

Research Report

COMMITTEE : World Intellectual Property Organisation

ISSUE : *How to guarantee the promotion and diffusion of environmentally sound technologies on a global scale?*

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How to guarantee the promotion and diffusion of environmentally sound technologies on a global scale?

KEY WORDS

Environmentally Sound Technologies (ESTs) : also referred to as “clean” or “green” technologies, these technologies function in a way that is mindful of environmental protection, in the sense that they limit pollution, use resources in a more sustainable manner, recycle more of their waste and products, and handle residual wastes in a more acceptable way than other technologies that accomplish the same or similar tasks. ESTs do not solely refer to machinery or equipment, but entire systems which encompass the proper know-how, procedures, management and goods and services.

Sustainability : concept which focuses on providing the current generation with enough resources to meet its needs, while making conscious efforts to adapt to the needs of future generations as well.

Electronic waste, or e-waste : discarded electronic products and devices, including those destined for refurbishment, reuse and recycling.

Intellectual property, or IP : creations of the human intellect, ranging from artworks to technological inventions, protected by the law via patents, copyrights or trademarks, and which enable inventors and creators to earn recognition or financial benefit.

Depletion of natural resources : the consumption of a natural resource faster than it can be replenished. A natural resource is a resource that exists on Earth without humans needing to create it; it can be renewable or nonrenewable. The most severe types of resource depletion occur as a result of deforestation, agriculture, mining for fossil fuels, aquifer depletion, pollution and other human induced contaminations of natural resources.

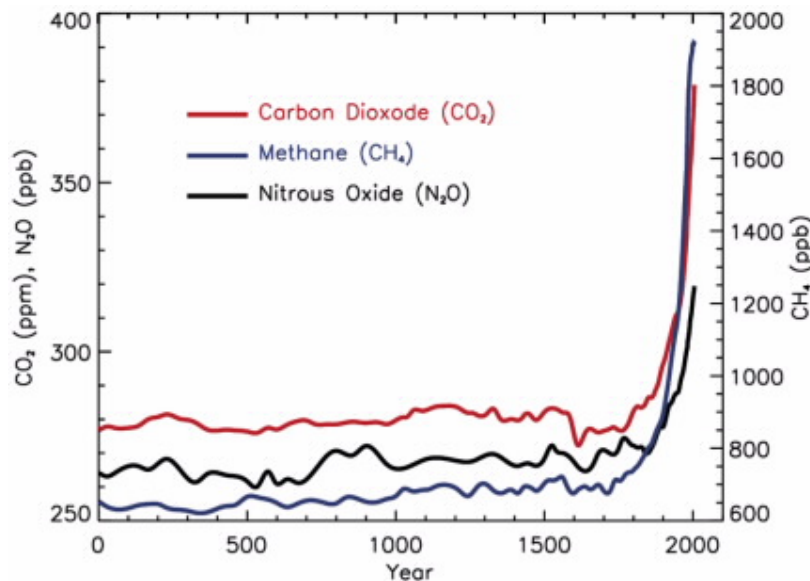
Air pollution : occurs when excessive quantities of harmful gases are released into the Earth’s atmosphere, mainly by technological sources originating from the Industrial Revolution - such

as the burning of fossil fuels, production in factories, mass agriculture and vehicles.

OVERVIEW

In our continually evolving world, the benefits of technology seem endless. Throughout the history of mankind, technological inventions have continued developing and improving, presenting new opportunities with each advance. Whether it be through facilitated communication and connectivity or on an industrial scale, technological equipment and discoveries have entirely shifted humanity's relationship with its surrounding world.

However, over time, the negative impact of technology on the environment has become increasingly evident. Ever since the Industrial Revolution in the 18th century, large scale mineral and oil exploration has increased, leading to more natural oil and mineral depletion. Whether it be through pollution or the depletion of natural resources, the use of technology has generated harmful effects on the planet, and consequently, our own health.



The evolution of greenhouse gasses over the course of history (Source: A.C.S.)

Nevertheless, despite the detrimental effects of technology on the environment, progress is continuously being made towards sustainable technological development. Environmentally sound technologies, or ESTs, are rapidly gaining the attention of the global community due to the important role they play in the fight against climate change, and in achieving the United Nations' Sustainable Development Goals.

However, although ESTs are a promising element of a sustainable future, green technology isn't yet easily accessible to nations worldwide. In order to promote the global use of ESTs, the international political framework surrounding trade and investment in such technologies needs to be improved and adapted to the needs of different countries.

Providing incentive for professionals of the field - such as engineers, scientists, entrepreneurs - to dedicate time and resources to the invention and creation of ESTs can prove

to be a challenge. To counter it, States and organizations such as the United Nations may encourage such progress by funding activity related to technological improvement. Many forms of IP are relevant to aid the development and creation of ESTs, such as patent protection for effective commercialisation and the dissemination of new technologies; trade secrets to allow competition between innovative companies; and certification and collective marks to encourage consumers to buy ethical ESTs - such as measuring and advertising products with a low carbon footprint, local production, etc.

In the field of ESTs - and their diffusion - technical and human resources alongside expertise in the installation and establishment of new green technology are globally still lacking. To counter this obstacle, volunteering and training programmes may be organized on site, in the regions where such services are most needed.

On a political level, there is a significant reluctance for climate protection action that makes cooperation in this field difficult. This is due to the fact that the trade-off of financial growth and profit in favour of green technology is politically and economically unattractive. Thus, in order to encourage companies to transition to ESTs, despite the unappealing “green-versus-growth” trade-off, placing taxes on more polluting technology is a possibility. Additionally, in tandem with this taxing process, companies may be encouraged to adopt ESTs through financial subsidies and grants funded by the State, non-governmental organizations or private donors.



The United Nations' Sustainable Development Goals

RELEVANT UN TREATIES AND EVENTS

12/12/2015

The Paris Agreement, signed on the 12th of December 2015 by 196 Parties at COP 21, is a legally binding international treaty on climate change. The goal of the Agreement is to limit global

warming to below 2 degrees Celsius above pre-industrial levels. This treaty is the first to unite multiple nations with a binding agreement, with the goal of making ambitious efforts to combat climate change and adapt to its effects with the adoption of long-term strategies.

2017 - 2019

The United Nations Environment Program (UNEP) undertook a project entitled “Trade in Environmentally Sound Technologies - the Perspective of Developing Countries” beginning in 2017. This project aims to provide support to developing countries in utilizing opportunities related to liberalized trade in ESTs. Through three key activities and a webinar, UNEP’s project has hosted dialogues with a broad range of participants to discuss trade opportunities and perspectives in the field of green technology in developing countries.

POSSIBLE SOLUTIONS

In order to guarantee the diffusion of environmentally sound technologies on a global scale, various measures must be adopted in order to firstly promote their creation and production, and then to adapt to the needs of countries with limited access to such technologies.

A major solution to this issue is favouring the production of ESTs via IP use. To favour efficiency, specifically designed policies must be adopted to address ESTs’ IP rights. To do so, certain patent applications may be put through a fast-tracking process. An existing example of this is explored in the year-long “Green Technology Pilot Program”, organized in December 2009 by the US Patent and Trademark Office. This programme allows patents related to ESTs to benefit from a significantly accelerated examination process in order to spur the diffusion of green technology. Some regulations proposed by developing countries during the 2010’s UNFCCC suggest to exclude green technologies from patenting, or even revoke existing patent rights on ESTs.

Additionally, IP exploitation models based on sharing, rather than control, may be promoted. An already existing modern push for collaboration in the field of IP rights caters to ESTs. An example of this is the COP26, which will take place in November 2021 in Glasgow, focusing on collaborative IP rights frameworks, which are faced with challenges but essential to progress to be made in green technologies.

Few developing countries have yet benefited from trade liberalization in environmental goods and services. A possible solution is one focused on trade liberalization. The removal of barriers to trade goods related to environmentally sound technologies - such as wind turbines, solar panels or recycling machinery, for example - which are of great importance to environmental protection and climate change mitigation and adaptation would greatly benefit the diffusion of ESTs on a global scale. This solution is discussed elaborately in the World Trade Organization’s Environmental Goods Agreement (EGA) of 2014.

Another solution is investment in already existing online platforms made for technological exchanges. One of the most promising examples of such a platform is WIPO GREEN, which functions as a type of online marketplace. WIPO GREEN provides support for global efforts to address climate change, notably by connecting providers and seekers of ESTs.

Specialists in innovation and diffusion of green technology are brought together through its database, network and projects.

BIBLIOGRAPHY

- Sustainability Definition <https://www.investopedia.com/terms/s/sustainability.asp>
- “Cleaning up Electronic Waste (E-Waste) | US EPA
<https://www.epa.gov/international-cooperation/cleaning-electronic-waste-e-waste>
- United Nations Conference on Environment & Development
<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf#page=305>
- “What is Intellectual Property?”
<https://www.wipo.int/publications/en/details.jsp?id=4528>
- “What is a Carbon Footprint?” | Good Energy
<https://www.goodenergy.co.uk/blog/2017/11/20/what-is-a-carbon-footprint/>
- “Changes since the Industrial Revolution” | American Chemical Society
<https://www.acs.org/content/acs/en/climatescience/greenhousegases/industrialrevolution.html>
- Environmental Technology | Edinburgh Sensors
<https://edinburghsensors.com/news-and-events/impact-of-technology-on-the-environment-and-environmental-technology/>
- Climate Change and Intellectual Property | WIPO
https://www.wipo.int/policy/en/climate_change/
- “10 Green Technologies that will Change the World” | João Gonçalves
<https://medium.com/climate-conscious/10-green-technologies-that-will-change-the-world-9f7a709c1a15>
- “The Impact of Innovation: WIPO and the Sustainable Development Goals” | WIPO
<https://www.wipo.int/sdgs/en/story.html>
- “The Paris Agreement” | UNFCCC
<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- “Trade in Environmentally Sound Technologies - the Perspective of Developing Countries” | UNEP
<https://www.unep.org/explore-topics/green-economy/what-we-do/environment-and-trade-hub/our-work/trade-environmentally-o>
- “Environmental Goods Agreement (EGA)” | WTO
https://www.wto.org/english/tratop_e/envir_e/ega_e.htm
- “WIPO GREEN - The Marketplace for Sustainable Technology”
<https://www3.wipo.int/wipogreen/en/>
- “Intellectual property: Key role against climate change”
<https://www.lawscot.org.uk/members/journal/issues/vol-65-issue-12/intellectual-property-key-role-against-climate-change/>
- “Intellectual property and climate change | VOX, CEPR Policy portal”
<https://voxeu.org/article/intellectual-property-and-climate-change>
- “Climate Change, Intellectual Property, and the Scope of Human Rights Obligations”
<https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1471&context=sdlp>