
Innovating with Integrity - Intellectual Property Serving Human Rights in Global Welfare: A Legal Perspective

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Abstract

In the era of rapid technological advancements and evolving global perspective on rights there is a need for striking balance between both the domains of Intellectual Property Rights and Human Rights. Intellectual property is the intangible property created and possessed by human intellect. Intellectual Property plays a crucial role in the development of industry, commerce, trade and in the growth of creative effort in almost every field of human endeavour with the ultimate beneficiary as Society at large. Intellectual Property Right is a strong tool to protect the investment, time, money, and effort by the inventor or creator of the intellectual property providing exclusive rights for a certain term period. On the other hand, Human rights are the rights provided us simply because we all are humans. These rights are inalienable, inherent rights to all human beings from birth till death regardless of race, sex, nationality, ethnicity, language, religion etc. This article is mainly focused on the interaction between intellectual property rights and human rights, stressing on integrity and coherence are most essential for fostering innovation, cultural preservation, and social welfare. This study advocates for a human rights-centered approach of IPR as a means to promote human well-being and global welfare rather than the traditional view of IPRs as solely economic tools. The article analyses the tensions between IPRs and fundamental human rights in different fields like, right to health, right to food, and also right to education. It emphasizes on the need of international cooperation, ethical considerations in IPR especially in biotechnology, and the protection of traditional knowledge and cultural heritage to ensure a just, equitable, and sustainable future for whole world.

Keywords: - IPR, Biotechnology, Traditional Knowledge, Human Rights, Sustainable Development

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1. Introduction

Innovation is the mainspring for the economic growth, technological advancement, and societal progress for human civilization. Intellectual property rights, including patents, copyrights, trademarks, trade secrets etc. are designed to incentivize innovation by granting creators exclusive rights to their inventions and creations³. However, the pursuit of innovation should not come at the expense of human rights. Although, both IPRs and Human Rights are two different domains, still there is a growing recognition that IPRs and Human Rights are not mutually exclusive but rather interconnected and interdependent⁴. The challenge lies in finding a balance between the two different fields, that fosters innovation while ensuring equitable access to its benefits and safeguarding human dignity⁵. Intellectual property law establishes the entitlements of intellectual property owners, sometimes at the cost of other considerations, such as public health or access to knowledge⁶. Some academics have suggested a human rights framework for intellectual property as a way to bring balance into the current system⁷. This article addresses this balance, contemplating the likelihood that corporations will attempt to co-opt a human rights model in order to bolster their intellectual property claims. This article argues that a paradigm shift is needed in the way we view IPRs, moving away from a purely economic perspective towards a human rights-centered approach. This approach recognizes that IPRs are not ends in themselves but rather means to promote human well-being, social progress, and global welfare. It requires a careful balancing of the interests of creators and the needs of society, ensuring that IPR regimes are aligned with human rights principles and contribute to a more just, equitable, and sustainable future for all⁸.

³Steven D. Jamar & Lateef Mtima, A Social Justice Perspective on Intellectual Property, Innovation, and Entrepreneurship, in Edward Elgar Publishing eBooks (2012).

⁴A. R. Chapman, The Human Rights Implications of Intellectual Property Protection, 5 Journal of International Economic Law 861 (2002).

⁵Laurence R. Helfer, Human Rights and Intellectual Property: Conflict or Co-Existence? 22 Netherlands Quarterly of Human Rights 167 (2004).

⁶Ibid.

⁷J. Janewa OseiTutu, Corporate “Human Rights” to Intellectual Property Protection, SSRN Electronic Journal (2014).

⁸Paolo Davide Farah & Riccardo Tremolada, Conflict Between Intellectual Property Rights and Human Rights: A Case Study on Intangible Cultural Heritage (2016).

Intellectual property rights encompass various forms, including patents, copyrights, trademarks, and trade secrets, each serving a distinct purpose in safeguarding intellectual creations⁹. The recognition of exclusive rights for creations of the mind falls under the legal concept of intellectual property, which has evolved independently across different nations, with roots in both the US Constitution and European thought¹⁰. The Constitution of United States, written in 1787 was the first document to recognize such rights. Later on, these rights were also granted in Article 27 of the UDHR, which safeguards the “moral and material interest” of creators in their “scientific, literary, or artistic productions,” as an integral component of its foundational principles. These exclusiverights confer ownership over ideas, expressions, names, and logos, thereby incentivizing innovation and creativity¹¹. Patents, for instance, grant inventors’ exclusive rights to their inventions for a limited period, typically 20 years, in exchange for public disclosure of the invention¹². Copyrights protect original works of authorship, such as literary, artistic, and musical creations, granting authors exclusive rights to reproduce, distribute, and display their works. Trademarks protect brand names and logos, preventing others from using confusingly similar marks that could mislead consumers. Trade secrets, on the other hand, protect confidential business information that provides a competitive edge, such as formulas, processes, and customer lists.

Human rights are rights we have simply because we exist as human beings. These universal rights are inherent to us all, regardless of nationality, sex, national or ethnic origin, color, religion, language, or any other status. They range from the most fundamental - the right to life - to those that make life worth living, such as the rights to food, education, work, health, and liberty¹³. Human rights are intrinsic to the holistic advancement of individuals, representing the essential dignity and self-esteem that underpins personal identity and fosters human community¹⁴. Human rights,

⁹ Sarita Tiwari et al., Intellectual Property Rights in Plant Biotechnology: Relevance, Present Status, and Future Prospects, in BENTHAM SCIENCE PUBLISHERS eBooks (2013).

¹⁰ Jan Krauß& David Kutteneuler, Intellectual Property Rights Derived from Academic Research and Their Role in the Modern Bioeconomy—A Guide for Scientists, 40 New Biotechnology 133 (2017).

¹¹ Sarita Tiwari et al. Supra note9.

¹² Jan Krauß& David Kutteneuler. Supra note 10.

¹³<https://www.ohchr.org/en/what-are-human-rights>, accessed on April, 2024.

¹⁴ Mahima Kejriwal, INTELLECTUAL PROPERTY RIGHTS AS HUMAN RIGHTS- AN ANALYSIS, Indian Journal of Integrated Research in Law, Volume II Issue III.

both nationally and internationally, embody a collection of guiding principles that seek to protect people from actions by governments that could jeopardize or impinge upon fundamental freedoms such as life, physical integrity, and liberty¹⁵. Human rights are not granted by states but are inherent to every individual by virtue of their humanity¹⁶. These inherent rights are inalienable, unconditional, indivisible, interdependent, and non-discriminatory, applicable to all individuals worldwide¹⁷. The Universal Declaration of Human Rights articulates that the acknowledgment of the inherent dignity and the equal, inalienable rights of every member of the human family serves as the bedrock of freedom, justice, and global peace¹⁸.

Objective and Methodology of the Study

The objective of the study is found out the issues relating the interaction and impact of Intellectual Property Rights and Human Rights. It aims to illuminate the synergies and potential conflicts, emphasizing the need for balanced approach that ensures equitable access to knowledge, encourage, innovation and upholding the core principles of Human Rights. The methodology adopted here is Doctrinal methodology. The data is collected and analysed from the secondary sources like, Books, Journals & web Sources.

2. The Interdependence of Intellectual Property Rights and Human Rights

The relationship between intellectual property and human rights is multilayered. On one hand, the right to protection of the "moral and material interests" of an individual's intellectual product is enshrined in the Universal Declaration of Human Rights and the International Covenant on Economic, Social, and Cultural Rights¹⁹. This acknowledges the importance of rewarding creativity and innovation.

¹⁵ Harrison Kofi Belley, The National Democratic Congress (NDC) and Human Rights Promotion in the Fourth Republic of Ghana, *Asian Research Journal of Arts & Social Sciences* 37 (2020).

¹⁶ Nur Rohim Yunus, Refly Setiawan & Siti Ngainnur Rohmah, REPOSITION OF THE UNIVERSAL DECLARATION OF HUMAN RIGHTS IN THE STATE LEGAL SYSTEM, 13 *Al Qisthas Jurnal Hukum dan Politik* 64 (2023).

¹⁷ Krzysztof Orzeszyna, Universalism of Human Rights: Notion of Global Consensus or Regional Idea, 46 *Review of European and Comparative Law* 165 (2021).

¹⁸ Francisca Barros Matos, Education in Human Rights: Conceptions and Educational Practices, 8 *Education Journal* 1 (2019).

¹⁹ April 4, 2018, *Patently Unfair: The Tensions Between Human Rights and Intellectual Property Protection*, (2018).

On the other hand, intellectual property rights can, at times, conflict with other fundamental human rights. Overly broad or strictly enforced IPRs can hinder access to essential medicines, educational resources, and cultural heritage, thereby impeding the enjoyment of the rights to health, education, and cultural participation²⁰. Cases may arise where the right to intellectual property is being overbroadly enforced relative to public interests.

The key to resolving these conflicts lies in recognizing the interdependence of IPRs and human rights. IPRs are not absolute rights but rather limited rights that must be balanced against other societal interests and fundamental freedoms. As such, IPR regimes should be designed and implemented in a way that promotes both innovation and human rights, ensuring that the benefits of scientific progress are shared by all²¹. Intellectual property rights are designed to provide returns for innovators and creators by granting the rights to use and sell knowledge and inventions²². The tension between intellectual property rights and human rights arises in the context of access to essential medicines, educational resources, and cultural heritage²³. Intellectual property rights affect the realization of a number of human rights²⁴. The TRIPS agreement has been criticized for prioritizing the commercial interests of pharmaceutical companies over the right to health, especially in developing countries.

A human rights-based approach to intellectual property rights requires a re-evaluation of existing IPR regimes to ensure that they are consistent with human rights principles. This may involve incorporating human rights considerations into the drafting and interpretation of IPR laws, as well as adopting safeguards to prevent the abuse of IPRs that could undermine human rights. For instance, compulsory licensing, which allows governments to authorize the production of generic versions of patented medicines in cases of public health emergencies, is a crucial safeguard that can help ensure access to essential medicines²⁵. Additionally, exceptions and limitations to

²⁰Ibid.

²¹ Jan Krauß & David Kutteneuler. Supra note 10.

²² L. Monica, Tucak Zorić Sandra & Óscar Afonso, Intellectual Property Rights and Endogenous Economic Growth – Uncovering the Main Gaps in the Research Agenda, in InTech eBooks (2012).

²³ A. R. Chapman, The Human Rights Implications of Intellectual Property Protection, 5 Journal of International Economic Law 861 (2002).

²⁴ Philippe Cullet, Human Rights and Intellectual Property Protection in the TRIPS Era, 29 Human Rights Quarterly 403 (2007).

²⁵Ibid.

copyright, such as fair use and educational exceptions, are essential for promoting access to knowledge and fostering creativity. Intellectual property rights are crucial for the pharmaceutical industry, incentivizing drug discovery and development through the protection of innovations²⁶. Strong intellectual property protection can inflate drug prices, sometimes up to 100 times the manufacturing cost, as patents create monopolies that restrict competition and allow patentees to set high prices²⁷. The implementation of Trade-Related Aspects of Intellectual Property Agreement has led to higher drug prices in many countries²⁸.

The need to balance intellectual property rights with public health concerns is particularly acute in the pharmaceutical industry²⁹. Intellectual property rights can incentivize pharmaceutical companies to invest in research and development of new drugs, but they can also create barriers to access to essential medicines, especially in developing countries. The concept of "bio-precariousness" highlights the vulnerability of individuals facing challenges in accessing healthcare due to the control exerted by pharmaceutical companies through patents, ultimately affecting access to affordable medicines. The tension between the right to health and the right to property, both recognized by the Universal Declaration of Human Rights, underscores the ethical dilemmas inherent in the pharmaceutical industry.

3. IPR and HR Key Conventions and Instruments

Intellectual Property Rights (IPR) and Human Rights (HR) conventions often intersect and often create tensions. While IPR aims to protect creators' rights, HR conventions focus on fundamental human rights, and there can be conflicts, particularly when IPR, like those under the TRIPS Agreement, are implemented in a way that may limit access to essential goods or knowledge, potentially impacting the right to health or education. Though, the relationship is multifaceted, and IPR can also contribute to human rights by incentivizing innovation and economic growth, which can advantage society as a whole.

²⁶ K.K Tripathi, Biotechnology and IPR Regime: In the Context of India and Developing Countries.

²⁷ Anuradha Chadha, Intellectual Property Rights Vis-A Vis Right to Health: A Critique, SSRN Electronic Journal (2014).

²⁸ Amy Kapczynski, The Right to Medicines in an Age of Neoliberalism, 10 Humanity 79 (2019).

²⁹ Cristian Timmermann & Henk van den Belt, Intellectual Property and Global Health: From Corporate Social Responsibility to the Access to Knowledge Movement, 34 Liverpool Law Review 47 (2013).

The IPR and HR Key Conventions are:

- **Universal Declaration of Human Rights (UDHR):** A foundational document for human rights, including cultural rights and the right to scientific advancement.
- **International Covenant on Economic, Social and Cultural Rights (ICESCR):** Addresses economic, social, and cultural rights, including the right to health, education, and a decent standard of living.
- **Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS):** A WTO agreement that sets minimum standards for IPR protection globally, and has raised concerns about its impact on human rights.
- **Paris Convention for the Protection of Industrial Property:** An international agreement covering patents, trademarks, and other forms of industrial property.
- **Berne Convention:** An international agreement governing copyright protection.

4. Reconciling Intellectual Property Rights and the Right to Health

One of the most pressing areas of tension between IPRs and human rights is in the realm of access to medicines. Patent rights on pharmaceuticals can lead to high prices, making essential medicines unaffordable for many people in developing countries. This directly impacts the right to health, which is recognized as a fundamental human right under international law³⁰. The TRIPS agreement, administered by the World Trade Organization, sets minimum standards for IPR protection. While the TRIPS agreement has been credited with promoting innovation and investment in the medicinal industry, it has also been criticized for exacerbating the problem of access to medicines in developing countries. The implementation of product patents in addition to process patents, following the TRIPS agreement, has allowed India to emerge as a key player in the global generic market. The Doha Declaration on TRIPS and Public Health, adopted in 2001, reaffirmed the right of governments to protect public health and to take measures to ensure access to medicines for all. This declaration clarified that the TRIPS agreement should not prevent countries from taking measures to address public health crises, such as HIV/AIDS, tuberculosis,

³⁰ James Scheibner, Jane Nielsen & Dianne Nicol, An Ethico-Legal Assessment of Intellectual Property Rights and Their Effect on COVID-19 Vaccine Distribution: An Australian Case Study, 9 Journal of Law and the Biosciences (2022).

and malaria. The agreement includes flexibilities such as compulsory licensing and parallel importation, which allow countries to override patent rights in certain circumstances to ensure access to affordable medicines³¹. Compulsory licensing allows governments to authorize the production or importation of generic versions of patented medicines without the consent of the patent holder³².

The Agreement on Trade-Related Aspects of Intellectual Property Rights provides some flexibilities to address this issue, such as compulsory licensing, which allows governments to authorize the production or importation of generic versions of patented medicines in certain circumstances³³. However, the use of these flexibilities has been limited due to political pressure from developed countries and the complexities of implementing compulsory licensing schemes. Developed countries, including the EU and the US, are aggressively pushing developing countries to adopt stricter intellectual property regulations known as "TRIPS-Plus" through bilateral trade agreements, potentially jeopardizing the rights of Third World farmers to preserve seeds³⁴. Non-governmental organizations and health officials have voiced concerns that this legislation may hinder India's capacity to produce and provide generic medications both domestically and to other developing nations³⁵. Intellectual property rights influence biotechnology, particularly in areas like genetically modified seeds, where breeders claim rights, impacting farmers' ability to use, save, or sell harvested seeds. India has faced instances of biopiracy, such as those involving Basmati rice and turmeric, and has established the Traditional Knowledge Digital Library to protect traditional knowledge and prevent bio-piracy³⁶.

To ensure that IPRs do not impede access to essential medicines, several measures can be taken:

³¹ Anuradha Chadha. Supra note 27.

³² Dianne Nicol & Olasupo Owoeye, Using TRIPS Flexibilities to Facilitate Access to Medicines, 91 Bulletin of the World Health Organization 533 (2013).

³³ James Scheibner et al. Supra note 30.

³⁴ K.K Tripathi. Supra note 26.

³⁵ Radhika Bhattacharya, Are Developing Countries Going Too Far on TRIPS? A Closer Look at the New Laws in India, 34 American Journal of Law & Medicine 395 (2008).

³⁶ Ananth Padmanabhan, R Reddy & Shruti Sharma, MODERN BIOTECHNOLOGY AND INDIA'S GOVERNANCE IMPERATIVES, (2017).



- **Promoting generic competition:** Encouraging the development and marketing of generic medicines can significantly lower prices and increase access to treatment.
- **Utilizing TRIPS flexibilities:** Governments should be encouraged to make full use of the flexibilities available under TRIPS to promote access to affordable medicines.
- **Investing in research and development for neglected diseases:** Greater investment is needed in research and development for diseases that disproportionately affect developing countries, such as malaria, tuberculosis, and HIV/AIDS.
- **Supporting technology transfer:** Facilitating the transfer of technology to developing countries can help build local manufacturing capacity and reduce reliance on expensive imported medicines.

Ethical considerations are paramount, particularly in medical biotechnology, with issues like stem cell research and human cloning raising significant concerns³⁷. An effective intellectual property rights system in biotechnology necessitates collaboration between public and private entities, fostering research and ensuring the dissemination of findings³⁸. It is crucial to strike a balance between incentivizing innovation through intellectual property rights and ensuring equitable access to biotechnological advancements, particularly in healthcare and agriculture³⁹. The ownership and exploitation of intellectual property rights are key in determining the success of any technological innovation, providing the means for technological progress and supporting industry competitiveness. This approach ensures that innovation is incentivized while also protecting the rights and well-being of individuals and communities⁴⁰.

5. Intellectual Property and the Right to Food

The right to food is another fundamental human right that can be affected by IPRs. Patent rights on seeds and plant varieties can restrict farmers' ability to save, exchange, and reuse seeds,

³⁷ Angad Singh, Sharanabasava Hallihosur & Latha Rangan, Changing Landscape in Biotechnology Patenting, 31 World Patent Information 219 (2009).

³⁸ Ibid.

³⁹ K.K Tripathi. Supra note 26.

⁴⁰ Ananth Padmanabhan et al. Supra note 36.

which has been a traditional practice for centuries. This can have a particularly negative impact on smallholder farmers in developing countries, who rely on these practices for their livelihoods and food security. The expansion of IPRs in biotechnology, particularly in the area of genetically modified crops, has raised concerns about the control of food production by a few large multinational companies⁴¹. These companies often require farmers to purchase new seeds each year and restrict their ability to save and replant seeds, leading to increased dependence and vulnerability.

Farmers cultivating genetically modified crops are often obligated to procure new seeds annually from the patent holders, thereby curtailing their capacity to save and replant seeds, which escalates their reliance on these corporations and heightens their susceptibility⁴². Genetic engineering offers tools to improve food security, enhance quality and affordability, and increase medicinal value in crops, potentially boosting agricultural yields⁴³.

However, the appropriation of Indigenous knowledge through IPRs poses a significant threat to these communities by enabling corporations to exploit their knowledge for profit without fair compensation⁴⁴. This appropriation can lead to the loss of traditional practices and biodiversity, as well as undermine the economic and cultural well-being of Indigenous communities.

The implementation of IPRs in agriculture has sparked worries among farmers, scientists, and governments, particularly in developing countries, about hindering agricultural innovations and disrupting traditional farming practices⁴⁵. To ensure that IPRs do not undermine the right to food, several measures can be taken. The Section 3 of the Indian Patents Act, which sets a higher standard for patentability, and compulsory licensing provisions. *Novartis AG v. Union of India* is a starting point, though it primarily deals with the interpretation of Section 3 and its compliance with TRIPS.

⁴¹ Angad Singh et al Supra note 37.

⁴² Inmaculada de Melo-Martín & Zahra Meghani, Beyond Risk, 9 EMBO Reports 302 (2008).

⁴³ Robert K. Colwell et al., Genetic Engineering in Agriculture, 229 Science 111 (1985).

⁴⁴ Pragati Godbole-Chaudhuri, Deepa Srikantaiah & Justin van Fleet, Indigenous Knowledge and Intellectual Property Rights: Confronting Modern Norms to Promote Sustainability, 2 Diaspora Indigenous and Minority Education 276 (2008).

⁴⁵ Ademola A. Adenle et al., Analysis of Open Source Biotechnology in Developing Countries: An Emerging Framework for Sustainable Agriculture, 34 Technology in Society 256 (2012).

To ensure that IPRs do not undermine the right to food, it is important to:

- **Protect farmers' rights:** Recognizing and protecting farmers' rights to save, exchange, and reuse seeds is essential for preserving agricultural biodiversity and promoting food security.
- **Promote open-source seeds:** Supporting the development and dissemination of open-source seeds, which are not subject to patent restrictions, can provide farmers with greater choice and control over their planting materials.
- **Regulate the use of genetically modified crops:** The use of GM crops should be carefully regulated to ensure that they do not have negative impacts on biodiversity, the environment, or human health.

6. Balancing Intellectual Property and Freedom of Expression

Right to freedom of expression is a fundamental right available to all human beings although come with some restriction. Copyright law, which protects literary and artistic works, can sometimes conflict with the right to freedom of expression. Overly broad copyright protection can stifle creativity and limit the public's access to information and cultural works. The cases related to copyright infringement where the defence of fair use or freedom of expression has been raised. *Star India Pvt. Ltd. v. Department of Industrial Policy and Promotion* is a relevant case study under this area.

To strike a balance between copyright protection and freedom of expression, it is important to:

- **Ensure fair use exceptions:** Copyright laws should include robust fair use exceptions that allow for the use of copyrighted material for purposes such as criticism, commentary, news reporting, teaching, scholarship, and research.
- **Promote open access to knowledge:** Encouraging the open access movement, which seeks to make scholarly research and other educational materials freely available online, can promote knowledge dissemination and innovation.
- **Reform copyright law:** Copyright laws should be reformed to reflect the digital age, taking into account the ease with which copyrighted works can be copied and shared online.

7. The Role of International Cooperation

International cooperation is essential for harmonizing IPRs and human rights. The TRIPS Agreement, which sets minimum standards for IPR protection, has been criticized for its potential to undermine human rights, particularly in developing countries⁴⁶. Therefore, it is important for international organizations, such as the World Intellectual Property Organization and the World Trade Organization, to take a more human rights-centred approach to IPRs⁴⁷.

This includes:

- **Incorporating human rights principles into IPR treaties:** Future IPR treaties should explicitly incorporate human rights principles and ensure that IPRs are balanced against other societal interests.
- **Providing technical assistance to developing countries:** Developed countries should provide technical assistance to developing countries to help them implement IPR laws in a way that promotes both innovation and human rights.
- **Ensuring access to essential medicines:** International agreements should ensure that developing countries have access to essential medicines at affordable prices, even if they are patented. The TRIPS agreement has set global standards for intellectual property protection, leading to significant benefits for the pharmaceutical industry and developed countries⁴⁸. However, it has also raised concerns about access to medicines in developing countries, as patents can increase drug prices and limit access to essential treatments⁴⁹. The Doha Declaration on the TRIPS Agreement and Public Health affirmed that the TRIPS Agreement should be interpreted and implemented in a manner supportive of public health, promoting access to medicines for all. This declaration recognized the right of countries to

⁴⁶James Scheibner et al. Supra note30.

⁴⁷ Lakshmi Priya Vinjamuri & Rajesh Bahuguna, The Legal Nuances of Traditional Knowledge Protection under the IPR Regime: A Critical Analysis, Asian Journal of Advanced Research and Reports (2022).

⁴⁸ Gaurav Tiwari et al., Management of Intellectual Property Rights in India: An Updated Review, 2 Journal of Natural Science Biology and Medicine 2 (2011).

⁴⁹ Laurence R. Helfer, Toward a Human Rights Framework for Intellectual Property (2006).

use flexibilities within the TRIPS Agreement, such as compulsory licensing and parallel importation, to address public health needs.

- **Promoting dialogue and cooperation:** Fostering dialogue and cooperation between governments, civil society organizations, and the private sector can help identify and address potential conflicts between IPRs and human rights. Addressing the challenges posed by emerging technologies requires a comprehensive approach that considers the global harmonization of IPR laws, enforcement challenges, and the balance between innovation and access⁵⁰. The intersection of economic globalization and intellectual property rights has amplified complexities, particularly concerning Traditional Cultural Expressions, which are now increasingly recognized within the IPR framework⁵¹. This recognition highlights the need for international cooperation to protect these expressions from misappropriation and misuse, thus ensuring equitable benefit-sharing with indigenous communities.

Intellectual property rights are granted to creators as incentives to produce and disseminate ideas for the benefit of society, but the extent of protection and enforcement varies worldwide⁵².

8. Ethical Considerations in Biotechnology

Biotechnology, with its potential to revolutionize medicine, agriculture, and industry, raises complex ethical and social issues related to IPRs. Patent rights on genes, stem cells, and other biological materials can have a significant impact on access to healthcare, food security, and environmental sustainability. The patent system should be applied in a way that maximizes societal benefits, particularly concerning specialized drugs for diseases like HIV/AIDS and drug-resistant tuberculosis, ensuring accessibility for those in need⁵³. Patents on biotechnological inventions, especially those related to human genes and healthcare, raise concerns about access to essential

⁵⁰ Anusha Unnikrishnan, ANALYZING THE IMPACT OF EMERGING TECHNOLOGIES ON INTELLECTUAL PROPERTY RIGHTS (IPR): A COMPREHENSIVE STUDY ON THE CHALLENGES AND OPPORTUNITIES IN THE DIGITAL AGE, 10 Law and World 66 (2024).

⁵¹ Prasetyo Hadi Purwandoko, Adi Sulistiyono & M. Hawin, The Implementation of the Traditional Cultural Expression (TCE) Protection in Indonesia Based on Article 38 Law Number 28 of 2014 Regarding Copyright, 18 Indonesian Journal of International Law (2021).

⁵² Intellectual Property Protection and Enforcement, in Bloomsbury eBooks (2021).

⁵³ K.K Tripathi. Supra note 26.

medicines and the potential for monopolies that could hinder research and development. The Agreement on Trade-Related Aspects of Intellectual Property Rights has been pivotal in shaping the landscape of intellectual property rights concerning pharmaceuticals, influencing drug pricing, market competition, and the accessibility of medications across different nations⁵⁴. The TRIPS agreement allows countries to issue compulsory licenses, permitting the production of generic versions of patented medicines under specific circumstances, especially during health emergencies, providing a crucial safeguard for public health. Here it is evident that AI-generated works bring up new questions about authorship and ownership.

To ensure that biotechnology is used in a responsible and ethical manner, it is important to:

- **Establish ethical guidelines for biotechnology research:** Ethical guidelines should be established for biotechnology research to ensure that it is conducted in a way that respects human rights, animal welfare, and environmental sustainability.
- **Promote public participation in decision-making:** The public should be involved in decision-making processes related to biotechnology, to ensure that their concerns and values are taken into account.
- **Address the potential for unintended consequences:** The potential for unintended consequences of biotechnology, such as the development of antibiotic-resistant bacteria or the release of genetically modified organisms into the environment, should be carefully considered.

9. Protecting Traditional Knowledge and Cultural Heritage

Traditional knowledge and cultural heritage are valuable resources that are often at risk of misappropriation and exploitation⁵⁵. IPRs can play a role in protecting TK and CH, but only if they are adapted to the unique characteristics of these resources⁵⁶. Traditional knowledge, which

⁵⁴NitsanChorev& Kenneth C. Shadlen, Intellectual Property, Access to Medicines, and Health: New Research Horizons, 50 Studies in Comparative International Development 143 (2015).

⁵⁵ Dennis S. Karjala & Robert K. Paterson, Looking Beyond Intellectual Property in Resolving Protection of Intangible Cultural Heritage of Indigenous Peoples (2003).

⁵⁶ Meghana RaoRane, Aiming Straight: The Use of Indigenous Customary Law to Protect Traditional Cultural Expressions, 15 Pacific Rim law & policy journal (2006).

includes the skills, practices, and beliefs of indigenous and local communities, faces misappropriation due to its easy accessibility⁵⁷. Existing IPR laws may not adequately protect TK, as they are often based on Western concepts of ownership and authorship, which do not align with the collective and intergenerational nature of TK.

A system of registration, subject to objection procedures, may be the best alternative; rights should also not be limited to indigenous peoples or other groups, but rather should be available to all individuals and communities holding traditional knowledge. Also, such rights need to be consistent with the various agreements, treaties, and existing legal principles that exist locally, nationally, and internationally. The importance to developed and developing countries of genetic resources and traditional knowledge requires that issues concerning their allocations and protection be brought into the WTO for resolution in the context of a Millennium Round⁵⁸.

To effectively protect TK and CH, it is important to:

- **Develop sui generis legal frameworks:** Sui generis legal frameworks, which are specifically designed to protect TK and CH, may be more effective than traditional IPRs.
- **Recognize community rights:** Recognizing the rights of indigenous communities and local communities to control and manage their TK and CH is essential for preventing misappropriation.
- **Promote benefit-sharing:** Benefit-sharing arrangements should be established to ensure that indigenous communities and local communities receive a fair share of the benefits arising from the use of their TK and CH.

India initiated the Traditional Knowledge Digital Library (TKDL), to prevent exploitation and to protect Indian traditional knowledge, under the joint collaboration of the Council of Scientific and Industrial Research (CSIR) and Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy (AYUSH). TKDL serves as a defensive prior art tool, making

⁵⁷ Tabrez Ahmad & Jaya Godhwani, Traditional Knowledge: A New Challenge in Patents, SSRN Electronic Journal (2012).

⁵⁸ Thomas Cottier, The Protection of Genetic Resources and Traditional Knowledge: Towards More Specific Rights and Obligations in World Trade Law, 1 Journal of International Economic Law 555 (1998).



Indian traditional knowledge readily accessible to patent examiners worldwide. The issue of biopiracy and unethical bioprospecting trigger the government of India after successfully revoked or limited turmeric and basmati rice patents granted by United States Patent and Trademark Office (USPTO) and the neem patent granted by European Patent Office (EPO) in the late 1990s, proactively guarding the traditional knowledge. The time, effort and money spent on revocation of turmeric patent at USPTO highlighted the need for putting in place a proactive mechanism for TK protection, hence initiated to establish the TKDL.

10. Conclusion

The harmonization of IPRs and human rights is not merely a hypothetical idea but a practical necessity for building a just, equitable, and sustainable future for all of humanity. By adopting a human rights-centred approach to IPRs, we can ensure that innovation serves the common good and that the benefits of scientific progress are shared by all. This requires a commitment to international cooperation, ethical considerations in biotechnology with the protection of traditional knowledge and cultural heritage. Only then can we truly harness the power of innovation to promote human well-being and global welfare. The strengthening of intellectual property protection necessitates a robust collaboration between public and private entities, particularly in the field of biotechnology. Such collaboration ensures that innovations are effectively translated into tangible societal benefits, fostering economic growth and improving the quality of life.

The convergence of IPRs and human rights represents a paradigm shift in how we perceive and utilize intellectual property. Rather than viewing IPRs as mere tools for economic gain. We must recognize their profound implications for human dignity, social justice, and sustainable development. By embracing a human rights-centred approach to IPRs, we can unlock the full potential of innovation to address the pressing challenges facing humanity and create a more inclusive and equitable world for all.