

Escalating Tensions:  
The Emerging Relationship Between Intellectual Property Rights and Indigenous Rights  
in Peru

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## Abstract:

With the adoption of the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement in 1994, intellectual property rights became institutionalized within World Trade Organization (WTO) law as a means of harmonizing disparate national policies and protecting and incentivizing innovation for the advancement of society as a whole. Over time, however, the benefits of this agreement have become increasingly questioned by developing countries, NGOs, and trade scholars. In addition, its implementation has revealed significant tensions with the field of human rights, particularly indigenous rights. These tensions have divided the international trade system, and are strongly responsible for the continued impasse of the current Doha trade round. This paper first examines the theoretical and legal foundations that underlie the current intellectual property rights system and its particular relationship with indigenous rights. Secondly, a case study of the Potato Park, an association of six indigenous communities in the highlands of Peru, is presented as an example of how these tensions might successfully be managed at the local level.

## Introduction

This paper takes the position that the current intellectual property rights system does not adequately respect indigenous rights. In particular, it provides support to conditions which may foster biopiracy and undermine indigenous customary laws and practices. The paper begins with an overview of the intellectual property rights concept, including its theoretical basis, historical progression, and relationship with international trade. Section Two introduces the TRIPS Agreement, emphasizing Article 27.3(b), which establishes a legal framework for the patenting

of biodiversity.<sup>1</sup> The UN Convention on Biological Diversity is also introduced as a counter to TRIPS Article 27.3(b). Section Three discusses the concept of intellectual property as it relates to international human rights law, particularly the Universal Declaration of Human Rights, and the International Covenant on Economic, Social, and Cultural Rights. Section Four discusses the relationship between the TRIPS Agreement and traditional knowledge systems. Section Five presents the Potato Park as a case study of how indigenous communities may attempt to use modern tools to protect their traditional knowledge. Section Six engages in an analysis of these efforts – their context, their effectiveness, and how they may be used by other NGOs. Section Seven concludes with a summary of the findings.

## I. Intellectual Property Rights

Intellectual property rights (IPR) are the rights given to persons over the creations of their minds: inventions, literary and musical works, names, images, symbols, etc (Guzman and Pauwelyn 2009, p. 590). For example, a pharmaceutical company which develops a new medicine may receive a legal title to manufacture and sell this medicine for a specified time period before other companies are allowed to do similarly. Or, a computer firm may place a copyright on the software it produces, making its unlicensed redistribution illegal. These are common examples of intellectual property rights.

In the context of international trade, these rights are viewed primarily in a utilitarian sense; as drivers of economic efficiency and development. The reasoning is as follows: in the absence of intellectual property rights, firms choose to imitate profit-making ideas rather than risk developing their own. Therefore, a system of intellectual property is needed to combat the

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<sup>1</sup> The TRIPS Agreement was originally negotiated under the GATT (General Agreement on Tariffs and Trade) and signed on April 15<sup>th</sup>, 1994, as the Final Act of the Uruguay Round of trade negotiations. However, it did not enter into operation until January 1, 1995 when the GATT was replaced by the WTO (World Trade Organization).

failure of the competitive market to promote and sustain an efficient level of technical innovation and creative expression (Menell 2007). Ultimately, in a competitive market without IPR, imitation drives profits down to zero, and fails to provide any substantial compensation to the efforts of creative firms and individuals that must now pay sunk costs including time, materials, and any costs associated with the research and development phase. This represents the inherent risk involved in the development of intellectual property. Richard Posner (2007) writes:

“Suppose that it costs \$10 million to invent a new type of food blender, the marginal cost of producing and selling the blender once it is invented is \$50, and the estimated demand is for 1 million of the blenders (we can for the present ignore the fact that demand will vary with the blender’s price). Unless the manufacturer can charge \$60 per blender, he will not recoup his costs of invention. But if other manufacturers face the same marginal cost as he, competition will (in the absence of patents) bid the price down to \$50, the effort at the recoupment will fail, and anticipating this the manufacturer will not make the invention in the first place; he won’t sow if he won’t be able to reap.” (p. 43)

The lack of incentives to privately produce innovative ideas highlights the fundamental concern of intellectual property within a capitalist economic system: the free-rider problem. This problem stems from the fact that knowledge, in the absence of protection, has characteristics of a public good; it is non-rivalrous (a student does not remove knowledge from his teacher; instead they share it), and it is non-excludable (the teacher cannot prevent the student from using the knowledge he has acquired). The utilitarian solution is to provide exclusive-use rights to innovators in order to encourage individual innovation and discourage free riding. However, three distinct problems arise from this policy: (1) temporary monopoly rights result in a deadweight loss that reduces social welfare, (2) restrictions on knowledge discourage the development and advancement of that particular knowledge, and (3) there is no assurance that the intellectual property rights will be given to the best firm or innovator in terms of furthering

this knowledge (Menell 2007, p. 38). Ultimately, intellectual property rights law is left with the problem of how best to balance legal protections designed to promote innovation with the diffusion of knowledge, which promotes social welfare. This tradeoff is known as the “intellectual property bargain” (Yusuf 2008, p. 7).

Other arguments to support IPR have come from a moral grounding. For instance, John Locke’s theory of labor is at times invoked as a defense of IPR: creative thought is a form of labor, which adds value to a particular good, and establishes an exclusive property right (Heald 2004, p. 527). Alternatively, Hegel’s notion of property – that is, property as the realization of freedom – is also invoked at times, and was arguably influential in the crafting of the 1886 Berne Convention for the Protection of Literary and Artistic Works (Heald 2004, p. 528). However, as intellectual property scholar Peter Drahos notes, the philosophers of modern European thought had little or nothing to say regarding intellectual property (Drahos 1998, p. 24). Instead, intellectual property, as outlined in the current international trade system – which is administered by the World Intellectual Property Organization (WIPO) and the WTO – has used “rights” in the sense of “economic and instrumental benefits that flow from protecting intellectual property products across national borders” (Helfer 2003, p. 50).<sup>2</sup> In this way, the intellectual property rights system emerged largely as a response to the free rider problem, in an effort to promote economic efficiency. This is in stark contrast to the human rights law approach, which justifies IPR through deontological claims of natural rights (Helfer 2003, p. 50).<sup>3</sup>

Although the need to protect intellectual property has been known for centuries, intellectual property rights regimes have varied substantially across space and time. The first

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<sup>2</sup> WIPO is a UN agency originally created in 1967, and dedicated to the promotion of a cohesive framework for managing intellectual property around the world. For more details, see [http://www.wipo.int/about-wipo/en/what\\_is\\_wipo.html](http://www.wipo.int/about-wipo/en/what_is_wipo.html)

<sup>3</sup> The human rights law approach is analyzed in greater detail in Section III.

known patent law originated in Venice, in 1474 (Drahos 1998, p. 3). The U.S. first passed its own patent and copyright laws in 1790, after George Washington told Congress, “There is nothing which can better deserve your patronage than the promotion of science and literature. Knowledge is, in every country, the surest basis of public happiness. In one in which the measures of government receive their impression so immediately from the sense of the community as in ours, it is proportionally essential” (cited in Menell 2007, p. 38). Again, this suggests that within the United States intellectual property rights were promoted from a distinctly utilitarian ideal; public happiness. More broadly, during this time period – the 18<sup>th</sup> and 19<sup>th</sup> centuries – states developed and abided by the principles of territoriality, where intellectual property rights extended up to, but no further than their respective borders. However, incongruities across borders again exposed the free-rider problem, ushering in the international era of intellectual property rights (Drahos 1998, p. 6).

The international era was based largely on two central treaties: (1) the 1883 Paris Convention for the Protection of Industrial Property, and (2) the 1886 Berne Convention for the Protection of Literary and Artistic Works.<sup>4</sup> These efforts were the first to harmonize treatment of intellectual property across national boundaries, and are still respected today, administered by the World Intellectual Property Organization (WIPO). More importantly, they established a precedent for the international management of intellectual property rights, which would ultimately form the basis for the TRIPS Agreement.

These treaties were also the first to expose the problems of an international intellectual property rights system. For example, the Berne Convention was first ratified by France,

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<sup>4</sup> The 1883 Paris Convention for the Protection of Industrial Property establishes protection for industrial property and designs through patents and trademarks. It has 173 member countries. The 1886 Berne Convention for the Protection of Literary and Artistic Works establishes minimum standards for international copyright law. It has 164 member countries. Both conventions are fully compatible with, and promoted by the TRIPS Agreement.

Germany, Spain, and the UK – four major colonial powers – and used largely as a tool to “suit the interests of copyright exporters” seeking to establish economic dependencies within their new colonies and territories (Drahos 2002, p. 767). Additionally, despite the rhetoric and ambitions of establishing universal intellectual property law, states were still able to adjust their laws to promote their own particular interests. For example, in 1988, of the ninety-eight Paris Convention members, “forty-nine excluded pharmaceutical products from protection, forty-five excluded animal varieties, forty-four excluded methods of treatment, forty-four excluded plant varieties, forty-two excluded biological processes for producing animal or plant varieties, thirty-five excluded food products, thirty-two excluded computer programs and twenty-two excluded chemical products” (Drahos 2002, p. 768). These exclusions convey a lack of full harmonization immediately prior to the adoption of the TRIPS Agreement.

## II. The TRIPS Agreement

The TRIPS Agreement, which was negotiated in 1994 during the Uruguay Round of Multilateral Trade Negotiations of the General Agreement on Tariffs and Trade (GATT), represents a radical shift in the international community’s approach to intellectual property rights.<sup>5</sup> This section outlines the TRIPS Agreement, particularly with respect to its regulation of plant varieties, as well as its relationship with the Convention on Biodiversity. This section concludes with a brief analysis of power imbalances within the WTO, which administers the TRIPS Agreement.

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<sup>5</sup> The GATT is a multilateral agreement, first signed in 1947, to promote and regulate trade between countries. Prior to 1995, it also functioned as an institution, and conducted eight separate rounds of trade talks and negotiations, the last of which was the Uruguay Round. In 1994, under the Final Act of the Uruguay Round, the GATT was modified (the new Agreement is referred to as GATT 1994), and established the World Trade Organization as an international institution to implement the GATT. See <http://www.gatt.org/>

## II.I TRIPS Background

TRIPS is a comprehensive intellectual property agreement, establishing minimum standards of intellectual property protection spanning across almost all IPR categories (WTO, 2011). TRIPS also fully respects and incorporates the prior WIPO intellectual property agreements (the 1883 Paris Convention and the 1886 Berne Convention) into its laws. However, TRIPS drastically surpasses these conventions in both the scope and breadth of regulations, with standards mirroring those of the most industrialized countries (von Hase 2008, p. 83-84).

The true novelty of TRIPS is its use of the WTO as the medium of its enforcement and implementation. The WTO, which subsumed the GATT on July 1<sup>st</sup>, 1995, provides a strong enforcement mechanism: the threat of discipline from its Dispute Settlement Body, which can, and has used retaliatory sanctions when needed.<sup>6</sup> This ensures uniform compliance in a way which was not possible within the WIPO. In fact, the shift from the WIPO to the GATT was led by the United States during the 1980s after it failed to negotiate higher patent protections within the framework of the WIPO (Helfer 2004, p. 20). Increasing pressure from intellectual property industries convinced the U.S. to look to new avenues for compliance (Drahos 2002).

Secondly, the linkage of IPR and trade through the WTO captures compliance from WTO member states who would otherwise remain uncommitted to the protection of intellectual property (Helfer 2004, p. 21). By including TRIPS within the GATT – and therefore the WTO – all WTO member countries were required to adopt the high standards of intellectual property protection detailed in TRIPS, in order to maintain WTO membership and access to the markets of industrialized nations (Helfer 2004, p. 2). This requirement created a sharp North-South

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<sup>6</sup> The WTO Dispute Settlement Body (DSB), formally known as the Understanding on Rules and Procedures Governing the Settlement of Disputes, is composed of all WTO member countries and aims to establish compliance with WTO trade law. Member countries may request that the DSB establish panels for arbitration of trade disputes, with retaliation (via increased tariffs) as the penalty for non-compliance. For more information, see [http://www.wto.org/english/tratop\\_e/dispu\\_e/dsu\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm)

schism, given that industrialized nations own an estimated 97 percent of the world's patents (UNDP 2000, p. 84). In this sense, the Global South viewed, and continues to view TRIPS as a modern tool of imperialism.

The resentment to the TRIPS Agreement is currently being manifested in the form of sharp opposition among developing countries in the current Doha Round of trade talks.<sup>7</sup> More specifically, developing countries are concerned with their ability to maintain an adequate “policy space” to pursue development, while abiding by increasingly comprehensive international trade rules (Gallagher 2008, p. 63).<sup>8</sup> This includes TRIPS, the Agreement on Trade-Related Investment Measures (TRIMS), and the General Agreement on Trade in Services (GATS); these three amendments to the original GATT exchanged developing country policy space for access to developed country markets, in what was called ‘the grand bargain’ (Gallagher 2008, p. 73).<sup>9</sup> However, many developing countries have been unsatisfied with this tradeoff, arguing that developed countries have received a larger portion of the benefits created (Gallagher 2008, p. 73). As such, developing countries conditioned their participation in the Doha round of trade talks on the inclusion of development as the focal point of discussions. However, strong tensions still remain, and formal talks have not taken place since July, 2008. Despite this backlash, the TRIPS Agreement currently applies to all 153 WTO member states, and over 97 percent of international trade (WTO, 2011). Additionally, the U.S. continues to push for even stronger intellectual property rights enforcement and expanded legislation through bilateral free trade agreements, known as TRIPS-Plus agreements (Helfer 2003, p. 59).

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<sup>7</sup> The Doha Round (also known as the Doha Development Round or the Doha Development Agenda) is the current round of international trade negotiations between WTO member countries. It began in Doha, Qatar, in November 2001. At the time of writing, the last round of talks occurred in July 2008.

<sup>8</sup> In this context, “policy space” refers to development sovereignty: a state’s ability to engage in development policies of its own choosing.

<sup>9</sup> TRIMS and GATS regulate investment restrictions/requirements and international trade in services, respectively. Both were established in conjunction with TRIPS as part of the GATT 1994 revision. However, the TRIPS Agreement has created the most opposition of the three.

## II.II TRIPS Article 27.3(b)

While the TRIPS Agreement has been opposed across a wide range of thematic areas, one of the most contentious issues of the agreement is its segment concerning biodiversity.<sup>10</sup> Broadly speaking, TRIPS attempts to regulate biodiversity through the use of a patenting system to assign formal ownership titles to newly created or discovered plant varieties. Specifically, Article 27.3(b) of TRIPS states that a country must allow for the protection of plants varieties through patents, unless they implement an effective *sui generis* system:

“Members may also exclude from patentability: ...plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.” (cited in Matthews 2011, p. 55)

*Sui generis* translates to “of its own kind.” In the context of TRIPS, this refers to regimes regulating the patenting of plants, outside of the default TRIPS regulations. For example, this could be a system of community intellectual property rights, in place of individual rights. Opponents argue that the mere option to adopt *sui generis* system fails to provide adequate protection for the biological resources and traditional knowledge of indigenous peoples.<sup>11</sup> If national governments are unable or unwilling to develop their own protection systems, then plants, animals, and biological processes are left fully patentable by default. Furthermore, they argue that the concept of patenting knowledge and resources is foreign to indigenous peoples, and unlikely to succeed due to high costs and vast differences in cultural values, particularly the

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<sup>10</sup> Other thematic areas include public health, indigenous rights, food security, and equality of growth, among others.

<sup>11</sup> It is also important to note the use of the term, *effective*. It remains to be determined what exactly constitutes an effective *sui generis* system.

ownership (patenting) of life forms and the privatization of shared resources (Argumedo and Pimbert 2006; Dutfield and Posey, 1996).

Still, *sui generis* systems present a viable option. At present, the only international system to be recognized by the WTO is the Plant Breeders' Rights system put forth by the International Union for the Protection of New Varieties of Plants (UPOV). This convention establishes a more flexible set of criteria for the patenting of plants,<sup>12</sup> in recognition of the substantial investments required in breeding new varieties, as well as the many public benefits of plant breeding.<sup>13</sup> Currently, 60 countries are members of UPOV; this fulfills their TRIPS 27.3(b) obligations.

Critics, however, suggest that the convention remains inadequate in its protection of traditional knowledge, and instead seeks to commercialize plant varieties in the same way as TRIPS (Matthews 2011, p. 56). For instance, Breeders' Rights prohibit farmers from sharing and even saving seeds from their harvest if the seed variety is formally registered by a breeder. In order to engage in the sharing and saving of seeds, the UPOV Convention requires that royalties be paid from the farmer to the breeder with each use. In this way, Breeders' Rights directly attacks the traditional mechanisms and customs (ie. seed saving and seed sharing) which farmers have used to promote biodiversity for centuries (Posey and Dutfield 1996, 103). Therefore, many developing countries are now attempting to develop their own national *sui generis* systems, rather than continue to follow the international UPOV model. For example, Thailand passed its Thai Plant Varieties Protection Act in 1999, which provides a set of regulations designed to better suit the customs and beliefs of Thailand's farming communities. Similarly, India developed a *sui generis* system within its Protection of Plant Varieties and Farmers' Rights Act of 2001. This system was presented as an alternative to the UPOV Convention, and merges

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<sup>12</sup> More specifically, plant varieties must be new, distinct, uniform, and stable (Matthews 2011, p. 56).

<sup>13</sup> These include economic benefits, health benefits, environment benefits, and quality benefits (International Union for the Protection of New Varieties of Plants, p. 12).

UPOV's plant breeders' rights with farmers' rights (Robinson 2008, p. 661). Developed within the UN Food and Agriculture Organization's International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), the farmers' rights concept acknowledges and promotes the efforts of farmers, rather than breeders, in the development of biodiversity and continuation of biodiversity: "Farmers' Rights consist of the customary rights of farmers to save, use, exchange and sell farm-saved seed and propagating material, their rights to be recognized, rewarded and supported for their contribution to the global pool of genetic resources as well as to the development of commercial varieties of plants, and to participate in decision making on issues related to crop genetic resources."<sup>14</sup> These two regimes (Thailand and India) are currently the only true sui generis systems which have been successfully developed at the national level (Robinson 2008, p. 660).

While much of the attention to TRIPS Article 27.3(b) has come from farmers and indigenous groups, states have also expressed great skepticism. Before the TRIPS Agreement, many countries, including Peru, completely excluded nature from patentability (Matthews 2011, p. 55). Therefore, when the US promoted the broad coverage of agriculture and genetic resources found in the TRIPS Agreement, it was met with significant resistance on behalf of national governments included many EU countries as well (Matthews 2011; Drahos 2002). This suggests that skepticism of the patenting of biological resources extended, and continues to extend beyond the Global North/South dichotomy.<sup>15</sup>

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<sup>14</sup> **Farmers' rights are still not entirely delineated and remain at a conceptual level even within the UN FAO's International Treaty on Plant Genetic Resources for Food and Agriculture. The quotation used above is available on the farmers' rights website (<http://www.farmersrights.org/>).**

<sup>15</sup> For example, the EU has taken a very cautious approach toward the adoption of genetically modified food products (which are protected by patents), and Austria, France, Greece, Hungary, Germany, and Luxemburg are currently invoking a "safeguard clause" to restrict genetically modified foods within their borders due to fears of health and environmental risks. See [http://ec.europa.eu/food/food/biotechnology/gmo\\_ban\\_cultivation\\_en.htm](http://ec.europa.eu/food/food/biotechnology/gmo_ban_cultivation_en.htm)

### II.III TRIPS and the CBD

From a legal perspective, TRIPS has received criticism for conflicting with a variety of other international treaties, including a variety of human rights instruments. Regarding biological resources, however, the most significant document has been the 1993 Convention on Biological Diversity (CBD). This legally-binding treaty aims to promote biodiversity and ensure its sustainability. It challenges the TRIPS Agreement by recognizing states' rights to control and manage the biological resources within their borders, while requiring them to respect traditional knowledge systems (Hefler 2004, p. 31). Regarding intellectual property rights, the most significant requirements come from Article 8(j), which states the following:

“[Parties shall] Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices” (cited in Matthews 2011, p. 62).

This represents an exclusion principle which challenges TRIPS Article 27.3(b) by forcing any patents to include the prior informed consent of indigenous communities, as well as the equitable sharing of any benefits received (Matthews 2011, p. 62). The 2001 WTO Doha Round attempted to better resolve this issue through paragraph 19 of its Ministerial Declaration, which directs the “Council for TRIPS, in pursuing its work programme including under the review of Article 27.3(b)... to examine, inter alia, the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by Members” (cited in WTO, 2011). At present, the

most pressing issues raised by member countries include the degree to which life should be patentable, the interpretation of effective sui generis protection, whether sui generis systems are the most desirable way to protect indigenous resources and traditional knowledge, and how TRIPS and the CBD can be implemented jointly (Matthews 2011, p. 65-66).

#### II.IV The WTO and Developing Countries

Lastly, it is important to note that much of the opposition to the TRIPS Agreement is intertwined with, and reinforced by a much larger resentment toward power imbalances within the WTO system. In theory, the WTO operates by consensus, under the principle of one country-one vote. However, in practice, the WTO operates with a well-documented “democratic deficit” (Alqadhafi 2007). The largest part of the problem concerns the WTO’s consensus decision-making process.<sup>16</sup> In theory, this allows each country’s voice to be heard; if negotiations do not address a country’s concerns, it can object and exercise what is effectively veto power. However, weak countries rarely use objections. The reason is that even if a weak country were to have the political courage to stop the negotiations, the decision would then go to a majority vote, which it would likely lose, and have to pay for in the form of future retaliation by other member countries (Alqadhafi 2007, pp. 8-11). In this manner, the forum for repeated interaction, designed to prevent defection and promote trust, has had the unintended effect of diminishing the power and voice of its smaller and less powerful members (Ehlermann and Ehring 2005).

On the other hand, countries with large markets, such as the U.S., Canada, and Japan, have an added bargaining power through the threat of secession, which would hurt everyone in the international trading system. Since the rest of the member states know that in reality, their

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<sup>16</sup> The WTO makes its decisions by consensus; no decision is made if any member present objects to it. If an objection is made, the proposal then enters a compromise stage. If no compromise is reached, the decision moves to majority vote (Ehlermann and Ehring 2005, WTO 2011).

economies are tied to, and dependent upon these large markets, powerful countries are free to make much stronger demands until “consensus” is reached (Third World Network 1999).

The institutionalization of this power relationship between rich and poor countries has created significant resentment toward the WTO, borne out of the dependency school of international relations.<sup>17</sup> Under this theory, the global economy is divided into a “core” group of developed nations and a “peripheral” group of under-developed nations, the latter which is used to further develop the core nations: “trade relations are based on monopolistic control of the market, which leads to the transfer of surplus generated in the dependent countries to the dominant countries” (Dos Santos 1970, p. 231). While the WTO institutionalizes this relationship, the TRIPS Agreement furthers it by providing legal mechanisms to extend the reach of extractable resources within the periphery. This perceived structure of dependence has caused developing nations to call into question the benefits of the intellectual property rights system, and is one of the leading causes of the Doha Round’s current failures (Drahos 2002).<sup>18</sup>

### III. Human Rights and Intellectual Property Rights

One of the other most significant challenges to the TRIPS Agreement comes from the body of human rights law. However, the relationship between human rights and intellectual property rights is not entirely clear. The primacy of human rights is a well-known principle within international law, which would seem to subordinate intellectual property rights in cases of disagreement. This issue, however, is complicated by the fact that the “right to the protection of interests in intellectual creations” is recognized, in some capacity, under international human

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<sup>17</sup> For a more detailed description of dependency theory, see Leys (2006).

<sup>18</sup> Note: Peter Drahos interprets the stalled Doha Round as a concrete success for developing countries and NGOs, which signifies a shift in the standard-setting process of IPR towards “webs of dialogue,” rather than webs of coercion, as was previously the case (Drahos 2002).

rights law, most notably the Universal Declaration of Human Rights (UDHR), and the International Covenant on Economic, Social, and Cultural Rights (ICESCR).<sup>19</sup> Understanding this relationship is central to the development of a human rights framework for intellectual property.

The Universal Declaration of Human Rights, the core document of international human rights law, was adopted by the United Nations General Assembly in 1948, largely in response to the atrocities of World War II. Article 27(2) of the UDHR states “everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” (United Nations 1948). The International Covenant on Economic, Social, and Cultural Rights was adopted in 1966 as a mechanism to encourage states to protect and promote a range of individual rights.<sup>20</sup> Similar to article 27(2) of the UDHR, article 15(1)(c) of the ICESCR requires state parties to “recognize the right of everyone to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” (OHCHR 1966). This suggests that some forms of intellectual property – although this language is a catch-all, and not mentioned in either provision – may be recognized as a human right. This raises the obvious question of “which rights takes precedence during disagreement?” In recognition of this problem, the Committee on Economic, Social, and Cultural Rights provided a more explicit understanding of the relationship between intellectual property and human rights:

“Human rights are fundamental, inalienable and universal entitlements belonging to individuals and, under certain circumstances, groups of individuals and communities.

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<sup>19</sup> The UDHR and ICESCR, together with the International Covenant on Civil and Political Rights (1996) and its two optional protocols, form the International Bill of Human Rights: the set of the most fundamental human rights for all of mankind.

<sup>20</sup> For example, the ICESCR protects the right to education, health, self-determination, gender equality, and just working conditions, among others.

Human rights are fundamental as they are inherent to the human person as such, whereas intellectual property rights are first and foremost means by which States seek to provide incentives for inventiveness and creativity, encourage the dissemination of creative and innovative production, as well as the development of cultural identities, and preserve the integrity of scientific, literary and artistic productions for the benefit of society as a whole” (General Comment No.17, 2005).<sup>21</sup>

This highlights the particularly unusual character of intellectual property rights; they are not viewed as human rights in the traditional sense, yet a largely ambiguous “protection of interests in intellectual creations” is recognized in two of the core legal instruments of international human rights law. This has left the debate divided between three distinct approaches regarding intellectual property (Matthews 2011, p. 205). The first views intellectual property rights as purely legal rights, without any human rights dimension. Under this approach, intellectual property rights may or may not be in conflict with human rights. The second approach views intellectual property rights as human rights, emphasizing an individual’s rights to property as an expression of human dignity and creativity. However, this approach becomes problematic if intellectual property is to be viewed as a universal human right, which would require that IPR regimes be implemented in a way which allows for the full realization of all other human rights. For example, the past use of TRIPS to restrict access to life-saving medicines in developing countries quite clearly conveys the ways in which intellectual property rights regimes may conflict tremendously with human rights (t’ Hoen 2002). The third approach takes note of this, and views intellectual property as a right, but one which may conflict with human rights. The problem then, is one of balance; how to find the proper level of intellectual

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<sup>21</sup> The Committee on Economic, Social, and Cultural Rights is an elected group of 18 independent experts in the field of human rights, who provide interpretations of human rights provisions through General Comments. See <http://www.unhchr.ch/tbs/doc.nsf/%28Symbol%29/03902145edbbe797c125711500584ea8?Opendocument>

property protection to ensure adequate levels of invention while also ensuring adequate levels of access to knowledge – the intellectual property bargain (Helfer 2003, pp. 48-49).

Although scholars, judges, and policymakers have proposed a variety of approaches to overcome these conflicts, this is the impasse at which human rights and intellectual property currently remain. The lack of a clear, commonly-held understanding of the intellectual property concept within international human rights law documents has made it difficult to challenge IPR directly, except in how it affects the realization of more widely-recognized human rights. While this has been successful where issues have contained a strong moral resonance (ie. public health and access to medicines), it has not been as successful in circumstances when the human rights component is more subtle (ie. rights to traditional knowledge, genetic resources, and cultural values) (Matthews 2002, p. 203). For these cases, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) provides a more direct and applicable interpretation.<sup>22</sup> Article 31 explicitly states the following:

“1. Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

2. In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights.”

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<sup>22</sup> The United Nations Declaration on the Rights of Indigenous Peoples was adopted by the General Assembly on September 13, 2007. It is a non-binding instrument, asserting a range of indigenous rights, both individual and collective. See <http://www.un.org/esa/socdev/unpfii/en/drip.html>

While the UNDRIP is clear in its protections with regard to the relationship between intellectual property and the resources of indigenous peoples, its relative youth and voluntary nature have not yet allowed it to hold great strength vis-à-vis the TRIPS Agreement. As a declaration, it lacks the same legal force of TRIPS, as well as any type of formal enforcement mechanism. However, it still does contain force as a part of customary international law; it is a widely-accepted and official statement affirming the rights of indigenous peoples within international law (Coulter 2008, p. 546). In this way, it can be used as a tool by indigenous peoples to protect against actions which violate their rights, as well as a starting point to demand that their governments carry out their responsibilities in full respect of this set of rights (Coulter 2008, 552).

#### IV. TRIPS and Traditional Knowledge

Despite the conceptual overlap between human rights and intellectual property rights, the two approaches remained largely separate until the 1990s, when the U.N. began to focus on the rights of indigenous peoples and in particular, the emerging relationship between their traditional knowledge systems (TK) and the TRIPS Agreement (Helfer 2003, pp. 51-52). Traditional knowledge does not have a precise definition, but it refers to the set of economic and cultural assets held by indigenous communities, particularly those “pertaining to their culture and folklore, their technologies, and their use of native plants for medicinal purposes” (Yusuf 2008; Muzner 2010). Some examples of traditional knowledge include: knowledge of the use of plant and animal species, knowledge of ecosystem conservation methods, knowledge of preparations and formulations involving multiple ingredients, handicrafts and art forms, and sacred/cultural property (Posey and Dutfield 1996, pp. 12-13).

Even though a variety of concerns exist among indigenous peoples, it is traditional knowledge that has so far provided the strongest challenge to intellectual property rights. This is largely due to the fact that traditional knowledge can be considered a part of the public domain; it is of unknown age and lacks a single owner. However, the idea of communal property rights does not conform well to Western property law, a system which has historically promoted private property as a moral right. The refusal of indigenous communities to adopt individual ownership rights leaves them vulnerable to the appropriation of their biological resources, often without compensation or prior informed consent. This phenomenon is known as biopiracy (Posey and Dutfield 1996, p. 44).

Biopirates – often large, multinational companies – are charged with profiting off of indigenous peoples by claiming inventors' rights over knowledge and biological resources acquired from indigenous groups (Guzman and Pauweylen 2009, p. 590). The unpublished and unregistered nature of indigenous peoples' traditional knowledge and biological resources contributes to this. For example, in India, seeds from a particular tree, *Azadirachta indica*, have been used by Indian farmers for centuries to protect crops from insects, fight malaria and worms, make candles, and even make toothpaste (Posey and Dutfield 1996, p. 80). However, W.R. Grace and Agrodyne, two U.S. companies, were able to obtain patents for the seed's use as a commercial pesticide after creating a slightly-modified derivative of the seed. This completely ignores the insights of the Indian farmers, and their development and nurture of the seeds among many rural communities over centuries. However, under the IPR model, it is the responsibility of Indian farmers to have isolated and named the seed's active ingredients and then to have published the findings (Posey and Dutfield 1996, p. 81).

Finally, there exist concerns with the particular form of protection provided by TRIPS. For example, TRIPS' guidelines typically limit patent protection to no more than twenty years in time (Munzer 2010, p. 52). However, TK is typically formed across centuries and generations, making the time limitation arbitrary and unreasonable to most indigenous rights advocates (Munzer 2010, p. 52). Alternatively, compensation systems have been proposed in place of patent systems.<sup>23</sup> However, these create significant problems of their own due to weak bargaining positions of communities, the distribution of similar knowledge among multiple communities, and the difficulties in determining the original innovator(s) (Posey and Dutfield 1996, p. 41).

Ultimately, indigenous rights to TK, which are based on human rights principles, clearly conflict with IPR – and the TRIPS Agreement in particular – across a variety of subject areas. These conflicts, and the continued plight of indigenous communities around the world, have brought TK and indigenous rights to the forefront of the resistance to TRIPS among developing countries.

## V. Case Study: ANDES and the Potato Park

Although the present gridlock at the Doha Round of trade talks makes the TRIPS Agreement unlikely to be adjusted in the near future, there still exist a range of tools for the protection of indigenous rights. The following case study outlines the steps taken by *El Parque de la Papa* (the Potato Park) to assert and protect indigenous rights at the local, national, and international levels in response to the threats of intellectual property rights.

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<sup>23</sup> For example, royalties may be given to indigenous communities whose knowledge and resources contributed to the development of, say, a new drug. However, compensation schemes are often problematic, and raise questions of how much compensation? What form of compensation? Who to distribute the compensation to?, etc. (Posey and Dutfield 1996, pp.37-41).

The following information comes in part through an internship which I held with ANDES from June 02, 2010 through August 18, 2010. During this time, I was charged with carrying out an evaluation of the Park's Potato Repatriation Project, as well as assisting with the drafting of various Potato Park reports and analyses.<sup>24</sup> These duties provided me with access to a wide range of non-public organizational documents, which have helped to inform my analysis. My analysis also reflects a series of many formal and informal discussions with ANDES employees and Park members, particularly a two-day workshop, composed of 41 Park members, which I organized, on August 13-14, 2010, in Cusco, Peru. I draw upon these various experiences in the following sections.

#### V.I The Potato Park

The Potato Park is an association of six indigenous Quechua communities (Pampallacta, Amaru, Cuyo Grande, Chawaytire, Saccaca, and Paru Paru) located in Písaq, Peru, just 30 miles northeast of the ancient Inca capital of Cusco. Situated between 10,000 and 16,000 feet above sea level, the Park spans an area of 29,000 acres, and is home to over 6,500 community members, who live within the Park, under their own customary laws and traditions.<sup>25</sup>

The Potato Park was established in 2000 through the efforts of a Cusco-based NGO, the Association for Nature and Sustainable Development (ANDES), which sought to establish a new model of indigenous-led development based around the potato – the primary food source and

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<sup>24</sup> The Potato Repatriation Project, formally known as the “Agreement on the Repatriation, Restoration and Monitoring of Agrobiodiversity of Native Potatoes and Associated Community Knowledge Systems,” transfers the rights of 410 potato varieties from the International Potato Center to the communities of the Potato Park. My responsibility was to document (1) how the objectives of the Agreement were being met, and (2) any impacts of the project outside of the Agreement.

<sup>25</sup> One of the principal ways in which these customary laws and traditions are visible is through the Park system of governance. The Park's website explains: “The governance of the Park integrates Apus (sacred mountains) at the landscape scale, traditional Quechua institutions at the community level, and all family members at the farm level, into the decision making process” ([www.parquedelapapa.org/eng/01visitanos\\_02.html](http://www.parquedelapapa.org/eng/01visitanos_02.html)).

economic resource of these communities. ANDES' concern was that the potato, which originated in the Lake Titicaca region of Peru some 7,000 years ago and now exists in over 4,300 varieties worldwide, was losing its genetic diversity due to disease, pesticide use, monoculture farming practices, and changing migration patterns.<sup>26</sup> In addition, the growing reach of globalization was placing new pressures on many of the farming communities responsible for maintaining high levels of diversity. Finally, indigenous communities were losing many of the traditions and practices which had been tied to lost potato varieties.<sup>27</sup> The end effect of this reinforcing pattern was the loss of traditional knowledge and resources, a growing dependence on global markets for basic foodstuffs, diminished food security, increased vulnerability to price and weather shocks, and a lessened ability of communities to combat climate change (temperature shifts are magnified in the Andes mountains and high levels of biodiversity are crucial for the maintenance of crop production). To combat these concerns, ANDES helped unite the communities, based on their common identity and common practice of potato farming.

The communities of the Park hold a variety of unique belief structures and practices, based on their Quechua identity. Most importantly, Park members live according to an Andean concept of well-being known as Sumaq Causay, which preaches reciprocity (Ayni) as the sacred, and guiding value for all relations within the Park. This approach to life emphasizes the reciprocal relationships between the three communities (ayllus) of Mother Earth (Pachamama): (1) the community of humans and domesticated species, Runa Ayllu, (2) the community of wild and partially-domesticated species, Sallka Ayllu, and (3) the community of the sacred and the

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<sup>26</sup> **More specifically, changing migration patterns refers to the movement and flow of people from rural areas to urban areas. The danger is often that oftentimes when farmers are pulled to the city, traditional knowledge is lost permanently.**

<sup>27</sup> During a two-day workshop of 41 Park members, held in Cusco, Peru, on August 13-14, 2010, Park members identified a loss in knowledge of practices including farming, feeding, cooking, and paying tribute to Pachamama (tributes are typically made with either potatoes or coca leaves) (ANDES – Potato repatriation agreement focus group discussions, August 13-14, 2010).

ancestors, Auki Ayllu (Argumedo and Pimbert 2010, p. 344).<sup>28</sup> The attainment of Sumaq Causay is therefore inextricably linked to the well-being of the Park environment. Two complementary Andean principles guide the interchange between society and nature: (1) Duality (Yanantin) - that everything has a complimentary part, without which it would not exist; behavior cannot be individualistic, and (2) Equilibrium (Chaninchay) - that existence is harmonious between all beings (Alejandro Argumedo, personal communication, June 3, 2010).

Nature also takes on a special role within the Park's traditional knowledge systems. For example, each mountain has its own spirit (Apu) with its own personality and character. Apu Sunpichu is the mayor of the Potato Park, and owns and presides over the Park with the help of his wife, Pukara Panipallana, and a set of supporting mountains. The Park's wild creatures are believed to be the Apus' animals, and include pumas, foxes, deer, and condors, among other animals. Members of the Park respect the Apus and worship them, and in turn they receive protection for themselves and their own animals. The Apus are also viewed as the creators of the Park's traditional knowledge, customary laws, and practices. Therefore, the Park's communities seek to maintain close relationships with them, although only the Park's priests and healers are able to converse directly with the Apus.

Lastly, the potato plays the central role within the Potato Park. The potato itself has always been vital to Peru as a prominent food source, and over time it has become increasingly enmeshed in indigenous life. Within the Park, potato farming represents the continuation and wisdom of the ancestors, the right to self-determination through food security, the continuing fertility of Pachamama, and the traditional role of indigenous women as seed savers and breeders (IIED 2006). Some villages even use a potato variety, *Qachun Waqachi*, at marital ceremonies to determine the quality of the bride; the bride-to-be peels the rough and knobby potato, and her

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<sup>28</sup> Alejandro Argumedo is also the Director of Association ANDES.

ability to perform a continuous peel indicates her dedication and suitability as a bride (it is aptly known as “that which makes the daughter-in-law weep!”) (IIED 2006). Given its pronounced role within the Andean way of life, the communities of the Potato Park have treasured the potato, and rely upon it as a principal source of their economic livelihoods, social and cultural values, and their customary laws and practices.

## V.II The Intellectual Property Threat

Given the delicate balance between humankind and nature within the Park, community members have approached intellectual property rights, and in particular, the patenting of biodiversity, with great concern. However, two events have made this threat increasingly real in the past decade: (1) the development of genetically-modified potato seeds by a multinational corporation in 2004, and (2) the passage of the US-Peru Trade Promotion Agreement, signed on April 12, 2006.<sup>29</sup>

First, in 2004, a multinational company, Syngenta, was granted US Patent 6,700,039, giving it ownership over a “genetic method for controlling sprouting” of potatoes (IIED 2006). This method, known as Terminator technology, creates the potential for the development of sterilized seeds, forcing farmers to purchase new seeds each season.<sup>30</sup> This method of sterilization for commercial purposes has a strong connection to intellectual property – formal property rights provide the legal basis supporting genetic modification through patent protection, while seed sterilization provides a secondary enforcement mechanism by preventing “seed piracy.”

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<sup>29</sup> While the Agreement was signed by both countries in 2006, it did not enter into force until February 1, 2009. For the full text of the Agreement, see <http://www.ustr.gov/trade-agreements/free-trade-agreements/peru-tpa>

<sup>30</sup>**In theory, Terminator technology would allow for the sterilization of any desired potato variety.**

For the Potato Park's indigenous potato farmers, this presented a variety of threats. First, the potential introduction of sterile potato varieties into the Andean landscape raised concern over the possibility of cross-fertilization, and the sterilization of future generations of potatoes. Although Syngenta claimed the Terminator technology was safe, the Park's farmers argued that even the slightest mistake could erase centuries of biodiversity (IIED 2006).

More importantly, however, the Park's farmers were concerned with the entire act of seed commercialization in relation to their Quechua identity, beliefs, and practices. First, it would undermine the traditional practice of open sharing of seeds. Quechua potato farmers have traditionally maintained high levels of biodiversity through the free exchange and saving of seeds. Oftentimes these exchanges represent cultural and spiritual values, ethical systems, reciprocity relations, and other institutions which neoclassical economic theory cannot capture (Argumedo and Pimbert 2010, p. 346). Patents (and sterile seeds), however, dampen the ability of farmers to trade seeds in accordance with these Quechua institutions, and instead promote a system of economic interaction based entirely upon neoclassical economics.<sup>31</sup> This has a supplemental effect of fostering monoculture farming practices and reducing biodiversity and food security. Secondly, the patenting of seeds would drastically restructure the role of women within the community. Traditionally, women have occupied a space as seed savers and breeders within Peru's potato farming communities, and have been crucial to the maintenance of Peru's 3,000-plus native potato varieties (IIED 2006). Patents, however, reduce this space, and threaten to remove women from their traditional connection to the potato.

Lastly, the Park's farmers viewed the act as a form of biopiracy; a product was created based on an indigenous resource, without prior consent, and without compensation (Argumedo

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<sup>31</sup> The neoclassical economic system is in fundamental conflict, for example, with the Quechua concept of Sumac Causay. As such, many regions and communities within the Andes continue to employ a barter-based economic system which is in accordance with Quechua principles and values of reciprocity.

and Pimbert 2006). In an open letter to Syngenta's CEO, Michael Pragnell, they [the Indigenous Coalition Against Biopiracy in the Andes] wrote:<sup>32</sup>

“We feel greatly disrespected by corporations who, by making a single genetic alteration to a plant, claim private ownership to it as their invention, despite the fact that these plants are the result of thousands of years of careful selection and breeding by indigenous peoples and local communities around the world. We believe that Syngenta by modifying potatoes on the genetic level should not be able to claim ownership over these potatoes which are the handiwork of our ancestors here in the Andes. Furthermore, we believe it doubly unethical that potatoes, in the case of Terminator, be sterilized, patented, and used as a biological means, stronger than patents, to privatize potatoes and prevent farmers from saving them as fertile vegetative organs for use during subsequent agricultural cycles” (IIED 2006).

The Park's farmers were dealt another blow when, in 2006, Peru signed the US-Peru Trade Promotion Agreement. This TRIPS-plus agreement, which entered into force on February 1, 2009, raises the standard of intellectual property protection in Peru, synchronizing it with U.S. standards of enforcement and protection. This excludes any mention of the “prior-informed consent” doctrine, and implies further deregulation of genetically modified organisms, thereby increasing the risk of biopiracy (Argumedo and Pimbert 2006, p. 3).<sup>33</sup> This is particularly troubling given Peru's prior status at the vanguard of indigenous rights promotion; in 2002, Peru passed the “Law for the Protection of the Collective Knowledge of Indigenous Peoples Related to Biological Diversity,” becoming the first nation to develop and implement a system of benefit sharing for commercial sales using the traditional knowledge of indigenous peoples (Robinson

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<sup>32</sup> The the Indigenous Coalition Against Biopiracy in the Andes is a network of Quechua-Aymara farmers which was formed to counter the emerging threat of intellectual property rights in the Andes. Their open letter to Michael Pragnell was signed at the eighth United Nations Convention on Biological Diversity, in March of 2006.

<sup>33</sup> Peru, has actually been an advocate of amending TRIPS patent applications to require prior informed consent, country of origin indicators, descriptions of traditional knowledge used, and fair and equitable benefit sharing systems where needed (Matthews 2011, p. 66)

2008, p. 663).<sup>34</sup> The US-Peru TPA contradicts this and undermines this system in favor of fostering an environment more conducive to foreign investment (Argumedo and Pimbert 2006, p. 3).

### V.III Tools of Protection

Despite the emergence of new threats to their biological resources and traditional knowledge, the communities of the Potato Park have actually been able to increase their biological resources, while more strongly asserting their indigenous rights. This section provides an overview of some of the key actions taken by ANDES and the Potato Park.

The success of the Potato Park begins with its designation as an “Indigenous Biocultural Heritage Territory (IBCHT),” which takes a community-led, rights-based approach toward conservation through the incorporation of a wide range of protections (both tangible and intangible) which recognize the reciprocal relationship between indigenous peoples and their environment (IIED 2010; Argumedo 2008).<sup>35</sup> This designation, created by ANDES, borrows heavily from the World Conservation Union’s (IUCN) Category V protected area categorization, as well as the IUCN Community Conserved Area (CCA) governance structure. These both seek to protect ecosystems by recognizing and protecting the relationship between local communities and their environment (Argumedo 2008, p. 49). The IBCHT model, however, attempts to reach a different end. Rather than adopt the language of conservation – and environmental conservation is often the most politically feasible method to establish protections for a community – the IBCHT model attempts to establish protections based on the recognition of the human rights of

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<sup>34</sup> The regime mandates that outside parties give 0.5% of the value of their sales back to indigenous groups if their goods/services were developed using traditional knowledge (Robinson 2008, p. 663).

<sup>35</sup> The IBCHT designation is not a formal one. Technically speaking, the Potato Park was formed in 2000 as a “Community Conserved Area” (Argumedo and Pimbert 2005). However, Association ANDES subsequently developed the IBCHT designation, which it now promotes within a variety of national and international fora.

indigenous peoples themselves” (Alejandro Argumedo, personal communication, June 3, 2010). In this way, the Park moves beyond traditional conservation-based protected areas, and instead attempts to recognize the entire set of rights of indigenous peoples as they relate to the territories they occupy.

While the Potato Park, as an IBCHT, draws upon a variety of international-recognized concepts - in particular the prior informed consent and equitable benefit sharing of CBD article 8(j), the IUCN Category V Protected Area approach, FAO farmers’ rights concept, and the indigenous rights framework of International Labor Organization (ILO) Convention 169 – the Peruvian government refuses to recognize the Park as a protected area (Argumedo and Pimbert 2006; Argumedo 2008). Therefore, the Park has moved in other directions for legal protections.

First, the Potato Park adopted a model of local documentation of their resources, which they were informed of through a 2002 visit from a women’s media collective (The Community Media Trust) from Andhra Pradesh, India (Argumedo and Pimbert 2006, p. 7). This led to the establishment of a parkwide Indigenous Biocultural Heritage Register, which the Park communities use to document their biocultural heritage, particularly resources vulnerable to biopiracy. For instance, the register includes potato varieties, plant varieties, traditional knowledge, and other communal resources deemed relevant by the communities of the Potato Park (Argumedo and Pimbert 2006). This serves to establish legal recognition of the Park’s resources, without the adoption of intellectual property rights. In addition, the database is used to exemplify the Park’s indigenous values – the software is open-source to reflect collective ownership, the data is inputted through the traditional Andean ‘Khipu’ system, and access to the

database is determined by customary laws and local authorities (Argumedo and Pimbert 2006, pp. 11-12).<sup>36</sup>

Similarly, the Potato Park has looked to protect its resources at the international level. In 2005, the Park entered into the FAO's International Treaty on Plant Genetic Resources multilateral system, which facilitates access to genetic resources through a materials transfer agreement (Argumedo and Pimbert 2008). This marks the first time a community has entered the system (other members include governments and ex situ conservation facilities), giving the Park influence in the management of the multilateral system, while providing formal recognition of the Park's resources at the international level (Alejandro Argumedo, personal communication, August 3, 2010). ANDES is also working with the FAO to design and construct a "Centre for Traditional Knowledge and Native Potatoes in the Potato Park," to better chronicle the various forms of traditional knowledge held within the Park (ITPGRFA 2011). Lastly, the Potato Park recently transferred 1,500 potato varieties to the Svalbard International Seed Bank, just 810 miles from the North Pole, to protect the varieties in the event of global crisis (Kivner 2011). A largely symbolic action, this transfer serves mostly to raise international awareness of the growing concerns of Peru's potato farmers and promote a balanced relationship between in-situ and ex situ conservation strategies (Alejandro Argumedo, personal communication, March 16, 2011).<sup>37</sup>

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<sup>36</sup> The open-source software is used to reflect the Quechua ethos of free information-sharing for the greatest good, in direct contrast to the model of commoditization of knowledge, imposed through intellectual property rights (Argumedo and Pimbert 2006, p. 12). "Khipus" are arrangements of long, colorful, knotted cords, used by Andean communities to record and transmit information. The communities of the Potato Park use the concept of the Khipu for the database by creating a Yapana Matrix (a large two-dimensional matrix made of string), and using each matrix box to catalogue and document potato varieties, traditional knowledge, and other communally-held information (Argumedo and Pimbert 2006, p. 11)

<sup>37</sup> *In situ* conservation refers to on-site conservation, whereas *ex-situ* conservation refers to off-site conservation. In the context of the Potato Park, in situ refers to the set of potatoes (and all other biological resources) grown within the Park. Ex situ refers to the set of potatoes conserved in the gene bank of the International Potato Center. The novelty of the Potato Park is its method of merging in situ and ex situ conservation strategies.

The Potato Park has also attempted to combat the threat of intellectual property rights by increasing the level of biodiversity within the Park. In 2004, the Potato Park, represented by ANDES, signed an Agreement with the International Potato Center (CIP),<sup>38</sup> located in Lima, Peru, titled the “Agreement on the Repatriation, Restoration and Monitoring of Agrobiodiversity of Native Potatoes and Associated Community Knowledge Systems.”<sup>39</sup> The Agreement is rooted in a history of wrongful appropriation of indigenous resources: during the 1960s, CIP carried out a series of activities throughout the countryside of Peru, designed to acquire the widest available range of the country’s native potato varieties. While this was done with the intent of safeguarding the potato through its preservation in the Center’s ex situ gene bank, the acquisitions were carried out without prior consent of the many indigenous groups who had cultivated the potato varieties for hundreds and even thousands of years. Since then, many of these potato varieties have been lost, existing only within CIP’s gene bank. The Repatriation Agreement returns the potatoes, and their full custody and rights, to the six communities of the Potato Park, and expressly prohibits the patenting of these varieties and any related knowledge (Argumedo and Pimbert, 2005). Currently, 410 potato varieties have been transferred, bringing to Park to a total of 1345 different potato varieties (ITPGRFA 2011).

Lastly, the communities of the Potato Park have successfully used lobbying as a tactic to protect their resources. In 2004, when Syngenta was granted its patent over Terminator technology, the Park’s communities, with the assistance of ANDES, lobbied the regional government to acknowledge and protect their indigenous rights. Ultimately, the government responded: on July 19, 2007, the Cusco regional government’s Order 010 prohibited the sale,

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<sup>38</sup> The International Potato Center, located in Lima, Peru, is one of the largest sources of potato-related research in the world. For more information regarding threats to potato diversity, as well as current research activities, see [www.cipotato.org](http://www.cipotato.org)

<sup>39</sup> For the complete text of the document, see <http://www.grain.org/brl/?docid=81995&lawid=2223>

cultivation, use, and transport of genetically-modified potatoes inside the region of Cusco (IIED 2007). Since then, the communities of the Potato Park have continued their lobbying efforts, most recently targeting the municipality of Lima.<sup>40</sup> However, significant tensions remain between local governments and the national government, which remains attached to the IPR conditions dictated within the US-Peru Trade Promotion Agreement.

## VI. NGO Tactics

As with most NGOs concerned with the imposition of intellectual property regimes, the work of ANDES exists largely as a response to TRIPS. In fact, at the time of the TRIPS negotiations, NGOs were largely absent from the debate, and the Agreement was able to move forward without a significant consumer movement to oppose the large gains absorbed by developed countries at the expense of developing countries (Matthews 2011).<sup>41</sup> Instead, ANDES emerged during the implementation period, during a time period when TRIPS had already received significant criticism from NGOs, states, and scholars.<sup>42</sup> NGOs had already begun to shift attention to the various sub-populations damaged by TRIPS, raising particular awareness to the fields of public health, agriculture, and biodiversity (Matthews 2011, pp. 2-3). The pronounced and easily-understood nature of these issues (i.e. environmental degradation, HIV/AIDS-related deaths, etc.) helped drive forward a debate which questioned not only the intellectual property system, but also the international trade system and the development paradigm, along with emerging issues of global justice and equity (Matthews 2011, pp. 2-3).

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<sup>40</sup> Note: Mayor Susana Vilaran responded by declaring Lima a GMO-free zone on May 9<sup>th</sup>, 2011. For more information, see <http://www.livinginperu.com/news-14842-food-peru-allows-gm-food-imports-and-protests-grow>

<sup>41</sup> One cause for this is that activists simply had not correctly interpreted the strength and breadth of the TRIPS obligations originally. Developing countries themselves suffered from huge information gaps, and in general, lacked the technical expertise for effective negotiation (Matthews 2011, p. 2).

<sup>42</sup> In fact, ANDES began in 2000, not long after the heated 1999 WTO riots in Seattle, during a time of increased awareness and sensitivity to the emerging effects globalization.

Over time, this helped to open a discursive space for NGOs within multilateral institutions; this is the context in which ANDES arose.

As a relatively small NGO which initially relied entirely on volunteer work, ANDES has shifted its operations across different channels of advocacy in relation with its growing capacities. Within these operations, three key strategies can be identified as central to the successes of ANDES and the Potato Park. First, ANDES has engaged in information politics, using the unique social and physical features of the Potato Park to improve its leverage within multilateral institutions, while raising awareness to both Park concerns and Park successes. Secondly, ANDES has engaged itself with key multilateral institutions, explicitly drawing from internationally-recognized agreements to shape Potato Park programs. Lastly, ANDES has used framing as a technique to raise issue awareness, while promoting systems of protection more suitable to the context of the Park. While the uniqueness of the Park makes it unlikely that this set of strategies would be as effective for other NGOs, they may still serve to provide ideas for other NGOs.

The information politics utilized by ANDES serves to facilitate dialogue between the Park communities and the realm of public policy. Given that 90 percent of Quechuas are classified as poor, this is a much-needed service for a group who traditionally has had little to no voice in international or even national public policy settings (Argumedo and Pimbert 2005). In the case of the Potato Park, information politics has taken a variety of forms. Most notably, ANDES has promoted the 2004 Repatriation Agreement as a means of highlighting the ability to radically improve biodiversity levels without the use of intellectual property rights.<sup>43</sup> This information has been already been cited by a variety of international institutions including the

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<sup>43</sup> Potato varieties held within the park have increased from roughly 800 in the mid 1990s to 1345 varieties at the time of writing (Argumedo, et. al 2011).

FAO's International Treaty on Plant Genetic Resources, as a best practices model regarding farmers' rights.<sup>44</sup> Additionally, ANDES has partnered with a London-based think-tank, the International Institute for Environment and Development (IIED), to publish a series of academic articles chronicling Park activities and ambitions. This outlet has been largely effective in bolstering ANDES' credibility, raising awareness of ANDES within an international policy setting, and garnering funding (Cesar Argumedo, personal communication, August 18, 2010). Lastly, the Park's wealth of potato-related information helped to contribute to the establishment of Peru's National Potato Day as well as the UN's 2008 International Year of the Potato campaign, both of which have drawn increased attention to ANDES and the Potato Park.<sup>45</sup>

ANDES has also given multilateral institutions strong reason to seek its information by implementing key components of the latest international protections. For example, the 2004 Repatriation Agreement outlines a set of requirements regarding the principal of prior informed consent and the creation of a benefit-sharing system between communities. Both of these concepts are taken directly from CBD Article 8(j). Additionally, the Park, through the Repatriation Agreement, explicitly protects the traditional knowledge of potato farmers, as well as their right to manage their knowledge according to their customary beliefs and practices. These are both in accordance with holistic approaches to conservation, and invoke the language of the FAO ITPGRFA's farmers' rights articles. By directly referencing these treaties, the Park grounds its protections directly in international law.

Most importantly, however, the Park has used multilateral institutions to actively promote its own model of indigenous-led development. As an indigenous biocultural heritage territory,

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<sup>44</sup> For the list of Farmers' Rights best practices around the world, see <http://www.farmersrights.org/bestpractices/index.html>

<sup>45</sup> Peru's National Potato Day (May 30<sup>th</sup>), *Dia Nacional de la Papa*, was originally promoted by ANDES to attract attention to Peru's vast potato diversity. For information regarding the UN 2008 International Year of the Potato, See <http://www.potato2008.org/en/potato/biodiversity.html>

the Potato Park exemplifies an approach to development which successfully merges the conservation concepts from the CBD with the more holistic farmers' rights concepts of the FAO ITPGRA. In achieving this, the Park has also developed a sui generis system which protects traditional knowledge while protecting plant varieties, as evidenced by the Park's increasing biodiversity levels. ANDES has already requested that the ITPGRFA Governing Body and members consider the IBCHT model as a possible international sui generis system (Argumedo et. al 2011). In this way, ANDES is using multinational institutions as a source of its own protection, which in turn provides it with greater negotiating power to help dictate the terms of future protections.

Lastly, ANDES has used the technique of framing to strengthen its arguments against intellectual property rights. Originally, industry and developed nations framed the IPR debate as one of facilitating trade by preventing piracy and theft, which allowed them to achieve significant gains during the negotiation period of TRIPS. Afterwards, however, NGOs and developing countries were able to challenge this dominant frame, recasting TRIPS as a threat to public health, and more broadly, life (Matthews 2011, p. 8). ANDES has continued in a similar vein, using the language of "biopiracy" to attack the idea that intellectual property rights in fact protect property.<sup>46</sup> ANDES has also used actions (rather than language) to help frame the debate. The transfer of 1,500 varieties to the Svalbard seed-bank (Feb. 17, 2011) was not performed for practical purposes, but rather to highlight the concern of indigenous peoples over their genetic resources, food security, and ways of life, thereby implying the need for stronger protection of indigenous rights (Alejandro Argumedo, personal communication, March 16, 2011).

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<sup>46</sup> In 2006, ANDES established the Indigenous Coalition Against Biopiracy in the Andes to counter Syngenta's terminator seed technology. The coalition was largely composed of Park members, and served primarily as a means by which to reframe terminator technology as a form of theft.

Lastly, ANDES has developed the concept of “indigenous biocultural heritage territories” as a means to reframe indigenous advocacy as a fundamentally holistic endeavor, which must combine conservation, human rights, traditional knowledge, and the customary laws and practices of indigenous peoples. In this way, the IBHCT approach challenges past approaches to indigenous rights advocacy, which have tended to support individual themes rather than the interrelated set of themes which indigenous communities actually desire.

## VII. Conclusion

The imposition of an international intellectual property rights system, the TRIPS Agreement, encroaches on the rights of indigenous peoples around the world. In particular, TRIPS Article 27.3(b) has forced indigenous peoples to subscribe to a conception of intellectual property which is often quite foreign from their own values and belief systems, and which leaves them vulnerable to biopiracy while undermining their customary laws and practices. The option to adopt the UPOV Breeders’ rights system as a sui generis system for the protection of plants is inadequate, and actually strengthens the threat faced by indigenous farmers.

Indigenous peoples have had two principal channels from which to combat the TRIPS Agreement. First, the Convention on Biological Diversity and the FAO International Treaty on Plant Genetic Resources for Agriculture promote the sustainable use of biological diversity in ways which recognize traditional knowledge systems while respecting the rights of farmers to manage their own resources. While these are recognized as part of international law, they have remained somewhat overshadowed by the TRIPS Agreement and its enforcement mechanism (Matthews 2011, pp. 61-69).

Alternatively, indigenous peoples can look to human rights instruments for support. The Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights both deal to some extent with intellectual property rights. However, the intellectual property concept within these documents is highly contested, leaving them difficult to use in challenging IPR directly, except in cases where widely-recognized human rights are concerned (i.e. public health and access to medicines). The Declaration on the Rights of Indigenous Peoples provides a clearer tool to support indigenous rights vis-à-vis TRIPS. However, at this moment it remains in its infancy, and does not yet carry the strength to confront TRIPS, except as customary international law (Coulter 2008, p. 546).

It is within this context that the Potato Park, with the support of ANDES, has looked to assert the rights of its indigenous potato farmers. To achieve this, ANDES has used information politics to provide a voice to Park members within international fora, while providing evidence to challenge the assumption that intellectual property rights are needed to ensure adequate levels of innovation.<sup>47</sup> Secondly, ANDES has been actively engaged with multilateral institutions, and has strategically used their treaty language to support Park rights and resources while developing a new model of indigenous-led development. Finally, ANDES has used the technique of framing to (1) suggest that intellectual property rights actually encourage theft, (2) highlight the need for a stronger set of indigenous rights protections, and (3) recast indigenous rights advocacy as a multidimensional endeavor.

Despite the various protective actions taken by ANDES, the effectiveness of this sui generis system remains to be seen, and Park members remain concerned over the protection of

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<sup>47</sup> In this context, innovation refers to biological diversity.

their resources.<sup>48</sup> However, this path of self-help seems to be the strongest avenue by which to uphold indigenous rights amidst the threats presented by the current intellectual property regime. As developing countries attempt to coalesce around reform of the international trade system via a hold-out on trade negotiations, the need for local protection of indigenous rights becomes increasingly important.<sup>49</sup> This case study of ANDES and the Potato Park presents a set of strategies which other NGOs may draw upon to help inspire their own plans for the protection of indigenous rights.

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<sup>48</sup> A survey distributed to 41 Park members during a Repatriation Agreement Workshop, Aug 13-14, 2010, revealed that roughly one third of the participants believed their traditional knowledge was still threatened by biopiracy.

<sup>49</sup> Even with their success in reframing the intellectual property debate, NGOs face great difficulties in challenging the United States and the EU at the policy-setting level due to the difficulty in creating a suitable global coalition (Draho 2002, p. 789). However, as ANDES has shown, it is very possible for NGOs to shape and dominate the debate at the local level.

## Appendix

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### Acronyms

ANDES: Association for Nature and Sustainable Development (*Asociación para la Naturaleza y el Desarrollo Sostenible*)

CBD: Convention on Biological Diversity

CCA: Community Conserved Area

CIP: International Potato Center (*El Centro Internacional de la Papa*)

DSB: Dispute Settlement Body (of the World Trade Organization)

FAO: Food and Agriculture Organization of the United Nations

GATS: The General Agreement on Trade in Services

GATT: General Agreement on Tariffs and Trade

IBCHT: Indigenous Biocultural Heritage Territory

ICESCR: International Covenant on Economic, Social, and Cultural Rights

IIED: International Institute for Environment and Development

ILO: International Labor Organization

IPR: Intellectual Property Rights

ITPGRFA: International Treaty on Plant and Genetic Resources for Food and Agriculture

IUCN: International Union for Conservation of Nature

NGO: Non-governmental organization

TK: Traditional knowledge

TRIMS: The Agreement on Trade-Related Investment Measures

TRIPS: The Agreement on Trade-Related Aspects of Intellectual Property Rights

UDHR: Universal Declaration of Human Rights

UNDRIP: United Nations Declaration on the Rights of Indigenous Peoples

UPOV: International Union for the Protection of New Varieties of Plants

WIPO: World Intellectual Property Organization

WTO: World Trade Organization

## Legal Mechanisms

Agreement	Governing Body	Date	Type	Legally-Binding	Adopted by Peru
TRIPS Agreement, Article 27.3(b)	WTO	1994	International	Yes	Yes
Paris Convention for the Protection of Intellectual Property	WIPO	1883	International	Yes	Yes
Berne Convention for the Protection of Literary and Artistic Works	WIPO	1886	International	Yes	Yes
UPOV Convention (Plant Breeders' Rights, 1991)	UPOV	1961	International	Yes	No
Universal Declaration of Human Rights	UN	1948	International	No	Yes
International Covenant on Economic, Social, and Cultural Rights	UN	1966	International	Yes	Yes
Declaration on the Rights of Indigenous Peoples	UN	2007	International	No	Yes
Convention on Biodiversity, Article 8(j)	UN	1992	International	Yes	Yes
International Treaty on Plant Genetic Resources for Food and Agriculture (Farmers' Rights)	UN FAO	2001	International	Yes	Yes
CIP-ANDES Potato Repatriation Agreement	CIP, ANDES	2004	Local	TBD	No

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