



INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed Journal Multi Disciplinary
Peer Reviewed Edition :

www.ijlra.com

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CONCEPTUAL ISSUES ON PATENTING OF LIFE FORMS

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Abstract

Patenting life forms raises questions about the moral implications of treating living organisms as mere commodities that can be owned. Critics usually argue that life forms, being products of nature, should not be subject to exclusive rights and commercial exploitation. Granting patents on life forms implies ownership over living organisms. This raises concerns about the potential for monopolies and the concentration of control over essential resources such as seeds and genetic material. Critics argue that such ownership could lead to limited access, hindering research and the development of new innovations. Patents are typically granted for inventions that are novel, non-obvious, and useful. However, life forms are products of natural evolution. Some people contend that because naturally existing creatures are part of the previous art and existed before human interference, patenting them is improper. Typically, inventions created by humans are given patents. The issue of whether living things may be regarded as human creations arises since they have a certain level of intrinsic complexity and self-organization. Some contend that moral restrictions on patent law should forbid the patenting of living things. Patenting of live forms may have an impact on ecological harmony and biodiversity. Commercial interests could prioritise using patented organisms, possibly driving non-patented species out of existence or into extinction. This raises questions regarding the environment's long-term effects of life form patenting. Patenting life forms can conflict with the rights and traditional knowledge of indigenous communities. Many indigenous culture's view living organisms as sacred and part of their cultural heritage. Granting patents on life forms without proper recognition and consent from indigenous

communities can raise ethical and cultural concerns. This article mainly focuses on the conceptual issues in patenting of life forms whether it can be patented or not if life forms will be patented than what are the moral implication of patenting of life form.

Introduction: -

A patent is a part of Intellectual Property Rights it is exclusive right given to an individual on the basis of some unique idea or innovation to permit the individual to monopolize their invention to the exclusion of others in trade for its entire disclosure. Such an invention should consist of a product or a manner but have to be able to fulfil all the demands. Patents are granted to the unique products the validity of patents is usually 20 years after the 20 years the idea of patent comes in public domain when patent is granted to an individual, the individual is the sole owner of that invention or product for those 20 years till the time the patent is not sold by the individual. At times patents are sold to other owners in lieu of monetary benefits. The government made the statutory authority to protect the individuals who are creating the new things.

Patenting of life forms

The idea of patentability of life forms and the associated troubles took the root in 1900s wherein there was a surprising upward thrust in studies surrounding gene technology or biotechnology. As the sector of biotechnology grew swiftly, those worried in associated studies had been capable of utilise findings of their research to control the clearly present life forms to benefit the society on a huge scale, leading to the introduction of ideas along with bio-patenting or patenting of life forms. The life form is not patentable in nature because there is no inventive step. A captured life forms is also not patentable in nature in India because the concept of caging is not novel. A modified life form is patentable in nature but actual modification is concerned.

Historical Background of Patents

The Indian Patents Act and Design Act 1911 was adopted in 1911. It was the first time when patent legislation was made. The current patent act 1970 came into existence 1972. The current patent act is the combination of new and old things of patents. After 1972 it was again got amended in 2005 after 2005 it expanded the scope of products of patents it includes food, pharmaceuticals, chemicals, and microorganisms. There was one clause related to exclusive marketing rights (EMRs) which was later abolished lead to modification as a result the new provision of allowing

for the issue of mandatory licence has been added to the act. In India the patent can be applied for a new product or technique or innovation and is capable for industrial use but it should not fall in category of non-patentable innovations defined under **Sections 3 &4** of Indian Patents Act 1970. **The term "invention" is used to describe the process of creating something new is defined in the Patents Act, Section 2(1)(j) as "a new product or process requiring inventive step.**¹ which is capable for industrial use and should be unique, innovative on basis of its originality and utility thus it is particularly added in the definition of innovations. Validity of patents are 20 years in the case of pharmaceuticals after patent period is completed the medicines are turned to be said to be generic medicines and the patent technique and innovation comes to public domain after 20 years after that time products can be made after expiry of patent time span. There are two main international treaties of patents.

1)The Paris Convention on the Protection of Industrial Property, 1883-²

- i. The first international instrument to cover under its purview patents on industrial innovations;
- ii. There were 11 states who participated in this Convention.
- iii. Concepts of “National Treatment” and “Non-discrimination of Patents”;
- iv. “Right of Priority” in view of time period;
- v. “Independence of Patents” by countries.

2)Patent Co-operation Treaty 1970- .³

- i. It was ratified in Washington, United States;
- ii. Treaty for international cooperation in field of Patents;
- iii. Complementary treaty to the Paris Convention of 1883 and only open to members of Paris Convention of 1883;
- iv. An international system unifying the process- single receiving office, preliminary examination, international application

¹ **Section 2(1) (j);** Patents Act: “inventive step means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.

² [The Paris Convention on the protection of industrial Property 1883.](#)

³ [Patent Co-operation Treaty 1970-](#)

Issues of Patenting Life Forms

1. The Legal Issues –

As per the Patent Act of 1970, a particular product or process can be patented only when it involves some amount of innovation and complete disclosure. However, when one takes into consideration innovations occurring in the field of biotechnology, it becomes apparent that it may be seen as naturally occurring subject matter, thereby falling under the exclusion clauses mentioned in the Patent Act 1970 in **Section 3**. Any substance which is available in nature and is excluded from general public is considered as to be against the general public it is excluded from the ambit of patents.

There was a case **Funk Bros. v. Inoculant Co⁴**, where the issue was that the culturing of Rhizobia to immunise leguminous plants. It was held by honourable court that **inherent characteristics of bacteria were nothing but a “work of nature”, and is not patentable in nature.**

There was another case **Diamond vs Chakrabarty⁵** in that case supreme court of USA adopted the liberal approach and granted the patent to the genetically improved bacterial species in this case honourable Supreme court of United States of America focused on the inventive step that was taken to harness the peculiar capability of the bacteria the court stressed on term manufacture was wide enough to include everything man made.

2. The Moral and Ethical Issues-

On many occasions, the introduction of GMOs (Genetically Modified Organism) the scope of patentable inventions has led to ethical and moral questions such as the acts constitute playing the part of God and degradation of the “dignity of life” for furthering private interests.⁶

At this stage, **it is important to take into consideration the case of Relaxin⁷**, where the court held that the patenting of a single gene could not be compared to the act of patenting human life itself. The reasoning was that the cloning technology was not in an advanced stage where an entire human itself could be cloned out with single gene. It is important to know what is cloning. Cloning is the technique used by scientist to make the exact copies of living things this includes, genes cell tissues, the single cell bacteria usually make the exact copy. There are several inventions which

⁴ <https://supreme.justia.com/cases/federal/us/333/127/>

⁵ <https://supreme.justia.com/cases/federal/us/447/303/>

⁶ <https://zestip.com/conceptual-issues-of-patenting-of-life-forms/>

⁷ https://www.wipo.int/wipo_magazine/en/2006/02/article_0009.html

has so much importance in the society but their patentability is quite evident. In this case the isolation of relaxation for genetic coding was considered to not be a mere discovery.

In another case before the **European Courts**, the patentability of a genetically changed plant was opposed because of the morality issue. on this stage the board elaborated on what was meant by “morality” and “public order”⁸. However, the same varies across nations as the yardstick for what is moral and what is capable of disrupting public order mostly depends on the collective conscience of various sections of the society.

In most cases, patenting of life forms to many is considered immoral as the manipulation of genes and organism puts forth a view of life being a mere “article of trade”, used to make profits for private entities or persons.

3) Ownership Issues-

There is another important issue that is always been in discussion in several instances is the ownership rights over the modified life forms. If the example of T-Lymphocyte is considered, it is observed that a patent can be granted out of an invention from the spleen of a patient suffering from cancer, without his consent or knowledge⁹. The action led to litigation resulting in the question of whether it is important to tell the owner or not whether it is the sole responsibility of the researchers to gather the valid consent to possess ownership rights over genetically modified matter.

Due to some issues, stated above it is important to understand that the what is the overall aim of patenting life forms is what is the benefit of that could arise to humanity at very large. The commodity aspect of things is not to be seen in isolation and must has a clear objective of promoting the interest of the public. It is important to have fruitful research that can be encouraged if there is a benefit of the same¹⁰. The awarding of a patent provides incentives of work to the owner who work towards the development of a better society as a whole, with his work especially when the concern products or processes aimed at making life better or aimed to revolutionize healthcare and temporary monopolization is a small price to pay for the same.

⁸ <https://zestip.com/conceptual-issues-of-patenting-of-life-forms/>

⁹ <https://zestip.com/conceptual-issues-of-patenting-of-life-forms/>

¹⁰ <https://blog.ipleaders.in/patenting-life-forms-genetically-modified-organisms-gmo/>

Whether life form should be patented or not

It is observed that in India a life form is not patentable in nature because it doesn't have any innovation in it. A life form could be a unit or being that is alive in nature it can be anything from plant animals or a virus some years back India was against the patenting of live forms after some time amendments took place the same apparent based on India demand on review of article 27.3 presented in 1999 which suggested that patents on life forms should be prohibited. TRIPS governed the member countries to allow patents on all the technologies and microorganism. As per law according to section **3(j) of patents act 1970** a plant animal seeds and biological process apart from microorganisms are not patentable This section empowers the patentability of microorganism this was recognised after the amendment of 2002¹¹. Otherwise, the patenting was fully banned in India including the patentability of microorganism. In short microorganism or life form should not get patented if it get patented some important bacteria or microorganism which is used to make the medicines will get patented and it monopolise the market which lead to increase in prices.

Conclusion

After Analysis of the above topic, it is observed that patenting of life forms is possible or not. It is observed that patenting of life forms is possible in USA as compare to India seeds, plants except the micro-organism are not patentable. Though microorganism is living thing algae, protozoa, bacteria, archaea and microscopic animals. These are sort of microscopic organism which usually take all the nutrients from the food and make food uneatable. Native micro-organism which is in their original form are not patentable whereas algae, fungi, yeasts, bacteria are genetically modified the product which is made from these things can be patented. Here I conclude that only microorganisms are patented in India and not all life forms could be patented which includes plants, seeds. This reform came in force after 2002 and before 2002 patenting of life forms were banned in India.

¹¹ 3(j) of patents act 1970 a plant animal seeds and biological process apart from microorganisms are not patentable This section empowers the patentability of microorganism this was recognised after the amendment of 2002.

References: -

- 1) [Section 2\(1\) \(j\); Patents Act: “inventive step means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.](#)
- 2) [The Paris Convention on the protection of industrial Property 1883.](#)
- 3) [Patent Co-operation Treaty 1970-](#)
- 4) <https://supreme.justia.com/cases/federal/us/333/127/>
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- 11) [3\(j\) of patents act 1970 a plant animal seeds and biological process apart from microorganisms are not patentable This section empowers the patentability of microorganism this was recognised after the amendment of 2002](#)