically assorted nations, asked by the universal network to ration biodiversity, set everything up for a trade. The 1992 CBD mirrors a dedication by the taking an interest government to encourage access to hereditary assets as a byproduct of a reasonable and fair sharing of advantages, for example, innovation move (CBD Article 1), a trade that has been depicted as a 'stupendous deal. The goals of the CBD are the preservation of biological diversity, the feasible utilization of its segments, and the reasonable and impartial sharing of the advantages emerging from the utilization of hereditary assets, including through access to hereditary assets, innovation move and financing.

Taken in general, industry has an enthusiasm for each possible sort of hereditary asset. Given the huge assortment of ways to deal with R&D and to the decision of beginning material crosswise over industry and even inside every area it is hard to make speculations regarding the sorts of material that organizations try to get. While most of organizations in the pharmaceutical business, for instance, keep up an expansive enthusiasm for plants and microorganisms, some spotlight fundamentally or even solely on a thin zone maybe specific growths, or creature poisons. Numerous little and medium-sized endeavors focus their exploration endeavors totally on one sort of hereditary asset, for example, a solitary species of plant or class of small scale living being, or on mixes secluded from tests taken from one source, be it sharks, frogs, leeches or venomous creepy crawlies. The natural medication, cultivation and seed enterprises are essentially plant based businesses.

IV. PRE-RIO NEGOTIATIONS ON BIODIVERSITY AND INDIA'S INTEREST AND STRATEGY

The key environmental difficulties in India have been keener in recent decades. Environmental Change is affecting our common biological systems and is anticipated to have generous unfriendly impacts essentially on horticulture, softening of Himalayan icy masses, ocean level ascent, and dangers to a long coast-line and home. Environmental Change will likewise prompt expanded recurrence of outrageous occasions, for example, dry seasons, floods and infections. These will affect our sustenance security and water security.

India's CO₂ emanations are just around 4 percent of all out worldwide CO₂ discharges. India's discharges are assessed to be of the request for 1331.6 million tons of the carbon dioxide comparable GHG outflows in 2007. These show a yearly development of 4.2 percent from the levels in 1994. In compatibility of the commitments cast on Parties to the United Nations Framework Convention on Climate Change (UNFCCC), India has embraced to impart data about the execution of the Convention, considering the regular however separated duties and particular capacities and their particular provincial and national needs, destinations and conditions. India has presented the second National Communication (NATCOM) to the UNFCCC in 2012 (the first was submitted in 2004). In the Second National Communication, it is anticipated that the yearly mean surface air temperature ascend before the century's over reaches from 3.5 to 4.3 degree Celsius, while the ocean level along the Indian expense has been ascending at the pace of about 1.3 mm/year on a normal. These environmental change projections are probably going to affect human wellbeing, agribusiness, characteristic biological systems, water assets and biodiversity. India's reaction to Climate Change incorporates adherence to principle of normal yet separated obligation, distinguishing proof of key vulnerabilities of India to Climate Change specifically impacts on timberlands, water assets, agribusiness and wellbeing, waterfront territories, evaluation of the requirement for adjustment to Climate Change and consolation to the business to take an interest in the Clean Development Mechanism.

Accentuating the superseding need of keeping up high financial development rates to raise expectations for everyday comforts, the Plan recognizes measures that advance formative goals and furthermore yielding co-benefits for tending to Climate Change adequately. Other continuous activities communicated by the National Action Plan for Climate Change (NAPCC), contain: Power Generation, Renewable Energy and Energy effectiveness. The then Prime Minister, Dr. Manmohan Singh, has set up a High Level Advisory Group on Climate Change issues. This Council arranges National Action Plans for appraisal, adjustment and relief of Climate Change. It additionally encourages between pastoral coordination and guide arrangement in pertinent zones.

The Forum was made in 2008 and it routinely includes individuals from parliament to connect with specialists chipping away at Global Warming and Climate Change. The Government has conveyed to the UNFCCC, "the Road Map for 20-25 percent Reduction in the Emission Intensity of Indian GDP continuously 2020." Two noteworthy things have been finished by the Government as to Climate Change, one is the NAPCC and second, the Low Carbon Strategy for comprehensive development. Under the Forum, a few introductions and discourses have occurred on different perspectives relating to Climate Change, for example, Impact of Climate Change on Agriculture; populace; Natural Resources and Biodiversity and so on. These give knowledge into alternate points of view on the issue of Climate Change and moderation strategies.

Different science activities are arranged by the MoEF under CCAP. These are: National Carbonaceous Aerosols Program (NCAP); Long Term Ecological Observatories (LTEO); and Coordinated Studies on Climate Change for North East (CSCCNE) locale. The NCAP is a noteworthy action including multi-institutional and multi-organization study propelled in 2011 to research the job of Black Carbon in environmental change. The Government has a residential moderation objective of decreasing emanations force of GDP (Gross Domestic Product) by 20-25 percent by 2020 in connection with 2005 level. The vitality force of India's yield has portrayed a declining pattern because of upgrades in vitality proficiency, wise utilization of vitality and self-governing mechanical modifications. This household objective and the destinations of the National Action Plan on Climate Change are proposed to be accomplished through a reasonable advancement methodology under the Twelfth Five Year Plan. Many push zones have been distinguished for this reason. A planned activity to recognize Nationally Appropriate Mitigation Actions and to actualize them will be taken during the arrangement time frame. Arranging Commission has additionally perceived Climate Change as a noteworthy region of Environmental Intervention. The CCAP has been endorsed by the Planning Commission for usage during the Twelfth Five Year Plan. The plan

comprises of eight exercises, of which three relate to logical investigations on Climate Change, two to foundation and limit building and three others to local and worldwide activities.

During 2012 a few parallel worldwide activities on Climate Change occurred. India composed the Xth BASIC Ministerial Meeting on Climate Change in New Delhi during 13-14 February, 2012 to encourage trade of perspectives on the results of the Durban Conference. Other than the BASIC countries involving Brazil, South Africa, India and China, delegates of Swaziland, Singapore and Qatar were additionally welcome to the Meeting. During the year three additional gatherings of BASIC gathering were held in various areas in South Africa, Brazil and China. At the sub regional level, India joined forces with Bhutan, Nepal and Bangladesh for participation to address unfriendly impacts of Climate Change through adjustment measures in the four topical territories of Food, Water, Energy and Biodiversity.

It has been the real main impetus in India to advance the sustainable power source division. The Mission Document on Jawaharlal Nehru National Solar Mission has demonstrated that RPO is the key driver for advancing sun oriented power. The National Tariff Policy (NTP) 2006 was additionally changed in 2011 to recommend that sunlight based explicit RPO be expanded from at least 0.25 percent in 2012 to 3 percent in 2022. The Government intently works with its accomplice nations in the global dealings on Climate Change under the standard of UNFCCC. At the Doha Conference, India sought after the methodology of cooperating with the Group of 77 and China so as to ensure the general interests of developing countries. During the Conference, India effectively raised the issues of value in Climate Change related activities and responsibilities, innovation related Intellectual Property Rights and so forth. Subsequently these issues were incorporated into the continuous work of different collections of the Convention.

This is to expand the limit at the institutional level for leading examination into Climate Change and making essential appraisals. The MoEF has set up a system including 127 research organizations entrusted with undertaking research on the study of Climate Change and its effect on various parts of economy crosswise over different locales of the nation. INCCA has helped the Ministry to assemble its GHG Emissions Inventories.

Associations with organizations can likewise furnish nearby foundations with preparing, innovation, access to advertise data, and different types of limit assembling that will enable them to create connections and work all the more successfully with the private division, just as to construct neighborhood projects and local or joint endeavor organizations. Models incorporate the joint endeavor between the state legislature of Sarawak and the US firm Medichem Pharmaceuticals; the organization among INBio and the Diversa Corporation; Successful access and advantage sharing associations can prompt new meds, yields to sustain the developing world populace and other helpful items for mankind. They can likewise manufacture logical and innovative limit inside high-biodiversity nations, can advance legitimate and arrangement systems that ensure the privileges of nations, people, networks and partnerships, and can help advance reasonable improvement and the protection of biological diversity. Regarding neighborhood rights can be the initial step to support regard for IPR. Developing nations ought to guarantee that the set of three of targets security of biodiversity, supportable advancement, and fair sharing of assets work couple with exchange goals. Notwithstanding, for these destinations to be accomplished, the numerous partners associated with biodiversity prospecting should be engaged with the improvement of suitable laws, approaches and limit building exercises.

V. CONCLUSIONS

As a concluding remark I have a strong belief that no one in this debate wishes to abandon research or innovation related to Traditional Knowledge. What the International legal community has called the “Conservation of Biodiversity versus Bio-piracy” debate can be reduced over the appropriate mechanism which is able to facilitate the security of TK and sharing the benefit and protecting the interests of underdeveloped nations.

If we are talking regarding the India's interest, India has implemented defenses to protect its traditional knowledge from being stolen by the developed countries specially U.S. To protect the interest of their citizens, India bound to protect their 'Traditional Knowledge' (TK) from U.S. Ethically and legally also India had several reasons to want to protect their T.K., to be able to accept or deny request to use T.K., to share in the monetary benefits of outsiders profiting off of traditional knowledge to prevent bio-piracy of it. Therefore, India developed its own legislative policy such as National Biodiversity Authority (NBA) and administrative techniques in order to protect its traditional knowledge.

Although India had enacted laws for the protection of their biodiversity and T.K. but still under the pressure of economic power of large pharmaceutical corporations, manufacturers and researchers of developed countries are coming to India to learn and then steal T.K. in order to publish as their own research for economic gain. So, I would like to say that developed countries should implement policy in its patent law to respect the culture of T.K. and not to steal from India.

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