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HE INANG-LACITIC LANTINE MOINT AND THE

CONSTRUCTION OF A SYNCRETIC ANIMAL WELFARE NORM

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The Trans-Pacific Partnership (TPP) is transformative in its scope and ambition. Its twelve founding nations account for over 10% of the world's population¹ and 40% of global gross domestic product.² Six other nations have declared their interest or intent to join.³ The TPP is centrally a trade treaty. But, its diverse chapters also provide a framework for managing corollary issues related to intellectual property and the environment. The focus of this article is how this constellation of provisions affects animal welfare in the Pacific Rim. The TPP does not specify the creation of cruelty statutes or the like in these countries. Rather, animal interests are implicit in the agreement's management of habitat integrity and trade in animalbased products. Advocacy groups, including the Sierra Club, argue that trade liberalization is an inherent threat to animal wellbeing.⁴ The Asia-Pacific region is already home to one-third of the world's threatened species.⁵ Increased incentives for commodity production

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- TPP at a Glance, U.S. BUSINESS Coalition FOR TPP, http://www.tppcoalition.org/wp-content/uploads/2015/04/At-A-Glance.pdf.
- 2. Trans-Pacific Partnership, WIKIPEDIA (including Colombia, Indonesia, Philippines, South Korea, Taiwan, Thailand), https://en.wikipedia.org/wiki/Trans-Pacific_Partnership (last visited Feb. 23, 2016).
 - 3. *Id*.
- 4. Ben Beachy, Four Reasons Not to Trust the TPP to Save Endangered Animals, SIERRA CLUB: LAY OF THE LAND (Sept. 23, 2015), https://www.sierraclub.org/lay-of-the-land/2015/09/fo ur-reasons-not-trust-tpp-save-endangered-animals. But see WWF Statement on the Close of the Trans-Pacific Partnership Negotiations, WORLD WILDLIFE FUND FOR NATURE (Oct. 5, 2015), http://www.worldwildlife.org/press-releases/wwf-statement-on-the-close-of-the-trans-pacific-part nership-negotiations (stating that the TPP has particularly strong environmental protections compared to other past trade agreements and thus could increase environmental protections within the signatory nations).
 - 5. Andrew Lurie & Maria Kalinina, Protecting Animals in International Trade: A Study of

could exacerbate resource depletion, especially in the context of emerging or developing economies with less exacting regulatory regimes. For example, palm oil production in Malaysia (a founding TPP nation) and Indonesia (also interested) has already led to significant habitat destruction for local animals, including megafauna such as the orangutan.⁶ The most important risk factor for orangutans is land loss, which has removed over 80 percent of the species' habitable area in Borneo and Sumatra during the last two decades.⁷ The status quo seems to only delay the possibility of extinction, rather than obviate these concerns. This article therefore questions the negative juxtaposition of the TPP with animal welfare. communication mechanisms created by this novel regime make possible the development of an epistemic community with shared interests in ecological sustainability and humane use of animals. I argue that a constructivist perspective best predicts the evolution of the TPP and that the information-sharing procedures built into the environmental chapter provide a voice for animal interests. The open question remaining is whether anyone will listen.

The positioning of these animal trade provisions within the environmental chapter belies the usual tensions between these kin doctrines. Animal law and environmental law possess conflicting goals. The animal rights theorist is commonly concerned with the individual animal. Deontological and utilitarian justifications for animal rights begin with the unique intelligence or sentience of the discrete individual. That the evolved animal has a sense of self and future, or experiences pain or happiness, evidences their qualified form of agency or moral interests. To borrow the lexicon of Nozick or Dworkin, this animal personhood is a "trump" against the interests of other legal actors.8 An animal's right to life or bodily integrity is preconditional to the property interests of the human. By contrast, the environmental law organization has an ecologic lens. Sure, animals should be protected from indifferent treatment. But so should an alpine forest.⁹ The calculus for the environmental lawyer is the

the Recent Successes at the WTO and in Free Trade Agreements, 30 Am. U. Int'l L. Rev. 431, 472 (2015).

^{6.} Loss of Habitat, BORNEO ORANGUTAN SURVIVAL AUSTRALIA, http://www.orangutans.com.au/Orangutans-Survival-Information/Loss-of-habitat.aspx (last visited Aug. 14, 2016).

^{7.} Id.

^{8.} See, e.g., Rights, STANFORD ENCYCLOPEDIA OF PHILOSOPHY, http://plato.stanford.edu/entries/rights/ (last visited Sept. 28, 2016) (discussing Dworkin's idea that 'rights' have a normative force that causes society to give great deference to rights based appeals).

^{9.} See generally Christopher D. Stone, Should Trees Have Legal Standing? - Toward Legal

aesthetic or economic value of the animal situated in its environs. Migratory birds add hue and flow to the panorama of nature and function in a global ecosystem. But this external-oriented value does not depend on the factual existence of a specific species member. To this extent, the individual animal is fungible. The pressures of "population control" are only one tension point between animal and environmental lawyers. Notably, the anti-TPP Sierra Club is itself a defender of hunting. There is space for the divergent tropes of tree hugger and sportsman within an environmental paradigm.

But the connected problems of biodiversity loss and endangered species protection put the shared interests of animal and environmental law into clearer focus. The orangutan depends on her inaccessible, leech-laden lowland rainforest for survival. These same rainforests are biological hotspots that contain a life spring of the world's genetic material and oxygen production, and are ground zero in the fight against global warming. Although "climate change" is not mentioned by name in the TPP, this systemic issue is captured by the agreement's cardinal goals of preventing illegal logging, marine pollution, and wildlife trafficking. The increased institutionalization of global animal law within the commercial and bureaucratic communities of the Asia-Pacific should help to promote a workable, transnational valence to animal rights discourse. The inclusion of an animal welfare sensibility throughout the TPP might even help to overcome the theoretic tensions in U.S. animal and environmental law.

I. THE TRANS-PACIFIC PARTNERSHIP IN CONTEXT

The TPP has been criticized for both its opaque negotiation process and the conservative drafting of its environmental chapter. However, focusing on these surface problems might distract audiences from the long-term opportunity it could provide. Evidently the

Rights for Natural Objects, 45 S. CAL. L. REV. 450 (1972) (arguing that the environment, and discrete portions of it like specific forests and streams, should have standing and other rights similar to a corporation to ensure that injuries to nature can be redressed).

^{10.} BioWeb, *The Orangutan*, UNIVERSITY OF WISCONSIN, http://bioweb.uwlax.edu/bio203/s 2008/ahrens_just/habitat.htm (last visited Sept. 28, 2016).

^{11.} CTR. FOR INT'L ENVT. L., The Trans-Pacific Partnership and the Environment: An Assessment of Commitments and Trade Agreement Enforcement, 3 (Nov. 2015), http://www.ciel.org/wp-content/uploads/2015/11/TPP-Enforcement-Analysis-Nov20 15.pdf.

^{12.} See Deborah James, Just Before Round of Negotiations on the Proposed 'Trade in Services Agreement' (TISA) Wikileaks Releases Updated Secret Documents, THE HUFFINGTON POST, (Jul. 2, 2016) http://www.huffingtonpost.com/deborah-james/just-before-round-of-nego_b_7715478.html (noting that similar arguments apply to the TPP).

language was friendlier to U.S. concerns¹³ at an earlier point, because Secretary Clinton's own positon on the treaty evolved since her involvement. The diplomacy surrounding its construction has been notoriously private, and the early glimpses into its text came by way of WikiLeaks and Congressman Darrell Issa.¹⁴ Cloistered talks reinforced concerns that it would represent special interests. This critique reflects the operation of public choice theory and the relative influence of lobbyists in the political process.¹⁵ It makes sense that producers are more concentrated than a dispersed class of consumers. But, Professor Sonia Rolland notes that the United States Trade Representative had been careful to include reference to consumer interests during negotiation of the TPP.¹⁶ Citizen process helps to motivate this conceptual shift from producer-oriented to consumer-oriented trade rules.¹⁷

One consensus positive of the TPP is its provision for citizen participation in the treaty. Article 20.8 provides for opportunities for public participation ("[t]hese mechanisms may include persons with relevant experience, as appropriate, including experience in business, natural resource conservation and management, or other environmental matters.") and Article 20.9 requires member nations to respond to public submissions. ¹⁹

This citizen participation text adheres to the recent precedent of U.S. trade treaties. For example, the multilateral CAFTA-DR agreement among the U.S. and Central American & Caribbean nations established a similar process.²⁰ A "core commitment" of nations involved in the TPP negotiation was including citizen participation.²¹ Citizen participation can integrate issues of animal trade and consumer

^{13.} As defined by Secretary Clinton.

^{14.} Roma Patel, A Public Health Imperative: The Need for Meaningful Change in the Trans-Pacific Partnership's Intellectual Property Chapter, 16 Minn. J.L. Sci. & Tech. 477. 482–83 (2015).

^{15.} Sonia E. Rolland, Are Consumer-Oriented Rules the New Frontier of Trade Liberalization?, 55 HARV. INT'L L.J. 361, 403–04 (2014).

^{16.} *Id.* at 413.

^{17.} See id. (considering the existence of consumer-oriented rhetoric as an indication that something is working in the background to broaden focus from the producer-oriented protections found in past trade agreements).

^{18.} Office of the United States Trade Representative (USTR), *Article 20*, TRANS-PACIFIC PARTNERSHIP, https://medium.com/the-trans-pacific-partnership/environment-a7f25cd180cb#.w yfqeyz8p (last visited September 27, 2016).

^{19.} Id.

^{20.} E.g., David P. Vincent, The Trans-Pacific Partnership: Environmental Savior or Regulatory Carte Blanche?, 23 MINN. J. INT'L L. 101, 121 (2014).

^{21.} Id. at 128.

interests that are perhaps more immediately felt in Pacific Rim nations. Few Americans make direct use of exotic or endangered animals. Wolves are victims of aerial culls; other threatened critters like the sage grouse are unlucky to find themselves on agricultural or pasture lands.²² But, Americans not go out of its way to cross paths with either of these species. Similarly, the bald eagle might actualize a national ethos of freedom and the frontier. However, one does not need to be consumed to realize this ethereal kind of utility. Elizabeth Moore employs the heuristic of "positive commercialism" to describe such animals that are both "natural" and "non-invasive." They should be left alone.²³ Rather a common problem of U.S. exotic species is there are *too many* (invasive) animals, not too few.²⁴

This is arguably distinguished from ivory art in China (registered as "intangible cultural heritage")²⁵ or the contested use of wildlife in traditional Chinese medicine (TCM) in China and its diasporic reach over the rest of Asia. Importantly, culture is embedded in this analysis.²⁶ The American trophy hunter opts into law's empire, but, for the Chinese, context pre-exists animal law. The armchair vanguard of modern animal rights theory instead assumes a vacuum of first principles abstraction independent of human contact. I have written elsewhere on how the hypothetical thought experiments of Tom Regan, Gary Francione and Peter Singer might clash with the experiential tests of a Chinese audience.²⁷ For example, the "argument from marginal cases" that equates the high-functioning animal with the low-functioning human might feel reductive to legal theorists from

^{22.} Inspired by John Nagle, States and the Endangered Species Act at the Northwestern Law Searle Center Second Annual Research Roundtable on Animal Law and Regulation: Comparative Perspectives on Administrative and Regulatory Law (July 15, 2016).

^{23.} Elizabeth A. Moore, "I'll Take Two Endangered Species Please": Is the Commercialization of Endangered Species a Valid Activity that should be Permitted under the Endangered Species Act to Enhance the Survival of the Species?, 75 GEO. WASH. L. REV. 627, 656–57 (2007).

^{24.} E.g., Robert Brown, Exotic Pets Invade United States Ecosystems: Legislative Failure and a Proposed Solution, 81 IND. L. J. 713, 713 (2006).

^{25.} Rachael Bale, *U.S.-China Deal to Ban Ivory Trade Is Good News for Elephants*, NATIONAL GEOGRAPHIC, (Sept. 25, 2015) http://news.nationalgeographic.com/2015/09/150925-ivory-elephants-us-china-obama-xi-poaching/.

^{26.} Cf. Tseming Yang, International Treaty Enforcement as a Public Good: Institutional Deterrent Sanctions in International Environmental Agreements, 27 MICH. J. INT'L L. 1131, 1163 (2006) ("Aesthetic and existence values are the best-known and most widely accepted values, but the environment also encompasses noneconomic values assigned by advocates of animal rights, environmental ethics, or cultural values in the environment.").

^{27.} Andrew Jensen Kerr & Yu Dan, *Tradition as Precedent: Articulating Animal Law Reform in China*, 11 J. ANIMAL & NAT. RESOURCE L. 71, 74 (2015).

other nations. Other scholars have identified traditional Chinese thought as possessing a "weak ontology" and preference for a more pragmatic ethic.²⁸

The East and Southeast Asian traditions of Daoism, Buddhism and Confucianism possess their own ecologic motivation.²⁹ And, interestingly, they seem better able to conjoin the disparate clusters of environmental and animal law that persist in the U.S. Notions of sustainability and human-animal reciprocity that are woven into Asian traditions cohere with the "cosmic holism" of philosopher Gary Steiner. Additionally, Yang Tongjin (the first voice in modern Chinese animal rights) cited to the "deep ecology" of Arne Næss, Bill Devall and Holmes Roston III as being just as influential as the ideas of Singer and Regan.³⁰ The ecologic framing of these ideas could help to build cultural currency among diverse parties to trade and environmental treaties.

Notably, the Peru Trade Promotion Agreement (PTPA) between the U.S. and Peru understands sustainability to *exclude* even "nonconsumptive" practices such as bird watching or photography.³¹ These activities typify the experience of American eco-tourists exploring the Peruvian interior, and are also the kinds of activities that few Americans would associate with unsustainable behavior. Shouldn't unsustainability mean bad intent? Or at least not *good* intent? Volition goes to the core of Western jurisprudence. Its status as a basic jurisprudential building block feels naturalized to us despite its historical contingency. For example, Elizabeth Papp Kamali limns how *mens rea* was constructed within the institutional history of early modern English courts and the legitimization of the criminal law.³² A

^{28.} RICHARD E. NESBITT, THE GEOGRAPHY OF THOUGHT: HOW ASIANS AND WESTERNERS THINK DIFFERENTLY...AND WHY 40 (2003). ("Even modern Chinese philosophers have always been far more interested in the pragmatic application of knowledge than with abstract theorizing for its own sake.") Webb Keane, "Ontologies, Anthropologists, and Ethical Life", 3 HAU: Journal of Ethnographic Theory 186, 186 (2013) ("Lloyd's ancient Greek and Chinese examples are weak ontology")

^{29.} See e.g., Louis Komjathy, Animals and Daoism, ENCYCLOPAEDIA BRITANNICA ADVOCACY FOR ANIMALS (Sept. 26, 2011), http://advocacy.britannica.com/blog/advocacy/2011/0 9/daoism-and-animals/(discussing how animals are used and portrayed in Daoism theology); see also Donald N. Blakely, Listening to the Animals: The Confucian View of Animals Welfare, 30 J. CHINESE PHIL. 137, 138 (2003) (discussing how Confucianism influences modern conceptions of animal welfare).

^{30.} Yang Tongjin, *Dongwu Zhongxinlun yu Shengwu Zhongxinlun* [The Animal Rights Theory and the Eco-centric Arguments] 9 ZIRAN BIANZHENG FA YANJIU [STUDIES IN DIALECTICS OF NATURE] 55 (1993).

^{31.} Lurie & Kalinina, supra note 5, at 467.

^{32.} See Elizabeth Papp Kamali, Felonia Felonice Facta: Felony and Intentionality in Medieval

transnational revision to how humans think about habitat destruction might help to transcend some of the incoherencies in American rights jurisprudence. Animal scientist Steve Davis notes the prodigious number of field animals that are killed in the production of industrial grains.³³ The specific intent to kill the collateral rodent that dies by tillage may not be possessed, but it still passes. To individual dead animals how important is the expressive value in treating them as Kantian agents, each deserving of recognition? The American religion of rights³⁴ seems less resonant with the social-economic orientation of many TPP nations, and also in conflict with the contested governance model of "Asian values." The average non-American might guffaw at the story of the snail darter.³⁵ A more pragmatic interpretation of animal welfare that balances commercial interests with sustainability can help cure these blind spots in Western theory.

II. PRETEXT AND POLITICS

A threshold question is whether the formative purpose of this agreement is in fact to increase trade, or is actually pre-textual of a geopolitical motivation, *i.e.* to shift the gravitational center of influence from China³⁶ to the U.S. in the Asia-Pacific. The U.S. hopes other Asian nations will join the agreement and that it should help complete the Obama administration's "pivot" to the region.³⁷ Secretary Clinton acknowledges that she invited China to join the TPP,³⁸ but it seems obvious (to all except Trump)³⁹ that a major function of the TPP is to

England, 9 CRIM. L. & PHIL. 397, 398 (2015) (explaining how *mens rea* evolved in a legal system that did not distinguish between crimes like murder and manslaughter until late in the sixteenth century).

^{33.} E.g., S. L. Davis, *The Least Harm Principle May Require That Humans Consume a Diet Containing Large Herbivores, Not a Vegan Diet*, https://www.morehouse.edu/facstaff/nnobis/papers/Davis-LeastHarm.htm (last visited Sept. 28, 2016).

^{34.} See generally Richard L. Cupp, Moving Beyond Animal Rights: A Legal/Contractualist Critique, 46 SAN DIEGO L. REV. 27 (2009) (discussing potential benefits and harms associated with expanding 'rights' to animals and arguing that environmental interests are better served without ascribing rights to animals).

^{35.} See generally Tennessee Valley Authority v. Hiram Hill et al., 437 U.S. 153 (1978) (enjoining the final completion of a mostly constructed and very expensive dam because it would have had a significant negative impact on the population and habitat of the endangered snail darter).

^{36.} Vincent, supra note 19, at 125.

^{37.} Meredith Kolsky Lewis, *The Trans-Pacific Partnership: New Paradigm or Wolf in Sheep's Clothing?*, 34 B.C. Int'l & Comp. L. Rev. 27, 36–37 (2011).

^{38.} Vincent, supra note 19, at 25.

^{39.} Donald Trump – not exactly an expert on TPP, WASHINGTON EXAMINER (Nov. 11, 2015), http://www.washingtonexaminer.com/donald-trump-not-exactly-an-expert-on-tpp/article/

limit the hegemonic power of the People's Republic of China (PRC). TPP language should therefore be studied against the foil of a competing PRC-based agreement. If palm oil will ultimately be exported *somewhere*, then the better question is whether the U.S.-led TPP is more likely to maintain habitat integrity as compared to a hypothetical PRC-centric trade agreement.

Critics fairly characterize the TPP's language as vague and unenforceable. The agreement possesses aspirational language that asks members to "strive . . . for high levels of environmental protection." Chapter 20.17 does not require that party nations "prohibit" wildlife trade but merely that they commit to "combatting" the illegal take and trading of registered species. 42

This drafting language shifts the burden of proof from the non-complying nation from having to show that they did something (e.g. prosecute a poacher) to an *opposing nation* having to show that the non-complying nation had sufficient knowledge or capacity to prosecute a particular crime it chose to ignore. This provides a generous out for the scofflaw nation, especially the developing nation that arguably lacks the material or administrative capacity to implement an environmental crime ministry. There already exist doctrinal exceptions for the "progressive realization" of social-economic rights relating to a healthy environment (e.g. the UN Special Procedures mandate on human rights and the environment).⁴³ Critics are correct to argue that the TPP's text makes it difficult for member nations to bring complaints against those nations who routinely ignore wildlife crime.

But the focus here is on the first-order question of whether prosecution of wildlife crime should even be a priority for TPP nations at all. The problem seems so systemic and interwoven with subsistence or cultural choices that individual prosecution might feel selective. TPP critics point to the more visible failures of the PTPA with Peru. 44 The U.S. has yet to bring formal charges against Peru for illegal logging, despite estimates that 70% percent of its timber is produced

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^{40.} See e.g., Beachy, supra note 4, (arguing that language requiring signatories to "combat" certain illegal actions that are harmful to the environment without specifying mechanisms or benchmarks for success makes the provision both vague and, as a consequence, unenforceable).

^{41.} USTR, supra note 18.

^{42.} CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW, *supra* note 11, at 2.

^{43.} G.A. Res. 45/94, (Dec. 14, 1990), http://www.un.org/documents/ga/res/45/a45r094.htm.

^{44.} E.g., Beachy, supra note 4.

and sold unlawfully.⁴⁵ This detail is particularly alarming as the U.S. is a major timber importer and TPP nations, Malaysia and Vietnam, are also key players in this industry.⁴⁶ But, perhaps these critics are looking in the wrong places? Or, not looking far enough into the future?

AN INSTITUTIONAL PERSPECTIVE

Even if geopolitical motivations inform treaty membership, this does not obscure the ecologic compass of its environmental chapter. Indeed, this content might provide the U.S. moral authority vis-à-vis China, which has been characterized as having fewer scruples in negotiating trade deals with autocratic regimes.⁴⁷ In any event, the political ambition of the treaty is not reduced to provisional language, but instead is founded in the development of an ongoing framework for the exchange of ideas and information on trade and the environment.

An institutional approach to international relations provides layered context for the specific treaty language of the TPP. While it is true that the aspirational tenor of the Environment chapter makes formal enforcement difficult, there are important corollary benefits to the very fact of these nations joining this comprehensive trade regime. Since the creation of the PTPA, Peru has "created a ministry of environment with an enforcement arm and designated environmental and agricultural branches to carry out its agreements."48 Peru has also created an independent forestry board to ensure that implementation coheres with both the PTPA and the Convention on International Trade and Endangered Species (CITES).⁴⁹ Relatedly, Article 20.19 of the TPP mandates that party nations establish Environment Committees composed of both governmental trade and environmental representatives. The TPP additionally requires member nations to act within the CITES framework, which helps to confirm the multilateral obligations that, for example, Peru has to protecting its endangered species outside of its bilateral dynamic with the U.S.⁵⁰ Indeed, Anne-Marie Slaughter and Laurence Helfer argue that "linking international

^{45.} Id.

^{46.} Vincent, *supra* note 19, at 132–33.

^{47.} Nora Langan, *China Africa Relations: Mutually Beneficial?*, FAIR OBSERVER (Sept. 28, 2012), http://www.fairobserver.com/region/africa/china-africa-relations-mutually-beneficial/.

^{48.} Tiffany Mathiason & Angela Cabral, Managing the Global Environment Through Trade: WTO, TPP, and TTIP Negotiations, and Bilateral Investment Treaties Versus Regional Trade Agreements Introduction, 30 Am. U. INT'L L. REV. 377, 379 (2015).

^{49.} Id.

^{50.} Lurie & Kalinina, supra note 5, at 469.

institutions to national institutions committed to the rule of law, such as domestic court systems, can contribute to that goal substantially."⁵¹ Western analytical legal theory often assumes that rights, entitlements and normative commitments to a rule of law are a conditional starting point. Instead, individual sense of legal obligation varies by culture.⁵² By creating a density of complementary legal frameworks (*e.g.* bilateral agreements, TPP, CITES) legal actors become more embedded in the discourse of endangered species and habitat integrity, and this helps to internalize concepts like animal welfare within the individual and collective legal consciousness of a given nation.⁵³

The TPP requires nations to fulfill CITES obligations (Article 20.17.2)⁵⁴ as well as commitments to "implement the multilateral environmental agreements [MEAs] to which it is a party" (Article 20.4).⁵⁵ This provision is important given that "although most MEAs already include some type of enforcement mechanism, enforcement at the national level may be weak or non-existent."⁵⁶ It is unclear whether there is an identifiable TPP procedure for aligning these mechanisms. The text does not seem to self-execute MEAs as domestic legislation, but rather adds another layer of reaffirmation of commitment (Preamble and Article 20.4). Chapter 20 disputes are first handled internally by commission and, if not settled, eventually referred to a Chapter 28 Dispute Resolution Panel, which may ask for CITES guidance (Article 20.23).

It is difficult to locate a final authority who can interpret and apply the already vague language of Chapter 20. The Center for International Environmental Law is justified in lamenting the lack of an independent commissioner similar to the NAFTA Council of the Commission for Environmental Cooperation (CEC).⁵⁷ Under the North American Agreement for Environmental Cooperation (NAAEC) the CEC Secretariat is given explicit authority to act as an

^{51.} Yang, *supra* note 25, at 1168.

^{52.} Marcus Powlowski, The Regulation of Traditional Practitioners: The Role of Law in Shaping Informal Constraints, 32 N.C. J. INT'L L. & COM. REG. 195, 248–49 (2006).

^{53.} Cf. Frank Munger, Constitutional Reform, Legal Consciousness, and Citizen Participation, 40 CORNELL INT'L L. J., 455, 470–72 (2007) (discussing how increased legal protection combined with the subsequent increase in contact with NGOs and bureaucrats respectively has strengthened the environmental norms of the rural poor and urban middle-class).

^{54.} USTR, supra note 18, Art. 20.17.2.

^{55.} Id., Art. 20.4.

^{56.} Lurie & Kalinina, supra note 5, at 455.

^{57.} CTR. FOR INT'L ENVT. L., supra note 11, at 8.

independent body in applying principles of treaty interpretation.⁵⁸ The TPP does not outline a factual record process for public submissions.⁵⁹ Andrew Lurie and Maria Kalinina of the U.S. Humane Society International concur that the Factual Record component of the CAFTA-DR trade agreement has been instrumental to improving the enforcement of international laws.⁶⁰ But, these shortcomings do not necessarily lead to the false dichotomy presented by Lurie and Kalinina that: "if FTA [free trade agreement] parties do not comply with the terms of the agreement, they must face consequences or the terms are meaningless."⁶¹ To borrow an indigenous reference, can't there be a middle way?⁶²

This binomial argument depends on a false equation of hard law institutions such as the World Trade Organization (WTO) with international environmental law. Professors Tseming and Robert Percival qualify that even "egregious" environmental violations are rarely punished.⁶³ Despite documented violations, no party "has ever brought a formal case based on the environmental provisions of any U.S. FTA."64 And, "no party has pursued dispute resolution through formal adjudicative processes as provided under Article 18(b) of the Convention" during CITES 30-year history.65 This level of nonenforcement would be derelict in a regime like the WTO with an insulated *de jure* dispute settlement appellate body. Nonetheless, the soft law culture of CITES has still led to tangible benefits for animals in party nations. For example, China recently ratcheted up its criminal penalties for personal consumption of endangered species.⁶⁶ Additionally, Presidents Obama and Xi Jinping entered a historic agreement to close loopholes in the ivory trade this past September.⁶⁷

^{58.} Id. (citing Sikina Jinnah and Abby Lindsay, Secretariat Influence on Overlap Management Politics in North America: NAFTA and the Commission for Environmental Cooperation, REVIEW OF POLICY RESEARCH 124–45 (2015) http://onlinelibrary.wiley.com/doi/10.1111/ropr.12106/pdf.).

^{59.} CTR. FOR INT'L ENVT. L., supra note 11, at 5.

^{60.} Lurie & Kalinina, supra note 5, at 458.

^{61.} Id. at 470.

^{62.} Middle Way, WIKIPEDIA (last visited Feb. 23, 2016).

^{63.} Tseming Yang & Robert V. Percival, *The Emergence of Global Environmental Law*, 36 ECOLOGY L.Q. 615, 656–57 (2009).

^{64.} CTR. FOR INT'L ENVT. L., supra note 11, at 1 (emphasis in original).

^{65.} Yang, supra note 25, at 1138 (emphasis omitted).

^{66.} E.g., Zoe Li, Off the menu: China moves to protect endangered species, CNN (May 5, 2014), http://www.cnn.com/2014/04/30/world/asia/china-wildlife-law/.

^{67.} US and China Agree to Halt Ivory Trade, WILDAID (Sept. 25, 2015), http://wildaid.org/news/us-and-china-agree-ban-ivory-trade. But see Morgan V. Manley, The (Inter)national

These events seem to represent the *telos* of Lawrence Watters and Wang Xi's claim: that increased citizen participation in Chinese environmental law and integrated market relationships that "focus on specific assistance, cooperation, expertise and funding can target resources where they are likely to have the most opportunity for success." This same directed use of resources and political capital seems relevant to limiting the rhino horn trade and use of endangered species in TCM.

III. ACHIEVING TRANSFORMATIVE GOALS THROUGH INSTITUTIONAL PROCESS

Abram Chayes is most associated with the managerial approach to diplomatic relations. His particular vision is itself an outgrowth of the institutionalist approach to international relations, which recognizes the effect of international organizations on state behavior. Even if states react to a realpolitik world of raw self-interest, they are still socialized by their participation in international institutions to see conventions to fruition or to make choices within its frameworks. Empirical studies confirm a proactive approach to compliance management is formative to treaty effectiveness. In "On Compliance," Chayes shows that when nations enter politically salient agreements – including environmental agreements – these agreements in turn alter the behavior and expectations of party nations. Still, the explanatory significance of compliance management remains questioned.

Two important innovations of the TPP are that 1) an animal unlawfully taken from its home country is now also deemed illegal in the import country (regardless of that country's codified law) and 2) that TPP nations must seriously consider leads from citizens groups in member nations related to wildlife crime.⁷³ Extradition process

Strategy: An Ivory Trade Ban in the United States and China, 38 FORDHAM INT'L L.J. 1511, 1543 (2015) (noting that there is some evidence that the Obama administration was already moving to this position prior to the China agreement).

^{68.} Lawrence Watters & Wang Xi, The Protection of Wildlife and Endangered Species in China, 14 GEO. INT'L ENVIL. L. REV. 489, 514 (2002).

^{69.} See generally Abram Chayes & Antonia Handler Chayes, On Compliance, 47 INT'L ORG. 175, 175 (1993) (discussing the importance of international agreements to the general structure of international politics).

^{70.} Yang, *supra* note 26, at 1142.

^{71.} Chayes, *supra* note 69, at 176.

^{72.} Yang, *supra* note 26, at 1143.

^{73.} Rachel Bale, *How the Trans-Pacific Partnership Will—and Won't—Protect Wildlife*, NAT. GEO.: WILDLIFE WATCH (Nov. 5, 2016), http://news.nationalgeographic.com/2015/11/151

depends on the individual state. However, this bleeding of domestic law into the transnational sphere is representative of a new modality of global environmental law.⁷⁴

This framework for information sharing decentralizes managerial governance while increasing the pairs of "eyes" on potential scofflaw behavior (the Bentham/Foucault panoptican). A compounded accountability model also helps to achieve Tseming Yang's "structural change" in diplomatic relations by substituting a multilateral for a bilateral relationship.⁷⁵ The iterated nature of a dense network mitigates "shirking" and other free-rider behavior that is available in an impersonal system.⁷⁶ One NGO critique⁷⁷ is that the CITES is sufficient by itself to operationalize legal obligations. But this argument also forgets that regime's own missteps; for example, prematurely moving the now extinct West African black rhino to its Appendix II for less threatened species.⁷⁸

The constructivist model of Harold Koh builds on institutionalism. For Koh, national identity and interests are socially constructed, and evolve with the ideas and attitudes of state officials.⁷⁹ Koh's theory "asserts that international legal norms, values, and beliefs can be internalized through repeated interaction, sustained discourse, and efforts to persuade governmental and nongovernmental actors."⁸⁰ Actors can be socialized to new norms through transnational channels, including discussion with epistemic and non-state actors.⁸¹ As mentioned, TPP citizen participation provisions can harness this

¹⁰⁵⁻TPP-free-trade-wildlife-trafficking-conservation-cites/; see also Gains for Wildlife in the Trans-Pacific Partnership, ENCYCLOPEDIA BRITANNICA: ADVOCACY FOR ANIMALS (Oct. 9, 2016) ("It requires countries to take action to combat the illegal trade of wildlife, even species not covered under CITES, if the wildlife has been illegally taken from any country.").

^{74.} See, e.g., Yang & Percival, supra note 63.

^{75.} Yang, supra note 26, at 1165.

^{76.} Id. at 1157.

^{77.} E.g., Ben Beachy, Four Reason Not to Trust the TPP to Save Endangered Animals, SIERRA CLUB: LAY OF THE LAND (Sept. 23, 2015) ("We have alternative tools to reduce illegal wildlife trade-ones that have proven more effective and less risky than trade deals."), https://www.sierraclub.org/lay-of-the-land/2015/09/four-reasons-not-trust-tpp-save-endangered-animals.

^{78.} Alisha Falberg, "The Living Are Getting Rarer": The Causes and Consequences of the International Trade in White Rhinoceros Horns Under the Convention of the International Trade of Endangered Species, 2 PENN St. J. L. & INT'L AFF. 182, 199 (2013).

^{79.} Yang, supra note 26, at 1146–47.

^{80.} Id.

^{81.} *Id.*; see also Peter M. Haas, *Epistemic Communities and International Policy Coordination*, 46 INT'L ORG. 1, 1–35 (1992), https://www.unc.edu/~fbaum/teaching/articles/IO-19 92- Haas.pdf.

transformative potential through technical assistance and public education.⁸² The explanatory posture of the document also helps to reinforce the normative commitments of the document to more technocratic-minded officials. Article 20.2 (Objectives) has an educative valence ("the Parties recognize that enhanced cooperation to protect and conserve the environment and sustainably manage their natural resources brings benefits that can contribute to sustainable development, strengthen their environmental governance and complement the objectives of this Agreement"), which reminds state actors of the inclusive goals of the treaty. The framing of "sustainable development" also provides a commercial sensibility to the document (in contrast to the original "preservationist" ambition of the ESA) and involvement should invite local business in transnational environmental/animal problem solving. Perhaps reticent officials are more likely to respond to pro-animal welfare citizen submissions if they are framed as entrepreneurial rather than ethical opportunities. This article's minor claim that TPP parties might innovate a syncretic animal welfare norm could be viewed as naïve or oblique. Can something as instrumental as a trade treaty be a fountainhead for new kinds of ethical thought? But perhaps "animal welfare" has always possessed a pragmatic orientation.83 Maybe there is commercial content to this term, but interested parties have only felt it is too unseemly to articulate.

IV. ASEAN VALUES

The institutional, dialogic framework of the TPP suggests a soft law orientation coherent with the diplomatic context of Southeast Asia. The Association of Southeast Asian Nations (ASEAN) is a political and economic organization of ten regional nations, including seven that are founding members or interested in joining the TPP. The ASEAN also represents a diversity of nations in terms of both governance and development,⁸⁴ e.g., from socialist Vietnam to high-income, uber-capitalist Singapore. The "ASEAN way" of governance is distinguished by an emphasis on informal, personal relationships

^{82.} Yang, *supra* note 26, at 1146–47.

^{83.} See, e.g., Nicholas Kristof, A Humane Revolution, N.Y. TIMES (May 14, 2016) ("Critics sometimes see this as moral compromise, negotiating with evil rather than defeating it; I see it as pragmatism. Likewise, Pacelle has been a vegan for 31 years but cooperates with fast-food companies to improve conditions in which animals are raised for meat.").

^{84.} Tarik Abdel-Monem, ASEAN's Gradual Evolution: Challenges and Opportunities for Integrating Participatory Procedural Reforms for the Environment in an Evolving Rights-Based Framework, 29 UCLA PAC. BASIN L.J. 234, 249–50 (2012).

among heads of state as well as by conflict avoidance and non-interference in domestic affairs.⁸⁵ The flexibility provided by this model helps to accommodate the range of national interests. Decisions are most often made by quiet consensus. Not surprisingly there are few "hard law" instruments in ASEAN's environmental law portfolio and they possess clear limitations.⁸⁶

The ability to conduct a multi-track⁸⁷ form of diplomacy seems particularly useful to the context of ecological sustainability, as different countries attach differing cultural or economic values to this kind of "good." Surely all humans attach some degree of aesthetic or economic value to a clean environment and functioning ecosystem. But the political economy gridlock common to low-income nations might require them to prioritize growth over e.g. habitat integrity, at least in the short-term. This goes to the anti-free trade argument that there is an inherent dynamic between development and environmental destruction. But a rejoinder here is that as economies develop they no longer need to rely on the subsistence choices of survival, but can instead consider a more long-term decision-making calculus. Trade liberates. An example is the noxious pollution of Ulaanbataar. The coal or wood burning ger (yurt) is iconic of Mongolia, but the Ulaanbattar Clean Air Project is just one organization dedicated to providing improved energy-efficient heating options for the "world's coldest capital."88 The problem with valuation here resembles the notorious Laffer Curve of 1980s Reagonomics: How can it be determined that the status quo equates to a macroeconomic position where a prioritization on economic growth will lead to more overall investment in green technology etc.?

Again, there is hope that the citizen participation model of the TPP can help to find a common currency for negotiating transnational issues related to habitat destruction, species loss, climate change and business development. Southeast Asia scholar Tarik Abdel-Monem called for the inclusion of citizen participation to the ASEAN in 2012.⁸⁹ He considers civil society organizations to be particularly essential in a Southeast Asia context as significant parts of the local population lack

^{85.} Id. at 249–50.

^{86.} *Id.* at 252–54 (cataloging environmental agreements over the last three decades).

^{87.} Id. at 274.

^{88.} Curbing Air Pollution in Mongolia's Example, WORLD BANK (Apr. 25, 2012), http://www.worldbank.org/en/news/feature/2012/04/25/curbing-air-pollution-in-mongolia-capital.

^{89.} Abdel-Monem, *supra* note 84, at 270–71.

the capacity to interface with high-level institutions. A reason why this *subject matter* is particularly appropriate for an epistemic community is that there currently does not exist a standard or baseline for this dynamic of issues. Karma is perhaps the universal currency, but it lacks definition and liquidity. Money has these qualities, but it is difficult to attach to the intrinsic worth of a species factual existence, or to the unknown biochemical benefit that might realize from that species' genetics in the future.

In "Ways of Seeing in Environmental Law: How Deforestation Became an Object of Climate Governance", Professor William Boyd describes the analogous process of how the climate change community was able to construct deforestation as a useable metric for environmental integrity.⁹¹ The epistemic community of climate scientists and policymakers lacked a fungible currency for evaluating climate change management, but over time deforestation gained traction as an objectification of the environment because of its amenability to "kind-making, calculability and equivalence." ⁹² Perhaps this rubric will also gain traction in the TPP community as a heuristic for species protection, as it captures both environmental and animal welfare. Or perhaps this evolving TPP-ASEAN epistemic community will identify a novel framework for balancing animal welfare and economic needs. In Rattling the Cage, vanguard animal lawyer Stephen Wise posits a rough metric in which animal species (or perhaps humans, aliens, AI entities) receive increasing legal protections depending on their degree of practical autonomy and mentation.⁹³ Maybe this kind of intuitive balance of animal capacity with social utility can inform citizen participation process. Either way, some bureaucratization of animal welfare law will help to provide a shared vocabulary for thinking about transnational animal issues. The Western twin constructs of Benthamite utilitarianism and deontologic "rightist" views of animal autonomy do not easily translate to indigenous ethical frameworks in Asia. To an American, cockfighting is a particularly brutal form of wasting time. But to some Filipinos cockfighting (sabong) is a way of life. Clifford Geertz analogized the "deep play" of the Bali cockfight to the literary depth of reading

^{90.} Id. at 271–72.

^{91.} William Boyd, Ways of Seeing in Environmental Law: How Deforestation Became an Object of Climate Governance, 37 ECOLOGY L.Q. 843 (2010).

^{92.} Id. at 844.

^{93.} STEPHEN WISE, RATTLING THE CAGE (2000).

Shakespeare.⁹⁴ How is Peter Singer supposed to translate this metaphysical ritual experience into a hedonic equation of utility? Orthogonal socio-legal ontologies make a non-legalistic bureaucratic response all the more necessary to finding common ground.

V. CAPTURING LEGAL ACTORS SO THEY DON'T CAPTURE ANIMALS: VIETNAM AND THE RHINO HORN TRADE

A concrete benefit of the TPP is its positioning to target the illegal wildlife trade in Vietnam. 95 Its elephant population has decreased from 2,000 in 1980 to as low as 70. Equally alarming is their import of rhino horn. Vietnam is heavily implicated in the rapid decline of the African rhino population.⁹⁷ Indeed, the CITES standing committee recently required proactive action from the Vietnamese government to show they are taking genuine steps to prevent this trade, 98 for example, to cooperate with the South African government to prosecute those who violate poaching and trade law.⁹⁹ Still, conservation groups identify little "political will from Vietnam in tackling the illegal trade in rhino horn." Few arrests have been made. This has produced somewhat draconian proposals, including that the horns of living rhinos be sprayed with a parasiticide that is toxic to humans. 100 Rhino horn is generally shaven to a powder and consumed in drink form. It is thought to contain detoxifying properties, or even to cure cancer. 101 But in reality it is made of keratin (the same substance as your fingernail), a fact publicized by the African Wildlife Foundation's "Nail Biters" campaign. 102 In a somewhat bizarre turn, conservation groups and drug manufacturers (Pembient) are now in a row over the

^{94.} See Clifford Geertz, Deep Play: Notes on the Balinese Cockfight, in THE INTER-PRETATION OF CULTURES 412 (1977).

^{95.} Falberg, *supra* note 77, at 221 ("China has made considerable efforts to decrease the international trade in endangered species.").

^{96.} The Silent Crisis: Vietnam's Elephants on the Verge of Extinction, NAT'L GEO. (Dec. 5, 2013), http://voices.nationalgeographic.com/2013/12/05/the-silent-crisis-vietnams-elephants-on-the-verge-of-extinction/.

^{97.} *The Vietnam Question*, SAVE THE RHINO, https://www.savetherhino.org/rhino_info/thorny_issues/the_vietnam_question (last visited Feb. 24, 2016).

^{98.} Thailand Faces Sanctions If It Fails to Stop Ivory Trade, WORLD WIDE FUND FOR NATURE (Mar. 19, 2015), http://www.worldwildlife.org/stories/thailand-faces-sanctions-if-it-fails-to-stop-ivory-trade.

^{99.} Falberg, *supra* note 77, at 190–91, 230 (2013).

^{100.} Id. at 214.

^{101.} Id. at 191-92.

^{102.} See "Nail Biters" with Sir Richard Branson, YOUTUBE, https://www.youtube.com/watch? v=QPQvOlwmV6E (last visited Feb. 24, 2016).

invention of a *synthetic* "Essence of Rhino Horn" emollient being marketed to Vietnamese consumers. 103

Vietnamese bureaucrats are complicit in the illegal wildlife trade. They eat meals made of endangered species. 104 A Vietnamese official was caught on videotape making a rhino horn purchase. 105 But the same social capital and contour of this class of people also make them amenable to capture by TPP epistemic channels. In Koh terms, they can be transformed. Education campaigns about the prosaic nature of keratin should make rhino horn less attractive. 106 Local officials should also take note of how their complicity in the China-Vietnam wildlife trade has affected species diversity in their own nation. Like much of Southeast Asia, ¹⁰⁷ Vietnam is a major producer, consumer and transit hub for illegal wildlife. Vietnam has lost almost 200 species of birds and 120 other animal species in the last 40 years in part because of wildlife trade. 108 In fact there are so few animals left that poachers have begun canvassing neighboring Laos and Cambodia for new supply. 109 Much of this Vietnamese capture is destined for China. 110 A 1990s study found that over USD \$30 million of wildlife product was transported annually to the Vietnam-Guanxi (China province) ports of Longyao and Dongxing.¹¹¹ This number has surely increased since then, and these sites represent only two of over ten ports at the Guanxi border. 112 A single rhino horn is currently valued at over \$5,000 in Vietnam. It is valued at \$1,000,000 once it reaches the United States. 113

^{103.} Conservation Groups Urge Obama Administration to Ban 'Synthetic' Rhinoceros Horn, CTR. FOR BIOLOGICAL DIVERSITY – PRESS RELEASE (Feb. 10, 2016), https://www.biological diversity.org/news/press_releases/2016/rhinoceros-02-10-2016.html.

^{104.} John Copeland Nagel, *The Effectiveness of Biodiversity Law*, 24 J. LAND USE & ENVTL. L. 203, 251 (2009).

^{105.} Falberg, supra note 77, at 227.

^{106.} *Cf. id.* at 187 (citing study that found 70% of Chinese people thought that an elephant's tusks can re-grow after being removed by a poacher).

^{107.} Beth Allgood, Marina Ratchford & Peter LaFontaine, U.S. Ivory Trade: Can a Crackdown on Trafficking Save the Last Titan?, 20 ANIMAL L. 27, 33 (2013) ("[I]n in December 2012, a 6-ton seizure in Malaysia was one of the largest seizures on record.").

^{108.} Jolene Lin, Tackling Southeast Asia's Wildlife Trade, 9 S.Y.B.I.L., 191, 203 (2005).

^{109.} Id. at 203.

^{110.} Southeast Asian national incomes are increasing along with appetites for exotic cuisine. *See* Caitlin Bratt, *International Cooperation Concerning the Extinction of Tigers*, 9 J. ANIMAL & NAT. RESOURCE L. 141, 143 (2013).

^{111.} Li Yiming & Li Dianmo, Status and Strategies for Control of Wildlife Trade Across the Sino-Vietnamese Border, Institute of Zoology – Chinese Academy of Sciences, http://www.zd.brim.ac.cn/bwg-cciced/english/bwg-cciced/tech-26.htm.

^{112.} Id

^{113.} Falberg, supra note 77, at 193.

Rhinos are also distinguished from other animals by their considered status as a keystone species. 114 Keystone species are understood to function as a kind of nucleus or fulcrum within an ecosystem. The identity of the Southern Africa savanna—and the survival of other plant or animal species within that system—might depend on the existence of the rhino. The urgency of rhino preservation gives the TPP information sharing network a definite value—Koh's constructivism is not a mere academic theory, but uniquely targets a singular population (Vietnam officials) that possesses the singular capacity to prevent an environmental/animal calamity.

There is evidence that the Vietnam state is receptive to institutional management. Mara Zimmerman cites an expedient Vietnamese response to a previous U.S. threat of trade sanctions for violating CITES. Relatedly, President Bill Clinton was able to use the CITES as trade leverage against Taiwan during his administration. Perhaps woven into East and Southeast Asian diplomacy is an element of "saving face." If local officials and epistemic actors are educated or encouraged to recognize the legal force of their commitments and the imperative of habitat integrity, then the connection between internal guilt and obligation might be more leveraged. 117

The main criticisms of the TPP thus cluster around (1) it diluting the CITES or (2) its own draft provisions not being sufficiently robust. The TPP may create novel communication channels, but why should onlookers be optimistic that anyone will listen to what is said? This article's argument depends on this question: is it better to remain in a pre-TPP universe where *no one* is talking, or to bring in a chorus of new voices even if we're not sure anyone will listen? It is unclear what there is to lose. Perhaps the commodification of traditional knowledge of animal ingredients can help to attract attention to these debates.

^{114.} Rachel Nuwer, *Here's What Might Happen to Local Ecosystems If All the Rhinos Disappear*, SMITHSONIAN, http://www.smithsonianmag.com/articles/heres-what-might-happen-local-ecosystems-if-all-rhinos-disappear-180949896/?no-ist (last visited Feb. 17, 2016).

^{115.} Mara Zimmerman, The Black Market for Wildlife: Combating Transnational Organized Crime in the Illegal Wildlife Trade, 36 VAND. J. TRANSNAT'L L. 1657, 1666 (2003); see also Elisabeth McOmber, Problems in Enforcement of the Convention of International Trade in Endangered Species, 27 BROOK. J. INT'L L. 673, 698 (2002).

^{116.} Amy Vulpio, From the Forests of Asia to the Pharmacies of New York City: Searching for a Safe Haven for Rhinos and Tigers, 11 GEO. INT'L. ENVIL. L. REV. 463, 479–80 (1999).

^{117.} Cf. Marcus Powlowski, supra note 51, at 248–49 (2006).

VI. DIALECTICS AND DEVELOPMENT

The TPP is also controversial for its intellectual property chapter. Concerning provisions include the ability to "evergreen" pharmaceuticals to extend their patent life, and to thus withhold generic equivalents to needy consumers. This directly conflicts with the "Spirit of Doha" exception to the TRIPS regime. But a postrevisionist look at international intellectual property law also recognizes that the "global South" can benefit from an expanded IP regime. This article focuses on two specific cases that might empower local business and community groups to locate sustainable ways to manage wildlife products: traditional knowledge products and traditional Chinese medicine (TCM) in East and Southeast Asia.

Chidi Oguamanam describes the dialectics of intellectual property protection in the non-Western world. There is a popular sense that IP regimes deny – at least by monopolistic pricing – generic medicines or technological products to local populations. However, IP protections can also provide incentives for these same peoples to commoditize and market traditional forms of knowledge. Indeed, a relevant threshold question goes to the cultural intuition of what products are alienable. In the U.S. this debate seems centered on the use of one's body; for example, surrogacy or sex work. But in many TPP nations there is resistance to making wildlife products patentable. Prior to TPP publication, plant products were not patentable in Chile, Mexico, New Zealand, Peru and Vietnam, and perhaps not in Brunei or Singapore either. Article 18.37 maintains this regime by allowing nations to exclude plants as well as animals from patentable inventions (excepting microorganisms). This

^{118.} See Burcu Kilic, Defending the Spirit of the Doha Declaration in Free Trade Agreements: Trans-Pacific Partnership and Access to Affordable Medicines, 12 LOY. U. CHI. INT'L L. REV. 23, 38–42 (2014).

^{119.} See id. at 46 ("TRIPS members are not obliged to offer longer times or protection for certain regulated products like pharmaceuticals").

^{120.} Chidi Oguamanam, Patents and Traditional Medicine: Digital Capture, Creative Legal Interventions, and the Dialectics of Knowledge Transformation, 15 IND. J. GLOBAL LEGAL STUD. 489 (2008).

^{121.} Burcu Kilic, Hannah Brennan & Peter Maybarduk, What is Patentable Under the Trans-Pacific Partnership? An Analysis of the Free Trade Agreement's Patentability Provisions from a Public Health Perspective, 40 YALE J. INTL. L. ONLINE 1, 12 (2015).

^{122.} Id.

^{123.} USTR, *supra* note 18, art. 18.37; One novel avenue for TCM producers is to create nanomedicines based on the compounds of Chinese herbal medicines. However, one fear is that this level of reduction the substance's properties can change and become toxic. Jerry I-H Hsiao, *Nano Chinese Herbal Medicine Patenting in China: Industrial Applicability as the Benchmark in*

underlines the intrinsic value of nature, and also captures a state interest to continue provision of "traditional knowledge" products to its population. The psychedelic universe of the shaman should not be routinized by making her shop at a pharmacy, rather than forage in nature.

But a broader tension is whether IP protection should be provided for traditional systems of knowledge. This is not to say the rhino horn should be patented, but is there a legal argument that the synthetic rhino horn of Pembient is itself derivative of the local African or Vietnamese patentable system of traditional medicine? Traditional knowledge is defined by the World Intellectual Property Organization as "a living body of knowledge that is developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity."¹²⁴ Not surprisingly, traditional knowledge also suffers from profound application issues. 125 standard interpretations of copyright or patent, traditional knowledge lacks a definite author. Justin Hughes also questions the elasticity of notions like traditional knowledge and traditional cultural expression (TCE)¹²⁶ – at the broad compass of human history how can cultural exchange be delimited? There are surely benign, even synergistic, moments of cross-cultural innovation outside of events like colonialism or conquest. Is Christianity a "TCE of a minor subset of the Jewish people,"127 or a composite of Near East and Hellenic mythologies of a previous Iron Age, etc.? Critics also point to the jurisprudential tension that these products are by definition (they are *traditional*) already created, and are thus incoherent with the motivation of IP protection as an incentive for invention.

Another question: does the public *want* decision-makers to incentivize the commodification of traditional medicine? Especially in a field with an intimate relation to science, old does not necessarily equate with good. A visit to the African bonesetter includes considerable risk of permanent injury.¹²⁸ In the Philippines it was found that the unusual number of childhood deaths from pneumonia

Assessing Patentability, 8 NANOTECHNOLOGY L. & Bus. 106, 111 (2011).

^{124.} WORLD INTELLECTUAL PROPERTY ORGANIZATION, *Traditional Knowledge and Intellectual Property – Background Brief*, http://www.wipo.int/pressroom/en/briefs/tk_ip.html (last visited Aug. 7, 2016).

^{125.} Oguamanam, supra note 120, at 506.

^{126.} See, e.g., Justin Hughes, Traditional Knowledge, Cultural Expression, and the Siren's Call of Property, 49 SAN DIEGO L. REV. 1215 (1212).

^{127.} Id. at 1228.

^{128.} E.g., Powlowski, supra note 52, at 200.

was correlated with parents bringing their child to a traditional practitioner. 129 In response, nations like Vietnam require the traditional practitioner to refer the patient if his or her condition fails to improve. 130 But not all traditional therapies compete with the curative benefits of Western medicine. Consider yoga. Peter Yu is correct that there is currently inadequate protection for traditional knowledge. It will be interesting to see how the TPP Article 18.16 on traditional knowledge is interpreted and applied by member nations ("Cooperation in the Area of Traditional Knowledge"). It seems to recognize the relevance of traditional knowledge and genetic resources to the pharmaceutical industry. See, for example, Artemisinin, which was developed from the TCM medicinal herb Artemesia Annua (or "wormwood").¹³¹ However, the text of Article 18.16 also reads agnostic as to the merits of protecting traditional knowledge.

Traditional Chinese Medicine is distinguishable from other forms of traditional medicine in its methodological coherence and scientific ambition. There is an internal logic to TCM that informs its interpretations of mind-body holism and disease etiology. It makes sense to describe it as a system of thought, despite some interesting revisionist history. Professor Bridie Andrews is associated with the view that TCM's image as a doctrine represents Mao Zedong's programmatic manipulation of tradition. "TCM" provided a low-cost form of preventive medicine that could serve the dramatic public health needs of the PRC from the 1950s–60s. According to one NRDC blogger, Chairman Mao "directed his subordinates to collect and codify a hodgepodge of folk treatments and herbal remedies that minimally trained practitioners could carry out." While it is true that TCM might have in the past reflected a disparate cluster of folk practices (and that the nomenclature of "traditional" is itself

^{129.} Id. at 210.

^{130.} Id. at 245-46.

^{131.} Ruiping Fan, Modern Western Science as a Standard for Traditional Chinese Medicine: A Critical Appraisal, 31 J.L. MED. & ETHICS 213, 218 (2003); see also Andrew Jensen Kerr & Ding Ding, A Post-Revisionist Look At Chinese Intellectual Property Law: A Report From The Periphery (Or The Frontier?) To The Core, 30 SANTA CLARA HIGH TECH. L.J. ONLINE (2014), http://law.scu.edu/high-tech-law-journal/a-post-revisionist-look-at-chinese-intellectual-pr operty-law-a-report-from-the-periphery-or-the-frontier-to-the-core/.

^{132.} Oguamanam, supra note 119, at 505.

^{133.} See Brian Palmer, Take Two Rhino Horns and Call Me in the Morning, ONEARTH: THE MAGAZINE OF THE NATURAL RESOURCES DEFENSE COUNCIL (2015), http://www.onearth.org/earthwire/take-two-rhino-horns-and-call-me-morning (quoting Bridie Andrews "if something is traditional, you don't really need to put the word traditional in its name").

^{134.} Id.

suspicious¹³⁵), TCM does have a long history in China.¹³⁶ In fact, "in the 1910s the Chinese Ministry of Education made a determined effort to *remove* TCM from medical education.¹³⁷

TCM is strongly linked with innovation in herbal medicine, but currently non-Chinese own 70% of IP rights to herbal products. 138 While the nation exports 65% of raw TCM materials, Chinese finished TCM products account for only 2% of the market.¹³⁹ Instead, TPP nations Japan and South Korea are market leaders, at least in part because of perceived differences in quality control among these nations. 140 Singapore is also a regional leader in the TCM community, and, importantly, it has been active in removing endangered wildlife products from the TCM industry. In 2007, the Singapore-based Animal Concerns Research & Education Society (ACRES) "announced a joint project with the Singapore TCM Organisations Committee (STOC) to protect endangered species used as ingredients in TCM."141 ACRES regularly conducts undercover investigations to stamp out the illegal wildlife trade, and is active in finding herbal alternatives to animal-based products. 142 This civil society-government synergy forms a vision of how associated TPP parties might converge to form an epistemic community of shared animal welfare goals. Still, Singapore remains a thriving hub for the black market wildlife trade. Just last May authorities seized 3.7 tons of ivory and four rhino horns in a single bust.¹⁴³

The transnational nature of the TCM community should make it an effective conduit for bridging supposed divisions between animal welfare and development in the TPP-ASEAN region. This non-state actor-influence also typifies the new paradigm of "global environmental law" described by Professors Yang and Percival.¹⁴⁴

^{135.} Id.

^{136.} See, e.g., Dong Zhang, Observations from a TRIPS Perspective: Do We Need a Traditional Medicine Exemption for Patent Standards?, 13 OR. REV. INT'L L. 305, 308 (2011).

^{137.} Fan, supra note 131, at 216 (emphasis added).

^{138.} Teresa Schroeder, Chinese Regulation of Traditional Chinese Medicine in the Modern World: Can the Chinese Effectively Profit from One of Their Most Valuable Cultural Resources?, 11 PAC. RIM L. & POL'Y J. 687, 703 (2002).

^{139.} Id. at 697.

^{140.} Id.

^{141.} Using Endangered Species in Traditional Chinese Medicine, 11 ASIA BIOTECH 1196, 1197 (2007), http://www.asiabiotech.com/11/1117n18/1196_1197.pdf.

^{142.} Keep Endangered Species out of TCM, ACRES (last visited Feb. 25, 2016).

^{143.} Second-largest illegal ivory shipment since 2002 seized, CHANNEL NEWSASIA (May 19, 2015), http://www.channelnewsasia.com/news/singapore/second-largest-illegal/1856208.html.

^{144.} Yang & Percival, supra note 63.

However, the Singapore TCM community is distinguished not only by its integrity, but also by its relative wealth in the region. Equity across TPP nations should also be a concern. High-income nations like Singapore and South Korea stand to benefit from increased intellectual property protection. But the economic structures of Indonesia, Malaysia, Philippines and Thailand are complementary to the United States rather than markets for one another. If herbal and synthetic products are determined to receive IP protection because of their derivation from indigenous knowledge systems, then TPP-ASEAN nations should make sure local consumers are not priced out from using those products.

VII. FUTURE DIRECTIONS/ FUTURE DEFINITIONS

The dialogic quality of the TPP decentralizes compliance management across national boundaries and outside of state actors. Animal welfare activists should be optimistic communication channels will increase the chances for endangered species survival and the development of synthetic or herbal alternatives to animal-based products. However, animal welfare activists should also acknowledge the possibility of a re-definition of what animal welfare means. 147 It may seem incongruous to the American reader that Thailand recently adopted animal cruelty legislation and has entire temples providing sanctuary to stray cats and dogs, yet orangutan boxing remains a legal spectacle in a Bangkok zoo. 148 development of a transnational animal law also means a dialectic of the Western themes of utility or autonomy in animal law jurisprudence. It will be intriguing to see how a trans-cultural conception of animals in society re-frames the balance between the unique goals of development, ecological integrity and obligations to individual animals. At the very least, the TPP *produces* stimulating conversation.

^{145.} Peter K. Yu, *Intellectual Property and Asian Values*, 16 MARQ. INTELL. PROP. L. REV. 329, 380–381 (2012).

^{146.} Id. at 372.

^{147.} Andrew Jensen Kerr, *Pedagogy in Translation: Teaching Animal Law in China*, 1 ASIAN J. L. EDUC. 33, 44 (2014).

^{148.} Thailand's animal welfare law was adopted in 2014 - but you can still watch orangutans in a boxing ring for fun, SOUTH CHINA MORNING POST (Sept. 1, 2015), http://www.scmp.com/news/a sia/southeast-asia/article/1854377/thailands-animal-welfare-law-was-adopted-2014-you-can-still.