# 1AC

## Shell

#### **Interp – The negative must grant the aff presumption or permissibility.**

#### **A violation would be reading both or contesting one in the 2n.**

#### **Prefer –**

#### **A) Strat skew –**

#### **B) Timeskew –**

## ROB

#### The Role of the ballot is to the test if the resolution is true.

#### 1] Inclusion:

#### 2]. Constitutivism:

#### 3] Reject the western binary of truth and futurism in favor of a more nuanced understanding of the world.

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At the core of the explanation, one has to grasp a very basic mathematical distinction. I speak of the difference between a relation and a function. A relation is something that relates a certain kind of object to some number of others (zero, one, two, etc). A function, on the other hand, is a special kind of relation that links each such object to exactly one thing. Suppose we are talking about people. Mother of and father of are functions, because every person has exactly one (biological) mother and exactly one father. But son of and daughter of are relations, because parents might have any number of sons and daughters. Functions give a unique output; relations can give any number of outputs. Keep that distinction in mind; we’ll come back to it a lot. Now, in logic, one is generally interested in whether a given claim is true or false. Logicians call true and false truth values. Normally, and following Aristotle, it is assumed that ‘value of’ is a function: the value of any given assertion is exactly one of true (or T), and false (or F). In this way, the principles of excluded middle (PEM) and non-contradiction (PNC) are built into the mathematics from the start. But they needn’t be. To get back to something that the Buddha might recognise, all we need to do is make value of into a relation instead of a function. Thus T might be a value of a sentence, as can F, both, or neither. We now have four possibilities: {T}, {F}, {T,F} and { }. The curly brackets, by the way, indicate that we are dealing with sets of truth values rather than individual ones, as befits a relation rather than a function. The last pair of brackets denotes what mathematicians call the empty set: it is a collection with no members, like the set of humans with 17 legs. It would be conventional in mathematics to represent our four values using something called a Hasse diagram, like so: {T} ↗ ↖ {T, F} { } ↖ ↗ {F} Thus the four kotis (corners) of the catuskoti appear before us. In case this all sounds rather convenient for the purposes of Buddhist apologism, I should mention that the logic I have just described is called First Degree Entailment (FDE). It was originally constructed in the 1960s in an area called relevant logic. Exactly what this is need not concern us, but the US logician Nuel Belnap argued that FDE was a sensible system for databases that might have been fed inconsistent or incomplete information. All of which is to say, it had nothing to do with Buddhism whatsoever. Even so, you might be wondering how on earth something could be both true and false, or neither true nor false. In fact, the idea that some claims are neither true nor false is a very old one in Western philosophy. None other than Aristotle himself argued for one kind of example. In the somewhat infamous Chapter 9 of De Interpretatione, he claims that contingent statements about the future, such as ‘the first pope in the 22nd century will be African’, are neither true nor false. The future is, as yet, indeterminate. So much for his arguments in the Metaphysics. The notion that some things might be both true and false is much more unorthodox. But here, too, we can find some plausible examples. Take the notorious ‘paradoxes of self-reference’, the oldest of which, reputedly discovered by Eubulides in the fourth century BCE, is called the Liar Paradox. Here’s its commonest expression: This statement is false. Where’s the paradox? If the statement is true, then it is indeed false. But if it is false, well, then it is true. So it seems to be both true and false.

## FWK

#### The meta-ethic is consistency with transcendental form of subjects.

#### Moral Realism is true – there is an ethical truth that exists metaphysically: a) otherwise we could not make moral claims since we would merely claim disagreement rather than an absolute wrong, justifying any ethical statement b) regressive moral debates always terminate in an endpoint of agreement, we just compare different values in an attempt to find the ultimate one c) Weighing practices is incoherent because it relies on an assessment of ends, which relies on a further assessment. A practice that negates is not contradictory to a practice that affirms, and thus proving my end affirms is sufficient. So, proving the converse of the resolution is not sufficient to disprove the resolution’s truth. And, this is also true of obligations since an obligation existing doesn’t mean that there can’t be a stronger obligation to do something else, as an obligation is a locus of moral duty and there can always be different obligations, particularly allowing for individual meaning creation is inherently good regardless of the content of index. I think the aff is amazing and super cool so here is my framing mechanism.

#### And, that’s only accessible through procedural transcendental idealism – a) Is/ought gap – appeals to the empirical world merely explain how the world is rather than what it ought to be b) Motivation – empirical circumstances change based one each individual, only transcendent moral truths can motivate all agents absent those features. Jindal 99, Jindal, Bobby. Louisiana Law Review, 1999. Web. <http://digitalcommons.law.lsu.edu/cgi/viewcontent.cgi?article=5780&context=lalrev>.//Scopa Modem political philosophers ranging from Robert Nozick to John Rawls have attempted to discern the principles of justice that should guide societal arrangements. This project is of vital importance since it informs society of its obligations to its weakest and most vulnerable members. Yet, the question of why one should be just is an intelligible one to ask and deserves some response. This paper argues that the political-legal obligation to be just is derivative from man's more general duty to be moral, a commitment grounded in intuitions which are themselves based on transcendental values, i.e., values that exist apart from a particular society. Those political theories that lack a transcendental notion of morality lack binding force; the theorist who persuades without asserting truth is helpless to convince or judge those committed to different principles. Modem liberalism, with its explicit commitment to neutrality, has nothing to say to individuals who do not share its values; similarly, communitarianism, with its cultural relativism, cannot critique an unjust society from the outside. Many liberals and communitarians underpin principles of justice, which require an individual to sacrifice his interests to secure the welfare of others, with that justification available to convince one that his preference for vanilla ice cream is mistaken; yet, justice, unlike ice cream, is not merely a matter of taste. Principles of justice not based on objective moral principles are arbitrary at best and prejudicial at worst, without binding authority or persuasive moral force. Though Rawls claims the "conception of justice is a practical social task rather than an epistemological or metaphysical problem,"1 there must be some a priori, non-subjective commitment to justice, as well as positive laws, that compels individuals to sacrifice their self-interest. Transcendental morality alone provides a substantial answer to those-anarchists, narcissists, libertarians, individualists, racists, isolationists, and others-who question the obligation to serve the common good, i.e., sacrifice one's interests for others. Merely discerning the claims of justice is not enough; these claims must be legitimized. The gap between "is" and "ought" reflects the distance between factual claims and moral ones, between truth and motivation, between description and obligation.

#### That transcendental truth is the forms – they are the essence of the world that transcend space and time. The material world inherently lacks a capability to manifest the form and cannot generate true reality, only the forms themselves understood by reason allow for true moral and epistemic knowledge. Heyüman 15, <http://ftp.oxfordphilsoc.org/Documents/StudentPrize/2015_H1b.pdf> //scopa

**Forms** can be thought of **as abstract entities** or qualities that **are the essence of sensible things**. Take, **for example, an apple: Roundness, color and weight of the apple are all the properties that make up that apple, each of which is a separate form in itself**. According to Plato, two apples are “round” because they both partake in the form of “roundness”. This “partaking” in any form is what makes things share similar attributes. **All material objects owe their existence to these forms; whereas each form exists by itself, independently of the object that exemplifies the particular form**. In Phaedo, which is widely agreed to be the first dialogue Plato introduced the forms, forms are “marked as auto kath auto beings, beings that are what they are in virtue of themselves1 .” **Forms are transcendent to our material world in that they exist beyond space and time, whereas material objects occupy a specific place at a specific time**. Atemporal and aspatial features of forms have very important implications. First, this explains why **the form of F does not change**, and remains stable beyond a spatio-temporal world while particulars are subject to continuous change. Second, **since F does not exist in space, it can be instantiated in many particulars at once or need not even be instantiated to exist**. The forms are also pure. The roundness of an apple is one of its properties and roundness is only “roundness” in its pure and perfect form. Unlike forms, **material objects are impure, imperfect**, and are complex combinations of several forms. **Being is the ontological relation that ties the form of F to its essence, and each form of F is of one essence** (monoeides). It follows from these principles that each form self-predicates; each form of F is itself F. The form of beauty is itself beautiful, and Helen would not be beautiful if the form of Beauty were not beautiful itself. **The forms are real, sublime entities that belong to an intelligible realm that can only be grasped by reason. They are not subject to change; are stable and enduring, while particulars/material objects belong to this material world of change**, becoming and perishing in a Heraclitean flux. The Idea Behind Platonic Forms As can be seen from his early and middle period dialogues, Plato both explored ethical concepts such as “virtue” and “justice” just like his mentor, Socrates, and he also elaborated upon the essence of the 1 Silverman, A., Fall 2014 Edition, ‘Plato’s Middle Period Metaphysics and Epistemology’, Stanford Encyclopedia of Philosophy, p. 10 1 Hilary 2015 Joint 1st Prize: Sinem Hümeydan universe by questioning what there really is in this world of appearances. Plato’s theory of forms, then, can be thought to explicate basically two vital concerns of philosophical inquiry. First, the theory explores the question of how everything seems both to be changing and permanent at the same time. We know that the physical world we perceive through our senses is exposed to continuous change by “becoming” and “ceasing to be2 ”. Nonetheless, there is also permanence beyond what seems to be changing and that can only be grasped by reasoning. Second, the theory of forms is an attempt to find the answer to the question of how people can live a happy and fulfilling life in a world that is ultimately defined with beginnings and endings, and is exposed to change in every possible respect. In the Republic, Plato poses questions about moral concepts in an effort to demonstrate that the life committed to knowledge and virtue will result in happiness and self-fulfillment. To achieve happiness, one should render himself immune to changes in the material world and strive to gain the knowledge of the eternal, immutable forms that reside in the intelligible realm. Indeed, Plato splits the existence into two realms: the visible realm and the transcendent realm (intelligible realm) of forms. **The visible realm is the physical world that is perceived through senses, and is susceptible to “becoming” and “ceasing to be”. On the contrary, the intelligible realm represents the ultimate reality, is enduring, and is accessible only via reasoning** or intellect. Furthermore, Plato believes that this visible world is an imperfect model of the transcendent realm of forms. As is depicted in his famous Allegory of Cave, he thinks that everything perceptible through senses is like the shadows on the Cave Wall, or merely imperfect representations of the reality. Since **what we perceive through our deceptive senses in this world of appearence are merely shadows of reality, one cannot have any genuine knowledge of these things, but can only have beliefs/opinions** about these objects. In other words, Plato thinks that one can only have “knowledge of forms and of Forms one can only have knowledge3 .” Because forms are the only objects of knowledge, individuals should endeavour to reach the intelligible realm and endow themselves with the knowledge of forms in order to achieve a happy and fulfilling life. Plato employs the Sun metaphor, which represents the form of “Good” to compare intelligible and visible realms. As the Sun provides the light to see the physical world, the “Good” provides the power to “know”, and is not only the ultimate cause of knowledge, but it is also the object of truth and knowledge. Being virtuous or pursuing good relies on having the knowledge of the Good, and because forms are the only objects of knowledge, one can only live a fulfilling life and pursue good if one knows the Form of Good. Plato’s Arguments for the Forms and Concluding Remarks According to Plato, reality is very much associated with objectivity. His argument from objectivity asserts that the more objective concepts are of higher reality, and that because **what we perceive via our senses is usually deceitful, the objects of experience cannot be real entities**. Besides, **it is possible to form different subjective views of the same objects; depending on the perceptual or mental states of the observer**. However, forms represent a higher objectivity, and thereby reality through a dialectic process, which is illustrated in the hierarchical system of forms and physical objects, “good” being first among others. Plato appeals to mathematical examples to further his arguments and states that the most definite knowledge is the knowledge of mathematics, and that this knowledge cannot be gained via senses or experience, but only by reasoning. For example, we know for certain that the sum of the interior angles of a triangle is 180 degrees, yet we also acknowledge that no such perfect triangle exists in the world. Then, he concludes, if these abstract entities do not reside in this world, there must a different realm of such perfect forms outside this world of experience that is ultimately real.

#### Prefer –

#### 1. Infinite regress –

#### 2. Performativity –

#### 3. Constitutivism –

#### Next, ethics are split between the deontic and the aretaic. Deontic theories guide ethics by looking at the actions of moral actors, whereas aretaic theories guide ethics by looking at the character of moral actors themselves. By developing good moral character, good actions will naturally follow.

#### Prefer the aretaic:

#### [1] Descriptively – The aretaic provides an infinitely richer vocabulary for evaluating actions that extends beyond goodness and badness. Gryz 11.

[Gryz ’11 (Jarek, Prof in the Department of Electrical Engineering and Computer Science at York University, “On the Relationship Between the Aretaic and the Deontic,” Ethical Theory and Moral Practice, 2011, 14:493–501, Springer)] SHS ZS  
The way we use words ‘good/bad’ and ‘right/wrong’ seems to support the above claims. **Goodness and badness come in degrees**, hence **we have words like ‘better’ and ‘worse’**; **we lack similar terms for** **deontically evaluated actions**. The availability of degree terms in the former case seems to indicate the presence of many criteria used in evaluation; **an all-or- nothing choice, implied by** the use of **‘right’ or ‘wrong’, suggests focusing on** only **one quantum quality**.12 But fine-grainedness is not only a property of particular aretaic terms, **the entire aretaic vocabulary is infinitely richer and allows us to draw much** **finer distinctions in act-evaluations than the deontic vocabulary**. For example, **by saying** that **something is praiseworthy we imply** that **it deserves approval** or favor: we assess it higher when we say that it is admirable, since then it should be also respected and honored. The meaning of the word ‘praiseworthy’ can be quite well conveyed by saying, that it is something that ought to be done, or that it is the right (in Ross’s understanding of ‘right’) thing to do: yet **expressing the word ‘admirable’ in deontic vocabulary seems** just **impossible**. From what has been said so far one can derive an encouraging conclusion for the advocates of attractive ethics. Sheer richness and fine-grainedness of aretaic vocabulary seems to be a good reason for believing that **all that can be said in deontic terms can be equally well expressed in aretaic terms**. This is not to say, however, that we can produce a translation manual which would provide us with a general method of expressing deontic notions in terms of aretaic ones for all possible cases. In particular, it does not seem possible, as we hope to have shown, to substitute ‘good’ for ‘right’ or ‘deplorable’ for ‘wrong’. The relation between the aretaic and the deontic seems to be somewhat similar to the relation between the physical and the mental in the mind-body problem. We can claim that deontic is supervenient on the aretaic without committing ourselves to the idea of complete definitional reduction. In other words, we may allow for token identity (each particular action can have an aretaic description that perfectly matches the deontic one) and deny the possibility of type identity (that there is aretaic sentence true of all and only the actions having some deontic property). If this analogy is correct then the idea of definitional reduction of the deontic to the aretaic, and in particular, Stocker’s identification of rightness and goodness, is doomed. But we can still pursue a more modest goal. **If our task is** just **to substitute** **every** particular **deontic evaluation with an aretaic** one, **there are no** logical **reasons that would make it impossible** (it would not work, of course, in the opposite direction). From that perspective, **attractive ethical theories seem** to be much **better** off **than the imperative ones**.

#### [2] Deontic theories collapse –

#### [3] Motivation –

#### Next, the only ethics consistent with the aretaic is a virtue paradigm: This does not presuppose descriptive normative claims; we rather focus on developing agents to make them virtuous. Reader.

[Reader 2k (Reader, Soren. Late Professor of Philosophy, Durham University “New Directions in Ethics: Naturalism, Reasons, and Virtue.” Ethical Theory and Moral Practice, Vol. 3, No. 4, Dec. 2000.)] SHS ZS  
**Virtue is a** free **disposition to act in certain ways under certain conditions**. Virtue ethics claims that **what is to count as a good action** or what is a good outcome **is** conceptually **dependent on claims about** **the virtue of an agent**. How is this dependence supposed to work? Where those after an explanatory account seek a conceptual connection with something like a normative 'in itself,’ **virtue ethicists** instead **explore the** concrete **dependence of moral activity on the possibility of learning from** already **virtuous agents**. They hold that **the key to moral rationality is** found **in moral education**. Ethics begins with the apprentice moral agent: the child, or the foreigner, or the damaged person in rehabilitation are all examples. These **beginner-agents learn from** the experienced, **wise moral agent by copying**, by mimicking in **their actions** the actions of the virtuous agent. This mimicking, or 'going on in the same way', does not presuppose that the learner agent acquires any representations of how the world is (i.e., beliefs), nor that they acquire the ability to report on or provide justifications for what they do. **Virtue is learned by cottoning on to virtuous ways of doing things**, going on to do the same, **then going on to do the same in new ways**, once they have mastered the skill.16 The way virtue and character is supposed to be basic here is simply displayed in the analogy: **there is and can be nothing 'behind' the expertise of** the phronimos **which can explain or justify it** (any more than there is anything 'behind' the expertise of the doctor or the navigator, to use Aristotle's examples at NE 1104b7-l 1). Of course, plenty more can be said about it, and shortcuts can be found to aid the learn ing of those who have already mastered other skills (so competent rule-fol lowers can learn from being given rules, just as competent grammarians can learn a new language from the grammar). But we should not confuse what it is possible to say about the skill of being moral, with what constitutes it.

#### Thus, the standard is promoting virtue.

#### 1. Motivation –

#### 2. Performativity –

#### Impact Calc:

## Offense

#### I defend that the member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.

#### [1] IP rights structurally prevent all people from accessing the same intellectual virtues and violates the virtue of empathy by not giving life-saving medication to poorer nations.

**Morabito 15** - “Essay: Pharmaceuticals and Global Justice: Balancing Public Health and Intellectual Property Rights” by Marisa Morabito [https://scholarship.shu.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com/&httpsredir=1&article=1808&context=student\_scholarship] //ahs emi

The approach to IP rights and global pharmaceutical industry thus requires a different philosophical, ethical framework. I would like to suggest a virtue and human flourishing approach which is based on human good and well-being and helping others to also be able to flourish by living ethical lives which parallels Nussbaum's capabilities approach, a virtue ethics view.la Virtue ethics is an ethical system based upon adherence to a principle. Virtue ethicists believe that there are "certain ideals toward which we should strive...[to allow] for the full development of our humanity" by looking at what humans can become.ls The virtue ethicist focuses on humans achieving their maximum potential while having virtues of compassion, generosity and courage.l6 For instance, "a person who has developed virtues will be naturally disposed to act in ways consistent with moral principles.lT Virtue ethics emphasizes character formation and habits to foster positive improvements in the world.18 A virtuous person wants to behave well and looks at a circumstance and decides what is right and wishes to behave according to what is right.le This view aligns with Nussbaum who takes a capabilities view which is based on the idea that well-being is "of vital moral importance [and]... individuals must have real opportunities to live well and to flourish as human beings.20 Nussbaum's capabilities view looks at the important functions of a human being and looks at what institutions are doing for those capabilities.2r For example, functions and capabilities are set and then we observe whether intuitions are promoting human flourishing based on these principles.22 If the standards are not being met, we must try to change the institution's policies to allow for human flourishing.23 Nussbaum's capabilities approach explains what flourishing is and tries to achieve this flourishing worldwide.2a Based on this theory, IP rights "generate a material circumstance for a majority of the world in which we can't maximally exercise our intellectual capacities, and thus we fail as a species to maximally flourish."25 Therefore any further discussion of IP rights and the global pharmaceutical industry must proceed clearly focused on adherence to a moral principle; maximizing human flourishing. Successful efforts in South Africa were only achieved when the policy became virtue/principle based. In the Minister of Health v. Treatment Action Campaign, the court ruled that the government breached the people's right to have access to health care services when it prevented drug availability to pregnant women in order to stop mother-to-child HIV transmission.26 2.4 million people have received free anti-retroviral treatment in 2013 which was a 1.4 million increase from 2009 while over 20 million people have been tested for HIV since the government created counseling and testing programs in2010.27 South Africa's goal is to have an extra 4.6 million people receiving anti-retroviral treatment within the next five years.28 Furthermore, South Africa has reduced the prices of anti-retrovirals and there was a tender to make one ARV pill which can be used once instead of having to take three pills two times per day which means there will be fewer pills used and consumed.2e Although there have been successes, the South African population continues to have the highest number of HIV/AIDS infected people globally as millions still lack access to ARVs.30 The ongoing tension between the fight against poverty and IP rights continues to persist at the mercy of humans in poorer nations who are unable to afford medications to cure their illnesses and diseases which hinders maximum human flourishing and does not express good character. In her article "Common Ground: The Case for Collaboration Between Anti-Poverty Advocates and Public Interest Intellectual Property Advocates" Cantrell states that with intellectual property advocates, their focus is on the individuals rights to create, appropriate, and recreate.3l However, the tension between the fight against poverty and the protection of intellectual property rights is evident as the IP movement's success is frequently at the expense of the poor.32 Cantrell continues to state that Martha Nussbaum's virtue theory of human capabilities suggests that every person should have the ability to live a flourishing life yet the IP movement has placed limitations on what a person can do and be as a result of continued poverty.33

#### [2] Removing IPs fosters the social relationships needed to cultivate communal virtues.

**Grimmelmann 9** - “Ethical Visions of Copyright Law” by James Grimmelmann [https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=4433&context=flr] // ahs emi

Another frequent trope is that of "community."' 172 There's a reason that "community site" is a web 2.0 buzzword for anything with communicative user-generated content features: people who create and share freely with each other aren't just taking part in arms-length transactions; they're building social institutions. 173 Yochai Benkler and Helen Nissenbaum give a virtue-ethics analysis of this phenomenon. For them, deeper principles of autonomy, democracy, and mutual respect are furthered by a culture of mutual sharing-and participation in such a culture teaches individuals how to be virtuous. 174 To summarize, then, "commons" and "sharing" rhetoric prizes voluntary authorial contributions to a pool on which anyone is free to draw. These tropes help tell a story about how people depend on the commons, so that placing material into the commons becomes an ethical act. It also helps create bonds of respect, honor, and enthusiasm between authors and grateful audiences-as well as fueling future repetitions of this exchange as audiences become authors themselves who, in turn, share with the commons, and so on. Like the default ethical vision, this view explains how authors and audiences can behave ethically toward each other-but it does so in a way perhaps less fraught with obligation.

#### [4] Property rights are incoherent. Everything material intrinsically has a form that’s universally accessible to all people. That means individuals can’t claim ownership to something everyone has access to.

## Adv

#### IP regimes are tied to rising biodiversity loss.

**PAMUN 14 –** “PAMUN Xviii Research Report— Question Of Intellectual Property And Biodiversity” [http://asp-edu.net/pamun/pamun2013/wp-content/uploads/2014/04/OK\_EDITED\_-UNCTAD-biodiversity-and-IP-1.pdf] // ahs emi

During the last few years, biodiversity has been lost at an unprecedented rate throughout the world in every ecosystem. According to the FAO, about 75% of the genetic diversity found in agricultural crops has been lost over the last century, and this phenomenon continues. It is imperative that we conserve agricultural biodiversity: higher biodiversity of agricultural crops helps increase yield stability and soil fertility and gives species the ability to adapt to changing conditions. High agricultural biodiversity also helps protect our health by ensuring sustainable production in medicinal plant use systems. Agricultural biodiversity loss and the present IPR legislation are inextricably tied. IPRs continue to homogenise agricultural production and medicinal plant use systems and could reduce crop variety development. Our health and our environment is negatively affected, and it is of utmost importance to conserve our agricultural biodiversity. Evolution of IPRs on biological resources As stated before, IPRs are rights to new ideas and information, which allow the creator to prevent the imitation or the commercial exploitation of his/her creations. IPRs have existed for centuries; however, the use of IPRs on living organisms such as GRs is a recent phenomenon. In 1930, the U.S. government passed the U.S. Plant Patent Act, which granted IPRs to new plant varieties with the exception of sexual and tuber-propagated plants. Other countries also extended such forms of IPRs, and in 1957, the International Union for the Protection of New Varieties of Plants (UPOV) was formed, which was established by the International Convention for the Protection of New Varieties of Plants that was signed in 1961. The convention was revised in 1972, 1978, and 1991 in Geneva, and each member state is expected to adopt laws that meet the requirements of the convention. With the latest revision in 1991, the convention recognizes new plant varieties as intellectual property and extended international PBRs. Furthermore, in 1972, the U.S. Supreme Court ruled that the patent claim made by the microbiologist Ananda Chakrabarty for a genetically engineered bacterial strain was permissible, which made it clear that anything man-made, including human genetic material, could be patentable. The legally binding TRIPS agreement in 1995 (explained in detail below) further imposed private IPRs on plant varieties, increasing the control of governments and large corporations over biogenetic resources. International Treaties and Agreements The link between IPRs and biodiversity has been shaped by numerous agreements and institutions. The Convention on Biological Diversity (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) are the two principal agreements on this issue. Moreover, organizations such as the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) have also become more active in dealing with this issue, and various megadiverse countries (see Major Countries Involved for definition) such as India, Costa Rica, and Mexico are passing laws in order to deal with this issue. The most important agreement on the conservation of biodiversity is the Convention on Biological Diversity (CBD), which is often regarded as the founding document of global commitment to sustainable growth. The CBD is a legally binding, multilateral treaty signed on June 5th, 1992. It has been signed by 168 nations, 157 of which have ratified the convention. The convention has three main goals: the “conservation of biological diversity”; the “sustainable use of the components of biological diversity”; and the “fair and equitable sharing of the benefits arising out of the utilization of genetic resources”. The treaty recognizes the sovereign right of states over GRs, and it also demands the respect and preservation of associated traditional knowledge at the national level. In fact, article 8(j) of the CBD states: ““Each contracting party shall [...] 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”, thus recognizing the collective rights of indigenous and local communities, and encouraging member nations to follow the ABS provisions of the agreement, which aim to share GRs equitably with the indigenous communities. Moreover, to improve the implementation of the CBD, two supplementary agreements to the CBD have been signed: the Cartagena Protocol of 2002 and the Nagoya Protocol of 2010. The Nagoya Protocol (Appendix IV), which is explained in the Previous Attempts to Solve the Issue section, deals with the implementation of the third objective: fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Another important legally binding agreement is the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1995. All 162 members of the WTO are signatory states of the agreement. Before the TRIPS agreement was signed, IPRs were restricted within countries; however, with the national treatment article in the TRIPS agreement, every signatory state should ensure that the rights given by IPRs are applied to locals and foreigners alike. In relation to plant varieties, it is important to note that the TRIPS agreement requires that plant varieties, along with microorganisms and microbiological processes, be eligible for IPR protection. In article 27.3(b) of the TRIPS agreement, signatory member states are not permitted to exclude microorganisms and microbiological processes from patentability, and they are expected to provide protection of these new plant varieties through patents, or an “effective” sui generis system. In other words, the agreement requires an exclusive protection for plant varieties, be it in the form of patents or a new sui generis system, which the WTO decides is effective or not. Another form of protection that many developing countries are also adopting as a sui generis system is the model of plant variety protection that is provided by the UPOV Convention (PBRs), whose standards are pretty much equivalent to patent protection. Hence, the TRIPS agreement not only imposes exclusive, private IPRs on biological resources, but it also does not attempt to protect indigenous and local community knowledge. Unlike the CBD, which aims to protect TK and maintain biodiversity, the TRIPS agreement legitimizes the commercial use of biodiversity-related knowledge. However, the TRIPS agreement does require the review of Article 27.3(b)–the article that prohibits the exclusion of microorganisms from patentability and provides protection for plant varieties–which has facilitated discussion on the issues with the article (see ‘Previous Attempts’ for detailed information). It is also important to note that both agreements are highly flexible, even though they contradict each other in many aspects. Many articles of the TRIPS agreement can be used by indigenous communities to protect their interests. Article 8 allows members to protect public interest through legal measures and environmental protection could be justified as as being in "public interest". Moreover, article 27(2) allows members to exclude inventions from patentability to safeguard against "serious prejudice" to the environment. The CBD, on the other hand, ensures that it does not conflict with the implementation of any other international agreement. Article 22 of CBD states: “The provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity”. This article provides countries with a leeway; although both agreements are legally binding, countries can implement the TRIPS agreement without adhering to obligations of the CBD. Impacts of present IPR legislation Exploitation of traditional knowledge Existing IPR systems, particularly patents, increase the risk of exploitation of traditional knowledge. Existing IPRs are expensive and challenging to acquire, failing to provide local and indigenous communities incentives to protect or capitalize on their traditional knowledge even though traditional knowledge is often shared by all members of the community and passed through the generations. Commercial Exploitation of Plant Varieties and GRs The TRIPS agreement is intended to provide private IPRs on any products, be they biogenetic resources or not, in order to ensure that trade goes smoothly and corporate interests are protected internationally. In the process, the agreement provides exclusive control of plant varieties to corporations and individuals that they have patented. The privatization of IPRs as a result of the TRIPS agreement has caused commercial and industrial interests to control the resources of developing countries that are rich in biodiversity, leading to biological uniformity and in turn biodiversity loss (explained below). Besides, these private commercial interests are encroaching upon common indigenous and local community knowledge, which is another negative impact of the TRIPS agreement. Biological Uniformity The present IPR legislation causes biological uniformity because of growing private commercial interests, which directly causes biodiversity loss. Countries that extend IPRs to plant varieties will be establishing an IPR system where few corporations and individuals prohibit others from making or using the protected variety or any product containing protected genetic information, and push its production for profits. Farmers will be faced with production restrictions, while scientists will be faced with research restrictions. All in all, the present IPR legislation not only discourages the growth of new and different plant varieties, but it also restricts researchers from freely using the genetic information for research into diseases or for making new and more effective plant varieties. Hence, this reduces the availability of biodiversity and leads to the homogenization of agricultural production and plant use systems. For example, Monsanto, an agrochemical and agricultural biotechnology corporation that is facing a surge of lawsuits, is also accused of biological uniformity. It owns such a large portion of the world's cotton seed supply that cotton farmers are not given access to non-GM cotton seeds. These farmers are also not allowed to save, reuse, or even study the seeds due to biotech IPR laws, greatly hindering natural diversity.

#### This causes Extinction.

Schelske 20 Why managing biodiversity risk is critical for the global economy By [Oliver Schelske](https://www.swissre.com/profile/Oliver_Schelske/ip_bdeb3f), Natural Assets & ESG Research Lead, Swiss Re Institute & [Bernd Wilke](https://www.swissre.com/profile/Bernd_Wilke/ip_567f65), Senior Risk Manager, Group Risk Management Published on:23 Sep 2020 <https://www.swissre.com/risk-knowledge/mitigating-climate-risk/managing-biodiversity-risk-is-critical-for-global-economy.html>

Biodiversity and ecosystem services underpin our daily lives and many of our products and services. From the water we drink to the food we grow and the resources we use in manufacturing, we would be at a loss without Mother Nature. But from the wildfires raging in California to forest loss in the Amazon, it is clear many of these ecosystems are suffering. And as the United Nations points out in the promotion of its [2020 Biodiversity Summit](https://www.un.org/pga/74/united-nations-summit-on-biodiversity/), the COVID-19 pandemic has “further highlighted the importance of the relationship between people and nature”. “We are reminded that when we destroy and degrade biodiversity, we undermine the web of life and increase the risk of disease spillover from wildlife to people,” it says. Understanding the extent and impact of biodiversity and ecosystem decline is key to minimizing further damage, and making informed decisions that prioritise a more sustainable future. This is why the Swiss Re Institute has created the [Biodiversity Ecosystem Services (BES) Index](https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/expertise-publication-biodiversity-and-ecosystems-services.html). It brings together masses of data and research from scientists around the world to present a kilometre-by-kilometre view of the state of biodiversity-related ecosystem services. We can use this information to become more risk-aware, and inform sustainable future development. And this wealth of data for the first time gives insurers the possibility to adapt their future risk pricing, selection and products to reflect the evolving risks caused by the declining health of biodiversity and ecosystems. The insurance industry has begun to realise the impact of climate change and other environmental decline on risk profiles. And it has become apparent that the risks are both physical – for example, the increasing size and amount of pay-outs following hurricanes and tropical storms – as well as reputational. There is now a recognition that coal, oil and gas policies, for example, have an impact on external perceptions. But until now, there has been limited recognition or ability to quantify the changing risk profile of different locations. Swiss Re’s new tool takes us beyond the awareness stage and gives us information we can act on. As Oliver Schelske, environmental and business economist at Swiss Re Institute and co-author of the new study, explains: “Biodiversity and ecosystem services are the foundation for life. They underpin economic activity. Here, we are talking about the health of forests and other ecosystems and the plants and wildlife within them. It impacts processes like water purification, pollination and soil formation. This affects food security, fresh water, and also has cultural, religious, educational and aesthetic importance.” The index paints a grim picture. There are 39 of 195 countries with fragile ecosystems on more than 30% of their land. Among them are Malta, Israel, Cyprus, Bahrain and Kazakhstan. The risks presented by this weakening of the natural world vary country by country. And within countries too. Some economies are more dependent on ecosystem services than others – countries with high dependency on agriculture, forestry and fishing, for example, may be more at risk from a decline in the natural world. These include countries with huge and growing populations like Kenya, Vietnam, Pakistan, Indonesia and Nigeria. But while more diversified economies may feel less of a direct impact, they are far from immune. Everyone is affected by broad socio-economic vulnerabilities like food security and diversity, the ability to discover and develop new medicines, and water quality. The BES Index gives a detailed view of how the interplay of these factors affects the risk in any given location. This makes it possible for the insurance industry to incorporate biodiversity and ecosystem strengths and weaknesses into its risk selection and ultimately pricing in the future. This will make businesses and societies more resilient as they adapt and shift to make better use of resources and locations, influenced by premium prices and insurability. Bernd Wilke, senior emerging risk manager at Swiss Re and index co-author, says: “In the future the tool will allow the insurance industry to adjust and develop products and create nature-based solutions that take account of where in the world, on a square-kilometre scale, ecosystems are healthy or fragile. That information can be used to identify where to invest and where to restore.” He gives the example of property located near damaged mangroves and coral reefs, which might have higher premiums than that behind intact mangroves or reefs. These natural barriers provide crucial protection in areas that are more prone to flooding, erosion and tidal damage, and the tool can help promote identification and investment in them. Using the index can help insurers to not only make communities more resilient and better protected, but also promote the UN Sustainable Development Goals (SDGs) of Life on land, which Wilke says underpins all other SDGs. “If we don’t work with nature in a sustainable way, we don’t have the foundation for our economies and everything that depends on it,” he says. Biodiversity and ecosystem strength are particularly poignant in the midst of the COVID-19 pandemic