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Implementation and Enforcement of CITES: An Assessment of Tiger and Rhinoceros Conservation Policy in Asia

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IMPLEMENTATION AND ENFORCEMENT OF CITES: AN ASSESSMENT OF TIGER AND RHINOCEROS CONSERVATION POLICY IN ASIA

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"What is man without the beasts? If all the beasts were gone, men would die from a great loneliness of spirit. For whatever happens to the beasts, soon happens to man. All things are connected . . . . Whatever befalls the earth, befalls the sons of the earth."[1]

Chief Sealth

Abstract: The Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") came into force in 1975 as a mechanism for controlling the international trade of threatened and endangered wildlife. In recent years, the international community has become increasingly concerned about the trade of endangered species, particularly tiger and rhinoceros parts, for use in traditional oriental medicines. The market for traditional oriental medicine is growing and has become the main threat to tiger and rhinoceros populations in Asia. This Comment examines the efforts Asian states have undertaken to control the tiger and rhinoceros trade within their borders and explores the factors that impede CITES enforcement in Asia. In evaluating the main, divergent approaches to wildlife conservation within CITES, it proposes that a continued trade ban on endangered wildlife species would serve the best interests of tiger and rhinoceros conservation as well as the long-term aims of the Convention.

I. INTRODUCTION

Where the tiger once lorded over a vast territory spanning Eastern Europe, Russia, and Asia, three of its eight subspecies have been driven to extinction during this century alone.[2] Moreover, hundreds of species of rhinoceros once freely roamed the earth, but today only five remain.[3] The world's tiger and rhinoceros populations have been nearly eradicated due to excessive poaching throughout Asia and parts of southern Africa.

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[1] Rudolf Kaiser, Chief Seattle's Speech(es): American Origins and European Reception (1984) (unpublished paper, on file with *Friends of the Earth* and the *University of Washington Special Collections Library*) (1854 "letter" to President Pierce).

[2] For a million years, the tiger's territory spanned the area from Eastern Turkey eastward to North Korea and from Bali northward to Siberia. The Bali, Javan and Caspian subspecies have already been driven to extinction. ELIZABETH KEMF & PETER JACKSON, TIGERS IN THE WILD, 1994 WWF SPECIES STATUS REPORT 1 (Sept. 1994) (World Wide Fund For Nature, Gland, Switz.).

[3] The rhinoceros is the product of 60 million years of evolution, but in less than a quarter of a century, human beings have driven all the species to the verge of extinction. ELIZABETH KEMF & PETER JACKSON, RHINOS IN THE WILD, 1994 WWF SPECIES STATUS REPORT 1 (Oct. 1994) (World Wide Fund For Nature, Gland, Switz.).

Intensified poaching has accompanied the steadily increasing affluence of Asian countries, feeding an ever-growing demand for these species' parts. Wildlife experts estimate that the world's tiger populations since the beginning of this century have dropped ninety-five percent to as low as 5,000, and rhinoceros populations worldwide have decreased by ninety percent to about 10,000 within the past two decades.[4] If present rates of poaching continue, many believe that the extinction of both species is likely by the end of this century.[5] The unprecedented decline of the tiger and rhinoceros, two of the world's most recognizable and coveted species, poses one of the most difficult challenges to policy-makers in wildlife conservation.

As extinction of the tiger and rhinoceros draws near, conservationists must confront the major issue of ongoing debate within the Convention on International Trade in Endangered Species ("CITES"):[6] whether states should continue banning the trade of endangered species, the traditional approach to wildlife conservation, or adopt the more radical approach of legitimizing the trade in order to generate the funds immediately needed to protect and save imperiled wildlife. This Comment takes the position that a continued ban on the trade of endangered wildlife is in the best interest of species conservation and in the long run will further the aims of the Convention. Although lifting the trade ban may provide immediate financial resources for animal conservation in the short term, it unnecessarily puts at greater risk the very species the Convention is intended to protect.

Part II of this Comment sets forth the general framework and provisions of CITES and presents the problems of treaty compliance and implementation in Asia. Part III provides background on the wildlife medicinal trade, focusing on its deleterious effect on the status of tiger and rhinoceros populations. Part IV evaluates the roles of the key consumer

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4 Steven Mills, *Both Chinas Get Pellied*, 11 BBC WILDLIFE 57, 57 (1993).

5 In a letter to House Speaker Thomas Foley, President Clinton wrote that the world's tiger and rhino populations "remain gravely endangered and will likely be extinct in the next 2-5 years if the trade in their parts and products, fueled by market demand in consuming countries, is not eliminated." *President Clinton Announces Sanctions on Taiwan for Rhino, Tiger Parts Trade*, Daily Report For Executives, Apr. 12, 1994, *available in* WESTLAW, BNA-DER database.

6 Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, 27 U.S.T. 1087, T.I.A.S. No. 8249, 993 U.N.T.S. 243, ELR Stat. 40336 [hereinafter CITES].

states[7] in the wildlife medicinal trade, examining the effect of international pressure on their compliance with CITES and the domestic action each has taken to enforce their treaty obligations. Part V explores the sustainable use debate within CITES between conservationists and protectionists over the feasibility of subjecting sustainable endangered wildlife populations to limited trade. In Part VI, the Comment concludes with suggested measures to improve CITES enforcement in Asia.

II. CITES FRAMEWORK AND IMPLEMENTATION PROVISIONS

Recognized as one of the most important international treaties for wildlife and plant species conservation, CITES functions to regulate the international trade of threatened animals and plants and their derivatives.[8] The ultimate aim of the Convention is the protection of certain plant and wildlife species against over-exploitation through international trade by means of rational and sustainable utilization.[9]

CITES lists species that are threatened or potentially threatened by international trade and categorizes them in appendices based on their degree of endangerment. Appendix I lists species "threatened with extinction which are or may be affected by trade."[10] Any trade in Appendix I "specimens," which includes the parts of or products made from Appendix I species, is also strictly regulated in order to avoid further endangering those species[11] and may only be authorized under exceptional circumstances.[12] Such trade cannot be "for primarily commercial purposes."[13]

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[7] For purposes of this Comment, consumer states are those countries that have relatively large Asian populations, import significant amounts of tiger and rhinoceros-based medicines, and do not have indigenous species of wild tiger and rhinoceros.

[8] WILLEM WIJNSTEKERS, THE EVOLUTION OF CITES: A REFERENCE TO THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA 5 (3rd ed. 1992) [hereinafter EVOLUTION OF CITES]. CITES originally had 21 signatories at its adoption in 1973, and since then its membership has expanded at an astounding rate. SIMON LYSTER, INTERNATIONAL WILDLIFE LAW 240 (1985). As of February 1995, 128 states were Parties to the Convention. CITES Membership, World Conservation Monitoring Centre (Dec. 15, 1994) (unpublished e-mail on file with the *Pacific Rim Law & Policy Journal*).

[9] UNEP Environment Brief No. 8. *See also* CITES Preamble, *supra* note 6.

[10] CITES, *supra* note 6, art. II(1). Appendix II lists species that may become threatened but may be subject to international commercial trade if such trade is not detrimental to their survival. *Id.* art. II(2). Specimens of captive-bred Appendix I species may also be subject to such trade because they fall under Appendix II. *Id.* art. VII(4). Appendix III lists species already subject to domestic regulation that require the cooperation of other states to control their trade. *Id.* art. II(3). It is not relevant to the protection of the tiger and rhinoceros.

[11] *Id.* art. II(1). "Trade in specimens of [Appendix I] species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional

CITES regulates international wildlife trade through a permitting system implemented by the Management Authority and the Scientific Authority of each state party to the Convention.[14] The export of an Appendix I or Appendix II species, including its parts and derivatives, is conditioned upon the prior presentation of an export permit granted only when the Scientific Authority of the exporting state has advised that such export will not be detrimental to that species' survival.[15] Before the import of an Appendix I species is allowed, the importing state must require the prior grant and presentation of an import permit as well as an export permit or a re-export certificate.[16] As with an export permit, the Management Authority will grant an import permit only if the Scientific Authority advises that import will be for purposes that are not detrimental to the species' survival.[17] The Management Authority must also be satisfied that the import will not be used for purposes which are primarily commercial in nature.[18] In effect, the listing of a species on Appendix I serves to prohibit its commercial trade between states.[19] Because both the tiger and the rhinoceros are listed as Appendix I species,[20] any international commercial trade in those species or their parts is, therefore, banned under CITES.

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circumstances." *Id.* An Appendix I "specimen" is defined to include "any readily recognizable part or derivative" of an Appendix I species. *Id.* art. I(b)(ii).

12 Exceptional circumstances involve the use of Appendix I species for scientific research in the interest of the species' survival; captive breeding and artificial propagation programs for the purpose of increasing small existing wild populations or reducing the number of specimens which would otherwise be taken from the wild; industrial research for the development of substitutes; education and training; and transplantation in a less thriving population in a different state so long as the specimen traded is extracted from a wild population with surplus specimens. EVOLUTION OF CITES, *supra* note 8, at 33-34.

13 CITES, *supra* note 6, art. III(3)(c).

14 *Id.* art. IX. The Management Authority is responsible for issuing trading permits and certificates. *Id.* art. IX(1)(a). The Scientific Authority is responsible for determining whether trade in a CITES-listed species would be detrimental to its survival and for advising the Management Authority when the import or export of a species should be limited. *Id.* arts. III, IV.

15 *Id.* arts. III(2)(a), I(2)(a).

16 *Id.* art. III(3). Whereas with the import of an Appendix II species, only the prior presentation of an export permit or a re-export certificate is necessary. *Id.* art. IV(4).

17 *Id.* art. III(3)(a).

18 *Id.* art. III(3)(c).

19 TIMOTHY M. SWANSON, THE INTERNATIONAL REGULATION OF EXTINCTION 217 (1st ed. 1994).

20 All tiger subspecies have been listed as an Appendix I species since the inception of CITES, except for the Siberian subspecies, *Pantera tigris altaica*, which was transferred to Appendix I in 1987. Ninth Meeting of the Conference of the Parties, Report of the Secretariat, Interpretation and Implementation of the Convention: Trade in Tiger Specimens, Doc. 9.29, at 1 (1994). The rhinoceros species were listed in Appendix I in 1977. Ninth Meeting of the Conference of the Parties, Report of the Secretariat, Interpretation and Implementation of the Convention: Trade in Rhinoceros Specimens, Doc. 9.28, at 1 (1994) [hereinafter Trade in Rhino Specimens].

Under Article XII, the CITES Secretariat, the organ responsible for monitoring the implementation of the Convention, assists Parties by contacting them about specific problems and recommending solutions concerning implementation and enforcement of treaty provisions.[21] Parties are obliged to prepare annual reports containing a summary of all trade records in CITES-listed species and specimens for submission to the Secretariat.[22] However, the failure of most Parties to produce these reports on time has presented a major impediment to monitoring and enforcing CITES.[23]

To be effective, CITES relies on each Party to enact national legislation to implement the CITES provisions and coordinate law enforcement and customs activities to provide for compliance with those provisions. [24] CITES specifically sets guidelines for states to follow in implementing their treaty obligations;[25] however, it lacks an effective institutional mechanism for enforcement. CITES is similar to other international treaties in that its text does not specify a mechanism of international enforcement, which the Parties can collectively use to ensure that other Parties comply with the treaty. If Parties do not fully comply because they lack the appropriate resources, are unwilling to allocate the resources to sufficiently meet their obligations, or simply fail to enact adequate legislation, there is little that the treaty can do to enforce compliance.

Partly as a consequence of the lack of an enforcement mechanism in CITES, implementation of CITES in Asia is riddled with problems that reflect the inattentiveness of developing Asian states to the warnings of species extinction and their insubstantial investment into national wildlife protection. Among these problems are inadequate implementation of

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21 STEPHEN NASH, MAKING CITES WORK, WWF REPORT 8 (Oct. 1994) (World Wide Fund For Nature, Surrey, U.K.). The Secretariat recommends to the Standing Committee actions Parties should take to address major problems; reviews permits and other official documents to determine their validity and detect infractions; distributes information on infractions; conducts training seminars and provides on-site technical assistance. *Id.*

22 These reports should cover the names and addresses of exporters and importers, the number and type of permits and certificates granted, the trading state, the quantities and types of specimens, names of species as included in the Appendici, and the size and sex of the specimens. CITES, *supra* note 6, art. VIII(6-7).

23 Nash, *supra* note 21, at 5.

24 CITES does not regulate the domestic trade or intrastate movement of listed species, however. CITES, *supra* note 6, art. VII(1).

25 *Id. See id.* arts. III-V.

national legislation to enforce CITES,[26] lack of necessary funding and technical assistance, non-centralized interstate communication and information-sharing, and recalcitrance on the part of consumers to change ancient medicinal practices that advocate the use of rare animal parts. Japan's wildlife legislation, for instance, neither controls internal trade of imported CITES Appendix II and III species nor covers trade in parts and derivatives of Appendix I species.[27] Many Asian states have appropriate legislation in place to implement CITES, but most of the developing states are unable to effectively control the wildlife trade due to constraints in law enforcement and lack of available resources. The more developed jurisdictions assert that these same constraints handicap their ability to limit the trade. For example, the Taiwanese government claims that its efforts to control the trade have been limited by shortage of personnel and funding for wildlife protection,[28] and China seemingly confronts the same dilemma.[29] But these constraints could actually be more a function of unwillingness, rather than inability, to allocate the necessary resources for effective trade control. In their race towards increased industrialization and economic development, it is unlikely that Asian states give high priority to endangered species preservation because they do not see how substantial investment in wildlife conservation would directly further their interests in economic development. Asian states will not invest in endangered species conservation unless they have something to gain by it or realize what they stand to lose (i.e., trade with other states with an interest in wildlife preservation) by not investing in it.[30]

As it stands, law enforcement bodies in Asian consumer states can not effectively handle their increased responsibilities required by tougher, reinforced legislation. Control of the internal wildlife trade in many Asian states consequently remains lax. Until consumer states are able to achieve adequate domestic enforcement of CITES, the black market for medicinal

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[26] *Few Governments Enforce Wildlife Pact*, UPI, Nov. 2, 1994, *available in* LEXIS, Nexis Library, UPI File.

[27] *Wildlife Legislation in Japan*, 27 ORYX 76, 76 (1993).

[28] Only a few municipal officials, working part-time, are cracking down on the wildlife trade. The crackdown is further weakened because the Council of Agriculture has been reluctant to engage in covert investigations. *U.S. Sanctions Will Spur Improvements in Taiwan*, BUS. TAIWAN, Apr. 18, 1994, *available in* DIALOG, INT-NEWS database.

[29] China's lack of financial resources and manpower poses problems for implementation of legislation. Esmond B. Martin & Lucy Vigne, *China's Rhino Horn Stocks*, 28 ORYX 2, at 2-3 (1994).

[30] *See* discussion *infra* part IV.B.

trade in threatened species will continue to thrive, and as long as incentives to poach remain, poaching will persist.

III. BACKGROUND ON THE MEDICINAL TRADE OF WILDLIFE IN ASIA

International trade in wildlife and its products has become an untamed and lucrative business worth an estimated five to ten billion U.S. dollars annually, likely making it the world's third largest illegal trade behind drugs and arms.[31] It is primarily the demand for endangered species parts used for medicinal purposes that fuels the wildlife trade in Southeast Asia. With industrial economies in Asia becoming more prosperous and as the purchasing power of many Asian consumers continues to rise, there has been a corresponding increase in the demand for the parts of rare and exotic animals, the ingredients of traditional Oriental medicine. Since Asian societies, which regard many endangered species as symbols of high status, have traditionally emphasized the utility of animals, it comes as no surprise that wildlife products appeal to wealthy consumers in Asian communities.[32] Animal parts, prescribed for their purported curative and aphrodisiac properties, have been used in traditional Chinese medicines for centuries.[33] This ancient practice continues in many Chinese communities throughout the world and has influenced the practice of medicine in other parts of Asia.[34]

Today, traditional medicines containing animal substances are "patented," meaning that they are processed into tablets and tonics and packaged for distribution to countries not only in Asia but also in other continents where there are Asian communities.[35] The high demand for patented oriental medicines has already driven many wildlife species to the brink of extinction because their populations have not been able to keep pace.[36]

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31 Julian Baum & Carl Goldstein, *Asia's Untamed Business*, FAR E. ECON. REV., Aug. 19, 1993, at 23.

32 Andrea Sachs, *A Grisly and Illicit Trade*, TIME, Apr. 8, 1991, at 68.

33 ANDREA GASKI & KURT JOHNSON, PRESCRIPTION FOR EXTINCTION: ENDANGERED SPECIES AND PATENTED ORIENTAL MEDICINES IN TRADE, TRAFFIC NETWORK REPORT ix (1994).

34 *Id.*

35 *Id.*

36 More recently, increased concern has centered on the fate of the following species whose populations are declining as a result of the medicinal trade: the saiga antelope, prized for its horn; bear, for its gall bladder; leopard, for its bones as a substitute for tiger bone; musk deer, for its gland secretions; pangolin, for its scales; rhinoceros, for its horn and hide; seal, for its genitalia; and tiger, primarily for its bones and penis. *Id.* at x-51.

When populations of certain flagship species, notably the tiger and rhinoceros, experienced an alarming drop in the late-1980s due largely to poaching to supply the medicinal trade,[37] it was a signal to the world that the use of endangered and threatened wildlife for medicine is jeopardizing the future of those species. The plight of the tiger and rhinoceros deserves particular attention given the precarious status of their populations in recent years as well as their symbolism for all declining species within the international wildlife protection movement. The future of the tiger and the rhinoceros foreshadows the fate of less charismatic animals also threatened by trade for their parts. The extinction of these two species could consequently sound the death knell for wildlife protection in Southeast Asia.

A. Status of the Tiger

To the eyes of many in the Far East, the tiger is a symbol of strength and vitality, its parts long-believed to have healing and rejuvenating properties. The practice of using tiger bone in medicine originated in China as early as 500 A.D. and has since spread to Korea, Japan and other parts of the world with Asian communities.[38] Virtually every part of the tiger is believed to contain a health benefit,[39] but it is tiger bone, particularly the humerus, which is most valued.[40] Although tiger parts are purported to cure a variety of ailments,[41] some are convinced that these claims are largely unsubstantiated.

Ironically, this reverence for the tiger is driving the species to extinction.[42] Despite an international trade ban on tiger parts and products under CITES, widespread poaching and trade continues. Wealthy Asian consumers are willing to pay exorbitant sums for tiger-based medicines; thus, poachers in tiger range states have strong economic incentives to meet

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37 *Id.* at ix.

38 JUDY MILLS & PETER JACKSON, KILLED FOR A CURE: A REVIEW OF THE WORLDWIDE TRADE IN TIGER BONE, TRAFFIC NETWORK REPORT 1 (1994). The first published reference to tiger bone as medicine in China appeared in a text entitled *Collection of Commentaries on the Classic of the Materia Medica. Id.* (citing D. BENSKY ET AL., CHINESE HERBAL MEDICINE MATERIA MEDICINE (1993)).

39 *Id.* at 4

40 *Id.* at 6.

41 Tiger bone is used to treat a plethora of ailments, from scabies and boils to rheumatism and devil possession. Tiger penis is commonly believed to be a potent aphrodisiac. The Tiger Trust, Introduction to Tigers, (unpublished document on file with *Pacific Rim Law & Policy Journal*) (discussing background and history of the tiger).

42 The use of tiger bones in traditional Oriental medicine is presently the most serious threat to tiger survival. MILLS & JACKSON, *supra* note 38, at 1.

that demand. For instance, poachers in Nepal and Russia can fetch over a year's salary from a single tiger on the black market.[43] In the past five years, there has been a marked increase in tiger bone demand, in part resulting from China's recent depletion of its own tiger bone stockpiles and the sudden rise in personal wealth in Chinese communities.[44] This has coincided with a recent resurgence of interest in the use of ancient Oriental cures and is seen both as a means of holding onto time-worn customs as well as an alternative to the short-comings of Western medicine.[45]

Due to the covert nature of tigers and the fact that they live in forest habitats spanning large tracts of rugged terrain, determining the exact populations of tigers remaining in the wild is impossible.[46] However, based on anecdotal reports, population density extrapolations, and pugmark censuses, it is estimated that the tigers remaining in the wild number as low as 5,000 animals.[47] Where there were once eight recognized subspecies of tiger, there are presently only five persisting in the wild: the Bengal, Indo-Chinese, Siberian, South China and Sumatran.[48] Tiger populations have plummeted from 100,000 to 5,000 animals during the past half century due in part to hunting, loss of habitat, and depletion of food sources.[49] All are presently threatened by poaching and habitat loss except the Siberian tiger, which is threatened only by poaching.[50]

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[43] *Asian Countries Move to Protect Tigers*, AGENCE FRANCE PRESSE, Nov. 14, 1994, *available in* LEXIS, ASIAPC Library, AFP File.

[44] Mills, *supra* note 4, at 57. To meet demand, Chinese tiger purchasers have turned to suppliers in India, where tiger numbers until just recently were making a comeback. *China Purrs*, 327 ECONOMIST 36, 36 (1993). Until the mid-1960s, China had its own tiger population to sustain supplies. However, between 1955-1965, China permitted the slaughter of some 3,000 tigers, and only recently has the stockpile of bones from that period been exhausted. Mills, *supra* note 4, at 57.

[45] MILLS & JACKSON, *supra* note 38, at 1.

[46] *Id.* at 4.

[47] *Id.*

[48] The five remaining subspecies persist in 14 range states: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, North Korea, Russia, Thailand, and Viet Nam. *Id.* at 2. The Bali Tiger and the Caspian Tiger became extinct in the 1940s and the 1970s, respectively, and the Javan Tiger is believed to have disappeared during the 1980s. MILLS & JACKSON, *supra* note 38 at 2.

[49] Eric Sievers, Amur Tigers on the Verge of Extinction (unpublished report on file with *The Sacred Earth Network*).

[50] *Status of the Tiger in 1993 and Threats to Its Future*, 28 ORYX 80, 80 (1994).

B. Status of the Rhinoceros

International trade in rhinoceros horn is deemed by wildlife experts as the leading factor driving the species to extinction.[51] Rhino horn is more valuable than its weight in gold, sold with a mark-up like cocaine.[52] As with tigers, huge incentives to engage in poaching activities exist. Uncontrolled poaching by well-armed, organized poaching syndicates has severely affected all five species of rhinoceros: the African Black, the African White, the Javan, the Sumatran, and the Great One-Horned Rhinoceros.[53]

By 1987, all rhinoceros-consuming countries and territories, except North Korea, had enacted domestic legislation prohibiting the importation of rhino horn.[54] Governments and private organizations have invested millions of dollars to protect the rhinoceros, employing such means as transporting them to safer areas and dehorning them to forestall poaching.[55] Nonetheless, such efforts have generally been unsuccessful in stemming the trade.[56] Total wild populations of the rhinoceros worldwide now number

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[51] KRISTIN NOWELL ET AL., THE HORNS OF A DILEMMA: THE MARKET FOR RHINO HORN IN TAIWAN, FINAL REPORT FOR WWF PROJECT II at 1 (1992) (TRAFFIC Int'l, Cambridge, U.K.).

[52] Andrew Meldrum, *Conservation—Horns of a Dilemma*, THE GUARDIAN (G), Nov. 9, 1994, *available in* DIALOG, INT-NEWS database. For a 20 pound horn, a poacher is paid US$350, but the same horn is worth US$1,000 a pound to middlemen in Zambia, where criminal syndicates are based, and the price soars to US$13,600 a pound after it is smuggled to Taiwan, South Korea and other Asian Nations. *Id.* Demand in Hong Kong, Singapore and Taiwan for Indian rhinoceros horn has boosted the price there to over US$18,000 per kilogram wholesale. Lucy Vigne & Esmond Bradley Martin, *Assam's Rhinos Face New Poaching Threats*, 25 ORYX 215, 215 (1991).

[53] JUDY MILLS, MARKET UNDER COVER: THE RHINOCEROS HORN TRADE IN SOUTH KOREA, TRAFFIC NETWORK REPORT 1 (1993) (TRAFFIC Int'l, Cambridge, U.K.) [hereinafter MILLS, MARKET UNDER COVER].

[54] *Id.* at 2. CITES Resolution Conf. 6.10 (Trade in Rhinoceros Products), which passed that same year, urged all Parties to completely prohibit both the internal and transborder commercial trade of rhinoceros parts and derivatives. Tom Milliken, *The Evolution of Legal Controls on Rhinoceros Products in Hong Kong—An Asian Model Worth Considering*, 25 ORYX 209, 209 (1991). However, the results of preliminary efforts being taken by Asian states to reduce the internal trade of rhino horn and products as yet remains to be seen. The control policies for rhinoceros parts in most of these countries are, if extant, still in their rudimentary stages. *Id.* at 214.

[55] KEMF & JACKSON, *supra* note 3, at 1.

[56] *Rhino Dehorning in Zimbabwe—Is It Working?*, 28 ORYX 147, 147-48 (1994). Without active protection, dehorning is an ineffective deterrent to poachers. *Id.* Anti-poaching measures were circumvented by political chaos arising from a civil war in Uganda, which provided poachers the opportunity to eliminate both the black and white rhinos in that state. The translocation of 83 rhinos from vulnerable poaching areas to a wildlife reserve in Zimbabwe also proved unsuitable. KEMF & JACKSON, *supra* note 3, at 6.

approximately 10,000.[57] Only populations of the African White Rhinoceros remain relatively stable, though recently even these populations have suffered from poaching.[58] Severe degradation and reduction of rain forest and flood plain habitat have lowered rhinoceros populations, but the primary cause of the world's severe rhinoceros decline continues to be demand for rhinoceros horn for ornamental[59] and medicinal use.[60] Practitioners of traditional Chinese medicine have long regarded rhinoceros horn as an essential ingredient in Asian pharmacology. The history of its use can be traced back to as early as 2600 B.C., according to the *Shen Nong Ben Cao Jing, the Divine Peasant's Herbal*, itself written about two thousand years ago.[61] Rhinoceros horn is not prescribed as an aphrodisiac, as is commonly believed.[62] Ground rhinoceros horn has been prescribed as a cure for a wide range of ailments, including rheumatism, hemiplegia, paralysis, convulsion, epilepsy, influenza, fever, rashes, ulcers, nosebleeds, insomnia, and eye diseases.[63] Even today, Chinese medical universities use modern textbooks that explain both old and new applications of rhino horn.[64] This suggests that although Chinese medical pharmacopoeia has undergone change, the medical profession stands firmly behind an archaic cultural stronghold.

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[57] Mills, *supra* note 4, at 57. According to the CITES Secretariat, the Great One-Horned Rhinoceros, *Rhinoceros unicornis*, of both India and Nepal, and the white rhinoceros, *Ceratotherium simum*, of South Africa are the only populations that have recovered from near extinction and are no longer considered endangered. The black rhinoceros, *Diceros bicornis*, population, found mostly in South Africa, has dwindled by about 95 percent since the 1970s to about 2,550 animals in 1993. The population of the Sumatran rhinoceros, once widespread throughout Southeast Asia, totaled about 1,000 in 1984 but by 1994 had declined to less than 500. They exist in Indonesia and Malaysia in isolated, unviable pockets. The Javan rhinoceros, *Rhinoceros sondaicus*, at one time also roamed parts of Southeast Asia, but now number less than 100, with one population in Indonesia and another recently discovered population of about 15 in Viet Nam. Trade in Rhino Specimens, *supra* note 20, at 1.

[58] MILLS, *supra* note 53, at 1.

[59] In some countries of the Gulf States, notably Yemen, Oman and the United Arab Emirates, rhinoceros horn is highly prized for its decorative function as handles for "jambiyas" and "khanjars." Trade in Rhino Specimens, *supra* note 20, at 1.

[60] *Id.* While the most marketable part of the rhinoceros is the horn, with Asiatic rhino horn priced higher than African rhinoceros horn, rhinoceros hides of Asiatic species are also sold for use in traditional and patented Oriental medicines. GASKI & JOHNSON, *supra* note 33, at 44. Limited markets in Asia have also existed for rhinoceros stomach, blood, dung, hooves, penis, flesh, and bones. MILLS, *supra* note 53, at 1.

[61] NOWELL ET AL., *supra* note 51, at 3.

[62] *Id.* at 1.

[63] Milliken, *supra* note 54, at 209.

[64] NOWELL ET AL., *supra* note 51, at 4.

IV. WILDLIFE CONSUMER STATES IN ASIA

A. Traditional Medicine Markets

Between 1988 and 1992, CITES annual report data identified 30 export destinations of tiger and rhino parts and products,[65] including major cities in the United States, the United Kingdom, and Europe. The primary consumer countries in rhinoceros horn have been China, Hong Kong, Japan, Singapore, South Korea, and Taiwan.[66] Except for Taiwan, all are members of CITES.[67] The markets for tiger bone remedies are virtually the same as those for rhino horn,[68] with China, South Korea, and Taiwan supplying the main markets.[69]

China is the world's largest manufacturer of rhino horn medicines[70] and possesses the largest documented rhino horn stockpile in the world,[71] weighing over four tons.[72] China is also believed to be the hub of the tiger trade as it is a key producer and consumer of tiger-derived products from species that are locally bred and smuggled from India.[73] Taiwan is widely recognized as the major transit point of the rhinoceros horn trade. The following subsections will examine the use of international pressure to effectuate compliance with CITES and review recent domestic actions taken by consumer states to enforce compliance internally.

B. Use of International Pressure to Improve Compliance with CITES

CITES has resulted in increased tiger and rhinoceros protection to the extent that Parties have complied with resolutions and recommendations specifically addressing control of the tiger bone and rhinoceros horn trade. Compliance with Conference of the Parties Resolutions, which offer

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65 Mulliken & Haywood, *Recent Data on Trade in Rhino and Tiger Products, 1988-1992*, 14(3) TRAFFIC BULL. 99 (1994).

66 MILLS, *supra* note 53, at 1.

67 Hong Kong is subject to the treaty as a territory under the sovereignty of the United Kingdom, a party to CITES. The territory will remain subject to the treaty when it reverts to China in 1997. Tom McFadden, *Asian Compliance with CITES: Problems and Prospects*, 5 B.U. INT'L L.J. 311, 313 (1987).

68 20 BBC WILDLIFE insert (1994).

69 The Tiger Trust, *supra* note 41.

70 Milliken, *supra* note 54, at 213.

71 Martin & Vigne, *supra* note 29, at 2.

72 KEMF & JACKSON, *supra* note 3, at 1.

73 Linda Yeung, *Mission to Halt Trade in Tigers*, SOUTH CHINA MORNING POST, June 4, 1994, *available in* LEXIS, ASIAPC Library, CURNWS File.

suggestions to states to take certain concerted action or provide a consensus-based interpretation of particular terms or provisions of the Convention, has been integral to the efficacy of CITES.[74] The developing use of trade sanctions within the CITES context seems to be particularly effective in effectuating stronger domestic action in Asia. As a result, states have taken a harder look at their national wildlife protection policies, responding with corrective action. For example, in March 1993, the Standing Committee addressed the problem of trade in tiger and rhinoceros products by calling upon China and Taiwan, two key consumer states, to take action to stop the trade or otherwise face sanctions on wildlife products from all Parties to CITES. Two months later, China prohibited the manufacture of medicines containing rhinoceros horn and tiger bone.[75]

During its 30th meeting in September 1993, however, the Standing Committee had considered measures taken by China, Taiwan, and Republic of Korea and Yemen to improve domestic control of the illegal rhinoceros and tiger parts trade to be inadequate.[76] That same month, the CITES Steering Committee had urged Parties to ban trade in wildlife species with China and Taiwan upon determining that they had not taken adequate steps to curtail the trade.[77] The Standing Committee subsequently established a set of minimum requirements that the states were required to meet by the end of November 1993.[78]

The United States in August 1994 took the unprecedented move of imposing limited trade sanctions on Taiwan under the Pelly Amendment[79] for its failure to clamp down on its internal trade of tiger and rhinoceros

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74 NASH, *supra* note 21, at 9.

75 Martin & Vigne, *supra* note 29, at 2. *See infra* notes 86-92 and accompanying text.

76 Trade in Rhino Specimens, *supra* note 20, at 2.

77 *See International Developments of the CITES Standing Committee on Illegal Rhino and Tiger Trade*, 2 REV. EUR. COMMUNITY & INT'L ENVTL. L. 310, 310 (1993):

> The Committee observed that information requested from China concerning illegal trade in tiger and rhino parts, following the 29th meeting of the Standing Committee, drew an inadequate response from the People's Republic. It also considered enforcement measures against illegal trade in China and Taiwan to be inadequate to conform to the requirements of Conference resolution 6.10. Consequently, it recommended the trade ban.

78 Trade in Rhino Specimens, *supra* note 20, at 2, Annex 1. These minimum conditions specified the identification and marking of rhinoceros horn stocks; consolidation and state control of rhinoceros horn and tiger bone stocks; and adoption, implementation and enforcement of adequate legislative measures.

79 Pelly Amendment to the Fisherman's Protective Act of 1967, 22 U.S.C. 1978 (a)(2). American agencies have issued over two dozen Pelly certifications against various countries in the past 17 years, almost all for violations of the ban against commercial whaling, but this is the first time the United States has actually imposed trade sanctions under the Pelly Amendment. Samuel LaBudde, *Clinton Acts to Protect Endangered Species: U.S. Orders Sanctions on Taiwan*, EARTH ISLAND J., Summer 1994, at 8.

products.[80] Under the Pelly Amendment, the United States has discretionary power to impose trade sanctions on nations that undermine the effectiveness of international treaties for the protection of marine or terrestrial wildlife.[81] Shortly thereafter, Taiwan, China, Singapore, South Korea, Japan and Hong Kong announced crackdowns on wildlife trafficking,[82] heightening efforts to clamp down on the tiger and rhinoceros trade by enacting tougher legislation and stiffer penalties for those caught violating the wildlife trade ban. The Taiwan legislature voted in October 1994 to raise the maximum fine for trading in rare wildlife from NT$1,800 to NT$93,000 and to increase the prison term from five to seven years.[83] In direct response to Taiwan's recent efforts to restrict the illegal wildlife trade, the United States lifted the Pelly Amendment sanctions against Taiwan in June 1995 after reviewing the island's progress in the protection of endangered wildlife.[84] International pressure had produced the similar effect of inducing greater domestic control of the endangered species trade when it had been mounted against Singapore in September 1986[85] and Thailand in April 1991.[86]

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80 *Id.*

81 *See* 59 Fed. Reg. 8998, 8999 (1994).

> On September 7, 1993, Secretary of the Interior Bruce Babbitt determined that nationals of the People's Republic of China and Taiwan are engaging in trade in rhinoceros and tiger parts and products that diminishes the effectiveness of CITES, and so notified the President of the United States. That determination constituted a certification under the Pelly Amendment . . . which provides that the Secretary of the Interior shall make a certification to the President if he determines that nationals of a foreign country, directly or indirectly, are engaged in trade or taking which diminishes the effectiveness of any international program for the conservation of endangered or threatened species; CITES is such a program . . . . [O]n November 5, 1993 the President reported to Congress on the certification; made several recommendations to both the People's Republic of China and Taiwan; and required that unless measurable, verifiable, and substantial progress is made by March, 1994, import prohibitions on trade with both governments would be necessary, as recommended by the CITES Standing Committee . . . .

Id.

82 Philip Shenon, *The World; Poachers 'n' Tigers 'n' Bears*, N.Y. TIMES, Dec. 11, 1994, *available in* LEXIS, NEWS Library, NYT File.

83 *Id.*

84 *U.S. Announces Decision to End Trade Sanctions Over Wildlife*, Reuters News Service, July 1, 1995, *available in* LEXIS, WORLD Library, CURNWS File. A U.S. interdepartmental panel which included officials from the Departments of the Interior, Justice and State as well as the U.S. Trade Representative Office had agreed in May 1995 to recognize Taiwan's efforts to curb the illegal trade of tiger bones and rhino horns and proposed to the Clinton Administration that the Pelly Amendment sanctions against Taiwan should be dropped. The sanctions were estimated to cost Taiwan exports US$25 million a year. *U.S. Wildlife Trade Sanctions Expected to End in Two Weeks*, Reuters News Service, May 4, 1995, *available in* LEXIS, WORLD Library, CURNWS File.

85 Esmond & Chryssee Martin, *Combating the Illegal Trade in Rhinoceros Products*, 21 ORYX 143, 145 (1987). Extensive media criticism and U.S. prohibition on all imports of wildlife products from

C. *Domestic Action by Key Consumer States*

The greatest demand for tiger and rhinoceros parts can be found in China, Hong Kong, Taiwan and South Korea. The efforts that each country has undertaken to enact legislation prohibiting trade in endangered species and imposing penalties for noncompliance vary considerably in terms of comprehensiveness and scope. An overview is provided below.

1. China

China was the last major consumer state in Asia to adopt legislation prohibiting all internal trade in endangered species.[87] In 1993, the State Council prohibited the import, export, transport, sale, and purchase of tiger bone and rhinoceros horn; ordered medicine manufacturers to halt the use of rhinoceros horn and tiger bone; and required that all stocks be "examined, re-registered, sealed up and properly kept."[88] Its ban on the manufacture and domestic trade of rhinoceros horn and tiger bone was the result of strong international pressure from CITES, the United Nations Environmental Programme, foreign non-governmental organizations and the U.S. government.[89] Prior to the ban, China had been enacting more comprehensive conservation legislation and imposing stiffer penalties on violators.[90] China has not taken any further action since March 1994, when the Standing Committee had set forth requirements for meeting its CITES obligations,[91] and it seems that its enforcement efforts continue to be hampered by

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Singapore led to Singapore's ban on all imports and exports of rhinoceros products and its agreement to join CITES. *Id.*

[86] David Favre, *Debate Within The CITES Community: What Direction For the Future?*, 33 NAT. RESOURCES J. 875, at 911 (1993).

[87] On May 29, 1993, the State Council had published a notice prohibiting the manufacture of medicines containing rhino horn or tiger bone. The notice also banned all domestic trade of such medicines. Martin and Vigne, *supra* note 29, at 2. The language of CITES does not specifically require Parties to regulate the internal trade, sale, transport or movement of endangered species so to the extent that Parties adopt legislation prohibiting all internal trade, they are acting beyond the requirements of the treaty. *See supra* note 24.

[88] Jonathan Loh & Kirsty Loh, *A Spot Check on the Availability of Rhino Products in Guangzhou and Shanghai, China*, 14(2) TRAFFIC BULL. 79 (1994).

[89] Martin and Vigne, *supra* note 29, at 2.

[90] JIM LOW, THE SMUGGLING OF ENDANGERED WILDLIFE ACROSS THE TAIWAN STRAIT, TRAFFIC NETWORK REPORT 6 (1991). Illegal traders in China are subject to fines, prosecution, and confiscation of property. "[S]erious offences may incur life imprisonment and capital punishment. In 1990, two men were executed in Guangdong province for trafficking in giant panda pelts . . . ." *Id.*

[91] Trade in Rhino Specimens, *supra* note 20, at 4.

economic, cultural and technological constraints.[92] Although China has articulated its commitment to stopping all internal trade in rhino and tiger products, China has yet to adequately address how it will comply with its ban as it has neither invested sufficient resources nor devoted the necessary manpower for effective implementation.[93]

2. *Hong Kong*

Hong Kong was the first Southeast Asian government to completely ban all international and domestic trade in endangered wildlife parts and medicine containing endangered wildlife derivatives.[94] Its control policy, having evolved into the strictest and most comprehensive system in all of Asia, has become a model for other countries striving to improve their internal regulation of the endangered species trade.[95]

Under Hong Kong's amended endangered species ordinance, any person found guilty of importing, exporting or possessing an endangered species without a license from the Agriculture and Fisheries Department (Hong Kong's Management Authority) will face substantial fines and possible imprisonment.[96] As of January 1995, Hong Kong had enhanced its penalties for illegal endangered species trade to make violators liable for a maximum penalty of five million Hong Kong dollars and imprisonment for two years.[97] More recently, the territory set up an Endangered Species Protection Liaison Group comprised of customs and law enforcement representatives to strengthen enforcement of trade controls in endangered

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[92] *See* Ninth Meeting of the Conference of the Parties, Report of the Secretariat, Interpretation and Implementation of the Convention: Trade in Tiger Specimens, Doc. 9.29.1, at 1 (1994).

[93] Martin & Vigne, *supra* note 29, at 3.

[94] Milliken, *supra* note 54, at 209. Hong Kong began regulating wildlife trade in 1978, two years after CITES entered into force in that territory.

[95] *Id.*

[96] Penalties For Endangered Species Offences Set to Rise Sharply, at 1-2 (Oct. 28, 1994) (press release, on file with the Conservation Section of the Hong Kong Agriculture and Fisheries Department, Hong Kong). Specific Regulations governing the import, export, and possession of endangered species of plants and animals are set out in the Hong Kong Animal and Plants Ordinance, Cap. 187 (Protection of Endangered Species).

[97] Hong Kong Enhances Penalties for Endangered Species Offences, Xinhua News Agency, Jan. 14, 1995, *available in* LEXIS, ASIAPC Library, CHINA File. Previous penalties were a maximum fine of HK$25,000 (US$3,205) for the first conviction, and HK$50,000 (US$6,410) and six months' imprisonment for subsequent convictions. Stiffer penalties are imposed if the purpose for which the species is involved is commercial. The most severe penalties—a fine of HK$500,000 (US$64,102) and two years' imprisonment—are imposed on the import, export or possession of species without a license for commercial purposes. *Id.*

species and improve the government's intelligence-gathering system on the trade.[98] In January 1994, it extended its licensing control on the import, export and possession of endangered species to include medicines containing or purportedly containing tiger ingredients, effectively creating a measure that is stricter than the CITES requirement which only requests Parties to prohibit the import and export of endangered species.[99]

Despite the thoroughness of Hong Kong's trade ban, Hong Kong remains notorious as a transit point for rhinoceros horn and tiger bone.[100] Its customs authorities continue to intercept the smuggled parts and medicines, and Hong Kong traders remain active in acquiring rhinoceros horn overseas.[101] There is recent evidence indicating ongoing endangered species trade in the territory's retail pharmacies.[102]

3. *Taiwan*

Taiwan is recognized as the principal driving force behind international wildlife trade[103] with a traditional medicine market both larger and more underground than that of Hong Kong.[104] As direct trading links between Taiwan and China proliferate and the reversion of Hong Kong to China in 1997 becomes imminent, Taiwan plays an increasingly major role as the future hub for the illicit flow of tiger and rhino products into China.[105] Although Taiwan is not recognized as a Party to CITES,[106] it enacted its own Wildlife Conservation Law ("WCL") in 1989, which

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98 Campaign on Protection of Endangered Species Launched, at 4 (Jan. 27, 1994) (press release, on file with the Conservation Section of the Hong Kong Agriculture and Fisheries Department.).

99 Hong Kong—Model of Control Over Tiger Bone Trade, at 1-2 (Sept. 26, 1994) (press release, on file with the Conservation Section of the Hong Kong Agriculture and Fisheries Department.).

100 In 1993, the UK-based Environmental Intelligence Agency reported that 59 out of 90 Chinese pharmacies in Hong Kong sold rhinoceros horn, hide, and medicine. The following year, the United States identified the territory as the primary exporter of rhinoceros medicines intercepted at its ports of entry. Some of these medicines originated from China. Terry Ko, *Horns of a Dilemma*, SOUTH CHINA MORNING POST, Nov. 7, 1994, *available in* LEXIS, ASIAPC Library, CHINA File.

According to the Tiger Trust, a tiger watchdog group based in the United Kingdom, tiger products manufactured in China's Heilongjiang province are sent down in bulk and repackaged in Hong Kong, which in turn supplies significant quantities of the product to Chinese communities the world over. Yeung, *supra* note 73.

101 *Id.*

102 NOWELL ET AL., *supra* note 51, at 26.

103 Samuel LaBudde, *Unmade in Taiwan*, EARTH ISLAND J., Spring 1993, at 36, 38.

104 NOWELL ET AL., *supra* note 51, at 26.

105 *Id.* at 22.

106 MILLS & JACKSON, *supra* note 38, at 34. The United Nations has denied Taiwan full status as a Party to CITES because it does not recognize the island as a sovereign state.

prohibits the import, export, trade, and display for sale of rhino horn and tiger parts.[107] The WCL is modeled after CITES and regulates both international and domestic trade in all protected species designated by the Council of Agriculture ("COA"), including most fauna species listed in Appendices I and II.[108]

The Taiwanese government did not begin seriously enforcing the law until recently.[109] In January 1994, the COA created the Wildlife Protection Unit to carry out undercover operations and to coordinate with international organizations, wildlife protection authorities and foreign non-governmental organizations for the exchange of information concerning wildlife smuggling.[110] By July, it had reevaluated its procedures for marking and registering endangered species parts and products and set up a computerized database to handle these tasks.[111]

4. *South Korea*

Like wildlife preservation efforts taken in the other key consumer states, legislative measures taken in South Korea targeted at endangered species protection have been a relatively recent phenomenon. Since its accession to CITES in July of 1993, South Korea has actively pursued efforts to implement the Convention by amending its existing health and environmental laws so as to be in compliance with CITES.[112]

In 1993, South Korea amended its Pharmaceutical Affairs Law, which stipulates legal trade procedures for the import, export and manufacture of drugs and health-related products, to include in its regulatory ambit wild fauna that are used for medicinal purposes.[113] Under article 55 of this law, the executive government is able to ban the sale, storage and display of medicines made from illegally imported wildlife, particularly rhinoceros

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107 Loh & Loh, *supra* note 88, at 55.

108 NOWELL ET AL., *supra* note 51, at 23.

109 Baum & Goldstein, *supra* note 31, at 24.

110 Trade in Rhino Specimens, *supra* note 20, at 4. Taiwan has established contacts with the law enforcement agencies of Hong Kong, New Zealand, South Africa, Zambia and Zimbabwe, and it expects to forge additional ties with mainland China and the United States. Authorities have already sent a cadre of enforcement officers to the United States for training in undercover operations. *Id.*

111 *Id.*

112 Ninth Meeting of the Conference of the Parties, Report of the Secretariat, Interpretation and Implementation of the Convention: Trade in Rhinoceros and Tiger Specimens, Docs. 9.28.1, 9.29.2, at 1-4 (1994) [hereinafter Docs. 9.28.1, 9.29.2].

113 *Id.* at 3.

and tiger.[114] Under article 76, violators presently face a maximum penalty of one year imprisonment or a fine of three million Won.[115]

South Korea likewise amended its National Environment Preservation Law in July 1994 to reinforce provisions for controlling the international trade of CITES-listed species and their derivatives.[116] That same year, the government amended the Law Concerning the Protection of Wildlife and Game to provide legal procedures for controlling the import and export of endangered bird and mammal species,[117] not covered by the National Environment Preservation Law.[118]

In streamlining its permit issuance process, the government has consolidated its management authorities to strengthen communication between the multiple agencies involved.[119] With greater interagency and administrative cooperation, it has also launched undercover investigations of traditional oriental pharmacies, wholesalers and retailers in order to enforce CITES.[120] The government has further addressed enforcement with respect to the tiger trade by marking and registering tiger bone stocks.[121]

V. CONTINUING THE BAN ON TRADE IS IN THE BEST INTEREST OF RHINOCEROS AND TIGER CONSERVATION

CITES is premised on the notion that "international cooperation is essential for the protection of certain species of wild fauna and flora against

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114 *Id.* As of the date of this writing, the National Assembly is reviewing a draft amendment to the law that would eliminate the rhino horn and tiger bone trade and toughen penalties for infractions. Articles 34-2 and 74 would specifically prohibit the manufacture, import, sale, storage, or display of rhino horn and tiger bone as well as increase the penalty to imprisonment for five years or a fine of 20 million Won (approximately US$25,000).

115 Docs. 9.28.1, 9.29.2, *supra* note 112, at 3.

116 *Id.* at 2. Among the basic provisions of the Natural Environmental Preservation Law, as originally enacted in 1992, were legal procedures for controlling the wild fauna and flora trade.

117 Docs. 9.28.1, 9.29.2, *supra* note 112, at 4. Under article 25-2, the National Forestry Administration regulates the import and export of wild birds and mammals and their derivatives. Article 24 prohibits the "[a]cquisition, possession, transfer and storage of illegally imported birds and mammals along with the act of brokerage." Violators face up to a year imprisonment or a fine of three million Won. *Id.*

118 *Id.* at 2.

119 *Id.* The government reduced the total number of management authorities from 24 to 10. The Ministry of Environment ("MOE"), the Ministry of Health and Social Affairs and the National Forestry Administration presently retain management authorities. The MOE, which has supreme authority to oversee the activities of all the management and scientific authorities, coordinates external communications regarding CITES implementation.

120 *Id.* at 4-5.

121 *Id.*

over-exploitation through international trade."[122] It is undisputed that the desired outcome is preservation of wildlife so the key issue is how to achieve this outcome in a manner least detrimental to endangered species populations. Differing opinions have surfaced within CITES over the approach states ought to take in the protection of endangered wildlife and whether consumptive sustainable-use should be embraced as the underlying policy of CITES.[123]

A. The Debate Within CITES

1. Sustainable Use

Sustainable use encompasses the concept of wildlife as a renewable resource.[124] The text of CITES accommodates the practice of sustainable use, though it sheds no light on whether international trade is necessary or appropriate.[125] The procedure historically taken to make an Appendix I species subject to commercial trade has been to downlist it to Appendix II upon a showing that trade would not be detrimental to the survival of that species. Under CITES, states wishing to downlist have the burden of proving that animals of a given population can be removed without jeopardizing the sustainability of their populations. As evidenced by language in the treaty, the foundation of CITES incorporates the precautionary principle—the notion that action must not be taken if it poses a risk of harm.[126]

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122 *See* CITES Preamble, *supra* note 6.

123 One astute observer of the debate has identified five categories of attitudes toward wildlife arising out of differing Western perspectives on man's relationship with animals: (1) Survivor: human interests supersede animal interests when the survival of man is at stake; (2) Exploiter: human interests supersede animal interests because wildlife are a resource purely for economic gain; (3) Conservationist: human use of wildlife must not extend beyond sustainable animal populations because species extinction is against the best interest of humans. The interest to humans, not animals, is at issue; (4) Environmentalist: accounts for the interest of both humans and animals, though the interests of animals deserve such priority as to assure the continued, ecologically functional existence of all species; (5) Animal Protectionist: the interest of animals must factor in the making of decisions that will cause them suffering or death. Favre, *supra* note 86, at 878-80.

124 *Id.* at 883.

125 *Id.* at 886. *See* CITES, *supra* note 6, art. II. Under article II(1), trade in Appendix I specimens "must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances." Language in articles III and IV allows the granting of permits for a species on Appendix I and II when the scientific authority of the exporting state "has advised that such export will not be detrimental to the survival of that species."

126 Favre, *supra* note 86, at 883, 895.

In making a showing that sustainable consumptive use is feasible for a species, it is necessary to rely on concrete scientific information. However, what ultimately constrains the ability of states to make a sound determination about the sustainability of a given population are the inherent limitations of science itself. Although use of scientific information is most valuable for describing and understanding the present status of a particular species,[127] it cannot be relied upon as the sole basis for predicting a species' future status. A proper determination of sustainability requires knowledge of such factors as future market demand and availability of critical habitat in making predictions about future population levels.[128] With current scientific information, one can only speculate about what market demand will be like or how increasing human populations will affect habitat loss as political and economic conditions change.[129] Whether a wild population is sustainable and should be subjected to regulated harvesting for trade is a policy question that inevitably implicates risk analysis.[130]

2. *Conservationist Versus Protectionist Approaches*

Two approaches dominate the CITES debate over sustainable use: the conservationist perspective, which promotes the strictly regulated commercial trade of wildlife, and the protectionist perspective, which supports the continuance of the wildlife trade ban. While it is generally agreed that for wildlife to be preserved it must have value to people,[131] the desired means of wildlife conservation will differ depending on how people perceive the value of wildlife.

Conservationists value wildlife primarily for its *consumptive* use to human beings and support all forms of wildlife exploitation. To a conservationist, whether trade should be permitted for an Appendix I species is a

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127 *Id.* at 889.

128 *Id.* at 889-90.

129 *Id.*

130 *Id.* at 890.

131 Such value can take many forms, such as commercial, recreational, scientific, aesthetic or spiritual value. *Id.* at 884 (*citing* J. Robinson and K. Redford, *The Use and Conservation of Wildlife, in* NEOTROPICAL WILDLIFE USE AND CONSERVATION 3-4 (1991)). According to wildlife economist Timothy Swanson, the motive behind biodiversity conservation is not altruistic because clear, positive links exist between biodiversity and human development. For instance, diversity of genetic material helps ensure against threat from outbreaks of disease and pestilence to crops and animals by providing a large pool of wild strains from which more resistant strains can be developed. Timothy M. Swanson, *Wildlife and Wildlands, Diversity and Development, in* ECONOMICS FOR THE WILDS 1, 2 (Timothy M. Swanson & Edward B. Barbier eds., 1992).

factual issue that is determined by asking whether trade would assist or impede conservation efforts. Conservationists support wildlife utilization methods provided they are carried out sustainably and the viability of populations remains intact.[132] Some conservationists also believe that commercial trade of some wildlife species would further their protection by providing a reliable means of generating funds needed to finance conservation plans.[133]

Protectionists, on the other hand, value wildlife species primarily for their existence value. They challenge the premise of conservationists that wildlife must be consumptively used because they question the appropriateness of removing wildlife from their natural habitat absent clear scientific proof of sustainability, though some protectionists would consider non-consumptive uses as acceptable methods of wildlife exploitation.[134] For protectionists, whether trade should be allowed is a moral issue. They believe that trade is bad *per se* because it entails consumption. Protectionists will argue that lifting the trade ban may serve to undermine existing efforts to protect the species and that jeopardizing already fragile populations is not a gamble worth taking.[135]

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132 Methods of consumptive wildlife utilization include: captive breeding, ranching and wild harvesting. For a good discussion of the advantages and pitfalls of various consumptive use strategies, *see generally* S.K. Eltringham, *Can Wildlife Pay Its Way?*, 28 ORYX 163 (1994). *See also* Richard Luxmoore and Timothy M. Swanson, *Wildlife and Wildland Utilization and Conservation, in* ECONOMICS FOR THE WILDS, *supra* note 131, at 170-94.

133 Wang Xinxia, *The Implementation of CITES in China*, 2 REV. EUR. COMMUNITY & INT'L ENVTL. L. 370, 373 (1993). Some conservationists believe that it is actually the trade that helps to conserve endangered species because the funds generated for endangered species conservation would come primarily from their trade. *Id.* One observer points out that using wildlife to fund its own conservation has led to the assumption that wildlife, if it is to be conserved, must pay its way. Eltringham, *supra* note 132, at 163.

134 From a moral standpoint, some protectionists will argue that if wildlife species are to be used at all, their uses should only be non-consumptive and carried out in a manner that minimizes pain and suffering to wildlife. They believe that even if a particular use is ecologically sustainable, it may still be unethical to take species for the sole purpose of selling their body parts. Favre, *supra* note 86, at 913.

Two commentators assert that non-consumptive uses, when practiced sustainably, create straightforward benefits to conservation without damaging or converting wildlife capital. J. Barnes et al., *Wildlife Tourism, in* ECONOMICS FOR THE WILDS, *supra* note 131, at 136, 149.

135 *See* LaBudde, *supra* note 103, at 38. Samuel LaBudde argues that legalization could exacerbate the decline of endangered species "by setting up 'legitimate' fronts for illegal activity." David Favre explains that those opposed to adopting the policy of saving and conserving species through economic exploitation "fear that this line of argument is being pursued by exploiters in disguise, that under the pretense of consumptive use programs specimens will be consumed in ever greater numbers to the ultimate detriment of the entire species." Favre, *supra* note 86, at 884.

B. *Lifting The Trade Ban Implicates Excessive Risks*

1. *Trade Is Not An Effective, Long-term Solution*

Looming over the debate concerning the policy for tiger and rhinoceros conservation is the threat of the species' imminent extinction. There is clearly a sense that time is running out for both species. Consequently, some feel that radical action must be taken *now* before the species are hunted to extinction. Those who support lifting the trade ban believe that legalizing the trade, to undercut the black market and thereby reduce poaching, is necessary because they are unconvinced that a trade ban alone will actually save the species.[136] On the other hand, those who oppose lifting the trade ban believe that legalizing trade is short-sighted and essentially serves to satisfy the demands of range states motivated more by profit than conservation.

Although the need for immediate action can not be ignored, it is nonetheless important to cautiously pursue a conservation strategy that is not only effective in the long-term, but minimizes any risk of harm to fragile rhinoceros and tiger populations. Given that time is running out for the tiger and rhinoceros, lifting the trade ban for the purpose of generating funds to finance their conservation is an attractive but facial short-term solution. In the long run, it will likely limit the species' prospects for survival.

Protectionists are rightfully wary about employing consumptive use through legalization of the commercial wildlife trade because it risks compromising the very aims of wildlife conservation. As a policy matter, it seems unsettling to allow commercial trade in endangered species if the ultimate aim is to ensure the survival of those very species. Although consumptive use offers incentives to conserve wildlife, it has been criticized because of the likelihood that it will stimulate demand and consequently lead to the eradication of targeted wildlife species,[137] like the tiger, whose precarious populations are unable to withstand even the slightest pressure from reopened trade.[138] If trade were reopened for less-endangered species

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136 *See* Mary Cole, *U.S. Measures to Save Rhino Anger African States*, NEW SCIENTIST, 10 July 1993, at 9 (discussion of clash between southern African states over the best way to save the rhinoceros from extinction).

137 Barnes et al., *supra* note 134.

138 "Unfortunately, Tiger populations are too depleted to make any trade in Tiger parts—even those from captive-bred animals—a viable consideration." MILLS & JACKSON, *supra* note 38, at insert facing 46.

or species with increasing populations, as in the case of the white rhinoceros in South Africa,[139] the disturbing policy of generating funds from the trade of one species for the benefit of other species arises. Permitting trade would essentially be condoning protection of one species at the expense of another, and it is dubious whether it is actually necessary to engage in such a trade-off. Lifting the trade ban could also stimulate the market for endangered species, leading to a boost in demand because consumers may actually demand more parts if trade were legalized.

There are some consumptive use strategies which under rigorously managed and enforced conditions may have merit as methods both for financing wildlife conservation and for temporarily staving off demand in order to buy time for the regeneration of dying populations.[140] But when the merits of trade as a consumptive use strategy are weighed against its inherent risks in light of the financial and practical realities of range states, the surface appeal of this approach fades away.

The effectiveness of trade as a consumptive use strategy is contingent upon a high level of demand because for trade to remain beneficial as a use strategy it must be able to retrieve tremendous profits. In other words, for trade to work effectively, it must be possible to obtain a relatively high value from tiger bone and rhinoceros horn. This is possible only if demand is high. It is difficult to see how trade can be both sustainable and nondetrimental to the conservation of targeted species if demand must be sustained at a high level. As long as demand remains high and exorbitant profits can be made, the opportunity for poaching and smuggling is always present.[141]

It may also be the case that legitimizing the trade will encourage the captive breeding of endangered species.[142] Many wildlife preservationists

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139 Jim Loney, *CITES Meeting Ends With Successes, Questions*, Reuter Newswire, Nov. 18, 1994, *available in* DIALOG, INT-NEWS database. At the Ninth Conference of the Parties, South Africa successfully downlisted the white rhinoceros to Appendix II, where regulated trade is allowed. CITES Update No. 31, U.S. Fish & Wildlife Service Off. of Mgmt. Authority (Dec. 8, 1994).

140 Examples of consumptive use strategies include organized trophy hunting, darting safaris, and controlled sales of stockpiled bones.

141 Even if one were to assume that a legalized trade would drive down tiger bone and rhinoceros horn prices, it is doubtful that diminished profits would decrease incentives for poachers given that the limited supply of stockpiled bones and the finite number of species would tend to keep prices high. Provided that demand for tiger and rhinoceros parts is high, huge profits from their sale can probably be made, whether or not trade is permitted.

142 Captive breeding is the breeding of a species whose genetic stock is extracted from a gene pool separate from that of a wild population. Luxmore & Swanson, *supra* note 132, at 174.

There is no documented evidence on the captive breeding of rhinoceros species for the medicinal trade. GASKI & JOHNSON, PRESCRIPTION FOR EXTINCTION: ENDANGERED SPECIES AND PATENTED ORIENTAL MEDICINES IN TRADE, TRAFFIC NETWORK REP i, 45 (1994) (TRAFFIC USA, Wash., D.C.).

remain highly skeptical about the practicability of captive breeding and its long-term benefits for endangered wildlife conservation.[143] It is certainly possible that even with a trade ban, captive breeding could be a constructive means of regenerating declining populations by diverting some of the trade to reduce pressure on wildlife populations.[144] Under CITES, the establishment of captive breeding operations of certain Appendix I species for commercial purposes is permitted as long as these operations are registered, do not harm the ecosystem and native species, and use a uniform system for marking specimens.[145] But without a ban, captive breeding could

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China, though, has reportedly bred Siberian tigers at its government-sponsored Breeding Center of Felidae Animals of Hengdaohezi, located about 290 kilometers southeast of Harbin. However, its May 1993 trade ban halted the center's plans to cull the animals, whose parts were originally sold to pay for the breeding operations. *Id.* at 52.

143 According to Dr. Schwann Tunhikorn, Chief of the Wildlife Technical Division of the Thailand Forestry Department, reintroducing captive-bred animals into the wild is possible, though the viability of such a scheme is questionable. He thinks releasing bred animals into natural forests should be the last resort to conserve wildlife and points out that wild animals born and raised in captivity may have difficulty surviving in the wild unless they are trained to do so while in captivity. Another difficulty posed by captive breeding is genetic contamination, which may occur if rare, improper methods are utilized to breed animals that are later released into the wild. Tunya Sukpanich, *Thailand: Commercial Breeding*, BANGKOK POST, Jan. 29, 1995, *available in* LEXIS, ASIAPC Library, THAI File.

Some wildlife preservationists are certain that tiger populations have become so depleted that it is not feasible to allow for even limited trade in tiger parts, including those from captive-bred tigers. Two prominent experts on the tiger trade maintain that:

> [g]iven fragmented habitats and small, isolated populations, many of the remaining wild Tiger populations will require rigorous protection and management just to survive the continuing loss of habitat and the deleterious affects of genetic isolation, much less the pressures of poaching to supply the international market with Tiger bones and Tiger-bone derivatives.

MILLS & JACKSON, *supra* note 38, at 45.

Judy Mills, East Asia Director of TRAFFIC, has also expressed doubts about the viability of legalizing the trade and captive breeding of rhinoceroses. According to Mills, most rhinoceros species "are in such a precarious state in the wild, due to habitat loss and poaching, that they cannot bear even limited trade in their horns." Ko, *supra* note 100.

144 *See* Yeung, *supra* note 73. Artificial breeding is seen as a new way of saving tigers from extinction. *See also Thailand: Commercial Breeding*, BANGKOK POST, Jan. 29, 1995, *available in* LEXIS, ASIAPC Library, THAI File. Supporters of commercial captive breeding believe that it will have a positive effect on conservation by reducing game hunting and discouraging the illegal hunting of wild animals. They also believe that it should be carried out on species that are easily bred.

145 Resolution Conf. 8.15 recognizes that captive breeding for commercial purposes "can be an economic alternative to domestic livestock production in its places of origin and thus provide an incentive for rural populations in those places to develop an interest in its conservation." EVOLUTION OF CITES, *supra* note 8, at 97-98.

The Conference of the Parties, having adopted this resolution, resolved:

> (d) that prior to the establishment of captive breeding operations for exotic species a study of ecological risks should be completed, in order to prevent any negative effects on the ecosystem and the native species;

potentially lead to the propagation of species for the purpose of feeding demand.[146] This is apt to escalate demand by creating an even larger market for endangered wildlife.[147]

2. *The Plight of the African Elephant—A Case Comparison*

It is well understood that elephant populations are being destroyed to supply demand for their parts, namely their ivory tusks, and that increased poaching is the main cause of declining elephant populations.[148] In assessing whether trade in tiger and rhinoceros parts should be reopened, it may be helpful to examine the CITES debate over what should be the policy for elephant conservation, given that the plight of the African elephant is analogous to that of the tiger and the rhinoceros.

Although the African elephant has been listed on Appendix II since 1977,[149] it was apparent by 1989 that a regulated market was ineffective to

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> (e) that the sponsoring Party's Management Authority shall provide the Secretariat with appropriate information to obtain, and to maintain, the registration of each captive breeding operation; and
> (k) that registered captive breeding operations shall continue to use a uniform marking system for their specimens in trade, and adopt superior marking methods as they become available.

Id.

146 Some conservationists believe that wildlife will continue to be hunted as long as there is demand for it and if captive-bred animals are expensive. Citing the case of wild elephants, they assert that wild elephants continue to be hunted despite the fact that many elephants are bred in captivity. Young, wild elephants are still captured for sale to show and circus operators. Sukpanich, *supra* note 143.

147 Some economists argue that if a captive breeding operation is set up in competition with harvesting operations that rely on wild populations, such as ranching, it will likely depress the price of the wild commodity, resulting in diminished profitability for legal wild harvests while allowing for continued, illegal trade of wildlife. Thus, captive breeding in the long-term would probably have a detrimental effect on the management of wildlife populations for commercial production. Luxmoore & Swanson, *supra* note 132, at 189.

For a brief discussion of the tiger breeding controversy in Thailand, see *Tiger Breeding Plan Opposed*, BANGKOK POST, Oct. 30, 1994, *available in* DIALOG, INT-NEWS database. Thailand's Forestry Department has attempted to include tigers among wild animals that can be bred for trade, but international wildlife conservation groups claim it would violate CITES. *See also Science & Technology Week: Some Thais Asking Government to Allow Tiger Harvesting* (Cable News Network, Inc. broadcast, Jan. 7, 1995) (transcript No. 252-2), *available in* LEXIS, ASIAPC Library, CNN File. Thailand is one of the few countries where Bengal tigers are commercially bred.

148 Kevin D. Hill, *The Convention on International Trade in Endangered Species: Fifteen Years Later*, 13 LOY. L.A. INT'L & COMP. L.J. 231, 259 (1990).

149 Susan J. Keller, *Is the International Ban on the Importation of Ivory Saving the Elephant?*, 3 COLO. J. INT'L ENVTL. L. & POL'Y 381, 388 (1992). As an Appendix II species, the African elephant is subject to strictly regulated commercial trade as along as such trade is not detrimental to its survival. CITES, *supra* note 6, art. II(2).

protect the elephant.[150] Smugglers were able to frequently circumvent the Appendix II permit system so that an illegal trade in ivory thrived despite the Appendix II listing.[151] At the Seventh Conference of the Parties, the decision to ban the sale of ivory raised considerable resistance among several African states wishing to finance their conservation efforts through the sale of ivory.[152] Critics of the ban argued that it would spur poaching and feared that prices would climb as a result of dwindling stocks, thus providing an incentive for increased poaching.[153] A flaw exists in their argument. In presuming that a ban would cause the large, legitimate market for ivory to completely retreat underground, it overlooks the likelihood that a ban would shrink the market and lessen demand because fewer consumers would be willing to buy on the black market.[154] According to one observer, even though a small black market may revive poaching, it still poses a significantly lesser threat than that posed by a larger, legalized market.[155]

Given the common plight of these three species (though the situation for the tiger and rhinoceros is arguably worse because they face more imminent extinction) and the improbability that demand for their parts will decrease in the short term, it seems that permitting a strictly regulated market for tiger and rhinoceros parts would likewise be ineffective in protecting both species. To the extent that a trade ban operates ostensibly to retard demand, its continuation would be the more cautious, and thus the

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150 Hill, *supra* note 148, at 262.

151 Keller, *supra* note 149, at 389. Susan Keller points out that an Appendix II designation includes several loopholes, which permit avenues for illegal trade to flourish and is why some conservationist contend that *any* legal trade provides opportunities for illegal trade. *Id.* at 388-89.

152 Hill, *supra* note 148, at 263.

153 *Id.* at 263-64 (*citing* Simmons, *Endangered Species Protection*, HERITAGE FOUND. REP., Apr. 19, 1990, at 18; Huxley, *Lies, Damned Lies and Population Figures*, THE INDEPENDENT, June 30, 1990, at 13).

154 Philippe J. Sands and Albert P. Bedecarre, *Convention on International Trade in Endangered Species: The Role of Public Interest Non-Governmental Organizations in Ensuring the Effective Enforcement of the Ivory Trade Ban*, 17 B.C. ENVTL. AFF. L. REV. 799, 816 (1990) (*citing* Jones, *Hong Kong Ivory Industry Seeks Buyers as International Ban on Trade Nears*, WALL ST. J., Dec. 22, 1989, at B4A, Col. 2). Ivory prices around the world had, in fact, plummeted with word of the impending trade ban in 1989.

U.S. Secretary of the Interior Bruce Babbitt, in his address during the Ninth Conference of the Parties, stated that poachers shot 70,000 African elephants in the decade prior to the ivory ban. After the ban, poaching dropped ten-fold annually, and the price of ivory dipped from US$633 a pound to US$22 a pound because public opinion had destroyed the commercial ivory market. *Babbit—U.S. Open to Debate Elephant Hide Sales*, Reuter News Service, Nov. 11, 1994 (on file with the *Pacific Rim Law & Policy Journal* office).

155 Hill, *supra* note 148, at 264.

more prudent conservation strategy for protection of the tiger and rhinoceros.

C. *Any Consumptive Use Must Account For The Developmental Needs Of Range States*

It must be stressed that objections to trade as a consumptive use strategy does not imply a rejection of all uses of wildlife. It may very well be that for some endangered species populations to sustainably coexist with human populations, some kind of use must operate. Some wildlife economists posit that for the most part, the existence of population pressures and development needs of less-developed countries make wildlife preservation through non-use an infeasible option.[156] What is ultimately necessary is a long-term conservation strategy that accounts for the developmental needs of range states but is not at the expense of tiger and rhinoceros conservation.

VI. SUGGESTED MEASURES TO IMPROVE CITES ENFORCEMENT IN SOUTHEAST ASIA

It is generally acknowledged that a trade ban will reduce the demand for tiger and rhinoceros parts, but a ban by itself is insufficient to avert the extinction of the tiger and rhinoceros. Action at various fronts must be taken to buttress the ban if the tiger and rhinoceros are to be saved from imminent extinction. This can best be achieved by reducing the demand for their parts through intensive public awareness campaigns; limiting the supply by discouraging poaching in range states; tightening domestic legislation in consumer states to bring the illegal trade under control; establishing a reliable funding mechanism to effectuate conservation plans; and encouraging greater cooperation between states to facilitate the exchange of information.

A. *Reducing Demand*

A change in the traditional beliefs and cultural practices of consumers is crucial to curbing demand in the long term. This can be accomplished

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156 Barnes et al., *supra* note 134, at 149. The authors note that the non-use option often fails due to lack of incentives for local people to conserve wildlife resources.

through culturally-sensitive public awareness and education campaigns. Achieving this in the short term is virtually impossible as such beliefs and practices are so entrenched in ancient medical customs that many in the Chinese medical community still advocate them.[157] Nevertheless, raising the awareness and obtaining the cooperation of the Oriental medicine community about the plight of the tiger and rhinoceros and the need for better conservation should be approaches taken now to reduce demand in the long term.

These approaches ought to be accompanied by research into and promotion of the use of substitutes.[158] This is not to suggest that substitutes will be readily accepted, however. An attitudinal change will undoubtedly be difficult given that some in the traditional medical profession consider rhinoceros horn as an essential medicine for which no substitute exists.[159] The same can be said of consumers of tiger derivatives, who are reluctant to relinquish traditional medicines because they believe that such a step would further erode time-honored cultural values.[160] The extremely high price of tiger parts and rhino horn may have an attraction all their own, defying efforts to prohibit its trade and promote substitutes.[161] Despite the proven efficacy of substitutes, Asian consumers may be more skeptical about switching over to less expensive alternatives absent the backing of the traditional medical community.

B. Limiting Supply

Efforts to discourage poaching in range states must be intensified. Parties should give greater attention to the needs of communities who live in the vicinity of protected reserves while simultaneously furthering the aims of wildlife protection. Poaching can be most effectively curbed if the people living near the endangered species see that the animals are worth more alive than dead, and that they can benefit from protecting the animals. By encouraging the participation and cooperation of the native community, local inhabitants may be more accepting of conservation efforts which they

157 NOWELL ET AL., *supra* note 51, at 25. The traditional medical community, which opposes a trade ban, will be the most difficult market sector to reform. Conservation and health authorities seem to have a tacit understanding that attempting to wage war on the medical community would be a losing battle. *Id.*

158 MILLS, *supra* note 53, at 30.

159 *Id.*

160 MILLS & JACKSON, *supra* note 38, at 45.

161 NOWELL ET AL., *supra* note 51, at 23.

currently view as "imposed from outside."[162] To illustrate, local communities sometimes view the tiger as a pest and resent the presence of tiger reserves because tigers sometimes prey on livestock and have on occasion attacked people.[163] Therefore, they see an advantage in assisting professional poachers in eliminating the species.[164] This perception must somehow be changed so that the local people view the tiger more as an asset than as a threat.

Attempts to place greater value in keeping endangered species alive through wildlife tourism (or ecotourism) and community-based management of wildlife reserves are promising avenues already in practice that deserve closer examination.[165] It is important to ensure that the income derived from non-consumptive utilization schemes passes to the communities who share their land with the animals; otherwise these people will not attach a value on wildlife and see it as an economic asset worth conserving.[166] At the same time, such schemes require a determination as to their feasibility with respect to certain species because non-consumptive utilization is not entirely risk-free.[167] This determination should take into account any risks when calculating the costs of non-consumptive use of a species.[168]

C. *Tightening Domestic Measures in Consumer States*

The need for revised legislation in consumer states to bring under control the illegal trade of wildlife parts and products must be underscored. The use of stricter domestic measures may serve as a substitute for the absence of an enforcement mechanism within CITES.[169] While the key

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162 Edward B. Barbier, *Community-Based Development in Africa, in* ECONOMICS FOR THE WILDS, *supra* note 131, at 103, 131.

163 KEMF & JACKSON, *supra* note 2, at 1.

164 *Id.*

165 KEMF & JACKSON, *supra* note 2, at 19. WWF takes the stance that local communities who cooperate in protecting and managing wildlife reserves deserve a share of the economic benefits from ecotourism. Revenue from imposing a special tax on hotels and tour operators, who are presently the primary beneficiaries of ecotourism, can be used to provide amenities and develop local credit systems for rural communities. *See generally* Barnes et al., *supra* note 134, at 136-51.

166 For a brief discussion of several ways in which local communities can share in the benefits gained from community-based management schemes, see Barbier, *supra* note 162, at 105-07.

167 *See CITES—of Use to Conservation?*, 26 ORYX 61, 62 (1992). Gorilla visiting, for instance, creates the risk of introducing diseases. To minimize that risk, restrictions have been imposed on visitors, and expensive immunization and monitoring programs have been developed. *Id.*

168 *Id.*

169 Favre, *supra* note 86, at 911.

consumer states have adopted stricter laws in recent years, noticeable gaps in their control schemes remain as a result of inadequate legislation. In particular, Taiwan and China have yet to institute a comprehensive legal framework that will provide for the full registration and marking of all existing privately-owned stocks.[170] Hong Kong's domestic legislation on endangered species trade provides a comprehensive model for other consumer states whose legislation require further fine-tuning.[171]

D. Funding

The effectiveness of wildlife protection efforts depends to a large extent on the financial resources invested in conservation plans.[172] This raises the critical issue of where this funding should come from and who should be expected to pay.

Some conservationists have argued that the release of stockpiled horn and bone for sale to finance conservation efforts could help stop poaching by undercutting the black market.[173] Yet, it is doubtful whether obtaining funds from the sale of stockpiles is a prudent alternative. Permitting stockpile sales would be at best a temporary solution because stockpiles provide only a limited supply of parts to stave off demand. There is the additional difficulty of trying to distinguish stocks that are legal from those that are illegal. More significantly, releasing stockpiles, like reopening trade in wildlife, may actually stimulate demand and worsen what is already a burgeoning problem.

Consumer states in Asia must allocate more funds and additional personnel to counter wildlife trafficking at the local level. In light of the fact that most CITES-listed species exist in developing countries where conservation plans are emasculated by shortage of funds,[174] it is unreasonable to expect those countries to generate funds entirely on their own in

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170 Trade in Rhino Specimens, *supra* note 20, at 4. The Secretariat reported that Taiwan has made little progress in registering and marking privately-owned rhinoceros horn stocks because of reluctancy on the part of owners who fear that they will face penalties upon registration of their stocks. *Id.* at 4. For a detailed discussion of impediments to the registration tiger bone and rhino horn stocks in China, *see* Martin & Vigne, *supra* note 29, at 2-3.

171 *See generally* Milliken, *supra* note 54, at 209-14.

172 *South Africa Withdraws Plan to Trade Elephant Products*, Reuter News Service, Nov. 15, 1994 (on file with the *Pacific Rim Law & Policy Journal* office). IUCN studies show that strong conservation budgets stop poaching. *Id.*

173 Cole, *supra* note 136, at 9.

174 Xinxia, *supra* note 133, at 373.

order to help endangered species populations attain sustainable levels. Developed countries have as much incentive as developing countries to protect endangered species, regardless of the species' location, because the continued existence of all species benefits countries universally by sustaining the world's biodiversity and protecting against the loss of undiscovered economic values.[175] As most developing countries lack sufficient internal funding to achieve sustainability, Parties should exhaust external funding sources for species conservation before resorting to the reopening of trade as a fund-generating method.

One source of external funding is the Trust Fund of CITES, which is primarily financed from annual contributions made by Parties and includes contributions from non-governmental organizations.[176] Another important source of external funding is the Global Environment Facility ("GEF"), a cooperation of the United Nations Development Programme ("UNDP"), United Nations Environment Programme ("UNEP"), and the World Bank[177] which currently funds Project Tiger, a long-standing and successful tiger conservation program in India,[178] and other rhinoceros conservation projects in Botswana, Cameroon, Indonesia, and Malaysia.[179]

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175 Favre, *supra* note 86, at 897. But "[b]ecause the concept of sovereignty does not allow for such a thing as international taxation, even when countries agree that range states should receive financial support, they seldom do." *Id.*

176 EVOLUTION OF CITES, *supra* note 8, at 145-52. Pursuant to Resolution Conf. 2.1, the United Nations Controller, on behalf of the United Nations Secretary General, established a Trust Fund for CITES to be administered by the Executive Director of UNEP in September 1979 "to provide financial support for the aims of the Convention." *Id.* at 149. Resolution Conf. 7.2 directs the Secretariat to submit "a list of priorities for funding, representing opportunities to enhance the legislation, implementation, and enforcement of the Convention by the Parties, as well as any scientific studies, and a proposal adequate for review by experts of each project six months before the scheduled solicitation of any funding." *Id.* at 150.

177 *Id.* at 145-52. Resolution Conf. 8.1 "[i]nvites UNEP to put forward to the Global Environment Facility requests by the Secretariat for additional funding of appropriate CITES projects aiming at protecting biodiversity." *Id.* at 152.

178 Hailed as a "showpiece in wildlife conservation," Project Tiger has helped restore tiger populations in India from 700 in the 1970s to 4,200 in 1991. A resurgence of poaching, however, has seriously retarded the program's conservation efforts. Neelam Jain, *WWF Sets Up Tiger Fund in India*, UPI, Jan. 10, 1995, *available in* LEXIS, ASIAPC Library, UPI File.

179 Trade in Rhino Specimens, *supra* note 20, at 5. In June-July 1993, the United Nations Environment Programme ("UNEP") organized a conference in Nairobi for the financing of rhinoceros conservation plans. Among the key resolutions made during the conference was urging GEF participants "to use the biological diversity component of the Facility to fund the protection of rhinoceroses within the context of broadly based projects for the conservation of biodiversity." *Id.* at 3. In January of 1994, the GEF had earmarked US$10 million for additional work in range states for tiger conservation, but the World Bank has insisted that such work involve non-governmental organizations to guard against the misuse of those funds by state governments. Stephen Mills, *The Tiger, the Dragon and a Plan for the Rescue*, 12 BBC WILDLIFE 50, 52 (1994).

E. *Greater Cooperation Between States*

Implementation of controls on the transborder movements of tiger and rhinoceros parts should be improved. By facilitating the exchange of information concerning poachers, smugglers and trade networks, law enforcement and trade monitoring officials can better trace illicit trade routes to more expeditiously assist customs in the interception of endangered wildlife shipments and apprehension of illegal traffickers. Recent regional agreements, most notably the Lusaka Agreement[180] and the Global Tiger Forum,[181] attempt to achieve this outcome by establishing law enforcement networks between range states. With increasing attention centering on consumer states to be more proactive in protecting endangered species, Asian nations have recently taken the initiative to foster communication and cooperation with each other to reverse the plight of the tiger. At the Ninth Conference of the Parties in November 1994, ten Asian states presented a resolution calling for voluntary domestic tiger trade bans.[182] The very fact that these international agreements supplement the requirements of CITES is important, for it suggests a critical weakness of the treaty. CITES is too narrow in scope to adequately address the internal conservation and trade problems that must be managed in tandem with efforts to regulate the international trade. For CITES to be effectively enforced, it is necessary for Parties to take additional action that extends beyond just controlling the international trade, the original focus of the treaty.

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180 The Lusaka Agreement on Co-operative Enforcement Operations Directed at International Illegal Trade in Wild Fauna and Flora was concluded and signed on September 9, 1994 by six African states: Kenya, South Africa, Swaziland, Uganda, the United Republic of Tanzania and Zambia. Trade in Rhinoceros Specimens, *supra* note 20, at 3. The agreement contemplates the establishment of an intergovernmental Task Force to monitor and restrict cross-border poaching and unlawful wildlife trade. It is expected that the Task Force, when fully operative, would minimize poaching and trade in African rhinoceros horn and elephant ivory. *Id.* at 5.

181 Representatives of 11 of the 14 tiger range states convened in New Delhi in March 1994 to form the Global Tiger Forum. The parties to the Forum, recognizing that the primary threat to the tiger was poaching to satisfy the demand for their bones, entered into an agreement "to police the illegal Tiger-bone trade, to discourage the commercial consumption of Tigers and to encourage other countries to enter into and enforce international conventions aimed at conserving Tigers." MILLS & JACKSON, *supra* note 38, at 36.

182 Among the steps the resolution called for are increased border patrols to stop poaching, increased funding for conservation efforts, and public awareness campaigns designed to discourage the consumption of tiger-derived products. *Asian Nations Pledge to Save Tigers*, Reuter News Service, Nov. 14, 1994, *available in* DIALOG, INT-NEWS.

Parties should encourage states not yet party to these agreements to join or forge stronger links with other neighboring states in regional agreements that aim at halting cross-border wildlife trafficking.[183] In addition, technical assistance must be provided to states lacking the necessary resources or knowledge to effectively detect and monitor illegal smuggling. Various international organizations, such as Interpol and the Customs Cooperation Council, are already in place to help states handle matters concerning CITES violations by facilitating the exchange of enforcement information.[184] Notwithstanding this, there should also exist a separate mechanism that specifically deals with enforcement issues within CITES. The CITES Animals Committee in September 1993 had proposed a plan to form a Law Enforcement Consultative Group, subsequently renamed the Law Enforcement Network, that would provide Parties advice and technical assistance on enforcement matters and develop an effective means for facilitating the exchange of information between enforcement agencies.[185] The Secretariat received a mixed response from the Parties upon notifying them of this proposal so it issued a recommendation to the Standing Committee that the parties not support the proposal.[186] Based on that recommendation, the Standing Committee did not adopt the establishment of the Law Enforcement Network.[187]

States' efforts to enforce the CITES provisions would be enhanced considerably with the formation of an international law enforcement network that would oversee and coordinate a set of regional law enforcement agreements. The United States delegation supported the establishment of a Law Enforcement Network in November 1994 at the Ninth meeting of the Conference of the Parties, where it suggested additional strategies to

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183 At the 9th meeting of the Conference of the Parties in November 1994, the primary Asian consumer states—China, India, Indonesia, Japan, Malaysia, Nepal, South Korea, Singapore, Thailand, and Vietnam—prepared a resolution to stop the domestic trade in tiger parts. The resolution called for increased border patrols, additional funding for conservation, and public awareness campaigns to discourage consumption of tiger products. *Id.*

184 NASH, *supra* note 21, at 15. In September 1993, the first Interpol Working Party on Environmental Crime agreed to form a Wildlife Crime Subgroup that would be responsible for exploring the possible methods for promoting the exchange of information concerning the suspected involvement of individuals and organizations in wildlife trafficking.

185 *Id.* Under the proposal, the Network would create a forum for Parties to discuss and address important enforcement concerns through consultations with wildlife law enforcement experts. It would also coordinate its activities with the Secretariat, "prepare recommendations on appropriate enforcement methods for the detection and prevention of illegal trade; evaluate the effectiveness of enforcement technology; and report on its activities to the Standing Committee." *Id.*

186 *Id.*

187 *Id.*

strengthen enforcement of CITES.[188] Included among the suggestions was the creation of a permanent consultative group or committee on law enforcement; the extension to other international governmental and nongovernmental entities greater responsibility for enforcing CITES; and the inclusion of expanded law enforcement initiatives in the budget adopted at each CITES conference.[189] As long as it is economically feasible to employ these strategies, serious consideration should be given to each option as they may serve to systematize enforcement procedures and effectuate increased compliance with CITES.

Also, the need to encourage range and consumer states not yet party to CITES to become members must not be overlooked. Among the Southeast Asian states that so far have not taken up CITES membership are: Bhutan, Cambodia, Lao PDR, Myanmar, and North Korea.[190] Some of these states do not have laws aimed at wildlife trade control and protection.[191] It would serve the interest of all states for Parties that already have comprehensive domestic legislation to offer advice to states drafting new or improved wildlife conservation laws.[192]

VII. CONCLUSION

The demand in Asian communities for tiger bone and rhinoceros horn has taken a severe toll on the populations of tiger and rhinoceros species and is the primary cause of their decline. Whether CITES is actually effective in eliminating the illicit trade of tiger and rhinoceros parts depends on the will of the Parties to the Convention to make compliance with the treaty a priority. Insofar as CITES does not adequately provide the proper means for assuring that its requirements are fully implemented, the treaty could nonetheless be revamped and improved to better accomplish its objectives. The efficacy of CITES ultimately hangs on the international cooperation of states, which is vital to the protection and conservation of the tiger, rhinoceros and other threatened or endangered species.

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188 Conference of the Parties to the Convention on International Trade in Endangered Species, 59 Fed. Reg. 55682, 55690 (Dep't Int. 1994) (Notices).

189 *Id.*

190 MILLS & JACKSON, *supra* note 38, at 47. Myanmar and Cambodia are states that do not have laws designed to promote tiger conservation, for example.

191 *Id.*

192 *Id.*