

## Intellectual Property's Role in Sustainable Development

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### Abstract

Intellectual Property (IP) represents a critical aspect of modern economies, serving as a catalyst for innovation, economic growth, and cultural development. However, the relationship between IP and development is complex and multifaceted.

This paper examines the dynamics of intellectual property in the context of economic and societal development. It explores the advantages and challenges of IP protection, focusing on how developing countries can harness IP to foster innovation and progress while balancing concerns related to access, equity, and social well-being.

Intellectual Property (IP) comprises a range of legal rights that grant protection to creative and innovative works. These rights encompass patents, copyrights, trademarks, and trade secrets, among others. The primary purpose of IP is to encourage innovation and creativity by providing creators with exclusive rights to their inventions, artistic works, and other forms of intellectual creation. However, the relationship between IP and development is a subject of ongoing debate. This paper delves into the various dimensions of this complex relationship.

The article is structured into 2 chapters, encompassing an introduction and a conclusion.

**The first** chapter discusses how IP laws can be framed to encourage development. Development is a broad concept to define, but important to understand because it is among the key objectives of the global and many domestic intellectual property systems. Development used to be the same as modernization and economic growth. Indeed many experts in the past considered these two features to be both a primary aim and an indicator of international development. A well-balanced system of granting and exploiting intellectual property rights is a factor in economic growth as it encourages investment and trade, but if designed and used appropriately, it can also help cultural creativity to thrive, educate a population or workforce, drive technological innovation to improve health and nutrition and yield other social benefits as well. Intellectual property by itself neither

helps nor hinders development necessarily. It is how laws, policies, and practices are designed and used in different countries that determine whether IP is effective for development purposes.

**The second chapter** thoroughly presents the WIPO's contribution to global development. The World Intellectual Property Organization (WIPO) plays a pivotal role in development by promoting the responsible and equitable use of intellectual property. WIPO offers a platform for international cooperation, facilitating the sharing of knowledge and technology across borders. It provides capacity-building programs to empower developing nations to navigate IP systems effectively. Additionally, WIPO supports policies and initiatives that strike a balance between IP protection and development, particularly in areas like access to medicines and technology transfer. WIPO's contributions foster innovation, encourage economic growth and ensure that the benefits of intellectual property are accessible to all, thus driving sustainable development on a global scale. The WIPO Development Agenda (DA) is a framework established by the World Intellectual Property Organization (WIPO) to integrate development considerations into its work and promote a more balanced approach to intellectual property (IP) in the context of global development.

**Keywords:** Intellectual Property, Innovation, Economic Growth, Technology Transfer, Sustainable Development, IP Laws.

## **Introduction**

In the rapidly evolving landscape of the 21st century, intellectual property (IP) has emerged as a pivotal force shaping the trajectory of global development. Intellectual Property and Development, an intricate interplay between legal frameworks and economic growth, has gained prominence as an indispensable topic of discourse and debate. Intellectual property, encompassing patents, copyrights, trademarks, and trade secrets, serves as a cornerstone for protecting and incentivizing human creativity, innovation, and entrepreneurship. In this interconnected world, where knowledge knows no boundaries, the dynamics of intellectual property have far-reaching implications for both developed and developing nations alike.

The confluence of innovation, creativity, and economic progress has created a complex web of legal, ethical, and socio-economic questions. On one hand, robust intellectual property protection can foster innovation by providing incentives for inventors, creators, and businesses to invest time, resources, and expertise into the development of new ideas and technologies. On the other hand, stringent IP regulations can also raise concerns about access to knowledge, particularly in developing nations, where the need for affordable healthcare, education, and technology is paramount.

This article delves into the multifaceted relationship between intellectual property and development. It explores the role of IP in fostering innovation and technological advancement, delving into the domains of medicine, technology, and the creative arts. Simultaneously, it addresses the challenges associated with intellectual property, including the potential barriers it poses to access, equity, and the dissemination of knowledge, especially in regions where economic disparities are pronounced.

As we embark on this journey through the realms of intellectual property and development, it is imperative to recognize the importance of striking a balance between encouraging innovation and ensuring equitable access to knowledge and its benefits. This intricate equilibrium is the fulcrum upon which the future of global development hinges, shaping the progress of nations, industries, and individuals alike.

### **Framing Intellectual Property (IP) Laws to Encourage Development**

Intellectual property (IP) laws play a crucial role in incentivizing innovation and fostering economic and societal development. These laws encompass various forms of protection, including patents, copyrights, trademarks, and trade secrets, which grant creators and innovators exclusive rights to their creations for a specified period. The design and implementation of IP laws can significantly influence a country's development trajectory. In this article, we explore how IP laws can be framed to encourage development, striking a balance between rewarding innovation and ensuring equitable access to knowledge and technology.

### **Balancing Exclusive Rights and Public Access**

The heart of IP law is the notion of granting exclusive rights to creators. These exclusive rights act as incentives, encouraging inventors and artists to invest time, resources, and creativity in developing new technologies, products, or artistic works. However, this exclusivity can also lead to monopolies, potentially limiting access and driving up prices. Thus, one key aspect of framing IP laws for development is finding a balance between these exclusive rights and public access.<sup>1</sup>

### **Duration of Protection**

One way to balance exclusive rights and access is by defining the duration of protection. For instance, patents typically provide exclusive rights for 20 years, while copyright protection often extends for the life of the author plus 70 years. To encourage development, it's essential

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<sup>1</sup> Boyle, J. (2003). The Second Enclosure Movement and the Construction of the Public Domain. *Law and Contemporary Problems*, 66(33), 33-74.

to consider whether these periods are appropriate. Shorter protection periods can enable faster dissemination of knowledge, allowing others to build upon existing innovations.<sup>2</sup> Conversely, longer protection periods may be warranted for more complex and costly innovations, striking a balance between encouraging investment and fostering access.

### **Exceptions and Limitations**

IP laws can include exceptions and limitations that ensure access to knowledge and technology. For example, "fair use" provisions in copyright law permit the use of copyrighted material for purposes such as education, research, and criticism without the need for permission or payment. Developing countries may also employ compulsory licensing, allowing them to access patented medicines or technologies in specific circumstances, particularly in addressing public health challenges.

### **Support for Research and Development (R&D)**

To encourage development, IP laws can promote R&D by offering incentives to innovators and companies. These incentives can include tax breaks, grants, or subsidies for research activities, especially in areas that have high social or economic value. Governments can create a favorable environment for innovation by supporting public-private partnerships, fostering collaboration, and offering access to research facilities.

### **Technology Transfer**

Technology transfer is an essential aspect of development. IP laws can be framed to facilitate technology transfer agreements between developed and developing nations. These agreements enable the exchange of technologies and knowledge while safeguarding IP rights. This approach helps bridge the technology gap and accelerates development in regions that may lack the resources for extensive research.

### **International Cooperation**

Global challenges often necessitate international cooperation. Framing IP laws for development should consider harmonization with international standards and agreements. Harmonization simplifies cross-border transactions and fosters equitable access to knowledge and technology.<sup>3</sup> Initiatives like the World Trade Organization's Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement aim to strike a balance between protection

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<sup>2</sup> Landes, W. M., Posner, R. A. (2003). *The Economic Structure of Intellectual Property Law*. Harvard University Press.

<sup>3</sup> May, C., Sell, S. K., & Williams, D. (2015). *Intellectual Property and Global Health: From Corporate Social Responsibility to the Access to Knowledge Movement*. *Transforming Global Governance with Middle Power Diplomacy*, 25-46.

and development, emphasizing the need to provide affordable access to essential medicines, for instance.<sup>4</sup>

In conclusion, framing IP laws to encourage development is a delicate balancing act. It requires considering the needs of innovators, creators, and the public, especially in the context of knowledge and technology access. Striking this balance involves adjusting the duration of protection, implementing exceptions and limitations, supporting R&D, facilitating technology transfer, engaging in international cooperation, and offering capacity-building assistance to developing nations. As the world continues to evolve, it's essential for IP laws to adapt to ensure that they serve as catalysts for innovation and development, rather than as barriers to progress. By carefully crafting and implementing IP laws with development in mind, societies can harness the full potential of intellectual property to create a brighter future for all.

Here are three examples of the use of IP regimes that encourage development: Open Source Software and Creative Commons Licensing: Open source software and Creative Commons licensing are examples of IP regimes that encourage development by allowing creators to share their work with the public under specific terms. Open source software, such as the Linux operating system, is made available for free, enabling developers worldwide to access, modify, and distribute the software. This collaborative approach fosters innovation and cost-effective solutions, particularly in developing countries where limited resources can hinder access to proprietary software.

Similarly, Creative Commons licenses permit content creators to retain some rights while allowing others to use, share, and build upon their works. This approach has empowered artists, educators, and researchers to share their creations with the world, promoting the dissemination of knowledge and cultural exchange.

**Compulsory Licensing in Pharmaceuticals:** Some countries have employed compulsory licensing provisions in their IP regimes to address public health challenges and promote access to affordable medicines.<sup>5</sup> This approach allows governments to grant licenses to generic drug manufacturers to produce patented medicines at lower costs, particularly when public health crises, such as epidemics or pandemics, necessitate broad access to specific medications.<sup>6</sup>

An example of this is the use of compulsory licensing for antiretroviral drugs in the fight against HIV/AIDS. Developing countries, like India and Brazil, have issued compulsory

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<sup>4</sup> Abbott, F. M., & Correa, C. M. (2007). The Doha Declaration on the TRIPS Agreement and Public Health: Lighting a Dark Corner at the WTO. *Journal of International Economic Law*, 10(4), 921-982.

<sup>5</sup> „Implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health” [https://www.wto.org/english/tratop\\_e/trips\\_e/implem\\_para6\\_e.htm](https://www.wto.org/english/tratop_e/trips_e/implem_para6_e.htm)

<sup>6</sup> Chirwa, D. F., & Nyasulu, P. (2007). Antiretroviral Drugs: The Role of Compulsory Licenses. *University of Malawi Law Journal*, 1(2), 1-23.

licenses to ensure access to life-saving medications for their populations, leading to significant cost reductions and broader availability of these drugs.<sup>7</sup>

**Patent Pools for Technological Innovation:** Patent pools are collaborative arrangements where multiple patent holders agree to license their technologies collectively. This strategy is often used in industries requiring complex and complementary technologies, such as telecommunications and electronics. Patent pools encourage development by reducing the risk of patent disputes, streamlining licensing negotiations, and fostering the rapid adoption of innovative technologies.<sup>8</sup>

For instance, the development of 3G and 4G wireless technologies involved patent pools that allowed multiple companies to contribute essential intellectual property for the benefit of the entire industry. This collaborative approach has accelerated technological progress and provided consumers with access to more advanced and affordable products and services.

These examples illustrate how IP regimes can be tailored to encourage development by facilitating collaboration, promoting affordable access to essential goods, and accelerating technological innovation.<sup>9</sup> When designed and implemented strategically, IP regimes can serve as powerful tools to balance the interests of innovators with the broader goal of societal advancement.

## 1. WIPO's Contribution to Global Development

The World Intellectual Property Organization (WIPO) plays a pivotal role in development by promoting the responsible and equitable use of intellectual property. WIPO offers a platform for international cooperation, facilitating the sharing of knowledge and technology across borders. It provides capacity-building programs to empower developing nations in navigating IP systems effectively. Additionally, WIPO supports policies and initiatives that strike a balance between IP protection and development, particularly in areas like access to medicines and technology transfer. WIPO's contributions foster innovation, encourage economic growth, and ensure that the benefits of intellectual property are accessible to all, thus driving sustainable development on a global scale.

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<sup>7</sup> Niesporek A. Compulsory Licensing of Pharmaceutical Products & Access to Essential Medicines in Developing Countries. <https://iu.diva-portal.org/smash/get/diva2:21332/FULLTEXT01.pdf>

<sup>8</sup> Aoki, R. (2007). Patent Pools, Intellectual Property Rights, and the Licensing Market. *The University of Chicago Law Review*, 74(2), 365-404.

<sup>9</sup> Kapczynski, A., & Krikorian, G. (2005). Access to Knowledge: New Information Technologies and the Emergence of Intellectual Property Regimes. *American University International Law Review*, 21(2), 367-446.

The WIPO Development Agenda (DA) is a framework established by the World Intellectual Property Organization (WIPO) to integrate development considerations into its work and promote a more balanced approach to intellectual property (IP) in the context of global development.<sup>10</sup> The WIPO DA is based on a set of principles that guide WIPO's efforts in addressing the relationship between IP and development. These principles include:

- **Incorporating Development into WIPO's Work:** This principle emphasizes the integration of development considerations into all activities, strategies, and policies of WIPO. It underscores the need to ensure that IP systems contribute to the social, cultural, and economic development of all its member states.
- **Enhancing the Capacities of Developing Countries:** The WIPO DA recognizes the capacity-building needs of developing countries to effectively use and manage IP systems. It emphasizes providing technical assistance, training, and support to strengthen their IP infrastructure and capabilities.
- **Balancing IP Protection and Public Interest:** This principle acknowledges the importance of balancing IP protection with the broader public interest, including promoting access to knowledge and technology. It seeks to ensure that IP rights do not hinder the availability of essential goods, medicines, and technologies.
- **Addressing Specific Needs of Developing Countries:** The WIPO DA recognizes that developing countries may have unique challenges and needs in the realm of IP. It aims to address these specific issues, taking into account varying levels of development and economic conditions.
- **Promoting Flexibility in IP Systems:** Flexibility is essential to accommodate the diverse requirements of member states. The WIPO DA encourages IP systems that can be adapted to suit different economic, social, and cultural contexts.
- **Respecting National Policy Space:** This principle underscores the respect for the sovereign right of member states to formulate and implement their own IP policies in line with their national development objectives.
  
- **Enhancing Transparency and Inclusiveness:** The WIPO DA advocates for transparency and inclusiveness in the decision-making processes of WIPO. It seeks to ensure that all member states have a voice and are actively involved in shaping IP-related policies and initiatives.

The WIPO DA reflects a commitment to harnessing intellectual property for the benefit of all, with particular attention to the development needs of countries at various stages of economic

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<sup>10</sup> WIPO Development Agenda. (2007). Retrieved from World Intellectual Property Organization. <https://www.wipo.int/ip-development/en/agenda/>

growth. It emphasizes a balanced approach that encourages innovation and protects IP rights while addressing the broader public interest, facilitating technology transfer, and supporting the capacity-building efforts of developing nations.

The WIPO Development Agenda (DA) consists of 45 recommendations organized into thematic clusters. Some of these clusters are closely associated with particular issues. Here are a few examples:

Cluster A - Technical Assistance and Capacity Building: This cluster primarily focuses on building the capacity of developing countries to effectively participate in the global intellectual property system. It includes recommendations related to training, assistance in establishing IP offices, and enhancing human resources. Cluster A addresses the issue of bridging the knowledge and capacity gap in IP management.

Cluster B - Norm-setting, Flexibilities, Public Policy, and Public Domain: This cluster deals with issues related to the international norms and standards of IP, including flexibilities in IP systems to balance protection and public interest. It emphasizes public policy considerations and the preservation of the public domain, particularly in the context of copyright and access to knowledge.<sup>11</sup>

Cluster C - Technology Transfer, Information, and Communication Technologies (ICTs): This cluster focuses on the use of IP to facilitate technology transfer and access to ICTs. It addresses issues such as affordable access to technology, the role of IP in promoting innovation in ICTs, and the challenges faced by developing countries in leveraging technology for development.

Cluster D - Assessment, Evaluation, and Impact Studies: This cluster is associated with the evaluation of the impact of IP on development. It emphasizes the need for comprehensive impact studies to assess the effects of IP on various sectors, such as health, education, and culture.

Cluster E - Institutional Matters, Including Mandate and Governance: This cluster deals with the governance and institutional aspects of WIPO itself. It includes recommendations related to the establishment of a Committee on Development and Intellectual Property (CDIP) and the integration of development considerations into WIPO's activities and policies.

Cluster F - Technical Assistance in the Area of Cooperation for Development: This cluster focuses on technical assistance and cooperation initiatives that support development objectives. It includes recommendations for collaboration between WIPO and other

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<sup>11</sup> WIPO Development Agenda. <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2021-22-en-wipo-development-agenda.pdf>



international organizations, as well as promoting cooperation in areas such as traditional knowledge, folklore, and access to medicines.

These clusters illustrate the diverse issues addressed within the WIPO DA, each of which is closely associated with particular aspects of intellectual property and development. The recommendations within each cluster provide a framework for considering the complex relationship between intellectual property and the broader goals of economic and societal development.

The World Intellectual Property Organization (WIPO) has initiated several projects and activities in line with its Development Agenda. Here are three specific examples of projects arising from the Development Agenda:

- **WIPO Re:Search** is a global consortium that facilitates research and development in the field of neglected tropical diseases (NTDs), malaria, and tuberculosis.<sup>12</sup> It is a clear manifestation of the Development Agenda's focus on public health and access to medicines. The project encourages the sharing of intellectual property and expertise among public and private sector organizations to accelerate the discovery of treatments and vaccines for these diseases. It brings together pharmaceutical companies, research institutions, and other stakeholders to collaborate on R&D efforts aimed at addressing some of the world's most pressing health challenges.
- **Access to Research for Development and Innovation ARDI**, which is a project that provides free access to a vast collection of scientific and technical research publications for institutions in developing countries. The project is aligned with the Development Agenda's commitment to promoting access to knowledge and technology.<sup>13</sup> ARDI offers a valuable resource for researchers, educators, and policymakers in developing nations by granting them access to a wide range of scientific literature, enabling them to stay updated and contribute to research and innovation.
- **WIPO Indigenous Fellowship Program**<sup>14</sup> is designed to enhance the capacity and skills of indigenous representatives in the field of intellectual property. This initiative reflects the Development Agenda's focus on preserving traditional knowledge and traditional cultural expressions. The program offers indigenous individuals the opportunity to participate in WIPO's work and engage in discussions related to IP rights and the protection of traditional knowledge and cultural heritage. It supports the development of intellectual property strategies that are culturally and socially sensitive to indigenous communities.

<sup>12</sup> Sharafudeen M. (2019) WIPO Re:Search: Advancing science for neglected tropical diseases, malaria and tuberculosis. <https://www.wipo.int/publications/en/details.jsp?id=4423&plang=EN>

<sup>13</sup> Access to Research for Development and Innovation (ARDI) 2017 <https://tind.wipo.int/record/28612>

<sup>14</sup> [https://www.wipo.int/export/sites/www/tk/en/docs/indigenous\\_fellowship.pdf](https://www.wipo.int/export/sites/www/tk/en/docs/indigenous_fellowship.pdf)

These projects exemplify WIPO's commitment to implementing the Development Agenda's principles by promoting access to knowledge, facilitating cooperation, and addressing the specific needs of developing countries and marginalized communities. They underscore WIPO's dedication to ensuring that intellectual property serves as a tool for development and the greater good of humanity.

The Committee on Development and Intellectual Property (CDIP) is a committee established within the framework of the World Intellectual Property Organization (WIPO). The mandate of the CDIP is to address issues at the intersection of intellectual property (IP) and development, specifically focusing on how IP can contribute to and support the development objectives of WIPO's member states, particularly those in the developing world. The CDIP's primary mandate includes the following key functions:

**Policy Development and Monitoring:** The CDIP is responsible for developing and monitoring the implementation of development-related IP policies and strategies within WIPO. It works to ensure that WIPO's IP activities and initiatives align with the development needs and goals of its member states.

**Technical Assistance and Capacity Building:** The CDIP plays a critical role in designing and overseeing technical assistance programs and capacity-building initiatives to support developing countries in effectively using and managing IP systems. This includes providing training, sharing best practices, and offering resources to strengthen IP-related capacities in these countries.

**Norm-setting and Flexibilities:** The CDIP examines and discusses issues related to international IP norms and the flexibility within these norms to address the development concerns of member states. It focuses on finding a balance between the protection of IP rights and the public interest, particularly in areas such as public health and access to essential medicines.

**Impact Assessment and Studies:** The CDIP encourages and supports the assessment and evaluation of the impact of IP on development. It promotes the conduct of studies to better understand how IP affects various sectors, including health, agriculture, culture, and education.

**Cooperation for Development:** The CDIP fosters cooperation and collaboration between WIPO and other international organizations, stakeholders, and member states to advance

development goals. It emphasizes the importance of partnerships and joint initiatives to leverage the benefits of IP for development.

**Institutional Matters:** The CDIP addresses institutional matters within WIPO, particularly those related to its development agenda. It works on ensuring that the institutional framework of WIPO integrates development considerations effectively into its activities, programs, and governance.

The CDIP is a forum where WIPO member states can discuss and formulate policies and strategies that promote the responsible and equitable use of intellectual property as a tool for economic and societal development, particularly in developing countries. It is a central mechanism for advancing the Development Agenda within WIPO and for ensuring that IP serves as an enabler of development rather than an obstacle. The CDIP's work is essential in advancing the development objectives of the organization and its member states.

## Conclusion

A well balanced system of granting and exploiting intellectual property rights is a factor in economic growth as it encourages investment and trade, but if designed and used appropriately, it can also help cultural creativity to thrive, educate a population or workforce, drive technological innovation to improve health and nutrition and yield other social benefits as well.

Intellectual property by itself neither helps nor hinders development necessarily. It is how laws, policies and practices are designed and used in different countries that determine whether IP is effective for development purposes.

The relationship between intellectual property and development is a dynamic and evolving one. While IP has the potential to drive innovation and economic growth, it also poses challenges related to access, inequality, and cultural preservation. Developing countries must carefully navigate this landscape, implementing policies and strategies that promote innovation and development while safeguarding their unique cultural heritage and ensuring equitable access to essential goods and knowledge. A balanced and inclusive approach to intellectual property can contribute to sustainable development and societal progress.

The future of intellectual property and development is a subject of critical importance, as it directly impacts our ability to innovate, access knowledge, and promote sustainable growth. While challenges lie ahead, the evolution of IP presents remarkable opportunities for the betterment of society. As the world stands on the brink of a new era, it is crucial that governments, businesses, and civil society collaboratively craft forward-thinking policies that harness the full potential of intellectual property in the service of development.

The path forward demands flexibility, international cooperation, and the active involvement of developing nations. In navigating the future of intellectual property and development, we must strive to ensure a balanced, inclusive, and equitable global landscape that benefits all of humanity.

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