



A Legal Analysis of Human Rights Implications of Intellectual Property Protection with special emphasis on Agriculture and Health



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Environment, industry, agriculture, intellectual property, health, trade, governance.

ABSTRACT

This paper provides a thorough legal evaluation of human rights implications arising from the interplay between intellectual property (IP) protection, agriculture, and health sectors. In an era where the global landscape is increasingly influenced by economic developments and trade agreements, intellectual property rights governance presents significant challenges and opportunities for human rights. The research delves into how stringent IP regimes can impact access to essential agricultural resources and health-related innovations, particularly in developing nations where food security and healthcare are paramount. The study critically examines the balance between protecting the interests of industry stakeholders and safeguarding the rights of individuals, particularly in relation to environmental sustainability and public health. It highlights the tension between IP laws and human rights obligations, questioning whether current frameworks adequately protect the right to food and health while fostering innovation.

Moreover, the paper explores the implications of IP protection on trade dynamics, assessing how it can either facilitate or hinder equitable access to agricultural products and medical technologies. By employing a human rights lens, this analysis aims to inform policymakers and stakeholders about the necessity of reforming IP governance to ensure that it aligns with the broader goals of social justice and environmental stewardship. The findings underscore the critical need for a more inclusive approach to intellectual property that prioritizes human rights and sustainable development.

1. Introduction:

This study aims to explore how intellectual property rights in agriculture and health intersect with human rights, particularly focusing on access to essential medicines and food security. The analysis will delve into the balance between protecting innovators rights and ensuring that marginalised populations can access vital resources, highlighting case studies from various international trade agreements and their implementation in India. This examination will also assess the impact of these laws on public health initiatives and agricultural

practices, considering how they influence the availability and affordability of essential goods for vulnerable communities. This research intends to provide insights into the complexities of policy-making in India, emphasizing the need for a framework that harmonizes intellectual property rights with human rights obligations to foster equitable access to medicines and food. By exploring these intersections, the study aims to propose actionable recommendations for policymakers that priorities both innovation and

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accessibility, ultimately contributing to a more just and sustainable society.

The intricate relationship between intellectual property rights (IPR) and human rights has become a focal point of discourse, particularly in the realms of agriculture and health. This study seeks to illuminate the implications of IPR protection on fundamental human rights, emphasizing the critical issues of access to essential medicines and food security.¹ As international trade agreements and national laws in India evolve, understanding their impact on marginalized populations is paramount. This research will undertake a comparative analysis of various international trade agreements and their implementation within the Indian legal framework, revealing how these instruments shape the accessibility and affordability of vital resources for vulnerable communities. By examining case studies that illustrate the intersection of trade policies and human rights outcomes, the study aims to evaluate the balance between safeguarding innovators' rights and fulfilling human rights obligations. Furthermore, it will assess the repercussions of intellectual property regulations on public health initiatives and agricultural practices, providing a comprehensive overview of how these dynamics influence societal equity. Ultimately, this research aspires to propose actionable recommendations for policymakers, advocating for a framework that harmonizes intellectual property rights with human rights commitments, thereby fostering a more just and sustainable society.

Research Methodology

The study is conducted using the doctrinal approach

of research. The study depended excessively on primary and secondary data from the online sources and databases. Further, the research that can be found in articles, theses, research projects, blogs, case laws, judicial reviews, decisions and other odd sources like books, legal research databases, and commentaries. The literature will review assessment of current studies on international trade paradigm, essence of human rights and intellectual property regime. An overview of specific cases concerning intellectual property protection in the health and agriculture sectors.

Research Questions

- (1). What effects do international trade agreements have on India's protection of intellectual property in the fields of agriculture and health?
- (2). How are human rights issues and intellectual property rights balanced in Indian national laws?
- (3). What opportunities and obstacles exist for expanding access to necessary medications and agricultural resources when India needs to comply with international obligations.
- (4). What effects have these agreements had on India's human rights results, such as livelihoods, food security and healthcare access?
- (5). What opportunities and difficulties do international trade agreements bring for advancing human rights in India agriculture and environment?

Review of Literature

The available literature and theoretical frameworks supporting the relationship will be examined in this

section between intellectual property rights and human rights, highlighting key debates and gaps in the literature that this study seeks to address. According to Amartya Sen, “even after independence, the people of the country are still suffering from endemic hunger. Although India is frequently seen as one of the great success stories in combating the food crisis, the belief in success must be examined in light of the terrible reality that we can see.” According to, Universal Declaration of Human Rights, everyone has the right to a standard of living suitable for his or her health and well-being, including food, clothing, housing and medical treatment. Apart from the UDHR and other international instruments, other world constitutions have been acknowledged. Article 25 of the 1948 Universal Declaration of Human Rights states that everyone has the right to a standard of living appropriate for the health and well-being of himself and his family, including food, clothing, housing, and medical treatment.² “The Indian Constitution is not only a socio-legal document, but also the foundation upon which all subsequent enactments are based, whether in the form of a Central or State Act. As a result, for any law to be valid in Indian territory, it must adhere to the constitutional framework.” While the Indian Constitution has recognized the civil and political rights as directly defensible fundamental rights, the economic, social, and cultural rights, and therefore the “Right to Food” is included in specific parts of the Constitution, but not as a separate right.³ “The Cartagena Protocol on Biosafety 2000 defined living modified organisms as any living organism

that possesses a novel combination of genetic material obtained through the use of modern biotechnology. Genetically modified foods are subjected to safety evaluations that concentrate on the gene mutation, potential toxicity and nutritional impacts.” Allergenicity, or the capacity to cause an allergic reaction is the primary health concern. There is a possibility that eating foods made from genetically modified crops, like corn or wheat, could result in an adverse reaction. In a single instance, insects that were cross-pollinated with unmodified crops and made their way into the human food chain were killed by applying a pest-repelling protein to corn that is only allowed for animal feed.⁴ Gene transfer or the movement of genes from genetically modified foods to bodily cells or gastrointestinal microorganisms. Even if there is little chance of gene transfer, a transmitted gene may have negative health repercussions.

Among the essentials for survival is food. For a person to be healthy, their diet must be pure, fresh, and nourishing. It is not surprising to say that local prosperity equals national wealth. It was necessary to implement a comprehensive law and a drastic remedy since food product adulteration was so widespread, uncontrollable, and persistent. A period of much-needed comfort and anticipation for mass consumers was announced when the government introduced the Prevention of Food Adulteration Act into Parliament as part of an unresolved offensive to combat this kind of societal cruelty. The study will try to demonstrate (after the findings) that there is any impact of international agreements on environment and agriculture in India

or not. “A mixed-methods strategy will be used in this study, integrating qualitative and quantitative techniques. The study will include an analysis of pertinent research on human rights and international economic agreements. An examination of the clauses of international trade agreements pertaining to India agriculture and environment.” Here, we talk on the health-related provisions found in the Indian Constitution and other laws. Lastly, the author believes that consuming wholesome food items is necessary to prevent the threat to human life. Harsh Mander’s article *Ending Indifference: A Law to Exile Hunger* (2012) focuses on the “right to food in India.” According to the author, the government has failed to ensure the proper availability of food for the masses. The report observed that, despite being mentioned in the Indian Constitution, “the right to food” is not enforceable.

- **Understanding “the Intersection of Human Rights and Intellectual Property” in Agriculture and Health**

One of the first trade issues to be acknowledged as having direct human rights implications is the impact of the WTO TRIPS Agreement on access to affordable medicines. “It is also one of the first WTO issues to have been challenged by developing country governments backed by an unprecedented coalition of public-interest NGOs from the North and South. Since the adoption of the WTO Doha Declaration on TRIPS and Public Health and subsequent mechanisms, the TRIPS Agreement has become a reference point despite its numerous failings. This has been exacerbated by the appearance of even stricter IP rules in other trade

agreements. Bilateral and regional trade agreements in particular have emerged as the main trade threats to access to affordable medicines and the enjoyment of basic human rights, making TRIPS appear to be the lesser evil in comparison to them.” The advent of “TRIPS-plus standards raise concerns about states’ ability to comply with their human rights duties and obligations. This is especially important and troublesome because TRIPS-plus provisions limit a state’s ability to provide medications to its most vulnerable people at a reasonable cost in order to meet its commitments under the right to life and the right to health. This is a matter of life and death in the event of pandemics. Furthermore, the proliferation of bilateral and regional trade agreements negotiated in secret, without sufficient consultation with civil society, raises serious concerns about access of citizens to information, consultation and participation in government matters.”

- **A Comparative Analysis of International Trade Agreements Affecting Human Rights in India**

The evolution of regional and international trade pacts has been driven by heated arguments, often in actual flames. The “trade-related laws and organizations like NAFTA (North American Free Trade Association) and APEC (Asia Pacific Economic Community) have grown in number. Additionally, the World Trade Organization (WTO) was established as a platform for these issues. Rules and laws pertaining to intellectual property are being applied globally as a result of the globalization of the economy and the enormous

growth in international trade. In trade concerns, the idea of IP protection has taken center stage thanks to the stipulations of the so-called TRIPS [Trade-Related Aspects of Intellectual Property Rights (General Agreement on Tariff and Trade (GATT/WTO)] agreement.” IP issues pertaining to trade that involve ‘agricultural products are increasingly common, and in some cases the arguments are between nations who hardly even produce the materials, i.e., the banana wars between the USA and Europe.’⁵ Further, the use of non-tariff trade barriers is receiving more attention. This might “manifest in a number of ways, such as concerns about the flow of genetic resources, biosafety, or plant quarantine. There are obvious connections between the ability to export GMO foods and the intellectual property that governs the ownership and expression of those genes, as evidenced by the current standoff over GMO foods between Europe and the USA, which has already led to a number of talks with governments in Asia and Africa.” IP is now a worldwide, trade-related activity thanks to a number of international accords. In recent years, there has been a significant blurring of the boundaries that once clearly defined patents as a national (territorial) affair.⁶

1. **GMOs are genetically modified organisms:** “GMO stands for genetically modified organism; it can refer to any plant, animal, or other organism whose DNA structure has been altered by the insertion of genes from another living entity.”
2. **Food Safety:** In their book “Food Safety a Practical and Case Study Approach, 2007” the

author discusses the concept of “food safety” using an experimental case study methodology. The author has also discussed topics like risk assessment, food processing, and waste management in the food business. The book also discusses real-world case studies pertaining to food safety and environmental health.

3. Drawing conclusions and findings to establish
4. Groundwater levels and water quality
5. In realist terms, sovereignty is a crucial idea for the state since it was through “this concept that states were internally pacified and externally given the right to pursue whatever is within their national interest; hence, it was through this concept that the state became the center of authority and the source of both individual and group security.”⁷

● **National Laws in Protecting Human Rights Amidst Intellectual Property Regulations**

The Prevention of Food Adulteration Act is not properly implemented in India in all the states. Though the Act saw amendment in 1964 even then there has been no improvement. In the case **Food Inspector vs Seetharam Rice and Oil Mills and Ors.**, the apex court held that section 20A of the Prevention of Food Adulteration Act, 1954, is a crucial provision in addressing the issue of adulteration and promoting public health and welfare. “The Act was introduced to prevent the manufacture, distribution, and sale of adulterated food articles, which are detrimental to public health and welfare. The primary test for interpretation is the language employed in the Act, and when words are clear and plain, the court is bound to accept the

same. The Prevention of Food Adulteration Act is a vital tool in addressing adulteration and promoting public health and welfare.” The Act allows ‘the court to proceed against a manufacturer, distributor, or dealer of an article of food if the court is satisfied on the evidence that they are also concerned with the offence. This power can be exercised only by a court trying an offence under the Act and does not empower the Food Inspector or the complainant to file a complaint or launch a prosecution against the vendor and the manufacturer, distributor, or dealer of any article of food.’

A Food Inspection Act of India aims to prevent food adulteration by prohibiting the sale of articles without a written warranty. However, Food Inspectors often file complaints only against vendors without mentioning the presence or absence of warranty, which affects the outcome of the trial. The Act is a special law dealing with prevention and punishment, and in proper cases, a charge for abetment can be filed. Section 20A of the Indian Penal Code allows for joint trials against manufacturers, distributors, or dealers involved in an offense, preventing collusion between the parties involved in separate trials and ensuring fairness in cases involving multiple parties.”

- **The Impact Intellectual Property Protection on Access to medicines and food security in India**

The “Food and Agriculture Organization (FAO) and the World Health Organization (WHO)” are the primary global authorities on food safety, however it is currently unclear to what extent they are successful. The book Gyanindra Dash, Sudhakar

Patra and K.K Sahu in book “Sustainable Agriculture and Food Security” (2014) topic of food security in India has been discussed in Food Security (2014). Food security is defined in the book along with the causes of food crises, the global food security situation, and the Indian food security situation. According to the authors, a nationwide family health survey carried out in India in 2005-06 revealed that many people are at risk for food insecurity and that many are underweight, particularly children under the age of three. “Food insecurity and the PDS system, the problem of food security in India, food security in the age of globalization, and food security and self-sufficiency are some of the other subjects that the book has focused more on.” Since it covers a wide range of themes related to food security in India, the current book is extremely important for researchers. It also contains the author’s insightful recommendations regarding India’s food security problem, which can help the researcher further their investigation. Whether agricultural research is somehow “special in relation to IP and research” is one of the first important questions. This idea of special status is fueled by the reality that human health depends on food, the length of time required for study, and the foundation of unrestricted worldwide access to genetic resources. However, some contend that since food and medicines are not significantly different, the invention is idea neutral and no particular benefits should be granted. “In the pharmaceutical industry, there are already several exceptions pertaining to the length of time it takes to bring drugs to market and the high expense of

research and development. A good argument exists that in the biotechnology field, as it relates to agriculture, the same arguments hold.”⁸

Some of “the essential questions in this field must be addressed by policymakers at the international, national, and institutional levels, as listed below. While the author has a personal opinion on these issues, it is inappropriate to express it at this time.” The argument and dialogue should lead to a consensus on some of these important concerns.

- (a). Does intellectual property protection actually increase agricultural research investment?
- (b). Can proprietary research assist fund research in underdeveloped countries?
- (c). Should governments or institutions view this as a revenue source or simply a cost recovery?
- (d). Is there a role for truly “public products both nationally and globally”?

Acharya delves into the complex relationships between food security, international trade agreements, and India's agricultural sector. “All people at all times having both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life”. The author reviews India’s agricultural policy, highlighting the shift from importing food grains to achieving self-sufficiency through domestic production. The policy instruments used to achieve this goal include minimum support prices, procurement, and distribution of food grains. Acharya analyzes the current status of food security in India, noting significant improvements in food grain production, per capita net output, and reduced

dependence on imports. The growth rate of food grain production has kept pace with population growth, and the instability in cereal availability has decreased. The author identifies emerging issues and challenges, including the impact of new international trade agreements on India’s food security. Acharya argues that these agreements may compromise India’s ability to ensure food security, particularly for vulnerable populations. Further, it is elaborately argued as:

Here’s an elaboration on the emerging issues and challenges relating to the impact of new international trade agreements on India's food security: new trade agreements may require India to open up its markets to foreign agricultural products, potentially threatening the livelihoods of Indian farmers. The increased competition could lead to a decline in domestic agricultural production, compromising food security. Tariff reductions under new trade agreements could lead to a surge in imports of agricultural products, potentially displacing domestic production and compromising food security. India’s agricultural sector is already facing challenges, and tariff reductions could exacerbate these issues.

Strict sanitary and phytosanitary regulations imposed by new trade agreements may make it more difficult for India to control imports and safeguard its own farmers. Additionally, these policies may raise prices for Indian farmers, making it harder for them to compete with outside goods. New trade agreements that increase intellectual property rights may make it more difficult for farmers to obtain reasonably priced seeds, fertilizer,

and other necessary inputs. Food security may be jeopardized by this, especially for smallholder farmers who depend on these inputs for food production. Foreign investors may be able to contest Indian domestic laws and policies if new trade agreements include investor-state dispute resolution procedures. This would make it more difficult for India to control its agricultural sector and safeguard its interests in food security. India's capacity to give its farmers subsidies may be limited by new trade agreements. This might make it more difficult for India to maintain food security and support its agriculture industry. Farmers in India are already dealing with difficulties, and cutting subsidies would make matters worse.

New trade agreements that harmonize food safety and standards may result in the adoption of norms that are inappropriate for India's situation. Food security and safety may be jeopardized as a result, especially for vulnerable groups. Smallholder farmers, who are essential to India's food security, may be disproportionately impacted by new trade deals. Smallholder farmers may be displaced as a result of new trade agreements, increased competition and promises of market access, which may threaten food security. Agricultural biodiversity may be lost as a result of new trade agreements that enhance trading in agricultural products. Food security and the long-term viability of India's agriculture industry may be affected as a result.

- **Case Studies: How Trade Agreements Shape Human Rights Outcomes in Agriculture and Health**

An examination of global institutions and accords such as the World Bank, WTO, UDHR, and “TRIPS as well as how India is regarded and approached globally. TRIPS lays down minimal requirements for intellectual property protection. TRIPS compliance is enforced by the WTO. Moreover, how domestic laws in the areas of intellectual property protection in agriculture and health are affected by international trade agreements. The summary of Indian human rights laws focuses on its constitution policies regulations including the and laws relating to intellectual property protection. The study will investigate import and export regulations under the Foreign Trade Development and Regulation Act of 1992. The consequence of climate change on agricultural productivity generally, future food security concerns, and the ways in which intellectual property can mitigate its negative consequences.” In most cases, access to essential medications and agricultural resources may be limited by intellectual property protection.

According to Fakhri, the current agricultural trade system is fundamentally inadequate because it puts the interests of wealthy nations and big businesses ahead of those of small farmers and developing nations. He investigates the intricate connection between human rights and agricultural commerce. According to Fakhri, the current agricultural trade system is fundamentally faulty because it puts the interests of wealthy nations and big businesses ahead of those of small farmers and developing nations. According to Fakhri, “the right to food” is a “basic human right” that is protected by

“international law.” He argues the existing agricultural trading system violates this principle by putting the interests of big businesses ahead of those of local communities and small-scale farmers. He looks at how small-scale farmers are affected by agricultural commerce and makes the case that the current system of trade encourages exploitation and inequality. He argues that “local communities are uprooted and traditional agricultural methods are being undermined as a result of small-scale farmers frequently having to compete with large-scale industrial farms. He then criticizes how global organizations like the World Trade Organization (WTO) influence trade policies related to agriculture. He contends that these organizations favor the interests of wealthy countries and huge businesses over those of developing countries and small-scale farmers.” They promote alternative agricultural trading models that prioritize the rights of small-scale farmers and local communities. He advocates for a more egalitarian and sustainable approach to agricultural trade, emphasizing food sovereignty, peasant rights and agricultural exceptionalism. He critiques the concept of agricultural exceptionalism, which holds agriculture as a special case that requires unique treatment under international trade law. He argues that this concept perpetuates inequality and exploitation and should be subject to the same rules and disciplines as other sectors. The book has significant implications for a law thesis on “the impact of international trade agreements on human rights in agriculture and health. Potential research questions and arguments could include the right to food and

international trade law, the impact of agricultural trade on small-scale farmers, the role of international institutions in shaping agricultural trade policies, and alternative approaches to agricultural trade. He gives critical analysis of the impact of agricultural trade on human rights” and offers a range of potential research questions and arguments that could be explored in this research.

It provides a complete review of the legal framework that governs international trade. The fundamental concepts and norms of international trade law, WTO agreements, international trade treaties, and dispute resolution systems. Qureshi believes that international trade law is vital to supporting free trade and economic prosperity. He believes that a well-functioning international trade law system is critical for ensuring that commerce is fair and transparent. Qureshi discusses the WTO’s role in promoting free trade and settling trade disputes. He contends that the WTO has played an important role in advancing trade liberalization and resolving trade disputes, but that the body confronts substantial obstacles in ensuring that its agreements are effectively implemented. He examines the impact of Regional Trade Agreements (RTAs) on international trade law. He claims that while RTAs have grown in importance in recent years, they can also add complexity and inconsistency to international trade law.

He believes that effective dispute resolution processes are critical to ensuring that international trade law is successfully enforced. He claims that while the WTO’s dispute settlement mechanism has been successful in resolving trade disputes, it has

substantial obstacles in ensuring that its decisions are successfully enforced. The MFN principle, as explained by him, mandates that WTO members treat each other goods and services equally to how they treat their own. He looks at the national treatment principle, which states that WTO members must handle goods and services from other countries in the same way as they treat their own. He also examines the Dispute Settlement Understanding (DSU) and other dispute resolution procedures provided by WTO agreements. Thus, the idea of RTAs trade agreements between two or more nations intended to advance economic integration and trade liberalization and the need for effective enforcement mechanisms to ensure effective enforcement of trade agreements. The research also explores the need for improved dispute settlement mechanisms and enforcement mechanisms.

The famous case of “Diamond v Chakrabarty,”⁹ US Supreme Court held that utility patents on living things might be granted, arguably making it possible for biotechnology investments to be made with a reasonable chance of return. The future rounds of the WTO’s Agriculture debate will undoubtedly keep this issue in the policy spotlight as this interface is still in disarray. It is imperative that a thorough conversation on these issues be broadcast. Failure to come to a compromise might have a significant effect on regional and international food production and distribution systems.¹⁰

- **Evaluating the Balance Between Intellectual Property Rights and Human Rights in India**

IPR regulations have significant effects on human rights in India’s health and agriculture sectors. A balance between intellectual property rights and human rights concerns requires careful consideration of both national and international laws, rules, and practices while protecting domestic agricultural interests and keeping international commitments. Climate change will bring global future food security concerns and therefore to continuing economic liberalization a legal framework will ensure the survival of economies like India. In the same way, safeguarding agricultural intellectual property rights can be extremely important. A legal framework is required to protect intellectual property rights, control global agricultural trade, and ensure compliance with environmental and human rights standards.

In the same way, safeguarding agricultural intellectual property rights can be critical. The study will also examine the potential effects of laws and regulations for agricultural innovation and technology transfer. “Intellectual property protection in various domains has been significantly influenced by the World Trade Organization (WTO) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). India has implemented TRIPS-compliant laws as a WTO member. As a WTO member, India has put TRIPS-compliant legislation into effect but concerns are raised, meanwhile, about the effects on human rights, especially the rights to health. Perisin contends that international trade agreements can have both positive and negative implications for

human rights, and that a more nuanced understanding of this relationship is required to advance human rights and sustainable development. The influence of international trade agreements on human rights, particularly the right to food, health, and a decent standard of living.” She contends that trade agreements can have both positive and bad consequences for human rights, depending on how they are framed and implemented. Human rights impact assessments (HRIAs) are vital for ensuring that trade agreements do not violate human rights. She claims that HRIAs can help uncover possible human rights risks and possibilities, as well as inform trade agreement formulation and implementation. Perisin investigates how international institutions, such as the World Trade Organization (WTO) and the United Nations (UN), promote human rights and sustainable development. She believes that these institutions play an important role in ensuring that trade agreements are conceived and implemented in ways that promote human rights and sustainable development.¹¹ A human rights-based approach to trade is critical for ensuring that trade agreements support human rights and sustainable development. She argues that this approach requires a fundamental transformation in how trade agreements are conceived and executed, with a stronger emphasis on human rights and sustainable development.

This research could explore “the impact of trade agreements on human rights in agriculture and health, the need for human rights impact assessments in trade agreements, the role of international institutions like the WTO and UN in

promoting human rights and sustainable development, and the need for a human rights-based approach to trade. The research questions and arguments could include understanding the role of international institutions in promoting human rights and sustainable development, and the potential of a human rights-based approach to trade in promoting human rights and sustainable development.” In the framework of world commerce, how may international institutions like the United Nations and the World commerce Organization be enhanced to advance sustainable development and human rights? What is the potential for promoting human rights and sustainable development through trade and how can this approach be effectively implemented in practice?

- **International Perspectives: Human Rights Implications in Global Intellectual Property Frameworks**

In many respects, intellectual property is comparable to a piece of real estate. However, because it is an idea or creation, intellectual property is intangible and cannot be touched, unlike actual estate. The legal frameworks of patents, copyrights, trade secrets, and trademarks provide protection for such intangible property. Keep in mind that certain contract procedures, including licensing or material contract agreements (MTAs), transfer ownership rights over materials. Anyone whose research could result in an invention, as well as research administrators who have to handle intellectual property issues for both acquisition and deployment, need to have a fundamental awareness of these methods.¹²

Patents

When it comes to patents, the kinds of materials that can be patented are subject to statutory requirements specified by the government. This may include living things in certain jurisdictions, while they may be exempt in others and the law may be silent in many others. Multi-jurisdictional submission of patent applications is made possible by the Paris Convention, which serves as the foundation for the Patent Cooperation Treaty (PCT).¹³

To secure a limited-term (20-year) right to stop others from developing, using, or selling the proposed innovation, the inventor must provide a complete and accurate public description of the invention and the best manner to "practice" it. The public policy basis of this method is that it provides information that other members of the public can use to further invent, improving technology for the benefit of society. That is to say, although the content is publicly available, it cannot be used for financial gain without permission. A "patent is a negative right since the owner of the patent can only prevent others from using, creating, copying, or selling their innovation. International agriculture depends on the notion that patents are territorial. Generally speaking, a patent awarded in one country cannot be enforced in another. Even if a product was made outside of a country's patent area, it may nevertheless violate a patent if it is reimported into a country with protection." Patent terms vary greatly between countries, despite the PCT providing a means of partial harmonization.¹⁴

Trade Secrets

A trade secret is any useful formula, pattern, technique, tool, mechanism, compound, etc. that belongs to its owner but is not protected by a patent and that other people are not aware of or cannot access. If the information is kept private, the owner might benefit financially. This kind of defense is ineffective since it's too late once the truth is revealed! The use of trade secrets gives rise to a number of problems,¹⁵ as if how should workers who are aware of the secrets be treated when they relocate? Is it appropriate for government organizations to keep information private?

Copyrights

"Copyright protects the expression of an idea, not the concept itself, as opposed to a patent, which protects an idea and its application. Such an expression needs to be in a form that can be retrieved, such handwriting, typewritten text, magnetic tape, or another type of storage medium. Literary or musical works, computer programs, sound recordings, motion films, photographs, and sculptures are all protected by copyright. In contrast to patents, copyrights are created automatically when an idea is fixed in a material form of expression.¹⁶ While a copyright notice is no longer needed by law, it is nonetheless beneficial to include one with the work. The notice should include the © sign or copyright, the year of first publication, and the copyright owner's name."

The sole authority "to regulate copying, adaptations, and distribution of copies, public performances and public displays belongs to the owner of the copyrighted work. A copyrighted work may be used in certain ways by others for criticism,

commentary, news reporting, teaching, scholarship, or research without violating the “fair use doctrine.” Over the past ten years, there has been a lot of activity in the field of copyright law.¹⁷

Trademarks

A trademark is “a term, name, symbol, or device that a person or organization uses to distinguish and set their goods apart from those of others. One common example of a trademark is a commercial logo. Using the well-known trademark symbol “TM” in connection with certain goods or services in question is one way to assert trademark rights. When it comes to creating a product or service’s image, trademarks are essential.” This leads to the IP concept of “branding”. Over the years, the agricultural industry has made great use of branding. Once more, branding or trademark protection presents problems for the worldwide agriculture industry.

● Policy Recommendations for Aligning Intellectual Property Laws with Human Rights Obligations in India

The argument that intellectual property rights (IPR) in agriculture and health significantly impact human rights, particularly access to essential medicines and food security, is overly simplistic and neglects the broader context of innovation and economic growth. While it is essential to ensure that marginalized populations have access to vital resources, the protection of intellectual property is equally crucial for incentivizing innovation and investment in these sectors. Without robust IPR, there would be little motivation for companies and individuals to develop new medicines or

agricultural technologies, which could ultimately lead to stagnation in advancements that benefit society as a whole. Moreover, the assertion that international trade agreements and national laws in India disproportionately harm vulnerable communities overlooks the potential benefits these agreements can bring. These agreements often include provisions that can enhance market access and foster competition, which may lead to lower prices and improved availability of essential goods. The focus should not solely be on the restrictive nature of IPR but also on how these regulations can be leveraged to create a more dynamic and competitive market that can ultimately benefit all segments of society. Additionally, the call for a framework that harmonizes IPR with human rights obligations may inadvertently undermine the very rights it seeks to protect. A rigid approach to balancing these interests could lead to overregulation, stifling innovation and making it more difficult for new players to enter the market. Instead of seeking to harmonize these two areas, policymakers should consider the potential for IPR to coexist with human rights in a manner that encourages growth, investment, and ultimately better access to medicines and food. Furthermore, the emphasis on case studies and comparative analyses may create a narrative that is too focused on specific instances of conflict between IPR and human rights, rather than recognizing the complexities and nuances of the real-world situations. In conclusion, while the intersection of human rights and intellectual property in agriculture and health deserves attention, the framing of this

discussion should be more balanced. The focus should be on finding ways to support innovation and economic growth while also ensuring access to essential resources, rather than prioritizing one over the other. This nuanced approach can lead to sustainable solutions that benefit both innovators and the communities they serve. The authors mention India as a special case were mentioning the concerns for India as under Biden administration, Generalized System Preferences (GSP) benefits were not easy for India as it depended on their administration and eligibility under benefitting developing state (BDS) for GSP. India's chances of getting the benefits are less if they adopt narrow and selective criteria such as limiting the benefits and preferences to least developed countries or excluding economies above the threshold size.

Challenges

The general public and legislators are consistently underinformed about the advantages and disadvantages of IPR regimes and trade issues. This is caused, in part, by the divisive nature of the subjects and the competing interests of the numerous parties voicing their opinions. Due to a lack of easily assimilated information, different interest groups are able to take center stage and spread their own story, regardless of the truth. We must have a fair conversation. In this article, we hope to contribute to that discussion and eventually produce a consensus statement that identifies areas in which a position is generally agreed upon. It should also show which parts are still problematic. Current national laws and regulatory frameworks are frequently inadequate to keep up with the quick

speed of trade-related developments during an era of unparalleled change. Many nations enact hurried laws to avoid penalties for noncompliance, which could have a negative impact on the protection of intellectual property in living things and food production. Negative public attitudes, moral or religious convictions, or ignorance of the relevant facts could all be contributing factors to this backlash. Small businesses' IP portfolios may suffer if they are forced out of the market by the desire to create global technologies. These problems might not be sufficiently addressed by the antitrust laws in place now, and international antitrust cases also merit more consideration. Global litigation of trade matters is slow and costly, favoring large entities over small ones. More efficient mechanisms for dispute resolution are needed to address these issues and ensure fairness in the global market.¹⁸

Conclusion & Recommendations

Finally, in regard to access to basic medications and food security, this study emphasizes the important junction of "intellectual property rights (IPR) and human rights" inside the settings of agriculture and health. By conducting a comparative analysis of international trade agreements and national laws in India, the study reveals the complexities and nuances of how IPR impacts marginalized populations. It emphasizes the need for a balanced approach that recognizes the importance of protecting innovators rights while also ensuring that vulnerable communities have access to vital resources. Through case studies and policy evaluations, the research highlights the potential for IPR to coexist with human rights obligations,

advocating for a framework that encourages innovation while prioritizing equitable access. The ultimate goal of the research is to educate policymakers by offering doable suggestions that promote a fair and sustainable society in which economic development and human rights can coexist together. Therefore, to level the playing field for smaller organizations and nations looking for international protection, it is time to simplify and consolidate the current intellectual property system. Opportunities exist to change IP laws so that inventors, even those who employ unconventional methods, are more fairly rewarded.

When high-quality science is carried out in the public sector and adequate and effective protection is established, it would be possible to use the tools of intellectual property rights (IPR) to improve the overall budgetary allotment for public research. More creativity and efficiency are already being displayed in this field. The public sector can raise its investment in further research by using IP technologies to create new revenue. The rapid expansion of new markets accessible to emerging nations is one of the many prospects for new growth presented by new technology and commercial partnerships.¹⁹ Market accessibility still needs to be improved. Additionally, in order to create new mechanisms that facilitate economic progress, especially for the poorer segments of society, creativity should be promoted. New markets offer the chance for increased output, increased diversification, and consequently more and better job prospects. In a favorable setting, increased

market accessibility undoubtedly generates internal competitive pressures that can be converted into greater production and efficiency. Access to industrial markets must be expanded for the developing world as the primary driver. More access to the broader market will follow, which will be advantageous to all stakeholders.²⁰

Endnote

¹Hilgartner, Miller, and Hagendijk book, *Science and Democracy: Making Knowledge and Power in the Biosciences and Beyond*, can be found at https://www.routledge.com/p/book/9780367867867?srsId=AfmBOooVZ0XvskXp-2XrWMjJpOIFups_UNOJVvmCskjEpC1mATLC6ohs

² Available on: www.un.org/universal-declaration-human-rights

³ Article 14 Constitution of India

⁴ www.clintonwhitehouse.archives.gov case study no.ii

⁵ Available at <https://www.apec.org/about-us/about-apec>

⁶ *Social and Economic Effects of Genetically Engineered Crops*: <https://www.ncbi.nlm.nih.gov/books/NBK424536>

⁷ Research article *State Sovereignty in International Relations*: www.jstor.org

⁸ Available at:

https://www.wto.org/english/res_e/booksp_e/who_wto_e.pdf

⁹ <https://unctad.org/ipcaselaw/sites/default/files/ipcaselaw/2020-12/Diamond.Chakrabarty.U.S.pdf>

¹⁰ Available at <https://oxsci.org/ip-landmark-cases-diamond-v-chakrabarty/>

¹¹ A study on human rights assessment available at www.worldbank.org

¹² *Intellectual Property Rights-Laws and Practices* https://www.icsi.edu/media/webmodules/FINAL_IPR&LP_BOOK_10022020.pdf

¹³ *The Patents Act, 1970* <https://ipindia.gov.in/2015.pdf>

¹⁴ *Patenting Strategies: Building an IP Fortress* https://ipmall.info/sites/default/files/hosted_resources/IP_handbook/ch10/ipHandbookPatenting%20Strategies.pdf

¹⁵ Available at <https://www.wipo.int/en/web/trade-secrets>

¹⁶ *Globalization And Its Impact on Intellectual Property Rights Protection* Available at <https://www.wipo.in>.

¹⁷ <https://blog.ipleaders.in/fair-use-under-copyright-law>

¹⁸ *IPR IN AGRICULTURE (An Issues & Dialog note)* John Dodds & Associates 1707 St. NW Washington DC 20036 www.doddsassociates.com available at

<https://www.wipo.int/portal/en/index.html>

¹⁹ Available at www.wipo.int/portal

²⁰ Available at: www.wipo.int/en/web/universities
