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Analysing the Role of Food Security in IPR

DEVIKA ANIL¹ AND ANJALI KRISHNA²

ABSTRACT

The globe has a serious problem with food insecurity. Every level, from people to nations, is concerned about it. At its most fundamental, ensuring food security means upholding everyone's right to eat. Food security is a problem that falls under the broader umbrella of the human right to food, but it also has more direct connections to commerce, economic growth, and agricultural policy. Given that there is sufficient food production worldwide, the issue of global food insecurity might be viewed as a result of market failure. However, intellectual property rights help and support this type of market failure. IPRs have grown in significance during the last two decades in a variety of industries. This includes, for example, agricultural biotechnology, where IPRs act as a fundamental inducement for the growth of the private sector. Given the tight relationship between agriculture and food security, the expansion of IPRs to this sector is particularly important. In other words, the fulfilment of fundamental food needs is intimately related to the adoption of IPRs in agriculture. In this study, the author focuses on the unique connection between intellectual property rights and food security (IPR) and, the topic of food security is examined only in terms of intellectual property.

Keywords: *Intellectual Property Right, Food Security, Agriculture, Patent, TRIPS Agreement.*

I. INTRODUCTION

Intellectual Property Rights (IPR) are the rights protected by law and other institutional means in order to distinguish their goods from comparable ones offered by rivals, they also add markings to their items. Inventions, literary and artistic productions, and designs are examples of the types of intellectual property rights (IPR).

There are several obstacles today that make maintaining food security difficult. One of the serious issues that face the agriculture sector is climate change. Droughts, famines, and floods are just a few of the effects of climate change that might hinder agricultural industry growth. The region's food security may also be badly impacted by this retardation. The food security of a country may be threatened by factors other than climate change, such as the expansion of the biofuel industry, which results in the destruction or exploitation of agricultural areas, as well as

¹ Author is a student at Presidency University, Bangalore, India.

² Author is a student at Presidency University, Bangalore, India.

poorly regulated nutrition programmes. It is essential to develop agricultural solutions in order to guarantee food security on a global scale. Such agricultural solutions may be connected to intellectual property systems, which might lead to a steady inflow of financial incentives. From the home to the global scale, food security may be understood at several levels. While the general availability of food on a worldwide scale is not currently of great concern, the South as a whole continues to be quite concerned about the availability of food in certain regions of the world and the access of particular individuals to food. These financial inducements are required for more research and development in the field of food security. Patent rules are relevant to inventions made in the agriculture sector as far as the presence of IP in that industry is concerned. Furthermore, the creation of plant variety protection rights results in an efficient system that helps safeguard both the rights of farmers and breeders and the preservation of plant variations.

II. INTELLECTUAL PROPERTY RIGHTS RELATED LEGAL FRAMEWORK

(A) Protection from patents for genetically modified plants or animals

A number of problems, including pests, climate change, and natural catastrophes, might have a significant influence on a region's ability to feed itself. The development of genetically modified plants and animals is a result of the necessity to secure food security, notwithstanding any natural factors that may pose a threat to it. The use of genetic engineering to manage the genetic alteration that is generated in an organism is referred to as genetically modified crops or organisms. Crop yields that are frequently resistant to pests, diseases, and natural calamities may result from this. The improvement in food security that results from using genetically modified organisms and crops is one of their largest benefits. Since genetically engineered plants or creatures are the result of human intelligence, they are patentable. An innovation may be created, used, or financially exploited for a certain amount of time with the use of a patent, which grants an individual or business exclusive rights. To encourage the creators of such breakthroughs in the agriculture sector, patent rules are now tolerant of protecting genetically modified species. A plant patent n may protect the innovation for around 20 years from the date of filing.³

The industry of genetic engineering and biotechnology is mostly driven by research. Such sectors demand significant financial assistance for research and development. A constant flow of financial incentives that can be used to fund more research and development will be ensured

³ Sanjana, Examining the Relationship between IPR and Food Security, I P and Legal Filings, (Dec 13, 2022, 11AM), <https://www.ipandlegalfilings.com/examining-the-relationship-between-ipr-and-food-security/>

by patenting the technologies underlying genetically modified organisms or crops. The development of crop and organism types resistant to the major factors affecting food security in the modern era will be supported by research and development in the fields of biotechnology and genetic engineering. So it follows that patenting genetically modified technologies in agriculture may have a significant effect on food security.

(B) The Protection of Plant Varieties and Farmers' Rights Act, 2001

A provision that authorises the safety of plant varieties and the rights of farmers and plant breeders is included in the Protection of Plant Variety and Farmers Rights Act, 2001⁴. The Act encourages more study and advancement in the field of agriculture and cultivation. Under the PPVFRA, an inventor is granted two general categories of intellectual property rights. The first set of rights may exist depending on the various plant species. The designation given to it by a breeder is the final feature covered under the PPVFR Act. According to the Act, vines can be preserved for more than 18 years and field crops for up to 15 years. In addition, the Act lays forth civil and criminal consequences for breeders who fail to make a certain variety reasonably available to the general public. The awarding of the "Farmer prize" or the "Farmer recognition" is one of the PPVFRA's most notable elements. Farmers who actively work to secure the survival of genetic resources and other uncommon variations through preservation techniques are given these honours. The active conservation of plant and animal species may have a positive effect on the objectives of food security. Rare crop types are essential to boosting the food supply in the foreseeable future, according to several research. Therefore, the conservation of the same, which is made possible by the PPVFR Act, may aid in achieving objectives for food security. In order to tackle problems with food security in the upcoming years, crop variety protection may be essential. Additionally, a steady stream of financial incentives from patents issued for ideas connected to agriculture would assure that biotechnology research and development would continue. The creation of practical solutions to the problems that nations are currently confronting with food security depends on this research and development.

(C) TRIPS Agreement

IPRs have been gradually incorporated into agriculture at two key stages. First off, a number of developed nations have gradually implemented plant breeders' rights, a type of intellectual property protection for plant varieties that is based on the patent concept. Second, as genetic engineering has advanced, the gradual adoption of life-form patents has served as a significant

⁴ The Protection of Plant Varieties and Farmers Rights Act, 2001 Acts of Parliament (India)

impetus for the expansion of agro-biotechnology as a whole. Currently, all WTO⁵ member states are required to adhere to a set of precise minimum levels of protection under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement).⁶ For instance, this covers the capacity to patent microorganisms as well as a type of intellectual property protection for plant types. Beyond these minimums, there is no global uniformity because certain nations, such as the United States, have gone above and beyond the TRIPS minimums, accepting, for example, the patentability of plant types. Universal minimum standards for the protection of intellectual property rights are established by the TRIPS Agreement. By establishing either patent protection or a *sui generis* system for plant genetic resources, TRIPS fundamentally establishes a dual system for defending intellectual property rights in agriculture. The use of recombinant biotechnology in agriculture and the simultaneous introduction of IPR into agriculture are two of the most important recent advancements in the area of food security. The TRIPS Agreement's Article 27⁷, which specifies patentable subject matter and requires WTO Members to safeguard plant varieties, is the clause that has the greatest bearing on food security. In accordance with Article 27.1⁸, inventions in all technological fields including agriculture product in must be protected. Farmers' prices may rise as a result of IPRs systems that force them to buy new seeds every year, such as the requirement that nations protect novel plant varieties under Article 27.3(b)⁹ of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The majority of developing nations had noticeably weaker patent rules in the fields of food and drugs prior to the introduction of TRIPS, "since they are so vital to any society's needs." The industrialised nations did not permit substantive patents to be issued on food, drugs, plants, or animals until the 1960s, possibly for the similar reasons.

III. FOOD SECURITY IN DEVELOPING COUNTRIES THROUGH INTELLECTUAL PROPERTY RIGHT

Even if some of the so-called developing countries have nearly eliminated hunger, food security continues to be a major concern for emerging nations. Undernourishment is still a serious issue in several regions of the world. Therefore, 24% of people in South Asia are undernourished,

⁵ World Trade Organization, https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm, (13 December, 2022)

⁶ Jagranjosh, <https://www.jagranjosh.com/general-knowledge/trade-related-aspects-of-intellectual-property-rights-trips-1448884301-1>, (13 December, 2022)

⁷ World Trade Organization, https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm, (14 December, 2022)

⁸ World Trade Organization, https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm, (14 December, 2022)

⁹ World Trade Organization, https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm, (14 December, 2022)

respectively. As is frequently acknowledged, the distribution, accessibility, and availability of food all affect food security. Other connections, like those between food security, property rights, agriculture, and environmental management, are also important. The latter are still crucial in a situation where agriculture employs the majority of people in the labour force and meets 70% of the world's poor and malnourished people's basic food demands directly or indirectly. The existing international legal system places a heavy adjustment burden on developing nations, which, prior to 1994, had largely not implemented IPRs in agriculture and generally managed their agriculture in ways that were contrary to, if not diametrically opposed to, the system that was being proposed at the international level. Because it directly affects issues of economic development, agricultural management, environmental management, and the provision of basic food needs, the implementation of IPRs in agriculture is a crucial issue. The creation of legal frameworks that consider each of these aspects separately should therefore receive a lot of attention. The international legislation, in particular the TRIPS Agreement, provides governments with important direction on how to reorient their IPRs policies in the area of agriculture. The international law system is still remarkably underdeveloped in some areas, though, such as those that are more crucial to developing nations, such the protection of traditional knowledge and farmers' rights. Therefore, even in the absence of developed international law on these matters, emerging nations must shoulder the dual responsibility of adapting to their current international commitments and enacting legal frameworks in areas that are important to them. The implementation of legal and policy frameworks related to food security and IPRs is hampered in developing nations by a number of legal and other issues. Following existing and proposed models is a simple way to ensure compliance with international responsibilities, but these models might not be tailored to the unique needs and circumstances of different nations. The interests and rights of farmers, the conservation and sustainable use of biological and genetic resources, the prevention of bio piracy, the protection of traditional knowledge, and the fair and equitable sharing of benefits resulting from the exploitation of resources should all be taken into account by developing countries when trying to design a regime that is tailored to their particular needs and conditions.

(A) The Indian situation on the TRIPS Agreement

Significant changes to the national legal system governing intellectual property rights have been brought about by India's acceptance of the TRIPS Agreement. In particular, the passage of a Plant Variety Act¹⁰, a number of substantial amendments to the Patents Act of 1970, and the

¹⁰ India Code, https://www.indiacode.nic.in/handle/123456789/1909?sam_handle=123456789/1362, (14 December, 2022)

inclusion of IPR-related provisions in the newly passed Biodiversity Act are examples of this. The many legislative modifications made in India would have a significant effect on the growth of IPR-based industries like agro-biotechnology and food security. The adopted system is notable from a legal perspective for aiming to somewhat balance India's internal goals with its foreign duties. Overall, though, it's debatable whether India has been able to strike a balance that both fulfils its objectives and prioritises issues related to food security. The apparent conflict in the Biodiversity Act ¹¹between the emphasis on India's claim to its biological resources and the admission that India cannot control how related knowledge is used because it cannot control patent applications in other parts of the world serves as an illustration of this. Furthermore, studies seem to suggest that neither the domestic public sector nor the private sector has been in a position to gain from the new IPRs framework with relation to the development of agro-biotechnology up until this point.

IV. CONCLUSION

Food insecurity in developing nations has long been a problem and is linked to a variety of broad and narrow policy issues. If malnutrition is ever to be eliminated, it will take enormous efforts on the part of all parties involved to overcome the problem of improving food security for every person and every nation in the globe. The establishment of IPRs in agriculture and the creation of genetically modified plant varieties represent two connected and important advances in the policy environment for addressing food security. Given that many legislative frameworks are still being accepted and put into place, the real effects of the introduction of IPRs in the agriculture sector in developing countries have yet to be determined. But there are already a few things that may be said in the context of food security. The creation of plant types that aid in overcoming some of the difficulties associated with current food insecurity is one of the potential advantages of agro-biotechnology.

Developing nations have opened their economies either voluntarily or as a result of external pressure. In certain cases, these countries have even completely removed their trade barriers. However, the WTO, in particular TRIPS, encourages agricultural growth that is not at all sustainable. The self-reliance of agriculture is undermined by biological material patents, which also make it impossible for rural and tribal populations to make a living. The access of the underprivileged to bio resources, the lifeblood of their subsistence economy, is being restricted as corporations seize control of these resources to feed the biotechnology sector.

India has made significant changes to its patent laws in addition to implementing regulations

¹¹India Code, <https://www.indiacode.nic.in/bitstream/123456789/2046/1/200318.pdf>, , (14 December, 2022)

for plant varieties. The majority of the specificities introduced by the 1970 Laws in light of the explicit recommendations on the operation of the earlier colonial patent act have been eliminated as a result of the changes to the Patents Act necessary to comply with TRIPS commitments. The Indian judicial system has little potential to serve as a model for other emerging nations. Despite the fact that many nations experience a number of the same structural limitations and socioeconomic situations, the protection of farmers' rights and traditional knowledge should be customised to the particular circumstances of each nation.

V. REFERENCES***Websites referred***

- <https://www.epw.in/engage/article/intellectual-property-rights-and-food-trips>
- <https://www.ipandlegalfilings.com/examining-the-relationship-between-ipr-and-food-security/>
- https://www.wipo.int/wipo_magazine/en/2011/03/article_0001.html

Articles referred

- Food Security and Intellectual Property Rights in Developing Countries by Dr Philippe Cullet
- Impact of Intellectual Property Rights over Food Security in Developing and Least Developed Countries by Md. Mahatab Uddin
- The Relationship Between Intellectual Property Rights (Trips) And Food Security by

Books referred

- Intellectual Property Rights And Food Security by Michael Blakeney
