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Bio Piracy of Traditional Knowledge Related Geographical Indications: A Select Study of Some Indian Cases

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Biopiracy of traditional knowledge (TK) related geographical indications (GIs) have been rampant because non digitisation of implicit knowledge available in unorganised sector of knowledge economy. After the adoption of Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement in 1995 Indian IP law has undergone to sea changes to be TRIPS compliant. The geographical indications as a part of Intellectual Property has been added Indian IP law in 2000 marking first phase of reform. The background of this law is India's concern for the protection of traditional knowledge protection and sordid experiences of basmati rice case besides being TRIPS Compliance. The victory of haldi and neem cases has given impetus to the traditional knowledge regime to be protected under GI law and sui generis system. The need of traditional knowledge digitisation by chronicling Indian repository of traditional knowledge will foster evidence based IP regime where chances of bio piracy can be set at naught. The article subsume these concerns under TRIPS and diversity related Intellectual Property under Convention on Biological Diversity (CBD),1992 framework to hone out a robust Indian legal framework for TK related GIs through case study method.

Key Words: Biopiracy, Traditional Knowledge, Geographical Indications, TRIPS Compliant, *Sui Generis* System, Diversity Related Intellectual Property, Digitisation Of TK

I. Intellectual Property in GIs

Geographical Indications (GIs) are property rights often sought for goods based on the fact that they are produced

in a geographical region which has unique geo-climatic characteristics and involves traditional knowledge. This can be illustrated by example of *Champagne wine* which is a naturally sparkling wine produced in the Champagne district by a process of double fermentation from the grapes grown in the Champagne district of France. Similarly *Darjeeling tea* is a premium quality tea produced in the hilly regions of the district of Darjeeling

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in the State of West Bengal of India. These products become reputed because there is a link between their quality characteristics and the geographical attributes of the region where these products are being produced. Such products are not only agricultural commodities like tea, rice, wine, spices, fruits etc., but also encompass handicraft items such as *sarees* or shawls or some metal with traditional paintings on them; or it could be even food stuff like Hyderabad *Haleem* or *Prosciutto di Parma*.¹

The replication of these goods is impossible elsewhere as these traits render a unique value to the product. There is no justification for the goods emanating from another region to use the same geographical term for them. It will *ipso facto* be a misrepresentation and therefore, a special right makes more sense than an action which requires proof of misrepresentation. An appropriate law seeking to protect geographical indications would therefore endeavour to coherence and asymmetry of information between the producer and the consumers thereby allowing them to invest to a maximum for improving the quality and, thus, the reputation of the good. GIs are one aspect of Intellectual Property that may afford protection to traditional knowledge without conferring absolute power to any single person. It has potential to provide a sustainable means of competitiveness even for remote regions of developing

countries either by GIs or trade secret protection.²

II. GI Protection in Pre-Trips Phase

With the advent of the era of knowledge and information technology, today, intellectual capital has gained enormous importance. Of the many factors that might affect the Intellectual Property system, technological change is likely to have the greatest impact. Consequently, intellectual property and rights attached thereto has become a precious commodity and thus need appropriate protection. The options to protect GIs are diverse and can be confusing as their application and interpretation varies in different jurisdictions.³ Multiple forms of protection may also apply in the same country, such as Trade marks and a *sui generis* system, both. Protection of GI can be done on the national level, through legislation or jurisprudence, or at the international level through bilateral agreements, multilateral treaties, or other agreements. Prior to TRIPS Agreement, the system followed by the countries in general for the protection geographical indications is as follows:

- (i) Protection by means of Trade mark laws in the form of collective marks or certification marks;⁴
- (ii) Laws against unfair competition *e.g.*, passing off, to be enforced by the interested parties;
- (iii) *Sui generis* protection schemes;⁵

1 Teshager Dagne, 'Law and Policy on Intellectual Property, Traditional Knowledge and Development: Legally Protecting Creativity and Collective Rights in Traditional Knowledge Based Agricultural Products through Geographical Indications', 11 *ECJILTP* 68-117 at 73 (2010)

2 See: Nomani, Md.Zafar Mahfooz & Faizanur Rahman, 'Innovativeness & Competitiveness Under Trade Secret Laws In India', II *Manupatra Intellectual Property Reports (MIPR)*, F25-35/131-141 (June, 2015)

3 T. Broude, 'Culture, Trade and Additional Protection for Geographical Indications', *BRIDGES* September–October 2005 No. 9:18

4 WIPO: About Geographical Indications available at: http://www.wipo.int/geo_indications/en/about.html

5 *Sui generis* is a Latin phrase which means "of its own kind", Unique; "of its own particular type"

(iv) Administrative or legal means.

Collective marks or certification marks provide a means for the protection of geographical indications independent of statutory or judicial measures. While the definition may vary from one country to the other, collective marks are usually defined as signs which distinguish the geographical origin, material, mode of manufacture, quality or other common characteristics of goods or services of different enterprises using the collective mark.⁶ Collective Trade marks are owned by an association that sets the requirements for the use of same. Quality and origin specifications can be included and it is the association that registers and is also responsible for maintaining the voluntary standards assumed by it. The owner may be either an association of which those enterprises are members or any other entity, including a public institution or a cooperative. Once a geographical indication has been registered as a collective mark, the association that owns it has the right to prohibit its use by persons who are not members of the association. Collective marks do not directly indicate quality (but may indirectly if the association has a reputation for being associated with quality products).

III. Protection to Collective Mark as GI

The question whether a geographical indication is registerable as a collective mark depends entirely on a given national law. Countries which offer protection to geographical indications through collective marks are Japan and United Kingdom (UK), *e.g.*, geographical indication tomato seed, tomato plant and

tomatoes registered in the UK through collective mark scheme is 'Scotland's Tomatoes'.⁷ Collective marks are not an effective form of protection for geographical indications as they need not to certify the goods to be of a certain quality, characteristics or origin.

Certification marks are usually given for compliance with defined standards, but are not confined to any membership. They may be used by anyone who can certify that the products involved meet certain established standards.⁸ The owner of the certification mark, who may be a private or public entity, must ensure that the goods or services for which the certification mark is used possess the

The question whether a geographical indication is registerable as a collective mark depends entirely on a given national law

certified quality. In order to carry out this certification role in a neutral and impartial manner, the owner of the certification mark has to file, together with the application for the registration of the certification mark, detailed regulations which prescribe, *inter alia*, the characteristics certified by the mark, the authorized users and details concerning the certification and control. As a basic rule, the owner of the certification mark does not have the right to use the

⁶ WIPO: Collective Marks *available at:* http://www.wipo.int/sme/en/ip_business/marks/collective_marks.htm

⁷ UK Registration No. 1553454

⁸ WIPO : Certification Marks *available at:* http://www.wipo.int/sme/en/ip_business/collective_marks/certification_marks.htm

mark. However, every producer who complies with standards of production as defined by the owner of the certification mark has the right to use that mark. An important requirement for certification marks is that the entity which applies for registration is considered “competent to certify” the products concerned. In many countries, the main difference between collective marks and certification marks is that the former may only be used by a specific group of enterprises, e.g., members of an association, while certification marks may be used by anybody who complies with the standards defined by the owner of the certification mark.

In general, the protection of a geographical indication through registration as certification mark is equivalent to that conferred by registration as a collective mark. Countries which offer protection to geographical indications through certification marks are UK, USA, Canada, Australia etc. These countries address GIs as a subset of Trade marks. Famous certification marks include WOOLMARK which certifies that the goods on which it is used are made of 100 per cent wool. Some other examples of certification Trade marks are STILTON cheese, IRISH linen, Wisconsin Real Cheese, 100 per cent Kona Coffee by US, PARMA for ham, DARJEELING for tea, WASHINGTON for apples, and the (Florida) SUNSHINE TREE for citrus.

The use of a certain geographical indication for goods or services which do not originate from the respective area may be misleading and thus may deceive consumers. Such a use of goods or services may constitute a

misappropriation of the goodwill of the person who is truly entitled to use the geographical indication. An action for unfair competition-which, depending on the national law, is either based on statutory provisions, as interpreted by court decisions or on common law-can be instituted in order to prevent competitors from resorting, in the course of trade, to such misleading practices.⁹

IV. *Sui Generis* Protection to GI

The third means of protection to geographical indications is by way of *sui generis* legislation. The *sui generis* system consists in the adoption of specific laws, establishing an administrative procedures which oblige applicants to define the parameters of their product (mainly the demarcation of the area of production and definition of the product specifications) in order to qualify for protection and obtain registration.¹⁰ The system implies public control and provides a wide scope of protection which impedes use of the geographical indication, even if the public is not misleading as to the real origin of the product. This approach is similar to the protection given by unfair competition regulations, in the sense that litigation against the free rider can be initiated, but it goes further because it defines the geographical indication and the burden of proof of damage and existing reputation on the affected party is lessened. A certification mark differs from *sui generis* GI protection in that:

- (i) It is not required to meet any pre-defined public or private standard;
- (ii) It need not necessarily be confined to a specified geographic area; and

⁹ Javier Garcia, ‘Fighting Biopiracy: The Legislative Protection of Traditional Knowledge’, 18 *La Raza L.J.* 5 (2007). Available at: <http://scholarship.law.berkeley.edu/blrlj/vol18/iss1/2>

¹⁰ See generally: Nomani, Md.Zafar Mahfooz, ‘Environment Agriculture and Challenges of Bio-Piracy: A Blue Print of Indian *Sui Generis* Legal Order’, 1(2) *Indian Journal of Environmental Law*, 3-22, (2000)

- (iii) The owner defines its own rules of participation that, for example, may or may not include quality parameters.

Countries which follow *sui generis* approach for protection of geographical indications include India, Malaysia, Turkey, EU, Singapore, US etc. Adoption of Appellations d' origine Controllee by France for wines is an early example of following up of *sui generis* system for protection of GIs. Other examples include the *Scotch Whisky Act*, 1988 for protection of Scotch whisky, the *Harris Tweed Act*, 1993 for the protection of tweed made in some parts of Scotland etc.

Administrative protection schemes are part of product approval procedures, including review of labelling and, in some cases, rules related to geographical indications. Certain types of goods, such as wines, spirits or medicinal plants, require administrative approval before marketing, for reasons of taxation and hygiene. Label approval regulates GIs directly, although it does not involve registration. Thus they do not enable the holders of the collective goodwill attached to a GI to take individual action to protect that GI. Instead they provide for an administrative mechanism to prevent misleading use of GIs on products. It also includes punitive actions of consumer protection, or other authorities responsible for controls. Criminal sanctions usually apply in cases of non-compliance. An example of administrative protection of geographical indications is labelling requirements of the Bureau of Alcohol,

Tobacco and Firearms (ATF) for wines and spirits in US. Other countries which offer protection to its geographical indications through this scheme are France, Spain, Italy etc.

V. Biopiracy of Geographical Indications

In developing markets little attention is paid to strengthening Intellectual Property Rights systems wherein the food security and nutritional security concerns are also of vital significance.¹¹ Many developing countries like India have failed to take the advantage of the form of protection available to GIs that has led to allegations of 'biopiracy' by developing countries toward firms who use genetic material from traditional varieties. The controversy over the granting of patenting rights to three strains of Basmati rice to RiceTec Inc. by the US Patent and Trademark Office provides a good example. This fact is of importance to be mentioned because India's legislature moved very slowly to extend GI protection to its agricultural products such as Basmati. Biopiracy is the illegal appropriation of life, micro-organisms, plants and animals (including humans) and the traditional cultural knowledge that accompanies it.¹² Biopiracy is illegal because, in violation of international conventions and (where these exist) corresponding domestic laws, it does not recognize, respect or adequately compensate the rightful owners of the life forms appropriated or the traditional knowledge related to their propagation, use and commercial benefit.¹³

11 See generally: Nomani, Md.Zafar Mahfooz & Faizanur Rahman, 'Evolution & Recognition of Food Right In The International & National Food Security Laws', I(4) *International Journal of Legal Research & Governance* 311-331(2015)

12 Marcia Ellen DeGeer, 'Biopiracy: The Appropriation of Indigenous Peoples' Cultural Knowledge', 9 *New Eng. J. Int'l & Comp. L.* 179 (2002)

13 Biopiracy: A New Threat to Indigenous Rights and Culture in Mexico 2 (April 2001) available at: <http://www.globalexchange.org/sites/default/files/MXbiopiracy.pdf>

There is no internationally agreed definition of biopiracy. However, in the mid-1990s the Rural Advancement Foundation International (RAFI), now the Action Group on Erosion, Technology and Concentration Group (ETC), defined biopiracy in the following terms:

Biopiracy refers to the appropriation of the knowledge and genetic resources of farming and indigenous communities by individuals or institutions who seek exclusive monopoly control (patents or intellectual property) over these resources and knowledge.¹⁴

Biopiracy has emerged as a term to describe the ways by which the corporations from the developed world claim ownership of or otherwise take unfair advantage of or free ride on the genetic resources and traditional knowledge and technologies of developing countries

From the biopiracy viewpoint, 'biopirates' are performing 'biopiracy' the theft of natural and biological

resources from their natural habitat and using such for commercial profit.¹⁵ Ultimately, the biopiracy perspective is rooted in larger concerns of neo-imperialism, whereby a westernized nation or group is able to completely 'usurp' another nation's resources and exploit the knowledge of that country's indigenous peoples.¹⁶ ETC group believes that Intellectual Property is predatory on the rights and knowledge of farming communities and indigenous peoples.

VI. BIO Piracy of Traditional Knowledge

Biopiracy has emerged as a term to describe the ways by which the corporations from the developed world claim ownership of or otherwise take unfair advantage of or free ride on the genetic resources and traditional knowledge and technologies of developing countries. The coinage of the term biopiracy was followed with public protests against U.S. patents that appeared to fit this definition of biopiracy. For example, the existence of a patent relating to the *Ayahuasca Vine* was first uncovered in 1994 by the Coordinating Body of Indigenous Organizations of the Amazon Basin (COICA) an umbrella organization representing over 400 indigenous groups.¹⁷

Similarly, although patents granted on variants of the *neem* tree were issued in the early nineties,¹⁸ public outcries and subsequent legal challenges concerning improper misappropriation of what is

14 ETC Group on Biopiracy, available at: <http://www.etcgroup.org/issues/biopiracy>

15 Paulo Prada, 'Poisonous Tree Frog Could Bring Wealth to Tribe in Brazilian Amazon', *N.Y. Times*, May 30, 2006, at C1, available at: http://www.nytimes.com/2006/05/30/business/worldbusiness/30frogs.html?pagewanted=all&_r=0

16 Padmashree Gehl Sampath, *Regulating Bioprospecting, Institutions For Drug Research, Access and Benefit-Sharing* 5 (United Nations University Press, 2005)

17 The Ayahuasca Case: Vine of the Soul, available at: <http://www.amazonlink.org/biopiracy/ayahuasca.htm>

18 U.S. Patent No. 4,946,681 (filed June 26, 1989); U.S. Patent No. 5,124,349 (filed Oct. 31, 1990)

considered a sacred tree in India did not begin until 1995.¹⁹ The previously noted turmeric patent was similarly challenged in the mid-nineties.²⁰ Other patents that have been embroiled in biopiracy allegations since then include a patent on Quinoa²¹ as well as the Basmati Rice Patent²² and more recently the Enola Bean patent²³ and the so called natural Viagra or Maca patent.²⁴

Biopiracy can be defined as the stealing of biomedical knowledge from traditional and indigenous communities or individuals. The term can also be used to suggest a breach of a contractual agreement on the access and use of traditional knowledge to the detriment of the provider, and also applies to bioprospecting without the consent of the local communities. In fact, the way biopiracy has been assuming endemic proportions, the transaction costs involved in getting biopiracy patents examined and revoked in foreign patent offices on a case-by-case basis could turn out to be prohibitive for a developing country like India. Hence, the necessity for an internationally enforceable legal regime, which can ensure an effective protection for the rights of communities on their TK-based biological resources by prohibiting the unscrupulous biopiracy practices of the western MNCs.

VII. BIO Piracy of Neem

Biopiracy is a grave problem for all traditional knowledge rich countries like Amazon, South Africa and India as they

concentrate great environmental wealth. In countries that are users of biological resources (principally the U.S.A., Europe and Japan), the demand for “natural” and “organic” cosmetics and pharmaceutical products is soaring. Firms try to meet this demand by drawing on the world’s most important biodiversity reserves.²⁵ We can also see biopiracy as the stealing of economic development opportunities.

The grant of patents on non-original innovations, which are based on what is already a part of the traditional knowledge of the developing world have been causing a great concern to the developing world like India. It is a continuing menace in our society. However, the *haldi* (turmeric), *neem* and *basmati* biopiracy cases were turning point for India in the real sense as India after that took some drastic steps not only to protect its Traditional Knowledge (TK) but also GIs. A critical analysis of these cases is undertaken in discussion to be followed under convenient headings.

The *neem* tree, which translates as the ‘free tree’, is indigenous to the Indian subcontinent, where it has been used in agriculture, medicine and cosmetics for centuries. It has been referred to as the ‘curer of all ailments’ and the ‘blessed tree’ by the people of India as the leaves and the bark have been used to treat illnesses such as leprosy, ulcers, diabetes and skin disorder. The neem tree has many versatile traits that can be traced back to the *Upavana-Vinod*, an ancient

19 Ulrike Hellerer & K.S. Jarayaman, ‘Greens Persuade Europe to Revoke Patent on Neem Tree’, 405 *Nature(International Weekly Journal of Science)*266-267 (2000)

20 U.S. Patent No. 5,401,504 (filed Dec. 28, 1993)

21 U.S. Patent No. 5,304,718 (filed Feb. 3, 1992)

22 U.S. Patent No. 5,663,484 (filed July 8, 1994)

23 U.S. Patent No. 5,894,079 (filed Nov. 15, 1996)

24 U.S. Patent No. 6,093,421 (filed Aug. 31, 1999); U.S. Patent No. 6,267,995 (filed Mar. 3, 1999); U.S. Patent No. 6,878,141 (filed June 28, 2000)

25 Biopiracy and Its Negative Effect, ‘Understanding, Resisting and Acting Against Biopiracy: A guide on how to act in the face of illegal appropriation of life and traditional knowledge’, at 4-5, available at: http://www.biopiraterie.org/sites/default/files/etudes/Livret_Uk_010612.pdf

Sanskrit treatise dealing with agriculture. The neem's many virtues are to a large degree attributable to its chemical constituents. From its roots to its spreading crown, the tree contains a number of potent compounds, notably a chemical found in its seeds named *azadirachtin*. It is this astringency that makes it useful in so many fields.²⁶

VIII. IP Dispute & Neem

The United States and India were involved in a biopiracy dispute over the rights to the neem tree. W.R. Grace, an agricultural chemical company based in Florida, developed a technology to extract the active ingredient in the *neem* tree seed in a stable solution and patented the stabilization process and the stabilized form of the ingredient with the United States Patent and Trademark Office (USPTO). W.R. Grace then obtained a European patent in 1994 jointly with the United States Department of Agriculture (USDA) on the manufacturing process of the neem tree seed oil as a fungicide.²⁷ While the neem tree has been used in India for over 2000 years for various purposes such as pesticides, spermicides and toothbrushes, W.R. Grace had been suing Indian companies for producing the emulsion because they had a patent on the process. The dispute was over the rights of companies to conduct research and development by using patents against the interest of the people who live at the source of the tree. These patents meant that India, despite its ownership

of the neem tree and having used the medicinal plant for centuries, had no legal rights to develop the plant for medicinal or curative purposes.²⁸ It was considered to be both the intellectual as well as the biological piracy. Neem is a part of many Indians' daily life and its access was free and unrestricted. The patent obtained on neem by the firm Grace disrupted access to this essential resource, with significant consequences in terms of price inflation.

The W.R. Grace patents provoked fervent public howl in India and led to India's long journey to reclaim the neem tree. In 1995, a coalition of 200 non-governmental organisations from 35 countries was established to protest Grace's patent.²⁹ The coalition fighting the neem patent - whose motto was 'Free the Free Tree' - was coordinated by the Green party in the European parliament. It included the Indian Research Foundation for Science, Technology and Ecology, an influential environmental group, and the International Federation of Organic Agriculture Movements (IFOAM), a pressure group for organic farming. The controversy over as to who has the rights to the Neem tree raised many questions. One of the important concerns of the coalition was that biological resources are common heritage and should not be patented. There was an increased awareness in India that the commodification of neem will lead to its expropriation by multinational corporations, like W.R. Grace.³⁰ India claimed that the US Companies were

26 Vandana Shiva, 'The Neem Tree-A Case History of Biopiracy', available at: <http://www.twinside.org.sg/title/pir-ch.htm>

27 European Patent No. 436 257 B1 (Issued Sept. 14, 1994)

28 Frederick Nzwili, 'Multinationals Lose Exclusive Rights over Neem Tree', *Africa News Serv.*, May 22, 2000

29 Ashok Sharma, 'Tree Focuses Debate on Control of Resources : Environment: Third World nations contend they should be compensated for protecting natural materials, which First World converts to products and profits', *Los Angeles Times*, November 19, 1995 available at: http://articles.latimes.com/1995-11-19/news/mn-4811_1_world-nations

30 Jerry Mander and Edward Goldsmith (eds.), *The Case Against the Global Economy and for a Turn Towards the Local*, 154 (Sierra Club, San Francisco, 1996)

actually stealing and pirating the indigenous practices and knowledge of its people that they have been using for years.

IX. Response of CBD

The *Convention on Biological Diversity (CBD)* that took place in 1992 at the United Nations Conference on Environment and Development provided that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner, noting further that ex-situ measures, preferably in the country of origin, also have an important role to play.³¹ Indian laws at that time did not allow patents on agricultural and pharmaceutical products because they believed that the rights of poor farmers in developing countries will be harmed. India was not against sharing its information about the neem tree's virtues, but it was against countries and corporations that intend to stop India's use of neem.³² It was asserted by the Indian Government, who was one of the parties to the dispute, that the patent in question lacked two basic statutory requirements for the grant of a European patent namely "novelty" and the "inventive step".³³ Further they said that neem is a bio-asset that is protected under Article 15 of the CBD which states:³⁴

Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.

But W.R. Grace that was another party to the dispute believed that the result of research and development in foreign countries can lead to a greater public good because of the new discoveries of medicines and other innovations.

X. Indian Response to Neem

India was eventually successful in its legal challenge of the U.S. acquisition of its *neem* tree ingredient before the EPO when it revoked the patent in 2000 as it was successfully argued that there was prior public use and the claims were therefore not novel. Thus, after six years of persistent campaigning by India, the Opposition Division of the EPO completely revoked the patent granted to the USDA and W.R. Grace. However, the American company appealed against the patent revocation. But EPO also rejected W.R. Grace's subsequent appeal.³⁵ Finally, on March 8th, 2005 in Munich, Germany the Technical Board of Appeals of the EPO due to a long and intense Indian civil society mobilisation revoked this illegitimate patent in its entirety.

The Neem case shows how fuss in ways of life can be caused by acts of biopiracy. This case was unique because for the first time a patent on developing country traditional knowledge was collectively opposed thus sending out a strong message on the need for global recognition and protection of cultural patrimony. There are three main issues surrounding the patenting of local products used for medicinal or agricultural purposes by the United States:³⁶

31 Preamble to Convention on Biological Diversity 1992

32 *Id.* Article 16 (Access to and Transfer of technology) stating that 'in the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights'.

33 Articles 54 and 56 of the European Patent Convention

34 Article 15 of the Convention on Biological Diversity 1992: Access to Genetic Resources

35 EU Upholds Ruling Revoking Neem Patent for US Co., *Bus. Line*, March 9, 2005

36 Country Studies: India, Part 6: Local species-turmeric, neem and basmati available at: <http://www.arts.uwaterloo.ca/~wbmoul/courses/PSci281/text/neem.htm>

- (i) First, the farmers will no longer be able to use these products without paying royalties to the company that has a patent on it.
- (ii) Secondly, consumers will be deprived of cheap medicines and agricultural products.
- (iii) Last, local communities should receive a share of the profits because the companies learned the value of the species from local knowledge.

Incidents such as the Neem tree piracy reflect the dangers of failure to protect cultural products. In India there is a lack of knowledge of the legal process that surrounds Intellectual Property Rights. Due to absence of adequate legal protection for cultural products in India, it was felt that cases like this can arise again. Integrated approach at the international level was the need to protect such acts of biopiracy. Moreover, developing nations such as India have had to adapt to fast-paced intellectual property harmonization. Neem case reveals that there is a need to ensure that at the very least right holders are compensated for what has been deemed intellectual property by all *TRIPS* signatories. This case remains a testimony highlighting the dangers of biopiracy, which provokes upheaval in ways of life and traditional uses.

XI. BIO Piracy of Turmeric

The second case study on TK related GI pertains to *haldi* (turmeric) in 1995.³⁷

The turmeric case is a landmark case as this was the first time that a patent based on traditional knowledge of a developing country was challenged successfully and USPTO revoked the patent. In 1995, two non-resident Indians at the University of Mississippi Medical Centre in Jackson were granted US patent no. 5,401,504 on “use of turmeric in wound healing”. The inventors claimed to have found that the use of turmeric at the site of an injury by topical application and/ or oral intake of turmeric would promote healing of wounds. The Mississippi Medical Centre filed for six claims of novelty. The Indian Council of Scientific and Industrial Research (CSIR) requested the USPTO to re-examine the patent on 28th October, 1996. CSIR challenged the patent on the grounds of *prior art*, i.e., existing public domain knowledge. CSIR argued that turmeric has been used for thousands of years for healing wounds and rashes and therefore its medicinal use was not novel. Their claim was supported by documentary evidence of traditional knowledge, including an ancient Sanskrit text and a paper published in 1953 in the Journal of the Indian Medical Association.³⁸ CSIR could locate 32 references (some of them being more than one hundred years old and in Sanskrit, Urdu and Hindi), which showed that this finding was well known in India prior to filing of this patent.³⁹

Thus a combination of scientific evidence and legal skill was used to contest the case. The first office action in the

37 Turmeric is a plant of the ginger family yielding saffron-coloured rhizomes used as a spice for flavouring Indian cooking. It also has properties that make it an effective ingredient in medicines, cosmetics and as a colour dye. As a medicine, it is traditionally used to heal wounds and rashes. No doubt there was a lot of protest against ‘biopiracy’ and ‘theft’ of India’s biodiversity and traditional knowledge by foreign nationals but in this case the patentees were Indians

38 Danielle Knight, ‘Indian, Thai Farmers Fight US Biopiracy’, *Asia Times*, May 2, 2000 available at: <http://www.atimes.com/ind-pak/BE02Df02.html>

39 Dr. R.A. Mashelkar, Director General Council of Scientific and Industrial Research ‘Intellectual Property Rights and the Third World Council of Scientific and Industrial Research’ available at: <http://www.csir.res.in/External/Heads/aboutcsir/leaders/DG/dgspeech5.pdf>

re-examination was issued by USPTO on 28th March, 1997, which rejected all the six claims based on the references submitted by CSIR as being by 'anticipated references' and therefore considered invalid under 35 USC 102⁴⁰ and 103.⁴¹ Despite arguments by the patentees, the USPTO upheld the CSIR objections and revoked the patent, stating that the claims made in the patent were obvious and anticipated, and agreed that the use of turmeric for healing wounds was an old art.

Turmeric patent case is the first successful case in the area of Intellectual Property violation in India.⁴² The legal costs incurred by India in this case have been calculated by the Indian Government to be about at US \$10,000.⁴³ This case is often cited as an example of biopiracy by developed nations on the traditional knowledge and bio-diversity of developing nations.

XII. Digitization of Traditional Knowledge

This case created awareness of the need to document traditional knowledge preferably by digitisation so that patent offices could verify prior art for claimed inventions before granting a patent. In response to concerns of biopiracy raised by research into turmeric, the Government

of India has been translating and publishing ancient manuscripts containing old remedies in electronic form and in 2001 the Traditional Knowledge Digital Library (TKDL) was set up as a repository of 1200 formulations of various systems of Indian medicine, such as Ayurveda, Unani and Siddha.⁴⁴ Not only this but also the creation of Traditional knowledge Resource Classification and finally inclusion of Indian traditional medicinal knowledge in the International Patent Classification System was done. The texts are being recorded from Sanskrit, Urdu, Persian, Arabic and Tamil in digitized format, which are available in five international languages made available to patent offices in English, German, French, Japanese and Spanish.⁴⁵ The aim is to protect India's heritage from being exploited by foreign companies. Hundreds of yoga poses are also kept in the collection. The library has also signed agreements with leading international patent office such as European Patent Office (EPO), United Kingdom Trademark & Patent Office (UKPTO) and the United States Patent and Trademark Office to protect traditional knowledge from biopiracy as it allows patent examiners at International Patent Offices to access TKDL databases for patent search and examination purposes.⁴⁶

40 35 USC § 102 - Conditions for patentability; novelty and loss of right to patent

41 35 USC § 103 - Conditions for patentability; non-obvious subject matter

42 The turmeric and neem case both happened around the same time but the turmeric patent was challenged by India within a reasonable time, as soon as the matter came into the notice of India. However, the neem patent was challenged by a coalition of NGOs almost after five years of granting patent. It took about three years for India to get the patent granted on turmeric revoked as compared to the neem case which was the longest battle spanning about ten years for seeking revocation of the patent on neem

43 Available at: http://www.iprcommission.org/papers/text/final_report/chapter4htmlfinal.htm

44 Traditional Knowledge Digital Library- Collaborative Project of Council of Scientific & Industrial Research (CSIR)Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH) available at: <http://www.tkd1.res.in/tkd1/langdefault/common/Home.asp?GL=Eng>

45 Bio-piracy of Traditional Knowledge available at: <http://www.tkd1.res.in/tkd1/langdefault/common/Biopiracy.asp?GL=Eng>

46 'India Partners with US and UK to Protect Its Traditional Knowledge and Prevent Bio-Piracy'- Press Information Bureau, Ministry of Health and Family Welfare, April 28, 2010

XIII. Biopiracy of Basmati Rice

The third case study relates to *basmati* rice in 1997. Basmati rice is a long-grained aromatic rice variety cultivated in areas of Northern India and Pakistan.⁴⁷ Farmers in these regions have selected and maintained Basmati rice varieties that are recognised worldwide for their fragrant aroma, long and slender grain and distinctive taste. Basmati rice requires deep fertile soil, a cool climate and a short photoperiod for its cultivation. As such it is difficult to grow Basmati rice for commercial purposes in other areas. Prized for its exquisite aroma and taste, it commands a premium price in both domestic and international market. India has been exporting Basmati rice to several countries of the world including the US, Europe and Middle East countries for several decades and over a period of time, it has acquired a unique position in the world market. Basmati exports surged 45 per cent to touch a record 3.21 million tonnes in 2011-12 on robust demand from the traditional markets in West Asia. In the previous year, exports stood at 2.18 million tonnes (mt).⁴⁸ In value terms, exports were up 46 per cent at Rs 15,450

crore against Rs 10,578 crore in 2010-11. In dollar terms, the export growth was 29 per cent at \$3.22 billion against \$2.49 billion last year, said Mr A. K. Gupta, Advisor, Agriculture and Processed Foods Exports Development Authority (APEDA). Nonetheless, long before *TRIPS*, a Texas rice development company, RiceTec Inc.⁴⁹ began producing and exporting Basmati-type rice called 'Texmati' in 1985.

Having acquired the Basmati patent rights, RiceTec was able not only to sell its aromatic rice under the brand name Basmati within the US, but was also legally permitted to label it as such for exports.⁵⁰ RiceTec's Basmati patent has become widely known as a classic case of 'biopiracy'. The controversy was initiated by a 1997 grant of a United States patent to Rice Tec, Inc., on a variety of basmati rice lines and grains. The Texas Company's attempt to patent a type of basmati rice not only provoked large demonstrations in India but also became a touchstone for anti-globalization protest.⁵¹ Dr. M.S Swaminathan,⁵² in a personal message to Prince Hans Adam wrote:⁵³

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- 47 Graham Dutfield, *Intellectual Property Rights, Trade And Biodiversity: The Case of Seeds and Plant Varieties* 55 (Written for the IUCN Project on the Convention on Biological Diversity and the International Trade Regime, June 1999)
- 48 Vishwanath Kulkarni, 'Basmati Exports Rise to Record 3.21 m.t. in 2011-12', *The Hindu-Business Line*, July 18 2012 available at: <http://www.thehindubusinessline.com/industry-and-economy/agri-biz/article3654190.ece>
- 49 RiceTec Inc. is a small company and Liechtenstein's royal family headed, by the reigning Prince Hans Adam II, was the sole owner of RiceTec Inc. at the time of controversy
- 50 Shantanu Guha Ray, 'The Stealing of Basmati', *The Rediff Business Special*, March 12, 1998 available at: <http://www.rediff.com/business/1998/mar/12rice.htm>
- 51 Saritha Rai, 'India-U.S. Fight on Basmati Rice is Mostly Settled', *N.Y. Times*, August 25, 2001, at C1 available at: <http://www.nytimes.com/2001/08/25/business/india-us-fight-on-basmati-rice-is-mostly-settled.html>
- 52 Swaminathan is known as the 'Father of the Green Revolution in India' - One of the world's leading rice experts, former Director General of the International Rice and Research Institute, former Independent Chairman of the FAO Council and recipient of the first World Food Prize in 1987
- 53 Controversy still steaming over Counterfeit Basmati: Indian Government Prepares to Challenge Basmati Patent in US, available at: <http://www.evb.ch/p25000417.html>

Marketing rice varieties developed by crossing semi-dwarf varieties with Basmati rice from India/Pakistan, as American Basmati is unethical. This is designed to kill even the limited opportunities which poor developing countries have for farm exports.

On 2nd September, 1997, RiceTec did obtain a patent titled "Basmati rice lines and grains" on the basis of 20 claims made by the company in its patent application to the USPTO. RiceTec was granted a patent for allegedly novel basmati lines and grains which were created from the crossing of the basmati germplasm (of Pakistani origin) taken from an *ex situ* gene bank in the US with American long grained variety of rice. RiceTec claimed that the new varieties have the same or better aroma, grain length and other characteristics than the original basmati variety grown in India and Pakistan and can be grown successfully in specified geographical areas in North America. Claims 1-14 of the patent pertained to the general characteristics of rice grown in North America, South America, Central America and the Caribbean. Claims 15 to 17 were for rice grains without any limit to GI. Claims 18 to 20 pertained to the specific methods used by RiceTec to develop the rice lines. Of the 20 specific claims made by RiceTec, claims 15 to 17 seemed especially harmful to the Indian export market since they pertained to particular characteristics of Indian Basmati grain. In these claims RiceTec included a claim to 90 per cent of the rice's germplasm as well as traditional varieties like Bas 370, Taraori, and Basmati Karnal cultivated in India. In short, RiceTec's claims of patentable property on its rice lines were in fact typical characteristics of Basmati rice.

This had serious ramifications for India.

XIV. Indian Legal Strategy

This came to the notice of the Government of India in February 1998, and an Inter-Ministerial Committee was set up under the Secretary, Department of Industrial Development, to examine this issue. The United Kingdom's Ministry of Agriculture Fisheries and Food (MAFF) performed a DNA analysis of basmati rice in 1999 which concludes that RiceTec's two "basmati" style products, Kasmati and Texmati, have a genetic profile with "much more similarity" to US long grain varieties than South Asian Basmati samples. The report concludes "analysis of both Kasmati and Texmati in this study have shown that these varieties can both be easily distinguished at the genetic level from Indian or Pakistani based varieties".⁵⁴ In April 2000, officials of the Indian Agricultural and Processed Food Products Export Development Authority (APEDA), a body established for development of agricultural commodities and furthering their exports, filed a petition with the USPTO to re-examine the Basmati patent, specifically claims 15-17.

At the same time when the Indian Government requested the USPTO to re-examine RiceTec's patent, the Research Foundation for Science, Technology and Ecology (RFSTE), a US-based non-governmental organization, filed a petition with the Federal Trade Commission (FTC) to control the use of the word "Basmati" in domestic marketing, arguing that Basmati was not a generic term and the use of such would deceive consumers into believing that the rice they were buying was from South Asia.⁵⁵ RFSTE's

⁵⁴ UK Ministry of Agriculture, Fisheries and Food, Final Project Report, 'The Development of Isotopic Analysis and DNA Polymorphic Markers to Determine The Geographical and Cultivator Origin of Premium Long Grain Rice,' March 31(1999) p.15

petition was rejected by the FTC on two grounds.⁵⁶

- (i) Firstly, the FTC felt the damage to consumers was overstated.
- (ii) Secondly, the FTC said that there were no agricultural regulations to govern the use of the term 'Basmati' for rice originating from a particular region.

According to the FTC, Basmati rice is "included as an example of 'aromatic rough rice,' and is not limited to rice grown in any particular country". It ruled that the labelling of "American grown" basmati rice was not misleading and deemed basmati a generic term. It took APEDA over two years to gather the data to challenge the claim due to the intricacies of RiceTec's claims. Soon after APEDA's challenge, RiceTec gave up the right to claim 4 along with claims 15 to 17. USPTO further found that the 16 remainder claims were also questionable. Subsequently, RiceTec was issued notice by USPTO on 27th March, 2001 that its patent was in jeopardy. RiceTec then withdrew the remainder claims except claims 8, 9, 11, 12 and 13 which pertained to new cross-bred lines developed by RiceTec that are not similar to any of the varieties grown in India. Thus, as against the Indian attack on 3 claims, RiceTec withdrew 15 claims.

XV. Techno-Legal Dimensions

There are numerous legal and technical concerns with respect to RiceTec's patent and use of the name basmati by it, but ultimately the main issue is morality. Farmers in India have selected and bred aromatic rice over generations. It is

unethical and unacceptable to be usurped by a foreign company. Basmati rice is an important source of income for Indian rice farmers and the international geographical indication regime forced them to compete unfairly against more developed countries such as the United States whose agricultural products are often highly subsidized. It is a must that the farmers in India should enjoy the full economic benefits of the goodwill that has developed in their product. According to Dr Vandana Shiva, who heads a Delhi-based research foundation which monitors issues involving patents and biopiracy, the theft involved in the basmati patent is threefold:

- (i) a theft of the collective intellectual and biodiversity heritage of Indian farmers,
- (ii) a theft from Indian traders and exporters whose markets are being stolen by RiceTec, and finally,
- (iii) a deception of consumers since RiceTec is using the stolen name Basmati for rice which are derived from Indian rice but not grown in India, and hence are not of the same quality.

Use of the term "basmati" for rice that does not possess its inherent qualities and that is not subjected to the same production process does blemish the reputation of the original good.

XVI. GI Violation in Basmati

The moot question is if RiceTec or any other company sells rice similar to basmati and labels or advertises this as 'American made basmati type rice' or

55 U.S. Patent No. 5,663,484, Re-examination Certificate C1 (4525th) (reissued Jan. 29, 2002); Press Release, Federal Trade Commission, 'Commission Denial of Petition for Rulemaking Proceeding' (May 15, 2001), available at : <http://www.ftc.gov/opa/2001/05/fyi0131.htm>

56 Letter from Donald Clark, Secretary, Federal Trade Commission, to Charlotte A. Cristin, Joseph Mendelson & Andrew Kimbrell (Responding to a petition challenging the advertising of U.S. grown rice as 'Basmati' or 'Jasmine') (May 9, 2001), available at : <http://www.ftc.gov/os/2001/05/riceletter.pdf>

'basmati style rice', with a clear indication that the product originates from the US, there is no deception of the public even while the reputation and goodwill attached to the name basmati is diluted as the TRIPS Agreement accords absolute protection against the use of geographical indications with the words kind, type, style, imitation or the like only to wines and spirits and to no other commodity.⁵⁷ Also TRIPS does allow WTO Members to deny protection to geographical indications that are not protected in the country of origin.⁵⁸ At that time there was a widespread belief in India that unless there is a domestic *sui generis* legislation to protect geographical indications, these marks cannot be protected in other countries but it was not widely recognised that India already permitted the protection of such marks through certification marks as well as under the common law tort of passing off, provided it can be proved that the consumer would be deceived. The case of basmati rice is also the quintessential case reflecting the consequences of failure to implement a globally accepted substantive law with respect to the protection of geographical indications.⁵⁹

The case of basmati rice reveals that at that time under the international geographical indication regime important obligatory TRIPS mandates were not being met, as the law was far from uniform, thereby preventing equal

market access.⁶⁰ Further, a recuperated TRIPS Agreement that extends Article 23 to cover traditional goods, not just wines and spirits, would also have prevented RiceTec from marketing its Kasmati brand rice as "traditional Basmati style" or the Texmati brand as "American Basmati". Though India was successful in winning the legal battle against RiceTec in the US, it still faced legal battles in about 47 countries for 300 instances of infringement.⁶¹ At least 76 of such cases have been settled in favour of India. India could have avoided the legal battle and strengthened Basmati's position in the global market if it had registered Basmati as a GI earlier. It eventually did so, but by then it was too late. India's lack of adequate domestic protection under Intellectual Property law was largely responsible for both the neem and the basmati incident.

XVII. Protection of TK Related GIs

India was rattled out by these cases of bio-piracies and was facing a difficult situation to tackle. As a result of which various policy changes were made and more demand grew for stronger protection of cultural patrimony in India. Adoption of TRIPS by India also brought about a sea change in Indian IPR framework. Despite India succeeded in challenging the neem tree and basmati rice patents, some commentators thought that India's victories were limited.⁶² These cases had two significant lessons

57 Article 23 of the TRIPS Agreement

58 *Id.*, Article 24

59 Kunal Bose, 'Commodities & Agriculture: India Sets up Rice Export Zone', *FIN.TIMES*, September 5, 2002

60 Agreement on Trade-Related Aspects of Intellectual Property Rights, Preamble (April 15, 1994) available at: http://www.wto.org/english/tratop_e/trips_e/t_agm1_e.htm (Last visited on November 10, 2015) (Members, Desiring to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade)

61 Sandip Das, 'APEDA Initiates Registration Process of Basmati Under GI', *The Financial Express*, February 1, 2010

62 D. Sampathkumar, 'Basmati: The Threat Still Lingers', *BUS. LINE*, Sept. 2, 2001

for India. Firstly, it helped to draw the attention of whole nation about the importance of not only geographical indications but also traditional knowledge and also their vulnerability to the biopirates. Secondly, it exposed a peephole in the Indian legal system, which had no mechanism to deal with the issues like this.

Countries like India worry that, short of an integrated approach, such case-by-case challenges would be too costly and ultimately ineffective to stop developed countries from continuing to commit biopiracy. But getting them revoked is equivalent to winning small battles at high cost with little impact on the war being waged over the entire system of 'bio-colonization'. The real solution will come only out of an integrated strategic approach to protect the bio-assets of developing countries through globally accepted formal and informal protection regimes.⁶³ In reaction to the neem tree and basmati rice patents, India has strengthened its legal regime to conform to international laws on intellectual property, and its local communities have become more aware of and taken actions to protect their sovereign rights over traditional biological resources. Extending the Article 23 protection to all geographical indications could have prevented developed countries such as the United States from exploiting the traditions and resources belonging to developing countries like India. It would be an opportunity to achieve a better balance between the divergent interests in the

area of intellectual property rights of developed and developing countries.

XVIII. Need for Strengthening GI

The reason for providing Intellectual Property Rights to geographical indications has usually been broadly classified as follows:⁶⁴

- (i) The custodians of geographically indicated products should receive some price benefits as marketing of such products leads to commercial gain;
- (ii) The protection of GI products contributes to the wider objective of conserving the environment, biodiversity and sustainable agricultural practices;
- (iii) Preservation of traditional practices and culture;
- (iv) Avoiding 'biopiracy'; and
- (v) Promotion of its use and its importance to development.

Geographical Indications are not exclusively commercial or legal instruments, they are multi-functional. They exist in a broader context as an integral form of rural development that can powerfully advance commercial and economic interests while fostering local values such as environmental stewardship, culture and tradition.⁶⁵ They can provide the structure to affirm and protect the unique intellectual or socio-cultural property embodied in indigenous knowledge or traditional and artisanal skills that are valued forms of expression for a particular community.⁶⁶

63 Dr. M. D. Nair, 'Winning The War Against Bio-Colonisation', *The Hindu*, May 17, 2000

64 Pradyot R. Jena and Ulrike Grote, 'Changing Institutions to Protect Regional Heritage: A Case for Geographical Indications in the Indian Agrifood Sector', 4 available at: <http://www.pegnet.ifw-kiel.de/activities/pradyot.pdf>

65 Daniele Giovannucci, Tim Josling *et. al.*, 'Guide To Geographical Indications: Linking Products and their Origins', (International Trade Centre, 2009) available at: <http://www.intracen.org/WorkArea/DownloadAsset.aspx?id=37595>

GIs facilitate progress that is multifunctional in character and are not focused on a single product. An EC evaluation noted that GI development amplified:⁶⁷

- (i) Regional cooperation between municipalities, authorities, commercial and social partners;
- (ii) The positive identity of the regions, especially referring to culture, landscape conservation and marketing;
- (iii) Improvements in the general infrastructure and rural services;
- (iv) Profiling of the region as an attractive business location;
- (v) Improvements in environmental quality and linked utilization of resources.

India has taken various steps to strengthen the protection given to IP as is evident from the amendments to the legislative enactments to give effect to the International Conventions and Treaties to which India is a signatory. The recent changes in IP laws reflect India's compliance with the obligation under the *TRIPS Agreement*. For example, the *Copyright Act, 1957* has been amended to include computer program as literary work as required by Article 10 of the *TRIPS Agreement*.⁶⁸ The *Trade and Merchandise Marks Act, 1958* has been replaced with the *Trade Marks Act, 1999*

which includes protection of well-known marks, certification marks and collective marks. It now provides for registration of Trade mark for services as well. This is in compliance with Article 16 of the *TRIPS Agreement*.⁶⁹ Other recent legislations include the *Geographical Indications of Goods (Registration and Protection) Act, 1999*, the *Designs Act, 2000* and the *Protection of Plant Varieties and Farmers' Rights Act, 2001*.

XIX. Conclusion and Suggestion

Different forms of Intellectual Property Rights protection such as Trademarks, geographical indications and patents have been around for a long time. But unlike industrialized countries that have a long history of protecting their Intellectual Property, the legal protection of intellectual property is still relatively new to developing countries. In developing markets, a lot of stress is laid on reducing tariffs with relatively little attention paid to strengthening intellectual property rights systems. No doubt various forms of protection were available to GIs worldwide prior to *TRIPS Agreement* like CTM or sui generis legislation but the problem is that the certification mark system or even any sui generis legislation requires the definition of the particular product. However, the *TRIPS Agreement* of the World Trade Organization provides for protection where a given quality or reputation of an

66 Nomani, Md. Zafar Mahfooz, 'Biological Diversity, IPR & Sustainable Development: A Critical Appraisal of Access & Benefit Sharing Models of U.S., Australia & India', VI 911&12) *International Journal of Environmental Consumerism*, 40-55(2010)

67 EC 2002

68 This Act has been amended five times since its enactment in 1957 (1983, 1984, 1992, 1994 and 1999, with the amendment of 1994 being the most substantial) available at: <http://www.wipo.int/wipolex/en/details.jsp?id=2396> (Last visited on September 10, 2015)

69 Article 16 of *TRIPS Agreement* states, "The owner of a registered trademark shall have the exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs for goods or services which are identical or similar to those in respect of which the trademark is registered where such use would result in a likelihood of confusion. In case of the use of an identical sign for identical goods or services, a likelihood of confusion shall be presumed. The rights described above shall not prejudice any existing prior rights, nor shall they affect the possibility of Members making rights available on the basis of use"

item is attributable to its geographic origin.⁷⁰

With the advent of TRIPS all developing countries are required to strengthen their IPR system. Yet, many developing countries failed to take much action in this regard or have taken action very slowly. Intellectual Property is a very important issue with the food and beverage products like basmati or neem or turmeric because not only are the imitations being sold under the pretence of the real thing, but this also dilutes the quality of these unique products. The US-patent on 'Basmati Rice Lines and Grains' granted to Texas based RiceTec Inc. is a flagrant example of wrongful exploitation of a renowned GI from India. For India to be competitive in the international market, it is as important to strengthen its Intellectual Property system. In the case of India, at the very least, it could have avoided the time and money spent in the legal battles over basmati or neem or turmeric, around the world had it improved its Intellectual Property system. Nations should move more quickly to institute policies such as protection of geographical indications in their national laws and also there may be a need to make these indications more specific in future negotiations in order to protect traditional varieties. Piracy is developing in the business society as an evil. Laws are there but the need is for a

zealous and vigilant judiciary to handle such issues with not only diligence but also competence, promptness and firmness. Judiciary has to protect and uphold the interests of the people at large in all the spheres especially geographical indications thereby restoring their cultural and economic rights in order to benefit the society at large.

There is a need in India that the interpretation of IPR laws should be uniform across the country along with increased awareness of them as there is a direct link between economic growth and IP Scenario. It is appropriate to mention here the words of Justice Sanjay Kishan Kaul of Delhi High Court:

Though there should be laws to protect the hard work and effort of the inventor, we must not forget that the purpose of IP laws is not to create a monopoly or only to benefit a few individuals or corporations, but to benefit the society as a whole by giving them access to new choices, products, inventions and literature etc.⁷¹

The Indian IP dispute settlement system and judiciary should prepare themselves according to the changing phenomenon of the IPR world and bring the Indian IPR laws in harmony with the international conventions and treaties.

70 Section 3, Articles 23-24 of the TRIPS Agreement deals with Protection of Geographical Indications

71 Justice Sanjay Kishan Kaul, 'Indian Courts equipped to tackle International Cases of IPR' available at: <http://www.indlaw.com/guest/DisplayNews.aspx?3C072E5A-B757-41AC-814E-534D259E4010>