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FOOD SECURITY AND IP, CHALLENGES AND CONCERN

Introduction

The concept of food security can be defined as providing reliable access to a sufficient amount of affordable, healthy food. Internationally, not only nations but also all people within states are concerned with the lack of food security in developing and least-developed states. Entry to food, water, and shelter constitutes a fundamental human right in many countries in the world. There is a connection between the country's food security situation and its agricultural policies, trade policies, and its economic growth. The coincidence between food security and intellectual property rights is at the center of these facets. The expansion of the IPR to the agricultural sector is attributed to the global push towards sustainable agriculture and the pursuit of the most productive, viable, and manageable agricultural sector. A country's food security is a direct reflection, first and foremost, of its agricultural potential, accompanied by its industrial capacity and economic growth. The implementation of ITP in agriculture means that poor food security and trade achievements can stay ahead of countries with the most innovative agricultural technologies and development strategies.

Understandably, the food sector can be harmful to developing and less developed states by improving IPRs. Ultimately, the implementation of IPRs in agriculture seeks to offer economic benefits to producers, seeking to help ensure that food security is appropriate worldwide. In the World Trade Organization Negotiations, the World Trade Organization implemented IPRs into the agricultural sector of emerging and the least-developed Member States to provide agriculture with an additional economic gain element. Poverty is a big problem internationally, and it is clear that international organizations are creating solutions to eliminate it. What follows is a discussion of inadequate food protection and how it is affected by intellectual property.

Food security & Intellectual property in developing countries

The global lack of food security remains a significant concern, focusing on emerging and least-developed countries. However, some developed nations have eradicated hunger, but this does not hold many other countries worldwide. According to estimates, an astronomical decline in poverty is visible worldwide; this does not suggest suggesting that no one is poor. There are already many individuals without any or enough food in the country. Of the population, these people are the most undernourished. Statistical evidence shows that 24 % of South Asia's population is malnourished and 33 % in sub-Saharan Africa.¹ The measurement of food security for a region includes identifying the nation's potential to access and distribute food and availability. The agriculture sector is the primary, if not the only, food source in many developing and least developed countries, where trading policies and economic growth are limited.²

Security of Food

With nearly one billion people suffering from chronic hunger and a predicted 70 % rise in food demand by 2050,³ increasing and continuing agricultural productivity and production would be a key component of achieving global food security, which is an intrinsic part of political stability in developing countries. If one considers the adequacy of food security at the home level, the issue of food security falls into play. Different areas of the planet, as well as different people, face different food security capabilities. Access to sanitation, shelter and food, a fundamental human right, is a significant issue in many parts of the world. As the population of developing and least developed countries is rising exponentially and land supply is declining, it has become complicated for nations to sustain sufficient food security. The scarcity of land suitable for cultivation is another food security issue for countries.

A controversial topic is the scope and meaning of food security internationally. At the 1996 World Food Summit (WFS), it was evaluated that ensuring adequate food protection varies from a person and household levels to global levels. The WTO's goals involve poverty eradication which includes clear and unequal trade strategies for emerging and least-developed countries. These goals are directed at increasing the food security of the Member States.

¹ GLOBAL FOOD SECURITY INDEX, <https://foodsecurityindex.eiu.com/> (last visited Jan. 2, 2021).

² Id.

³ Supra 2

Not only is food security a priority for an international corporation, but it is also a key concern at the level of government, and is included in many constitutions as a basic human right. The universal human right to food ensures access to food for people and puts a requirement on a government to provide sufficient food within its fair means. This right requires the enhancement of systems of production, methods of conservation and effective delivery. Under the basic human right to food, government responsibilities will expand to include land reform, guaranteeing access to credit, preserving and using natural resources, exploring and implementing emerging technology, promoting rural infrastructure, and putting into force, by legislation, specific farmers' rights.

Global food security & Agricultural Research

Agricultural science is a core factor of the development of agricultural production and, as such, an eloquent part of international efforts to enhance food security globally. Agricultural science has far-reaching implications on agricultural research, with special regard to the foreign public sector's involvement, resulting in the Green Movement responsible for the discoveries of genetically improved crops. Studies have shown that genetically improved yields have had a substantial positive effect on the elimination of hunger, agricultural productivity and conservation of the environment.⁴

The Consultative Group on International Agricultural Research (CGIAR) is the primary provider of public sector agricultural research to promote the growth and development of agriculture by rural, subsistence farmers in the developing world. On an issue-by-issue basis, CGIAR manages intellectual property issues and has implemented the CGIAR Principles on Intellectual Asset Management, a framework that details the protocol for managing intellectual properties generated or purchased by CGIAR centrist. Also, the International Treaty on Plant Genetic Resources for Food and Agriculture and the Protocol of Nagoya to the Convention on Biological Resources (CBR) The international standard of intellectual property in the farming field is regulated by plurality.⁵

Food security & Intellectual Property

Intellectual property takes the form of the Convention on Plant Variety Protection of the UPOV (International Union for the Protection of New Varieties of Plants).

⁴ Sachin Chaturvedi, Agricultural Biotechnology and New Trends in IPRs Regime—Challenges before Developing Countries, Vol. 37 No. 13, ECO & POL WEEKLY 1212, 2002.

⁵ Id.

Between IPRs and food security, there are several ties. In general, IPRs such as patents or the rights of plant breeders aim to provide incentives to grow seeds that generate higher yields or have unique characteristics that will enhance food security and management of agrobiodiversity, primarily for private sector actors.

In the agriculture field, IPRs are a recent phenomenon, and at first sight, they appear contradictory with the definition of what IPRs are. Previously, agrarian management required the free sharing of germplasm and expertise, allowing everybody in the agricultural sector to produce identical crops with the same potential for success, and IPRs were not ideal for the agricultural sector in this period. Agriculture was historically used as a means to an end, namely, the creation of fruit. However, farming is now seen as a commercial sector that achieves an annual sizeable gross profit index. Technological developments have also steamrolled agriculture into a dynamic sector that produces wealth.

There are two types of IPRs in agriculture, namely the rights of plant breeders and patents for scientific developments in genetic engineering. The rise of agro-biotechnology has seen a boom in this introduction to the agriculture sector. In terms of the developing countries mentioned above, the acquisition of IPRs is at the forefront. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) of the World Trade Organization lays out the following guidelines for regulating the protection of agricultural IPRs and ensures the patentability of micro-organisms and plant varieties. While the patentability of lifeforms is not very uniform, the presence of such a probability alone has seen a substantial increase in agrobiotechnology innovation.

In the agriculture sector, the implementation of IPRs is not just for the benefit of developing countries. The concepts behind the launch were also aimed at fostering adequate food security in developing and least developed countries by facilitating the private sector's interest in agrobiotechnology. In this situation, IPRs are at the core of ensuring that the private sector is active in producing plant varieties. The creation of plant varieties offers an incentive to produce plant varieties capable of surviving adverse and uninhabitable conditions. Plant varieties provide developmental improvements through agro-technology. By growing the plant's ability to consume more photosynthetic energy through grain rather than stem or leaf, forms that can battle pests and varieties adapted to grow faster by improved productivity through the use of inputs such as fertilizers, chemicals, and water, these plant varieties achieve higher yields. The

addition of IPRs now brings legal immunity to those private investors who may not have invested in the sector without such safeguards.

Conclusion

Intellectual property rights have and will continue to become particularly relevant in the agricultural sector. To ensure that citizens want to invest, these rights would be crucial in achieving protections for investors in the agrarian sphere. Farm funding would help to solve global problems related to food security and the growing role of public-private sector involvement. The use of plant varieties and genetically engineered food crops has taken off with technical developments internationally in the agriculture sector, and it is an essential feature of the regulatory system that products still hold their nutritional value.

Regarding intellectual property rights in the commercial food market, the law has been introduced to shield food and beverage brand names from individuals seeking to penetrate the food industry using their recipes, techniques, branding, and processing processes.