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ABOUT US

WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal provided dedicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

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THE GREEN TECHNOLOGY PATENT: A PATHWAY FOR SUSTAINABLE DEVELOPMENT

AUTHORED BY - ¹R.CHAMELI

ABSTRACT

A pollution-free environment is vital in today's world. We are all currently battling with various health issues, and the environment is also affected. The primary cause of this is due to the pollution caused in the environment. Innovation and technical advancement are also critical components of environmental conservation. These considerations paved the way for environmentally friendly innovation, sometimes referred to as green innovation. A green patent is one given to such an innovation. Green technologies cover a wide spectrum of inventions aimed at lowering carbon emissions and mitigating the effects of climate change. Renewable energy systems, electric vehicles, green construction materials, and carbon capture and storage are examples of these technologies. Developing these technologies necessitates considerable investments in research and development, and patents play an important role in providing the essential incentives for innovation. Going green is not only desirable, but also required in light of rising environmental threats. In this paper the researcher discusses about the importance of green technology inventions and the role of patent played for the attainment of sustainable development.

Keywords: *Green Innovations, Green Patent, Environment Pollution, Climate Change, Sustainable Development*

INTRODUCTION:

Environmental contamination is the major cause of environmental degradation in the current worldwide situation. Population growth, CO₂ emissions, and other factors are major contributors to this sort of pollution. These are the key drivers of climate change and resource depletion. Going green is not an option; it is a requirement for human survival. Creating a road to a greener future is a priority for the twenty-first century. The consequences of climate change and the necessity to act to protect the environment are felt across the world. Therefore, it is essential to promote the

growth of sustainable technologies to prevent contamination in the environment. The increasing seriousness of the global ecological crisis has led to an increasing recognition of technological advances as a viable solution. With the rapid advancement of technology, there is an urgent need to construct a robust innovative ecosystem that will make easier to utilize efficient national IP regimes which encourages the advancement of technology, products, and services required in the evolution of a green future. Patent granted to sustainable innovations are known as green patent. A green patent represents a patent that was obtained for an innovation which is both ecologically friendly or does not cause harmful effects on the environment. Whenever it involves promoting green technologies that alleviate global warming and encourage social, ecological, and economic growth and development, the concept of green patent relates to the advancement of ecological innovations which promote sustainable human development.

GREEN INNOVATION:

The innovations which are pollution free or ecological friendly are generally described as Green innovations. Green innovation seeks to lessen the negative environmental impact of human activities while also promoting a more environmentally friendly and long-term approach to economic growth. Green innovations are primarily concerned with minimizing environmental damage and increasing long-term sustainability. This can include using renewable energy sources, lowering greenhouse gas emissions, conserving resources, and reducing waste. The purpose of green innovation is to create goods or processes that have a lower environmental impact. This could include minimizing pollution, using recycled materials, and developing environmentally friendly alternatives to existing items. While the primary purpose of green innovation is to assist the environment.

GREEN PATENT:

Green patent plays an important role in fostering sustainable development by rewarding and protecting environmentally sustainable technologies. These patents are intended to promote the development and use of environmentally friendly technology, processes, and products. Green patents grant inventors and businesses exclusive rights to their environmentally friendly inventions for a set span of time. This exclusivity is an effective incentive for researchers and developers to invest in the development of sustainable technologies. Green patents can aid in the dissemination of green technologies across borders and industries. This can help propagate environmentally friendly inventions to areas where they are most needed, such as poor countries

or industries with a significant environmental impact. Green patents can attract investment from both the private and public sectors, since investors are more ready to support projects with the possibility for market exclusivity and competitive advantage. Green patent holders usually have a competitive advantage since consumers and businesses respect environmentally friendly products and processes. Green patents encourage the development of technology that reduces pollution, conserves resources, and mitigates the effects of climate change. Patents in renewable energy, waste reduction, and sustainable agriculture, for example, can help the environment significantly. Green patents, which frequently demand the publication of precise technical details, can stimulate collaboration and knowledge exchange among innovators. This information exchange has the potential to speed the development and deployment of green technologies. Green patents help to meet worldwide sustainability goals like those specified in the United Nations Sustainable Development Goals (SDGs). They are consistent with goals for sustainable energy, clean water, responsible consumption, and climate action. As environmental rules become more stringent, green patents can assist businesses in meeting compliance while also promoting sustainability. Green patents may be required in some situations to operate in specified markets. Green patent holders can license their technology to others, allowing for greater adoption and deployment of sustainable solutions. This has the potential to have a larger industry-wide impact. Green patents encourage firms to invest in research and development activities aimed at generating more environmentally friendly products and processes. This has the potential to stimulate continuous development of sustainable technologies.

INTERNATIONAL CONVENTIONS:

The United Nations has a long history of supporting sustainable development, dating back to the 1972 United Nations Conference on the Human Environment in Stockholm, Sweden. The United Nations Conference on the Human Environment was the organization's first major environmental gathering. The conference adopted the Stockholm Declaration and Plan of Action, which outline principles for the protection and enhancement of the human environment, as well as ideas for global environmental action. The Conference also established the United Nations Environment Programme (UNEP), the first UN programme solely concerned with environmental issues. Twenty years later, at the historic Rio de Janeiro Earth Summit in 1992, the United Nations attempted to help states rethink their economic growth and discover ways to stop affecting the earth and destroying its natural resources.

a) Rio Declaration

The main goal of the Rio 'Earth Summit' was to create a wide agenda and a new blueprint for international action on environmental and development challenges that would help guide international cooperation and development policy in the twenty-first century². The two-week "Earth Summit" was the culmination of a process that began in December 1989, of preparation, teaching, and negotiations among all United Nations Member States, culminating in the adoption of Agenda 21, an official worldwide consensus on development and environmental cooperation. The Earth Summit also produced the Rio Declaration, which featured 27 principles on innovative and equitable partnerships and development through cooperation among nations, social sectors, and individuals. They reflected human responsibility for long-term development, states' rights to use their own resources for environmental and development programs, and the need of inter-state cooperation in poverty eradication and environmental protection. The assumption was that states should collaborate to maintain, defend, and restore the ecological integrity of the Earth.

The principles dealing with sustainable development and green technologies are as follows:

Principle 1 – *“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”*³.

Principle 7 – *“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command”*⁴.

² <https://www.un.org/en/conferences/environment/rio1992> (accessed on 29.10.23 , at 6.00 pm)

³ The Rio declaration on Environment and Development(1992)
https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf (accessed on 27.10.23 , at 5.00 pm)

⁴ The Rio declaration on Environment and Development(1992)
https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf (accessed on 27.10.23 , at 5.00 pm)

Principle 8- *“States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies”*⁵.

Agenda 21 under Chapter 34 states about green technology as follows *“environmentally sound technologies that protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they were substitutes”*⁶.

b) UNITED NATIONS FRAMEWORK ON CLIMATIC CHANGE:

The UNFCCC went into effect on March 21, 1994. It now has nearly universal membership. Parties to the Convention are the 198 countries that have ratified the Convention. The ultimate goal of the UNFCCC is to prevent "dangerous" human meddling with the climate system.

The following articles state the importance of green technologies for sustainable development:

Article 4(c) *“All parties shall promote and cooperate in the development, application and diffusion, including transfer of technologies, practices and processes that control, reduces or prevent anthropogenic emissions of greenhouse gases”*⁷.

Article 4, paragraph 5 *“Parties shall take steps to promote, facilitate and finance, as appropriate the transfer of, or access to, environmentally sound technology and know-how to other parties, particularly developing country parties, to enable them to implement the provisions of the convention ”*⁸.

⁵ ibid

⁶ <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N92/836/55/PDF/N9283655.pdf?OpenElement> Report of the United Nations Conference on Environment and Development (accessed on 26.10.23 , at 3.00 pm)

⁷ United Nations Framework Convention on Climate Change
https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
(accessed on 26.10.23 , at 3.00 pm)

⁸ ibid

c) Kyoto Protocol:

The Kyoto Protocol was signed on December 11, 1997. It went into effect on February 16, 2005, after a lengthy ratification procedure. The Kyoto Protocol now has 192 signatories⁹. The Kyoto Protocol brings the United Nations Framework Convention on Climate Change into effect by committing developed and developing countries to limit and reduce greenhouse gas (GHG) emissions in line with individually agreed-upon targets¹⁰.

Article 10(c) states that all parties shall “*Cooperate in the promotion of effective modalities for the development, application and diffusion of and take all practical steps to promote, facilitate and finance, as appropriate, the transfer of or access to environmentally sound technologies in particular to developing countries*”¹¹

According to Protocol Article 12, the Clean Development Mechanism (CDM) allows a nation with a Kyoto Protocol emission-reduction or emission-limitation commitment (Annex B Party) to implement an emission-reduction project in developing nations. Such programs can provide marketable certified emission reduction (CER) credits, each worth one tonne of CO₂, which can be utilized to meet Kyoto targets¹².

d) Paris Agreement:

The Paris Agreement is a legally enforceable international climate change agreement. It was adopted on December 12, 2015, by 196 Parties at the United Nations Climate Change Conference (COP 21) in Paris, France. It came into effect on November 4, 2016.

Its ultimate goal is to keep "the increase in global average temperature well below 2°C above pre-industrial levels" and to pursue initiatives “to limit the temperature increase to 1.5°C above pre-industrial levels”¹³. The Agreement includes promises from all countries to decrease emissions and collaborate to adapt to the effects of climate change, and it encourages governments to strengthen their commitments over time. The Agreement

⁹ https://unfccc.int/kyoto_protocol Kyoto Protocol to the United Nations Framework Convention on Climate Change. (accessed on 26.10.23 , at 3.00 pm)

¹⁰ https://unfccc.int/kyoto_protocol Kyoto Protocol to the United Nations Framework Convention on Climate Change. (accessed on 26.10.23 , at 3.00 pm)

¹¹ https://unfccc.int/kyoto_protocol Kyoto Protocol to the United Nations Framework Convention on Climate Change. (accessed on 26.10.23 , at 3.00 pm)

¹² <https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism> (accessed on 29.10.23 , at 3.00 pm)

¹³ <https://unfccc.int/process-and-meetings/the-paris-agreement> (accessed on 26.10.23 , at 3.00 pm)

creates a framework for transparent monitoring and reporting of countries climate targets, as well as a mechanism for rich nations to assist developing nations in their climate mitigation and adaptation efforts¹⁴. The Paris Agreement establishes a long-term framework that will guide the global effort for decades to come. It is the first step toward a world with zero emissions. The Agreement's implementation is also critical to achieving the Sustainable Development Goals¹⁵.

Article 10, paragraph 1 of the agreement states as follows “parties share a long term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emission”¹⁶.

e) THE AGREEMENT ON TRADE- RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS(TRIPS):

Article 7 of TRIPS states that the “*protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of procedures and users of the technological knowledge and in a manner conducive to social and economic welfare and to a balance of rights and obligations*”.

INITIATIVES TAKEN BY THE COUNTRIES TO PROTECT GREEN IP:

➤ **WIPO CONTRIBUTION:**

i. WIPO GREEN:

The World Intellectual Property Organization (WIPO) founded WIPO GREEN, a public-private partnership, in 2013. It is a online platform form for technology exchange. It is a technology exchange network that connects providers and seekers of environmentally friendly technologies to promote worldwide efforts to combat climate change. WIPO GREEN brings together essential players to promote green technology creation and diffusion through its database, network, and events¹⁷.

¹⁴ <https://www.un.org/en/climatechange/paris-agreement> (accessed on 26.10.23 , at 3.00 pm)

¹⁵ *ibid*

¹⁶ https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf Paris Agreement on Climate Change (accessed on 26.10.23 , at 3.00 pm)

¹⁷ <https://www3.wipo.int/wipogreen/en/> (accessed on 26.10.23 , at 3.00 pm)

WIPO GREEN is one of WIPO's contributions to the UN 2030 Agenda for Sustainable Development's Sustainable Development Goals. One of WIPO's nine strategic goals, as outlined in its Medium Term Strategic Plan and biannual Program and Budget, is "Addressing Intellectual Property in Relation to Global Policy Issues." To that purpose, WIPO draws on expertise in global intellectual property (IP) policy discussions, focused on three global challenges: climate change, global public health, and food security.

ii. IPC GREEN INVENTORY:

The WIPO launched the IPC Green Inventory on September 16, 2010¹⁸. The "IPC Green Inventory," created by the IPC (International Patent Classification) Committee of Experts, makes it easier to find patent information relevant to Environmentally Sound Technologies (ESTs) as defined by the United Nations Framework Convention on Climate Change (UNFCCC). ESTs are currently dispersed throughout the IPC in a variety of technical fields. The Inventory tries to gather them all in one place¹⁹. It contains information about patent regarding Alternative energy production, Transportation, Energy Conservation, Waste Management, Agriculture or Forestry, Administrative, Regulatory or Design Aspects and Nuclear Power Generation.

iii. GREEN TECHNOLOGY PILOT PROGRAMME:

The United States Patent and Trademark Office (USPTO) is implementing a pilot program in which an applicant may have an application advanced out of turn (given special status) for examination for applications pertaining to green technologies, including greenhouse gas reduction (applications pertaining to environmental quality, energy conservation, development of renewable energy resources, or reduction of greenhouse gas emissions)²⁰.

¹⁸ <https://intellogist.wordpress.com/2010/09/16/ipc-green-inventory/#:~:text=On%20September%2016%2C%202010%20WIPO,are%20directly%20relevant%20to%20ESTs.> (accessed on 26.10.23 , at 3.00 pm)

¹⁹ <https://www.wipo.int/classifications/ipc/green-inventory/home> (accessed on 25.10.23 , at 3.00 pm)

²⁰ [https://www.federalregister.gov/documents/2009/12/08/E9-29207/pilot-program-for-green-technologies-including-greenhouse-gas-reduction#:~:text=Under%20the%20Green%20Technology%20Pilot,of%20the%20accelerated%20examination%20program%20\(](https://www.federalregister.gov/documents/2009/12/08/E9-29207/pilot-program-for-green-technologies-including-greenhouse-gas-reduction#:~:text=Under%20the%20Green%20Technology%20Pilot,of%20the%20accelerated%20examination%20program%20() (accessed on 25.10.23 , at 3.00 pm)

iv. NATIONAL CLEAN ENERGY AND ENVIRONMENTAL FUND:

A funding measure known as the National Clean Energy Fund (NCEF) has been passed to promote clean energy and to take clean energy projects. This was expanded to promote environmental sustainability and called the National Clean Energy and Environment Fund (NCEEF). The National Clean Energy Fund was first established to address the effects of climate change in India. The Ministry of Finance said unequivocally that the Fund was established primarily to fund research and to take on new projects related to sustainable energy technologies. The fund comprises projects such as clean fossil energy, environmental management, and geographical region projects, as well as programs that fall under the National Action Plan on Climate Change and the National Mission on Climate Change Knowledge²¹.

v. GREEN STRATEGIC PARTNERSHIP

Both India and Denmark have lofty climate-change targets. India is the world's third highest CO₂ producer, and by 2030, the country's carbon emissions are predicted to have more than doubled. The Danish government aspires to reduce CO₂ emissions by 70% by 2030 and to take worldwide leadership on SDG 7 on cheap and sustainable energy. By collaborating, India and Denmark will show the world that achieving ambitious climate and sustainable energy targets is doable²².

vi. NET ZERO TARGET:

Net zero refers to reducing greenhouse gas emissions to as near to zero as possible, with any leftover emissions reabsorbed from the environment²³. India unexpectedly declared a net-zero aim by 2070, as well as some interim targets, such as renewable energy and emission reduction targets by 2030, at COP26.

EXAMPLES OF GREEN INNOVATION:

SOLAR DESALINATION

One of the most promising and extensively used green technologies is solar energy. It entails

²¹ <https://www.indiafilings.com/learn/national-clean-energy-and-environment-fund-nceef/> (accessed on 24.10.23 , at 3.00 pm)

²² <https://indien.um.dk/en/denmark-in-india/green-strategic-partnership> (accessed on 26.10.23 , at 3.00 pm)

²³ <https://www.un.org/en/climatechange/net-zero-coalition> (accessed on 26.10.23 , at 3.00 pm)

converting sunshine into power using solar panels, reducing reliance on fossil fuels and dramatically lowering carbon dioxide emissions. Solar energy systems are adaptable and renewable energy sources since they may be employed in both residential and business settings.

GREEN ARCHITECTURE

Green architecture, often known as sustainable or eco-friendly architecture, is a design style that focuses on creating structures that have a low environmental impact. It strives to use resources wisely, reduce waste, and provide occupants with energy-efficient, healthy, and comfortable environments. Green architecture may drastically reduce energy consumption and carbon emissions associated with buildings by incorporating features such as proper insulation, energy-efficient lighting, and renewable energy sources.

VERTICAL FARMING AND HYDROPONICS

Vertical farming and hydroponics are two green technologies that are transforming agriculture. They allow for the consistent production of high-quality food in small spaces and harsh conditions.

WIND POWER

Wind power is a renewable energy source that generates electricity from the wind, and it is swiftly becoming an important element of our clean energy future. Wind power is becoming more efficient and widespread as technology advances. As a renewable energy source, it has enormous promise. We can harness the power of the wind to generate clean electricity on a wider scale as wind turbine technology advances. Wind farms built in places with strong wind speeds can make a significant contribution to the global transition to a greener energy mix.

ELECTRIC VEHICLES

Transportation is a major source of pollution, mostly because fossil-fuel-powered vehicles emit CO₂ into the atmosphere. However, the transition to green cars provides hope for a cleaner future. Another spectacular green technological advancement is electric cars, or EVs. EVs create zero tailpipe emissions since they use electricity as their primary power source rather than gasoline or diesel, lowering overall carbon emissions from transportation. EVs are becoming more accessible and feasible for everyday use as battery technology advances.

PLANT – BASED PACKING:

Plant-based packaging is a more sustainable alternative to plastic, which contributes significantly to plastic waste and microplastics in our seas. While there have been worries about using land to grow raw materials for plant-based plastics, recent advances are focusing on producing waste rather than specific plants.

CONCLUSION:

Green technologies help to safeguard the environment by lowering greenhouse gas emissions, boosting renewable energy sources, and minimizing the use of fossil fuels. We can significantly reduce our carbon footprint and dependency on non-renewable energy sources by utilizing renewable energy sources such as solar and wind power. Green technology may assist us in reducing our environmental impact and addressing environmental concerns by utilizing science and technology to create new solutions that promote sustainable behaviours and reduce resource use. A strong IPR protection entails the development, dissemination, and use of green technology. With the rapid depletion of non-renewable resources, it is not only desirable but also necessary to adopt a sustainable lifestyle reinforced by green technologies. Green IP is a valuable resource for green technology. In the modern era, intellectual property rights can aid in the transition to a low-carbon economy by fostering a green future. This goal is achievable with the assistance of various law enforcement departments, stakeholders, and partners in various countries for the development of green technology. Adopting diverse IP systems at different stages of their innovation process, such as research and development, commercialization, market entry, and diffusion of green technology across nations, might help a successful green inventor.

REFERENCES

1. <https://www.un.org/en/conferences/environment/rio1992>
2. The Rio declaration on Environment and Development(1992)
https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf
3. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N92/836/55/PDF/N9283655.pdf?OpenElement> Report of the United Nations Conference on Environment and Development.

4. United Nations Framework Convention on Climate Change
https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
5. https://unfccc.int/kyoto_protocol Kyoto Protocol to the United Nations Framework Convention on Climate Change.
6. <https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism>
7. <https://unfccc.int/process-and-meetings/the-paris-agreement>
8. https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf Paris Agreement on Climate Change
9. <https://www3.wipo.int/wipogreen/en/>
10. <https://intellogist.wordpress.com/2010/09/16/ipc-green-inventory/#:~:text=On%20September%2016%2C%202010%20WIPO,are%20directly%20relevant%20to%20EST.>
11. <https://www.wipo.int/classifications/ipc/green-inventory/home>
12. [https://www.federalregister.gov/documents/2009/12/08/E9-29207/pilot-program-for-green-technologies-including-greenhouse-gas-reduction#:~:text=Under%20the%20Green%20Technology%20Pilot,of%20the%20accelerated%20examination%20program%20\(](https://www.federalregister.gov/documents/2009/12/08/E9-29207/pilot-program-for-green-technologies-including-greenhouse-gas-reduction#:~:text=Under%20the%20Green%20Technology%20Pilot,of%20the%20accelerated%20examination%20program%20()
13. <https://www.indiafilings.com/learn/national-clean-energy-and-environment-fund-nceef/>
14. <https://indien.um.dk/en/denmark-in-india/green-strategic-partnership>

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