Role Of Intellectual Property Rights in Environmental Protection: A Study

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Abstract

Intellectual property rights are property rights of an individual and it is an important tool to protect innovative practices and provide economic benefits for the intellectual works. Innovation and creation was one of the defining characteristics of the human species. The whole idea of protection of IPR laws are designed to protect human creativity and the environment is also to be protected by such design or such works.

In furtherance to the intellectual property the so called "Artificial intelligence" which is the simulation of human intelligence process by machines, especially computer system. Artificial intelligence applications are being increasingly deployed in the administration of applications for intellectual property protection, it is high time to use the IPR & AI to be helpful to the environment which exists and consisting of the surrounding; external conditions influencing development or growth of people, animals or plants; living or working conditions, etc and total conditions which surround man at a given point in space and time.

At the early human stage the environment consisted of only physical aspects of the planet earth and biotic compares but with the march of time and advancement of the society, man extended his environment through his social, economic and political functions. The concept of environment relatively to whatever objects it is which surrounded, thus it includes anything. There is complete failure to effectively address the environmental protection and promotion by the statutory agencies and as well the citizens adopting the AI with the use of the intellectual property for the novelty and for protection of nature and environment.

The entire human beings and the species depend on environment and on the contrary the human beings are from the nature and environment, which calls for implied obligation and duty to protect the environment. The human in the course of his civilization and development has exploited the environment to the best possible extent. The human society has formed its own governance system by the people, for the people and to the people, in its midst the environment is also subjected to the human supervision.

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It is that more than 100 constitutions refer to a right to a clean and healthy environment, impose duty on the state to prevent environmental harm or mention the protection of the environment or natural resources.[1]The laws are not effective in order to protect the interest of human and species environment in the world in an era of intellectual property rights A Study is required, hence an attempt would be made in to investigate the issue involved.

Keywords: *law, Intellectual property rights policy, legal frame, regulatory mechanisms etc.*

Introduction

Intellectual property rights are property rights of an individual and it is an important tool to protect innovative practices and provide economic benefits for the intellectual works. Innovation and creation was one of the defining characteristics of the human species. The whole idea of protection of IPR laws are designed to protect human creativity and the environment is also to be protected by such design or such works. At the early human stage the environment consisted of only physical aspects of the planet earth and biotic compares but with the march of time and advancement of the society, man extended his environment through his social, economic and political functions. The concept of environment relatively to whatever objects it is which surrounded, thus it includes anything.

The basis of intellectual property rights is creativity ,labour and human beings and their expression of their innovativeness in different forms leading to concepts like patents, copyrights, trademark, design on the other hand sources from nature or the natural resources and genetically resources which are used as bio-patents, plant varieties, based on geographical location geographical indicators are from the surrounding environment and they are given for the state as the owner and as collective rights in case of geographical indicators benefit sharing in case of plant breeders and for farmers in case of new variety of plants. Hence, it also involves environment protection and promotion by the statutory agencies and as well the citizens adopting intellectual property protection.

It is that more than 100 constitutions refer to a right to a clean and healthy environment impose duty on the state to prevent environmental harm or mention the protection of the environment or natural resources[2]. The laws are not effective in order to protect the interest of human and species environment in the world in an era of intellectual property rights.

Intellectual property rights are legal and institutional devices to protect creations of the mind, such as inventions, works of art and literature and designs. They protect products by differentiating them from similar ones sold by competitors through the use of distinguishing marks over the years, the rather elastic concept of IPR's has been stretched to include not only patents, copyright, industrial designs and trademarks but also trade secrets, plant breeders rights, geographical indications and rights to layout designs of integrated circuits.

System of intellectual property protection has two fold objectives. The first is to promote investments in knowledge creation and business innovation by establishing exclusive rights to use and sell newly developed technologies, goods and services. The second goal is to promote widespread dissemination of

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new knowledge by encouraging holders of rights to place their invention and ideas in the market. The objectives of intellectual property rights are traditionally justified by the public policy interests of nation states. In the olden days intellectual property regulation has been a territorial matter both as to subject matter and the scope of rights recognized. There was great confidence on the axiomatic international law principle of sovereignty and its concomitant attributes, most notably the right to make laws and exercise authority over Nationals, as a starting point to assess conditions under which domestic laws could be extended extraterritorially. Even such assessments, however, were generally directed at accomplishing domestic interests reflected in the National law at issue.

The central motivation, even in the earliest efforts to extend trans-border protection for intellectual property rights was the public interest of the nations (both economic and cultural). Exchanges of reciprocal obligations were premised on benefits flowing back to the domestic policy, with any gains to foreigners viewed merely as necessary incidents of a mutually beneficial alliance. IPRs could generate more international economic activity and greater indigenous innovation, but such effects would be conditional on circumstances.

It is in the Circumstances vary, widely across countries and the positive impacts of IPRs should be stronger in countries with appropriate complementary endowments and policies. Countries face the challenge of ensuring that their new policy regimes become pro-active mechanisms for promoting beneficial technical change, innovation, and consumer gains.[3] The dynamic benefits countries accrue from IPRs depend on their abilities to develop and absorb technologies and new products. Stronger IPRs alone would help in this context, but so also would development contracts between institutes and enterprises with defined ownership shares and increased flexibility for researchers to form new business concerns. Intellectual property rights also could stimulate acquisition and dissemination of new.

A similar type of industrial property is plant breeders' rights,[4] which have fixed terms, novelty requirements, and disclosure rules. They are intended to encourage development and use of new seed varieties for agriculture. Geographical Indications of Goods means indications, which identify goods as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is **essentially attributable to its geographic origin.** Thus Geographical Indications of Goods Act[5] provides the rights, to use the geographical indication, to the person(s) of a particular territory wherein the goods are originating, produced, processed, or prepared.

International Conventions of Intellectual Property Rights

The United Nation's (UN) Charter as an international institution is playing critical role in promoting the application of science, technology and innovation to the Millennium Development Goals. Other development goals and the aspirations of humanity as embodied in UN Charter. It is by combining their

[3]Keith.e.Maskus , Intellectual Property Rights and Economic Development, Prepared for the series "Beyond the Treaties: A Symposium on Compliance with International Intellectual Property Law", organized by Fredrick K. Cox International Law Center at Case Western Reserve University, 2000 ,Page No. 19

[4]Plant breeders rights are protected under UPOV convention

[5]Geographical indications are defined under Art.22 (1) as "indications which identify a good as originating in the territory of a member, or a region or locality in the territory, where a given quality, in the territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin."

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functional competencies only rather than jurisdictional mandates they can achieve progress in innovation, development and in Intellectual Property Rights.

It is with the harmonization of intellectual property rights and opportunities, to secure stronger protection for these rights; new statutes were added at international level. As the global protection for intellectual property rights jurisprudence was strengthened by effective implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), concluded under auspices of the World Trade Organization, numerous questions arise about impacts on prospects for economic growth. This has expanded the definition of trade. It's no longer just buying and selling of goods. Now, the definition of trade encompasses a whole range of issues from services to intellectual property rights

It is after the TRIPs developing counties no longer have the policy options and flexibilities, which developed countries, had. This led to the process of expanding inter nation IPR subject matter, creating new forms of rights and progressive standardization of the basic features of IPR. With the growth of international trade and the establishment of world trade organization's agreement on trade related aspects of intellectual property rights (TRIPs Agreement) nations have been obliged to focus in increasing attention on the role of intellectual property rights in economic development as an economic driver. In India there are innumerable provisions in the constitution of India that outline Indian obligations vis-a vis the international comity of nations with regard to international treaties are in fact, distributed between the executive and legislature.

Indian Constitution and Legislations

There is a specific article in part IV of the Indian constitution, Art.51 in the directive principles of state policy deals with international treaties. Art 51 embodies the object of India in the international sphere.[6] Article 51 reads, the state shall endeavor to, promote international peace and security, maintain just and honorable relations between nations, foster respect for international law and treaty obligations in the dealings of organized people with one another, and encourage settlement of international disputes by arbitration. However, this article is only directive, which state has to follow in its relations with other nations to promote international peace and security. India employs a range of regulatory instruments to preserve and protects its natural resources. As a system for doing so, the law works badly, when it works at all.

The legislature is quick to enact laws regulating most aspects of industrial and development activity, but chary to sanction enforcement budgets or enquire effective implementation.[7] The Science, Technology and Innovation (STI) are the key drivers for economic growth and human development. For India to march ahead on a sustainable development pathway to include economic development, social inclusion and environmental sustainability for achieving an "*Atma Nirbhar Bharat*'', a greater emphasis will be given on promoting traditional knowledge system, developing indigenous technologies and encouraging grass root innovation.. The policy envisions strengthening of the overall innovative ecosystem, fostering Science & Technology (S&T) - enabled entrepreneurship, and improving participation of the grassroots levels in the research and innovation ecosystem. An institutional architecture to integrate Traditional Knowledge Systems (TKS) and grassroots innovation into the overall education, research and innovation system will be established. Collaborations between grassroots innovators and scientists will be facilitated through

[6] Durga Das Basu, Shorter Constitution of India(Nagpur: wadhwa 2001) P-51

[7] Shyam Divan and Armin Rossen cranz Environment law and policy in India cases, materials and statutes, Pp.No,1,oxford India paperbacks

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joint research projects, fellowships and scholarships. Grassroots innovators will also be supported for registration, claiming the Intellectual Property Right (IPR), filing of patent, or any type of legal claim with the help of Higher Education Institute (HEIs). Advanced tools based on Artificial Intelligence (AI) and machine learning will be used for curation, preservation and maintenance of heritage knowledge.[8]

It is only in the Recent, India has taken several initiatives to promote intellectual property protection and strengthen the Intellectual Property administration with the objective to establish an Intellectual Property Rights (IPR) regime which maximizes the incentives for the generation and protection of intellectual property by all types of inventors. The regime would also provide a strong, supportive and comprehensive policy environment for speedy and effective domestic commercialization of such inventions so as to for patents for inventions, inventors' certificates, utility certificates, utility models, patents or certificates of addition, inventors' certificate of addition and utility certificate of addition. Part-II,section1-8 of the TRIPS Agreement 6 be maximal in the public interest .This policy statement provides that Intellectual Property Rights (IPR), have to be viewed, not as a self-contained and distinct domain, but rather as an effective policy instrument that would be relevant to wide ranging socio-economic, technological and political concepts. The generation and fullest protection of competitive intellectual property from Indian R&D programs will be encouraged and promoted.

The legislation with regard to Patents, Copyrights and other forms of Intellectual Property will ensure that maximum incentives are provided for individual inventors, and to our scientific and technological community, to undertake large scale and rapid commercialization, at home and abroad. In order to achieve, such goals and objectives India has not only amended its existing Intellectual Property laws such as the patent law, the copyright law but also replaced the old laws with new enactments such as trademarks law and the design law. Apart from this, several other new Intellectual Property legislations have also been enacted such as Geographical Indications of Goods (Registration and Protection) Act, 1999, Plant Variety Protection and Farmers Rights Act, 2001, Biological Diversity Act 2002, and The Semiconductor Integrated Circuits Layout Design Act, 2000..[9]

New Approaches in Intellectual Property Fights

An intellectual property fight gives the holder reasons for protecting the asset and developing it. This principle may be applied creatively to encourage conservation of natural resources. An example of this approach is conservation of biodiversity by creating a system of genetic property fights in indigenous species found in habitats such as rainforests and coral reefs.[10] Experts agree that the best way to protect biodiversity and eliminate destruction of rainforests and coral reefs is by guaranteeing economic benefits to the custodians of those resources. [11] Grants of proprietary rights may permit such a system to develop

[8] Science technology and innovation policy, Govt Of India ministry of science and technology Dec 2020 accessed the website dst.gov.in/sites/default files/stip accessed the website at 10.35am

[9] Rambabu, Modernization of Intellectual Property Offices in India, Ideas from the Japanese Patent Office, available at http://www.apic.jiii.or.jp/n_c/wsquare/Mr.Rambabu.pdf., last visited on 08/11/2022 at 11.14am

[10] Rainforests and coral reefs can be viewed as a genetic library of useful biological products. The rosy periwinkle, a rainforest plant, is the source of vincristine and vinblasfine, important leukemia medications. See, e.g., Meadows, Don't Send the Gene Pool Down the Drain, N.Y. Newsday, May 24, 1990, at 81. Sponges and soft corals produce useful antiviral agents and analgesics

[11] York, Environment and Economics in Developing Countries, I0 N.Y. ST. B.A. ENVY. L. SEC. J. 15, 16 (1990) (preserving biological diversity protects jobs, and offers economic advantages to compete with those of developing rainforest tracts).

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through private agreement and international initiatives. On the one hand natural and on the other hand biological resources are increasingly serving as important raw materials or sources for innovative human activities.it often leads to granting of intellectual property rights over technologies or plant varieties, that involve genetic resources, biological resources.

India has established Six National Bureaus dealing with genetic resources of plants, animals, insects, microorganisms, fish and soil sciences. These are the National Bureau of Plant Genetic Resources (NBPGR), with a total of 4,08,186 plant genetic resource accessions; the National Bureau of Animal Genetic Resources (NBAGR),which has a total holding of 1,23,483 frozen semen doses from 276 breeding males representing 38 breeds of cattle, buffalo, sheep, goat, camel, yak and horse for ex situ conservation; the National Bureau of Agriculturally Important Microorganisms (NBAIM), with a repository of 4668 cultures, including 4644 indigenous and 24 exotic accessions; and the National Bureau of Agriculturally Important Insects (NBAII), with 593 insect germ-plasm holdings. The National Bureau of Fish Genetic Resources (NBFGR), with a repository of 2553 native finfishes and Fish Barcode Information System were updated with 2570 microsatellite sequences. In terms of fish diversity, the Zoological Survey of India (ZSI) has also recorded 3022 species in India, constituting about 9.4% of the known fish species of the world.[12]India has a TRIPS compliant, robust, equitable and dynamic IPR regime, and the Policy envisions an India where intellectual property protection leads to an increase in creativity and innovation, advancement in science, technology, art and culture, and protection of traditional knowledge and biodiversity resources.[13] India has taken significant steps in inventorying her vast and diverse biological heritage. Studies on freshwater and marine ecosystems, mycological work related to taxonomy and floristic studies have been recently carried out on various groups of fungi. India harbors large number of lichen species, which are nature's most remarkable alliances with at least 2300 species belonging to 305 genera and 74 families having been reported from India. With over 200 diatom species, 90 dinoflagellates, 844 marine algae and 39 mangrove species, the marine floral biodiversity of India is remarkable. Endemism is significant across different plant groups in India. It is about 4045 species of flowering plant (angiosperms) endemic to India are distributed amongst 141 genera belonging to 47 families. In terms of endemism of vertebrate groups, India's global ranking is 10th in birds, with 69 species, fifth in reptiles, with 156 species, and seventh in amphibians, with 110 species. As a center of origin of cultivated plants, India has 15 agro-climatic zones. It is considered to be the primary center of origin of rice. A total number of 811 cultivated plants and 902 of their wild relatives have been documented so far. India also has a vast and rich repository of farm animals, represented by a broad spectrum of native breeds of cattle (34), buffaloes (12), goat (21), sheep (39) and chicken (15).

Conclusion

The Knowledge economy and intellectual capital is recognized as the most important asset of many of the world's largest and powerful companies, it is the foundation for the market dominance and continuing profitability of leading corporations. It is that the knowledge system which pre-supposes the whole body of awareness about human life, environment and universe, cultural creations, literature and practices of

[12] India's fifth national report to the convention on biological diversity 2014, ministry of environment and forests accessed the web www.moef.gov.in at 10.45 am on 8/11/2022

[13] Ip enforcement toolkit for police report of FICCI and department of promotion of industry and internal trade ministry of commerce and industry, govern of India, pp.no,1 accessed the website on 6/11/2022 at 2pm.

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industrial production or economic activities.[14] This knowledge not only transforms societies but also a key factor in wealth generation in any nation. Ecological and economic goals should be in such away to be combined to focus on ways environmental law can create more and more opportunities for innovation. Protection of environment through intellectual property laws should be economically attractive and should lead to sustainable development. It is the Creative measures can be implemented to improve environmental protection by applying the principles of intellectual property law. International efforts to protect the global environment may rely on intellectual property laws to increase environmental technology transfer. Biodiversity may be preserved through measures guaranteeing property rights to the custodians of critical habitats. Companies can use intellectual property assets in environmental technology to profit from environmental regulation. However, incentives require proper coordination.

The Intellectual property managers must be conversant with environmental affairs, because the market for environmental technology is largely defined by laws and regulations. By the same token, environmental managers should consider the existence of licenses, patents, trade secrets, and other intellectual property assets in selecting the best compliance strategies for their companies. Federal and state environmental agencies should develop an awareness of and sensitivity to the effect of Governmental activity on the incentives to the public. Nonetheless, increased reliance on intellectual property law can improve environmental protection[15] and promotion as required in the order of the day.

Suggestions

a. The Union Government to issue appropriate directives to incorporate federal environmental agencies in to access of the bio diversity information and biological produces under the Act and Guidelines ONLY.
b. To prevent foreign agencies to access Indian biodiversity should be registered as a firm and such firm shall declare all their activities and there shall be non-disclosure clause.
c. The Bio-Diversity Act only to recognize registered firm and such firm should be under surveillances.
d. The regulatory mechanism should also have preventive mechanisms as per the objectives of the Act.

[14]Prof.Ishwar Bhat. P Historical Evolution And Development of Intellectual property rights: A Focus on some themes, Kare Law Journal no 1, 2005 November, page no.2-3

[15] Michael A.Gollin intellectual property and environmental protection vol.4, spring issue 1991, pp.n. 235,accessed the web harvJLTech 193 at 2pm on 07/11/2022

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