

World Intellectual Property Organization

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A Policy Initiative on the Effects of Intellectual Property Rights on Genetically Modified Crops in Less Developed Countries

Report of the Chair

I. Statement of the Problem

1. In developing nations access to genetically modified organisms (GMO) is often essential to an adequate supply of food for the nations citizens [9]. However, transnational agricultural biotechnology corporations requirement that leftover seed may not be utilized for next years crop and their tendency to slightly alter the composition of GMOs to prevent the disclosure of their patented technologies makes sustainable agriculture difficult [5].

2. The primary issue is balancing the various companies legitimate patent rights against the less developed countries (LDCs) need and desire for GMOs that are pesticide and insecticide resistance, high yield and have increased nutrition value.[2] Transnationals legally gain patent protection for attendant innovations but patent holders practice of repeatedly modifying the GMOs composition, as to keep the technology forever privatized, has a number of adverse affects and questionable legality. First, generic GMO seed never becomes available which creates dependency on transnational corporations and decreases agricultural independence in LDCs. The use of GMOs can also adversely affect LDC markets with aversion to GMOs (Europe and Japan). Large transnationals enforcement of their patents rights (and preventing hybridization) is often destructive of local agriculture[4].

II. History of the Problem

3. Agriculture has been in existence for thousands of years. Inherent in the very nature of agriculture is the manipulation of plant life through selective reproduction to increase yield, produce hardier stock and enhance the nutritional value of the crops [1]. This very human notion rapidly expanded in the 20th Century with the advent of genetic engineering and crops

that could be subject to patents [9]. So powerful was the technology in GMOs that most farmers ignored potential negative side-effects.

4. The new GMOs were pesticide and insecticide resistance (Round Up Ready), high yield and have increased nutrition value. The GM crops were the result of lengthy and expensive research and development that is deserving of protection [7]. Like copyright law, the patents protect the usage rights of an inventor's industrial property. This protection is time limited and includes the disclosure of the inventions specifications upon patent termination. Disclosure at patent expiration should lead to the use of affordable generic seed [3]. However transnational agricultural biotechnology corporations, in order to prevent the disclosure of their patented technologies, often slightly alter the composition of a crop. This allows the corporations to file a new patent application extending the crops legal protection and thwarting generic GM seed. GM provisions and pricing will be dictated by the inventor in perpetuity and are unlikely to be released into the public domain [6].

5. Farmers, particularly those in developing nations, are financially dependent on the efficiency of genetically modified crops and anticipate the development of less expensive, generic alternatives. When patent applications are granted in perpetuity, farmers resort to hybridisation to maintain a steady agricultural output without a financial obligation. In agriculture, hybridisation refers to the interbreeding of non-patented and genetically modified crops. The result: seed with patented technologies for which the patent holding corporations have not been compensated[4]. This conduct is perceived as patent infringement by companies like Monsanto and, the hybrid seed, if detected, is confiscated and destroyed. Such legal actions along with the negative affects of genetically modified crops – reduction in the effectiveness of antibiotics and mutilation of ecological balances are only part of the problem.

6. LDCs have a huge need to increase production to both feed their populations and create profitable exports. However, many large markets, such as Europe and Japan, avoid GM products due to concern about GM nutritional value and the impact on antibiotic resistance[5]. The use of GM seed also causes dependence on US based companies that produce most of the world's GM product. The contractual requirement that GM seed cannot be stored year to year and the prohibition of hybrids makes LDCs totally dependent on the transnationals who owe allegiance only to their stockholders[8].

7. Under the Patent Cooperation Treaty (PCT) enacted by WIPO, producers of industrial property may file an international patent application that, when approved, would protect their inventions in every contracting nation. Under the intent of PCT when the patent expires, each nation would be granted direct access to the technologies. However, if large corporations continue to modify GM seed to perpetuate patents access to cheap genetically modified seed will become impossible.

III. Potential Solutions

8. Knowledge of the PCT is essential to a plausible and fluid solution. A proper resolution to this topic would be enacted by WIPO through contracting states of the PCT and would affect the dealings of transnational corporations with farmers of developed and developing nations alike.

9. Solutions provided by the committee should address both sides of the issue. Large transnationals who have invested time and money on GM should get a reasonable return on investment and continued incentive to innovate. However, a solution should limit patents in

perpetuity and thereby give LDCs access to technology that will help feed the world's poorer populations.

10. The legal definition of a patent within the PCT provides potential corroboration for biotech companies' practices. This could shift the balance of power into the hands of the developed world and their affiliated biotech companies by establishing a global example of industrial property.

IV. Position and Research Tips

11. Delegates must understand this topic applies primarily to LDCs with a need both for GMOs and the potential for enhanced agricultural production. Delegates will also have to understand the legal rights granted to inventors by WIPO. Delegates should be able to answer these questions:

- Is your country an importer or exporter of agricultural products?
- Is your country an importer or exporter of GM product?
- Would your country benefit for IP laws that is less favourable to GM manufacturers?
- Does your country have a history of compliance with patent law and WIPO regulations?
- What can be done to permit hybridization of GM seed?
- What can be done to increase access to GM seed?
- Does your country stigmatize GM product?

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