



World Trade Organization (WTO)

Topic B. Strategies to utilize intellectual property and technology transfers to mitigate the climate crisis

Introduction

Technology has been one of the main pillars of the evolution of our civilization. Humans have created the most significant advancements for society from the most primitive of tools all the way to extremely complex systems that can predict and analyze patterns with extreme precision. In order to protect these technologies from imitation and to reward creativity, organizations and governments protect intellectual property (IP) by law, which enables them to give credit and financial benefits to the creator of these technologies while simultaneously promoting research and benefiting innovative businesses with new technologies.

That being said, technology is the main source of greenhouse gas (GHG) emissions. However, its development and transfer may very well be one of the main solutions for climate change. This is why technology transfers (TT) play a critical role in generating a proper and timely response to the current climate crisis. Patents, trademarks, and copyright—all forms of intellectual property rights (IPR)—grant the IP assignee monopoly rights over their ideas for commercialization, acquiring profit, therefore encouraging other innovators to innovate. Licensing fees then become a factor, assigning a price to the rights of their creation, further securing economic gain and, subsequently, amassing incentives for others to also create new ideas and patent them.

This dynamic is, precisely, where TT becomes a complicated field to navigate: exclusionary rights to technological advances and highly-priced licenses become an obstacle for less developed countries to participate in climate change mitigation. Intellectual property as it is complicates other organizations in innovating these technologies. At this point, “technology transfers” take place. Many technologies developed by various organizations and governments have a huge potential in helping reduce or even delete climate change, a problem which affects every nation in the globe.

Essentially, organizations that focus on developing green technologies exist, but use the intellectual property as a way to benefit themselves financially, which limits the collaboration with other organizations to innovate and potentially maximize the impact these have on climate change. One must consider that intellectual property rights are increasingly being used for





purposes beyond promoting innovation, like being used as a commodity and object of investments, or merely as strategic instruments.

From a social justice perspective, innovations designed to reduce greenhouse gas emissions are still more expensive than those that pollute, because we do not factor the environmental-related externalities into the market price paid by consumers. As a result, cleaner innovation technologies suffer from being more costly. In this scenario, trade secrecy may become a talisman for preventing access to information rather than an incentive to explore new technologies further. Nonetheless, the intellectual property system offers tools and theories that could be helpful in providing access and use without having to turn our incentive systems upside down.

Concepts and definitions

- **Copyrights:** the rights of authors in their creative and literary works are typically referred to as copyright. In a broader sense, copyright also refers to "associated rights," such as those of performers, phonogram makers, and media companies.
- **Intellectual property (IP):** creations of the mind, such as inventions, literary and artistic works, names, and images used in commerce. There are different kinds of intellectual property, such as patents, copyright and trademarks; they are protected by law, which enables people to earn recognition or financial benefits from what they invent or create.¹
- **Patent:** government authority or license that grants a right or title for a predetermined amount of time, particularly the exclusive right to prevent others from creating, utilizing, or commercializing an invention.
- **Technology transfer (TT):** movement of data, designs, inventions, materials, manufacturing methods, software, or any technical knowledge from one organization to another. It can take place between universities, businesses, and governments, either formally or informally. This form of knowledge transfer helps ensure that scientific and technological developments are available to a wider range of users who can then help develop or exploit them.²
- **Trademark:** sign, or group of signs, used to identify one company's products or services from those of another.

¹ See: World Intellectual Property Organization "What is Intellectual Property?" <https://www.wipo.int/about-ip/en/>

² TWI "What is technology transfer?" <https://www.twi-global.com/technical-knowledge/faqs/what-is-technology-transfer>





Current problematic

Demand for new technologies to stop the spread of the coronavirus and treat infection was sparked and, in some cases, hastened by the COVID-19 pandemic. With significant government support, the scientific and tech community rose to the occasion and quickly developed several vaccines. The international response to counter the effects of this worldwide pandemic demonstrates that when there is political will, technological progress follows. If nations made an effort to rapidly organize their endeavors to deal with the COVID-19 crisis efficiently, why should it be different in the face of the climate crisis?

It is well known that the climate crisis contributes to extreme weather events, rising sea levels, and threatens food security and access to clean water. Additionally, it hinders plant development, which influences nature's capacity to control atmospheric CO₂. As a matter of fact, in emphasize the disproportionate impact of climate change on the poor, with 26 million people being forced into poverty every year, the World Bank estimates the yearly global cost of extreme weather at USD520 billion in lost well-being.³

Therefore, pressure on governments to address climate change is growing. Under the 2015 Paris Agreement, 196 nations agreed to keep the increase in global temperatures below 2°celsius (C) by the end of the century, ideally at 1.5° C. Six years later, in Glasgow, Scotland, the signatories reaffirmed their commitment, stating that combating climate change has become an urgent global priority.⁴ Clearly, innovative technologies must be adopted if aggressive carbon emission reduction goals are to be met. Investments in emerging technologies should be given more priority in policy decisions and public funding. In the upcoming decades, enabling a transition to carbon neutrality where carbon released and absorbed are in balance better be a driving force behind innovators.

International initiatives

It is important to differentiate the technologies to mitigate climate crisis from its intellectual property and whether there are any existing laws or international agreements that protect these technologies from being transferred. Intellectual property law is committed to providing investment incentives in research and development and prohibiting imitations without remuneration while retaining competitive pressure.

³ Hellegatte, S., A. Vogt-Schilb, M. Bangalore and J. Rozenberg (2017). *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disaster, Climate Change and Development Series*. Washington, D.C.: World Bank. <https://openknowledge.worldbank.org/handle/10986/25335>

⁴ *Paris Agreement*. United Nations. Paris, 2015. https://unfccc.int/sites/default/files/english_paris_agreement.pdf





If one goes back to the Convention on Biological Diversity of 1992, it establishes that access to property must be permitted, subject to conditions compatible with adequate and effective protection. In addition, the Convention requires that States cooperate to ensure that intellectual property supports and does not conflict with the objectives of the Convention.⁵ But it was not until 1997 that article 10 of the Kyoto Protocol recognized a conflict between private owners of intellectual property rights and the obligations of States under international agreements on environmental protection and climate change.⁶ This provision requires States to create a space that encourages the transfer of and access to environmentally friendly technologies.

Additionally, the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) clearly and comprehensively provides the framing for the IP system regarding innovation, technology transfer and public welfare. It also creates a pathway for trade to flow as well as it possibly can.⁷ This agreement, which was negotiated throughout the 1986-94 Uruguay Round, was the first time IPR was introduced into the multilateral trading system.

The TRIPS Agreement has become an imperative part of how members of the WTO can manage IPR licenses regarding creations of the mind. According to the WTO, its members have “considerable scope to tailor their approaches to IP protection and enforcement in order to suit their needs and achieve public policy goals”, allowing them to decide, based on their carefully established criteria, if modifications or exceptions to IPR may need to be performed in order to reduce the short-term costs of limiting the access to creations of the mind.⁸ They may also evaluate and establish a balance between the benefits and costs of IP licenses and their limitations.

Guiding questions

- Has your delegation been applying any technologies in order to mitigate climate change? Were these technologies originated within your delegation or were they external initiatives?

⁵ See: *Convention on Biological Diversity of 1992*. United Nations, Rio de Janeiro, 1992. <https://www.cbd.int/doc/legal/cbd-en.pdf>

⁶ See: Art. 10 in the *Kyoto Protocol*. 1997. <https://unfccc.int/resource/docs/convkp/kpeng.pdf>

⁷ See the WTO's *TRIPS — Trade-Related Aspects of Intellectual Property Rights* for more information on https://www.wto.org/english/tratop_e/trips_e/trips_e.htm

⁸ See: WTO's *Intellectual property: protection and enforcement on* https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm





- Is your delegation in favor or against technology transfers? How does/would your delegation benefit from it?
- Has your delegation sold or bought any IP licenses for anti-climate change technologies? Also, does your delegation have the economic resources to buy IP licenses for anti-climate change technologies?
- Should said technologies be cheaper for countries in development? Should they be paid for at all? What is your delegation's posture on this matter?

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