Helping Haiti: Incorporating NGO Technology Transfer into the TRIPS Agreement Framework to Aid Least Developed Countries in the Adoption of Clean Technologies

Michelle Balaklaw
University of Kentucky

Follow this and additional works at: https://uknowledge.uky.edu/kjeanrl

Part of the Environmental Law Commons, and the Science and Technology Law Commons

Right click to open a feedback form in a new tab to let us know how this document benefits you.

Recommended Citation
Balaklaw, Michelle (2015) "Helping Haiti: Incorporating NGO Technology Transfer into the TRIPS Agreement Framework to Aid Least Developed Countries in the Adoption of Clean Technologies," Kentucky Journal of Equine, Agriculture, & Natural Resources Law. Vol. 8 : Iss. 1 , Article 5.
Available at: https://uknowledge.uky.edu/kjeanrl/vol8/iss1/5

This Note is brought to you for free and open access by the Law Journals at UKnowledge. It has been accepted for inclusion in Kentucky Journal of Equine, Agriculture, & Natural Resources Law by an authorized editor of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.
HELPING HAITI: INCORPORATING NGO TECHNOLOGY TRANSFER INTO THE TRIPS AGREEMENT FRAMEWORK TO AID LEAST DEVELOPED COUNTRIES IN THE ADOPTION OF CLEAN TECHNOLOGIES

Michelle Balaklaw*

INTRODUCTION

Transitioning from fossil fuels as a primary source of energy to green and renewable technologies is one of the biggest challenges the world faces. The invention and adaptation of environmentally friendly technologies requires global cooperation. Although these alternative energy methods are a high priority across nations, incentivizing innovation plays a key role in the development of such methods. One of the best ways of incentivizing innovation is through strong intellectual property rights. Affording inventors exclusive rights for their work product in exchange for public access to their invention is beneficial for both parties. More specifically, strong patent laws are particularly beneficial for the development and market introduction of new technologies.

Investment in clean technologies has increased across the world, demonstrating a global desire to shift away from the

* Editor-in-Chief, KY. J. EQUINE, AGRIC. & NAT. RESOURCES L., 2015-2016; B.A. 2012, Centre College; M.B.A. 2013, University of Kentucky; J.D. expected May 2016, University of Kentucky.


The phrase "cleantech" is an umbrella term that describes a new generation of clean technologies that are both sustainable and environmentally friendly. More specifically, the term is defined as "encompassing the investment asset class, technology, and business sectors which include clean energy, environmental, and sustainable or green, products and services." Clean technologies have historically been associated with high costs. However, as investment and innovation in cleantech increases, the cost of these technologies continues to fall, thus becoming more economically competitive with fossil fuels. The benefits of clean technologies extend beyond the environment, creating jobs, providing educational opportunities, and reducing poverty. Utilizing clean technology as a method for development in the world's least developed countries encourages local innovation and invention, while bringing these countries in alignment with developed nations, thus preventing them from falling further behind.

The number of least developed countries adopting intellectual property rights is continually increasing. Part of this is in response to the World Trade Organization's (WTO) Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. At its core, the Agreement establishes minimum standards of intellectual property protection. The purpose of the Agreement is to recognize the significant role of intellectual property in international trade. However, the Agreement inadvertently burdens least developed countries. By requiring them to comply with minimum intellectual property standards without providing additional assistance,

---

7 Id.
9 Id.
10 RENEWABLE ENERGY POL'Y NETWORK, supra note 5, at 3.
12 Id.
these countries are unable to develop the requisite infrastructure to realize the benefits of the Agreement.

Specifically, the Caribbean country of Haiti is located in the Western region of the larger island of Hispaniola.\textsuperscript{14} Haiti is one of the poorest countries in the Western hemisphere, sharing a physical border with the Dominican Republic.\textsuperscript{15} Political violence has plagued Haiti's past, and, as a result, the country suffers from high unemployment rates, shorter life expectancies, and a landscape that has been depleted of natural resources.\textsuperscript{16} As of 2011, 87\% of Haiti's energy was derived from fossil fuels.\textsuperscript{17} Haiti is a prime example of a least developed country that can benefit from a strong intellectual property system, but would likely be most successful doing so through a means that is catered to its specific geographic, political, and economic needs.

This note will begin by considering Haiti's historical and legal background with regard to intellectual property rights. Within this section, this note will also discuss the arguments for and against intellectual property rights in least developed countries, and the specific role of patent law in growing clean technology efforts. In part II, this note will analyze the impact of the World Trade Organization's Trade-Related Aspects of Intellectual Property Rights Agreement, while identifying the shortcomings of the World Trade Organization's efforts in helping least developed countries to successfully implement the TRIPS Agreement. This section will also look at the way in which the TRIPS Agreement hinders the adoption of clean technologies. Finally, part III of this note proposes that clean technology transfer through non-government organizations is a missing element in the TRIPS Agreement framework.

\textsuperscript{14} About Haiti, MISSION OF HOPE HAITI, http://www.mohhaiti.org/about_haiti#.Vft1PRKtOO (last visited Oct. 20, 2014).

\textsuperscript{15} Id.

\textsuperscript{16} Id.

I. BACKGROUND AND THE ROLE OF INTELLECTUAL PROPERTY RIGHTS AND THEIR EFFECT ON RENEWABLE ENERGY

A. History of Intellectual Property Rights in Haiti

Haiti's history has been characterized by political and economic instability, both of which have attributed to the country's lack of development and current status as the poorest country in the western hemisphere. Just as in many Caribbean countries, Haiti's natural resources and people were exploited by European colonization. During its time as a European colony, Haiti's economy was based predominantly on exporting sugar. As a result, much of the country's forests were depleted and converted into sugar fields, thus leading to erosion, decreases in soil productivity, and drying up of natural streams. As a European colony, Haiti was highly profitable due to its abundance of natural resources. However, rebellion arose in response to the injustices of slave labor. In 1804, Haiti was recognized as an independent island, becoming the world's first black republic. Haiti's status as an independent island comprised of freed slaves posed a threat to the Americas and other European colonies. As a result, Haiti was unable to trade with many countries, and its economy suffered.

Haiti's natural geography proved promising due to its abundance of natural resources. However, the effects of European colonization and years of rebellion left behind civil unrest, a destitute population, and a devastated landscape, all of which continue to hinder Haiti's development efforts.

---

20 Id.
22 Id.
23 Id.
24 Id. at 18.
25 Id.
26 See Haiti: The Haitian Revolution, ENCYCLOPEDIA BRITANNICA,
Haiti's continual political instability, in the form of tyrannical rule and corruption, has led to further depletion of the country's natural resources.\(^2^7\) Throughout the 20th and 21st centuries, Haiti's environment suffered even greater degradation as foreign occupation, in conjunction with self-interested leaders, led the country to further strip itself of its abundant natural resources, harming the country's long-term interests for development.\(^2^8\)

During the 1980's and early 1990's, Haiti's tumultuous time under dictatorship came to an end, the country's constitution was amended to provide for an intellectual property system, and the country implemented a democratic system of government, holding their first presidential election.\(^2^9\) Haiti's current constitution was enacted in 1987, and "provided for fundamental liberties for all Haitians and for strict separation of power between the three branches of government."\(^3^0\) As a result, intellectual property rights were granted to all Haitian citizens. Specifically, Article 38 of Haiti's Constitution sets forth that, "[s]cientific, literary, and artistic property is protected by law."\(^3^1\)

Haiti's constitutional recognition of intellectual property rights provided the basis for the establishment of Haitian organizations aimed at incentivizing on-the-ground invention as well as foreign investment. Haiti recognizes specific forms of intellectual property, with laws governing patents, copyrights, and trademarks.\(^3^2\) Haiti's only specific intellectual property office at this time is the Haitian Copyright Office (BHDA), which was established in 2005.\(^3^3\) The country also has an industrial property office, entitled the Ministry of Trade and Industry.\(^3^4\) Although the office's main function is to formulate and implement guidelines that promote trade and

\(^2^7\) Id.
\(^2^8\) See Id. at 18-20.
\(^3^0\) Id. at 107.
\(^3^1\) CONST. OF HAITI, 1987, art. 38.
entrepreneurship in Haiti, this office is also responsible for patents and trademarks.\textsuperscript{35} The Ministry defines industrial property as that which includes "technical creations, mainly patents."\textsuperscript{36} Additionally, industrial property consists of "distinctive signs, commercial trademarks, and trade names."\textsuperscript{37}

Throughout Haiti’s recent history, the country has recognized the importance of intellectual property rights, becoming a signatory to the Paris Convention for the Protection of Industrial Property as early as 1958, years before Haiti’s own constitution afforded its citizens such rights.\textsuperscript{38} Following the addition of Article 38 in Haiti’s current constitution, the country became a signatory to a multitude of multilateral treaties related to intellectual property rights. For the purposes of this note, the most significant of these treaties is the World Trade Organization’s Trade-Related Aspects of Intellectual Property Rights Agreement of 1994.\textsuperscript{39} Haiti became a signatory to the Agreement on January 30, 1996.\textsuperscript{40}

Haiti has taken the appropriate steps to move itself forward through the establishment of the Haitian Copyright Office and the Ministry of Trade and Industry, as well as by becoming a signatory to many multinational intellectual property treaties. However, despite these efforts the country remains highly dependent upon fossil fuels, with 79% of its electricity being derived from these limited resources.\textsuperscript{41} The remaining 21% of Haiti’s electricity is derived from hydroelectric plants, serving as the only source of renewable energy.\textsuperscript{42} Due to such high dependence upon fossil fuels,
Haiti's carbon dioxide emissions have also become an issue.\textsuperscript{43} Haiti's low gross domestic product, high dependence upon fossil fuels, and high carbon emissions provides the country with great incentive to utilize its intellectual property framework.

B. Intellectual Property Rights as a Catalyst for Development

The gap between the most developed and least developed countries in the world continues to grow larger as technology advances. In 1971, the United Nations identified those countries that were the "poorest and weakest segment of the international community" as the least developed, making it an international priority to help them emerge from poverty.\textsuperscript{44} In determining whether a country is considered least developed, the United Nations looks at three criteria.\textsuperscript{45} The first is the country's gross national income.\textsuperscript{46} Second is the human asset index, which assesses the population's literacy rate, secondary school enrollment, mortality rate for children five years and younger, and the percentage of the population that is undernourished.\textsuperscript{47} The third criteria is the country's economic vulnerability index, which includes eight factors assessing the structural vulnerability of a country relating to different economic and environmental occurrences.\textsuperscript{48} To be eligible to advance from least developed status, a country must meet the threshold level for graduation on at least two of the three criteria, or have an income per capita that is double the threshold amount.\textsuperscript{49}

Since 1971, the list of least developed countries has more than doubled,\textsuperscript{50} with only four countries advancing to

\textsuperscript{43} Id.
\textsuperscript{46} Id.
\textsuperscript{47} Id.
\textsuperscript{48} Id.
\textsuperscript{49} UN OFFICE OF THE HIGH REPRESENTATIVE, supra note 44.
\textsuperscript{50} The Least Developed Countries: Historical Background, UNITED NATIONS, http://www.un.org/events/ldc3/prepcom/history.htm (last visited Dec. 18, 2014).
developed status.\textsuperscript{51} To date, there are 48 countries that remain classified as least developed.\textsuperscript{52} Although the United Nations has set forth certain objectives to aid these countries in advancing from least developed status, there is much debate as to what approaches are actually the most effective for development. Whether or not stronger intellectual property rights serve as a catalyst for development is no exception to the debate.

1. What the Supporters Say

Proponents argue the implementation of a strong intellectual property system enables developing countries to foster local innovation while also promoting foreign investment. As a result, these countries experience high economic growth, which is beneficial for all.\textsuperscript{53} At its core, intellectual property rights are granted for the sole purpose of giving "the creator an exclusive right over the use of his/her creation for a certain period of time."\textsuperscript{54} Providing an individual the sole right to profit from his or her idea serves as an incentive to create.\textsuperscript{55} This reasoning applies not only to local inventors, but foreign firms as well. When countries have strong intellectual property rights foreign companies are more likely to invest.\textsuperscript{56} Without the right incentives to invest in research, development, and innovation, firms will be unable to reap their earned benefits. Strong intellectual property rights also encourage foreign direct investment because they afford local companies ownership advantages, making them less likely to be imitated.\textsuperscript{57} In doing so, local companies are able to compete more effectively with foreign firms.\textsuperscript{58}


\textsuperscript{55} Hassan et al., supra note 2, at 40.

\textsuperscript{56} Id. at 4.

\textsuperscript{57} Id.

\textsuperscript{58} Id.
Additionally, proponents argue that foreign direct investment is of a higher quality when a country has strong intellectual property rights.\textsuperscript{59} Foreign companies may begin to invest in sectors where strong intellectual property rights are necessary, such as manufacturing.\textsuperscript{60} As a result, developing countries might see more foreign investment in technology, which could ultimately disseminate locally.\textsuperscript{61}

\textit{2. What the Opponents Say}

Despite these benefits, many opponents argue that intellectual property systems may not necessarily be the best model for those developing countries that lack the requisite infrastructure necessary to facilitate such systems. Of primary concern is the high expense of protecting intellectual property. When one is granted an intellectual property right in the form of a patent, copyright, or trademark, the government must write laws to support their protection, supervise their use, and allow private parties to bring legal action in the event of misuse.\textsuperscript{62} Such maintenance can prove costly for a developing country. Opponents also argue that although stronger intellectual property rights may incentivize foreign direct investment, foreign firms may choose to license products rather than to actually invest in research, development, and innovation on the ground.\textsuperscript{63} It is argued that stronger intellectual property rights may actually hinder industrialization rather than accelerate it.\textsuperscript{64} This view sees weak intellectual property rights as being advantageous to developing countries because it allows local companies to learn through reverse engineering and experimentation.\textsuperscript{65} This supports the idea that the ability to imitate is key to the ability to innovate, and the premature imposition of strong intellectual property rights in developing countries might

\textsuperscript{59} Id.
\textsuperscript{60} Id.
\textsuperscript{62} Moldrin & Levine, supra note 53, at 210.
\textsuperscript{63} See Hassan et al., supra note 2, at 5.
\textsuperscript{64} Branstetter et al., supra note 61.
\textsuperscript{65} Id.
actually stifle economic development, rather than accelerate it.  

C. The Specific Role of Patent Law in the Development of Renewable Energy Sources

The number of developing countries implementing policies to foster alternative energy efforts is growing. In 2005, only 15 developing countries had policies in place to support renewable technology.  

That number has increased six-fold, growing to 95 countries in 2014.  

As a result, “markets, manufacturing, and investment expanded further across the developing world, clearly illustrating that renewables are no longer dependent upon a small handful of countries.”

Compared to other forms of intellectual property, such as copyright and trademark, patent law is the stepladder that private parties can use to accelerate growth and development. Patent protection offers private parties exclusive rights to their invention for a limited period of time, in exchange for disclosure of the invention. As a result, the inventor is encouraged to continue to invent as well as to share how to make and use his invention with the general public.

More specifically, patent law plays an important role in the clean energy discussion, as it is one of the most beneficial forms of intellectual property for the development and introduction of green and renewable technologies. Reducing dependency on fossil fuels is a global priority. Patent law provides the framework for incentivizing inventors to invest the time and effort to develop new technologies. Patent laws not only incentivize inventors to invest and invent, but they also have the ability to make green technologies more readily available and less expensive. Patent law is able to achieve such outcomes because private parties are granted the ability

---

66 Id.
68 Id.
69 Id.
70 Gattari, supra note 5.
71 Id.
72 See id.
73 Id.
74 See id. at 45.
to economically prosper from their inventions, which allows them to reinvest the proceeds in additional research and development. As a result, technology advances, prices decrease, and new ways of financing are developed. Patent laws also help to provide ancillary benefits such as increased employment and industrialization.

Patent law plays a very important role in industrialization, as it attracts private investment, and is therefore a critical incentive in the advancement of clean technology in developing countries. Private investors will only invest if they know they can reap a benefit equal to the amount of risk involved. Patent laws help investors capture these benefits, but can do so in different ways. The type of renewable technology that a company is investing in demands different types of patent law protection. Patentable technologies generally fall within one of three market maturity classifications: 1) venture stage, 2) emerging market stage, or 3) mature market stage.

A country's understanding of the different levels of technological market maturity helps them to better understand the needs of private investors with regard to what aspects of patent law they are seeking to utilize. Companies pursuing venture stage technologies, such as nanomaterials and wireless power, are generally focused more on utilizing patent law for investment security. Owners of these technologies are generally start-up companies who are looking to attract private investors, and as a result, are interested in decreasing risk through a strong patent filing strategy, which will allow them to build their patent portfolio while also securing access to certain technologies. Technology in the emerging market stage generally includes renewables such as biofuels and computer-based smart grid systems. Companies owning these types of technology are interested in creating

---

75 Id. at 42.
76 RENEWABLE ENERGY POLICY NETWORK, supra note 5.
78 Gattari, supra note 1, at 43.
79 Id.
80 Id.
81 Id.
82 Id.
value and developing market share. Therefore, these companies utilize the exclusive rights granted by the patent system to freely share their technology with users. As users adopt the companies' technology, its value increases because patent holders can then charge users for products and services that fall within the claims of the patent. Finally, mature market stage technologies include solar power, wind power, and hybrid transportation. Companies with these technologies are interested in capturing greater market shares, while also protecting market segments. These companies utilize the patent law system to assert their rights through litigation, thus allowing them to prevent patent infringers from wrongfully benefitting.

Although private investment is a catalyst for the growth and dissemination of clean technology, government action can also play an important role. Many countries have established permanent or pilot accelerated patent programs. These programs expedite the process for examining patents dealing with green and renewable technologies in an effort to develop new technologies and bring them to the marketplace. As a result, such programs encourage innovation in green technology because inventors are more quickly informed as to the status of their application, fostering faster innovation.

Accelerated patent programs take many forms and have been utilized by countries at different stages of development. Currently, developed countries like the United States, Canada, and Japan, as well as developing countries such as Brazil, China, and South Korea, have adopted some form of accelerated patent program.

At the present time, none of the least developed countries
have accelerated patent programs in place. 92 Specifically, countries like Haiti have not established intellectual property systems that are sophisticated enough to support such programs. Currently, Haiti does not have an independent patent office, 93 which would make the implementation of an accelerated patent program difficult. Due to these circumstances, encouraging private investment through strong patent laws is a more viable option for implementing clean technologies in Haiti.

II. ANALYSIS OF THE WORLD TRADE ORGANIZATION’S TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) AGREEMENT

A. About the Agreement

The World Trade Organization’s (WTO) Trade-Related Aspects of Intellectual Property Agreement came into being with the creation of the World Trade Organization on January 1, 1995. 94 The TRIPS Agreement was one of many trade agreements negotiated at that time and is legally binding on both original and future WTO members. 95 The TRIPS Agreement is comprehensive, in that it provides global minimum standards for the protection and enforcement of intellectual property rights. 96 The Agreement protects different forms of intellectual property including, but not limited to, copyrights, trademarks, and patents. 97 Additionally, the Agreement sets forth mechanisms for the enforcement of intellectual property rights, as well as procedures for settling disputes. 98

Although WTO membership necessitates adherence to the TRIPS Agreement, the Agreement contains provisions that allow for some degree of flexibility. Members must adopt the basic framework set forth by the TRIPS Agreement, but

92 Patton, supra note 89, at 31.
93 See supra Part I.A.
95 Id.
96 Id.
97 See id.
98 Overview: The TRIPS Agreement, supra note 11.
members still have the ability to modify the design of their individual intellectual property systems. \(^9\) As a result, countries are able to account for differing stages of development, as well as pre-existing intellectual property legislation.\(^{10}\) That being said, upon adoption, Article 66.1 of the Agreement affords countries at different stages of development transition periods so that member countries can “bring national legislation and practices into conformity with TRIPS provisions.”\(^{11}\) During the transition periods, a country is exempt from applying the provisions of the Agreement.\(^{12}\) Developed countries were afforded a one-year transition period, which expired January 1, 1996.\(^{13}\) Developing countries were afforded a five-year period, which expired January 1, 2000.\(^{14}\) Least developed countries were provided with the most generous transition period of eleven years, which was set to expire January 1, 2006.\(^{15}\)

The transition period deadline for least developed countries has since been extended on two occasions.\(^{16}\) The first extension was for seven and a half years, pushing the expiration date back to July 1, 2013.\(^{17}\) The second extension allowed an additional eight years, which is now set to expire July 1, 2021.\(^{18}\) Additionally, the TRIPS Agreement allows least developed countries to request further extensions from the TRIPS council.\(^{19}\) However, to date no countries have needed to utilize this option because the transition period for least developed countries has continuously been extended.

There is much controversy over the continual granting of transition period extensions for least developed countries,


\(^{10}\) Id.

\(^{11}\) WTO and the TRIPS Agreement, supra note 94.

\(^{12}\) Id.

\(^{13}\) Overview: The TRIPS Agreement, supra note 94.

\(^{14}\) Id.

\(^{15}\) Id.

\(^{16}\) Id.

\(^{17}\) Id.

\(^{18}\) Id.

\(^{19}\) Id.


\(^{21}\) Id.

\(^{22}\) Id.

\(^{23}\) Overview: The TRIPS Agreement, supra note 11.
which account for 21% of WTO membership. As of 2014, 34 of the WTO’s 160 members are least developed countries. Haiti, on behalf of the least developed countries, proposed a second extension of the transition period at the TRIPS council meeting held in November of 2012. Specifically, the proposal requested an extension “for as long as the WTO Member remains a least developed country.” The proposal also stated the reasons for the extension. The least developed countries argued that “the situation of LDCs has not changed significantly since the last extension decision in 2005...[and they] have not been able to develop their productive capacities and have not beneficially integrated with the world economy.” During negotiations, some developed countries felt as though setting a specific expiration date incentivized least developed countries to continue working towards TRIPS implementation. Developed countries also advocated for the continued inclusion of the “no-rollback” provision. This provision prohibited least developed country members from making changes in their pre-existing laws, regulations, and practices that would lessen their consistency with TRIPS provisions.

The TRIPS council ultimately decided to extend the

---

111 Responding to Least Developed Countries’ Special Needs in Intellectual Property, supra note 106.
117 Abbott, supra note 114, at 4.
transition period for eight years, or until a country graduates from least developed to developed status (whichever happens sooner), and to remove the “no-rollback” provision.\(^\text{119}\) This extension has no effect on the ability of the least developed countries to utilize the other flexibilities set forth in the Agreement, and still allows them to seek additional transition period extensions.\(^\text{120}\) The WTO stated that the reason for granting the extension for least developed countries was “in recognition of their special requirements, their economic, financial and administrative constraints, and the need for flexibility so that they can create a viable technological base.”\(^\text{121}\)

B. Effects of the Agreement on Least Developed Countries

The TRIPS council’s decision to extend the transition period for least developed countries has been justified on the grounds that, in doing so, they are helping these countries develop the infrastructure required to benefit from the Agreement. However, instead of helping these least developed countries, the WTO is actually hurting them. Although the TRIPS Agreement has been criticized for favoring developed countries and disadvantaging least developed countries, the Agreement has the potential to benefit nations at all levels of development. Developed countries are given additional markets for their products, and the adoption of minimum intellectual property rights helps developing and least developed nations attract foreign investment and promote innovation. However, in continually granting transition period extensions, the WTO is preventing least developed countries from fully taking into account all of the potential economic benefits that can accrue to them as a result of the adoption of the TRIPS Agreement.

1. The WTO’s Priority Needs Assessments Are Ineffective in Helping Least Developed Countries Achieve TRIPS Compliance

In an attempt to understand the specific challenges facing

\(^{119}\) Responding to Least Developed Countries’ Special Needs in Intellectual Property, supra note 106.

\(^{120}\) Id.

\(^{121}\) Id.
each least developed country, and therefore help them to achieve TRIPS compliance, the WTO’s priority needs assessments inadvertently fall short. The WTO recognizes that least developed countries face different challenges in the successful implementation of the TRIPS Agreement, but fails to provide adequate support to address these challenges. The TRIPS Council’s first decision to extend the transition period for least developed countries for a length of seven and a half years (until July 1, 2013) also brought with it the recognition that least developed countries had different priorities when it came to TRIPS implementation. As a result, the TRIPS council established a process for obtaining information from these countries, known as the priority needs assessments. The Council requested that least developed countries “provide information on what they consider as priorities for technical and financial assistance that would enable them to successfully implement the TRIPS Agreement.”

Aside from the requested submission date of January 1, 2008, the priority needs assessments lack a structural framework which makes it difficult to utilize the obtained information in a beneficial way. Upon the decision to incorporate the priority needs assessments, the TRIPS Council failed to specify exactly how the assessments were to be conducted and submitted, and also failed to specify “the appropriate scope, depth, breadth and quality.” As a result, the TRIPS Council has received priority needs assessments that have varied considerably. Some countries have received assistance from developed countries as well as non-profit organizations in compiling their assessments. This aid has allowed these countries to provide information regarding specific programs, estimated time frames, and necessary budgets to meet their needs to implement the TRIPS

---

123 See id. at 1-2.
124 Id.
125 Id.
126 Id. at 12.
127 Id.
128 Id.
Agreement. In contrast, other countries have completed the assessments independently, submitting assessments that only briefly address their priority needs and estimated budget.

The WTO's priority needs assessments are well intentioned. However, they have only created further obstacles and confusion for least developed countries. As of June 2013, only eight of the WTO's thirty-four least developed country members had submitted priority needs assessments. Despite this, many WTO countries consider the priority needs assessments to be an invaluable tool in creating the momentum necessary to attract donor investments in least developed countries because the assessments force these countries to evaluate and verbalize their specific needs. However, the priority needs assessments have also been criticized on the grounds that they require least developed countries to expend their limited resources on collecting the information required to complete the assessment and prioritize their needs. The assessments also seem to have created additional confusion among WTO members regarding the extent of technical and financial assistance. Least developed countries that have submitted assessments are requesting assistance that extends beyond achieving TRIPS compliance; whereas developed countries believe the assistance provided should be limited to bringing least developed countries into TRIPS compliance. Nonetheless, the least developed countries that have submitted assessments have received little response from developed countries in the form of funding or technical and financial assistance. This demonstrates how the prioritized needs assessments, in their current state, are not serving their intended purpose.

129 Id.
130 Id.
131 Id. at 11.
132 Id.
133 Id. at 12.
134 Id. at 14.
135 Id. at 14-15.
2. Article 31 of the TRIPS Agreement Acts As a Barrier to the Dissemination of Clean Technology

The TRIPS Agreement contains a wide variety of "flexibilities" that allow countries at different stages of development to maintain compliance with the Agreement in ways that address their specific needs. One of these flexibilities is the compulsory licensing option contained in Article 31 of the Agreement.\textsuperscript{136} Compulsory licensing "is when a government allows someone else to produce the patented product or process without the consent of the patent owner."\textsuperscript{137} A compulsory license is granted on a case-by-case basis, and certain requirements must be met before a user may utilize the flexibility.\textsuperscript{138} Article 13(b) requires a proposed user make reasonable efforts to gain authorization from the intellectual property right holder prior to granting a compulsory license.\textsuperscript{139} However, the user country can waive this requirement "in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use."\textsuperscript{140} Although this exempts the user from getting authorization, the use of a compulsory license for one of these reasons still requires that the patent holder be promptly notified.\textsuperscript{141} Additional stipulations under Article 31 dictate that a compulsory license may only be granted if the protected right is being used predominantly to supply the user's domestic market.\textsuperscript{142} Additionally, the license can only be used for the purposes of the original request, limiting its scope and duration.\textsuperscript{143} Compulsory licenses are non-exclusive and may not be re-assigned by the user.\textsuperscript{144} Finally, users must adequately compensate rights holders for any amount that is


\textsuperscript{139} Uruguay Rounds, supra note 136.

\textsuperscript{140} Id.

\textsuperscript{141} Id.

\textsuperscript{142} Littleton, supra note 138, at 11.

\textsuperscript{143} Id.

\textsuperscript{144} Id.
subject to judicial review.\textsuperscript{145}

Compulsory licenses have great potential for least developed countries attempting to gain access to different technologies. However, the current state of Article 31 has negative implications for the transfer of clean technology. Specifically, Article 31(f) explicitly states that compulsory licenses are to be “authorized predominantly for the supply of the domestic market of the Member authorizing such use.”\textsuperscript{146}

Considering that rapid technology transfer is essential to the development and implementation of alternative energy sources, this provision is specifically significant to clean technology. If compulsory licenses may only be granted when the protected asset is to be sold predominantly in the user country’s market, compulsory licenses might not be granted because technology transfers between multiple companies would be prohibited. Additionally, limited market potential may deter domestic dissemination since economies of scale may prevent the technology from being affordable enough for widespread distribution.\textsuperscript{147}

3. Article 66.2 of the TRIPS Agreement is Too Vague to Actually Help Least Developed Countries Establish a “Viable Technological Base”

One of the main reasons the WTO has granted additional time to implement the TRIPS Agreement is to help least developed countries establish a viable technological base. The WTO attempted to achieve this objective through developed country participation, as set forth in Article 66.2 of the TRIPS Agreement. Although the WTO sees “the transfer and dissemination of technology” as “part of the bargain in which [least developed countries] have agreed to protect intellectual property rights,” the WTO’s efforts have failed to ensure that their goals are being met.\textsuperscript{148}

The WTO places an obligation upon developed countries

\textsuperscript{145} Uruguay Rounds, supra note 136.

\textsuperscript{146} Id.

\textsuperscript{147} Littleton, supra note 138, at 10.

to incentivize firms within their jurisdictions to transfer technology to least developed countries. Specifically, Article 66.2 of the TRIPS Agreement states, "[d]eveloped country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base." 149 To enforce this obligation, the TRIPS Council implemented a reporting mechanism in 2003 that obliged developed countries to submit reports documenting their actions every three years. 150 Annual updates are also required to take place during those years in which a report is not submitted. 151

Despite the WTO’s efforts to ensure compliance with Article 66.2, ill-defined parameters detailing how developed countries should be aiding technology transfer have produced less than optimal results. In a 2011 study, of the 384 programs submitted by developed countries, only 42 (11%) that targeted a least developed WTO member country qualified as aid that encouraged technology transfer. 152 The term “technology transfer,” however, was defined rather broadly in the study, giving developed countries the benefit of the doubt. 153

III. INCORPORATING NGO TECHNOLOGY TRANSFER INTO THE TRIPS FRAMEWORK WILL BEST ALLOW HAITI TO SUCCESSFULLY IMPLEMENT THE TRIPS AGREEMENT

Technology transfer has been recognized as a critical foundational element in helping least developed countries successfully implement the TRIPS Agreement. Rather than acting as a temporary crutch, technology transfer educates individuals on the ground, which gives them access to pre-existing technology, thus spurring innovation. The TRIPS

150 Moon, supra note 148, at 3.
151 Id.
153 Moon, supra note 148, at 5.
Agreement has been criticized as hindering least developed countries for many reasons. However, it is not likely that the Agreement is going to be substantially modified. If the goal of the TRIPS Agreement, and WTO, is to ensure that least developed countries establish a viable technological base and implement the TRIPS Agreement, then one of the keys to ensuring success of implementation is to involve non-government organizations (NGOs). NGOs are able to assist least developed countries by providing them with the individualized attention they need to ensure that technology transfer is effective given the country's unique circumstances.

Enabling least developed countries to establish a viable technological base is an important part of the WTO's agenda. The WTO has stressed the importance of technology transfer through the incorporation of Article 66.2, but they have not been proactive about the actual implementation of the terms. The United Nations defines technology transfer as "the process by which commercial technology is disseminated . . . which involves the communication, by the transferor, of the relevant knowledge to the recipient." Technology increases the technological capacities of least developed countries, while also alleviating more acute issues like poverty, poor healthcare, and food security.

The transfer of technology through NGOs is a promising mechanism for helping least developed countries strengthen their economies and realize the benefits of intellectual property rights. NGOs are theoretically better agents for change due to their lack of specific government affiliation, and because they are not aligned with any particular country's interests. The independent nature of an NGO also helps them overcome traditional barriers to technology transfer; as such organizations are not primarily concerned with patent protection. One difficulty of technology transfer between developed and least developed countries is that the majority of technologies in developed countries are held by a small number of firms. These firms are deterred from transferring their technology to least developed countries because of the

155 Moon, supra note 152, at 1.
156 Littleton, supra note 138, at 13.
small market size and the fear of losing control over their technologies.\textsuperscript{157} Least developed countries are also unable to provide the financial incentives, or technology exchange, that a developed country might be seeking.\textsuperscript{158}

In an effort to overcome these barriers, the WTO currently obligates developed countries to incentivize firms to achieve technology transfer. As previously mentioned, such efforts are not producing results. The WTO has pre-existing relationships with certain NGOs,\textsuperscript{159} making the incorporation of NGO technology transfer into the TRIPS framework a real possibility. Non-government organizations, such as the World Intellectual Property Organization (WIPO), work specifically towards enabling countries “to achieve the requisite level of economic, social and cultural development” through country-specific intellectual property strategies.\textsuperscript{160} Working in conjunction with the WIPO would allow the WTO to get closer to achieving its goal of TRIPS implementation by all member countries because the WIPO would provide the individualized assistance least developed countries require.

Bridging the gap between the world’s most developed and least developed countries is imperative to global cooperation and success. Although the WTO’s least developed country members are not ready to fully implement the TRIPS Agreement, the continual extension of transition periods in the absence of a comprehensive plan of action to help implement the TRIPS Agreement will only cause the least developed countries to fall farther behind. Incorporating NGO technology transfer not only provides the opportunity to help least developed countries reap economic benefits through dissemination, education, and innovation, but NGO technology transfer can also be used to implement clean technology. Although adopting clean technologies is a global priority, the WTO has yet to establish any assistance to help least developed countries, many of which are seriously dependent upon fossil fuels. Assisting least developed

\textsuperscript{157} Id.

\textsuperscript{158} Id.


\textsuperscript{160} Moon, supra note 152, at 7.
countries with the transfer of clean technology would have a two-fold benefit. First, the adoption of clean technology would spur economic development. Second, the world’s least developed countries would have the opportunity to narrow the technology gap, allowing them to become an active participant in the global movement towards clean energy.

Haiti is a prime example of a least developed country that has faced significant challenges with regard to the implementation of the TRIPS Agreement. Although the country has made significant steps in establishing the appropriate intellectual property infrastructure, it faces many other challenges that can render these institutions ineffective. Haiti already has a working relationship with the WIPO, and has taken the steps to understand its biggest challenges and weaknesses with regard to development. That being said, incorporating technology transfer into the TRIPS framework would provide Haiti with the basic foundations for development in a way that works for them. Haitian citizens would be afforded the opportunity to utilize and learn about new technologies. In turn, citizens can take this information and employ it to develop innovative solutions to problems on the ground. More specifically, the transfer of clean technology to Haiti would allow the country to decrease its dependency upon fossil fuels, and learn how to utilize its natural resources in new and sustainable ways. The establishment of a technological base is not only beneficial for local innovation; it would also make Haiti an attractive country for foreign direct investment. The possible beneficial effects of technology transfer through non-government organizations in Haiti could serve as a model for other least developed countries attempting to approach development through intellectual property.

CONCLUSION

Despite numerous efforts, the WTO’s TRIPS Agreement is hindering least developed countries rather than helping them. The WTO has recognized that least developed members do not yet have the requisite infrastructure to successfully implement the Agreement. However, the WTO’s efforts are not providing least developed members the individualized
assistance they need. Technology transfer is essential in helping least developed countries successfully implement the TRIPS Agreement, and in establishing the requisite infrastructure to spur development. Utilizing NGOs as the mechanism for technology transfer offers least developed countries the opportunity to obtain personalized, on-the-ground assistance. In particular, focusing on the transfer of clean technology helps least developed countries not only become TRIPS compliant, but also helps them to decrease their dependence upon fossil fuels and become economically empowered.

As one of the least developed countries in the world, and the poorest in the Americas, Haiti faces many development challenges. Yet, despite these challenges, the country has made significant strides towards becoming a developed country. Haiti has established basic intellectual property institutions, but still lacks the economic development, educated population, and political stability to reap the benefits of their intellectual property system. Incorporating technology transfer through NGOs into the TRIPS framework would provide Haiti with access to beneficial technologies while also educating the population. Additionally, transferring clean technology would allow Haiti to become less dependent upon fossil fuels, while also allowing the country to become an active participant in the global shift towards renewable energy. The spread of information that results from technology transfer has huge potential for all least developed countries, putting them on a path to TRIPS compliance and, more importantly, setting a solid foundation for development.