

# LEGALIZATION OF THE INTERNATIONAL RHINO HORN TRADE – A WAY TO SAVE RHINOS?

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## ABSTRACT

*Any benefits resulting from the forty-year international ban on the rhino horn trade have been fully exploited, and the rhino population has started to decline again even with the international trade ban. It is time to start exploring an alternative way to save rhinos by lifting the international trade ban and by reintroducing a regulated rhino horn market. This seemingly counterintuitive approach should increase the rhino population as current concerns on the rhino horn legal market are based upon the outdated assumption that people purchase rhino horns mainly for practicing Traditional Chinese Medicine (TCM). Recent surveys and interviews show that rhino horns are no longer obtained solely for practicing TCM. Treating and regulating the rhino horn as a consumer product creates consistency with how it is currently perceived by customers.*

## I. INTRODUCTION

On average, the planet loses three rhinos to poaching every day.<sup>1</sup> Sudan, the last male northern white rhino,<sup>2</sup> lived in Kenya's Ol Pejeta Conservancy before he passed away on March 19, 2018.<sup>3</sup> His death signaled the extinction of this entire subspecies; only two female northern white rhinos are left.<sup>4</sup> Overall, the rhino population has steadily declined over the past century with minimal population increases since the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) banned the

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1. *African Rhinos Conservation and the Global Trade in Rhino Horn*, TRAFFIC, <https://www.traffic.org/what-we-do/species/rhinos/> (last visited Apr. 8, 2022).

2. Nargis Fakhri, *Why This Picture of the Last Male Northern White Rhino Was One of the Most Important Photos of 2018*, TIME (Dec. 20, 2018, 11:25 AM), <https://time.com/5482842/time-top-10-photos-2018-sudan-northern-white-rhino/>.

3. *Id.*

4. *Id.*; Helen Pilcher, *There Are Two Northern White Rhinos Left, Both Females. Here's How Science Hopes to Save Them From Extinction*, BBC (Mar. 19, 2023, 4:00 AM), <https://www.sciencefocus.com/news/white-rhino-extinction>.

international trade of rhino horns in 1977.<sup>5</sup> Many populations of rhino species remain either critically endangered or vulnerable under The International Union for Conservation of Nature (IUCN) Red List Classification.<sup>6</sup> According to the International Rhino Foundation, there are less than eighty Sumatran rhinos, seventy-five Javan rhinos, 3,588 Greater One-horn rhinos, 5,366–5,627 Black rhinos and 17,212–18,915 White rhinos, as of 2021.<sup>7</sup> While current CITES rules have been in force for over forty years, their effectiveness is unsatisfactory.

This is a critical time to consider updating the legal regime on the international rhino horn trade because whatever slow increase of rhino population CITES did provide stopped in 2017.<sup>8</sup> Since 2017, the rhino population has again faced steady decline worldwide, with two rhino species populations dipping below 100 counts.<sup>9</sup> The window to act is closing quickly. Legalizing the international rhino horn trade is a risky move with no guarantee of buoying rhino populations, but there will not be enough rhinos left to protect if nothing is done and the current international ban on rhino horns is maintained.

This Note supports the legalization of the international rhino horn trade, argues that a legal market will increase rhino populations, and addresses scholarly concerns regarding the effectiveness of such a market on rhino conservation. Part II describes the current legal regime on international and domestic rhino horn trade and its effectiveness at increasing rhino populations; the illegal network of rhino poaching; and the origin of rhino horn demand in Asian countries. Part II also provides other reasons for declining rhino populations; the success story of the American alligator trade; and the unfortunate story of one-off ivory sales. Part III proposes new international and corresponding domestic legal frameworks that would allow for a legal international rhino horn trade. It explains why CITES must lift the international trade ban and why it must

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5. See *UN Meeting to Tackle Escalating Rhino Poaching*, CONVENTION ON INT'L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (Jan. 12, 2021), [https://cites.org/eng/news/pr/2008/081117\\_rhino.htm](https://cites.org/eng/news/pr/2008/081117_rhino.htm).

6. *Conservation Efforts Bring Cautious Hope for African Rhinos – IUCN Red List*, IUCN (Mar. 19, 2020), <https://www.iucn.org/news/species/202003/conservation-efforts-bring-cautious-hope-african-rhinos-iucn-red-list>.

7. *Global Rhino Population*, SAVE THE RHINO, <https://www.savetherhino.org/rhino-info/population-figures/> (last visited Sept. 25, 2023).

8. See, e.g., *New Rhino Estimates Released – The Global Rhino Population is Declining*, SAVE THE RHINO (Sept. 20, 2022), <https://www.savetherhino.org/africa/new-rhino-estimates-released-the-global-rhino-population-is-declining/>.

9. See *id.*

act urgently. Further, Part III introduces a two-step approach to the legalization process and addresses a few key mechanisms that should be implemented. Finally, this section explains why rhino horn is not used solely as an ingredient to practice TCM. Its new usage warrants this proposal and with strict regulation, the market itself will lower the price of rhino horns and render them less appealing to its major consumers, which in turn will decrease demand. Part IV concludes.

## II. BACKGROUND

### A. *The Current Legal Regime on International Rhino Horn Trade and Domestic Rhino Horn Trade.*

The single most important international agreement regulating the international rhino horn trade is the CITES.<sup>10</sup> As of 2021, there were 184 parties to this Convention, and this agreement remains the most widely accepted international law and regulatory body in regulating international trade of wild animals and plants.<sup>11</sup> Almost all countries involved in the illegal trade of rhino horns are parties to CITES, including range states, transport states, and consumer states.<sup>12</sup>

CITES exercises different levels of control over different animals or plant species by placing each species into one of three Appendices.<sup>13</sup> Appendix I species include the most endangered populations. International trade of Appendix I species is banned, and only in exceptional circumstances does CITES grant trade licenses.<sup>14</sup> Species in Appendix II risk facing extinction threats if international trade of these species is not closely monitored and controlled.<sup>15</sup> Rhino species most at risk of extinction are listed in Appendix I.<sup>16</sup> A Conference of the Parties is held once every three

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10. See *Rhinos*, ENV'T INVESTIGATION AGENCY, <https://us.eia.org/campaigns/wildlife/rhinos/> (last visited Sept. 23, 2023).

11. *What is CITES?*, CONVENTION ON INT'L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA, <https://cites.org/eng/disc/what.php> (last visited Sept. 23, 2023).

12. Rhino range states are those African states with the most rhino population and rhino consumer states contain most of the rhino horn buyers. Bram Janssens & Arie Trouwborst, *Rhinoceros Conservation and International Law: The Role of Wildlife Treaties in Averting Megaherbivore Extinction*, 21 J. INT'L WILDLIFE L. & POL'Y. 146, 155–56 (2018).

13. *Appendices*, CONVENTION ON INT'L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA, <https://cites.org/eng/app/appendices.php> (last visited Apr. 8, 2022).

14. *Id.*

15. *Id.*

16. *What You Need to Know About CITES COP19 and Rhinos*, INT'L RHINO FOUND., <https://rhinos.org/blog/what-you-need-to-know-about-cites-cop19-and-rhinos/#:~:text=CITES%20has%20three%20Appendices%20of,are%20listed%20under%20Appendix%20I> (last visited Oct. 7, 2023).

years, and the parties debate heatedly new inclusions, exclusions, or changes to the three Appendices.<sup>17</sup>

Under domestic laws, a few key players<sup>18</sup> in the illegal rhino horn trade have either lifted domestic trade bans, or believe it necessary for rhino conservation to relax enforcement efforts criminalizing domestic rhino horn trade and use. South Africa, for example, “overturned the government’s 2009 moratorium on domestic rhino horn trade and passed legislation permitting sales within the country.”<sup>19</sup> Even though the court decision opened up South Africa’s domestic rhino horn market, an online auction held by a South African rhino ranch advertised in Chinese and Vietnamese languages.<sup>20</sup> Without doubt, this domestic auction targeted consumers speaking Chinese or Vietnamese. If the potential consumers were located outside of South Africa, any transactions would be a direct violation of CITES bans on international rhino horn trade.

China’s State Council revoked its prior ban on domestic rhino horn trade in 2018.<sup>21</sup> Detailed regulation and policy have not been announced by the Chinese government because of the strong opposition and criticism it received.<sup>22</sup> But the government announced an outline that planned to open the domestic market for rhino horn trade for limited TCM clinical use.<sup>23</sup>

Vietnam, another big consumer state of illegal rhino horn, criminalizes in its penal code illegal rhino horn trade and use.<sup>24</sup> But according to a survey, enforcement efforts by the Vietnamese government are mostly dedicated to bulk trade or use of rhino horn, which minimizes the penal code’s deterrent effect because the vast

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17. See *How CITES Works*, CONVENTION ON INT’L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA, <https://cites.org/eng/disc/how.php> (last visited Apr. 8, 2022).

18. “Six countries—South Africa, Mozambique, Malaysia, Hong Kong SAR, Vietnam and China—have dominated the rhino horn trafficking, supply chain as the source, transit and destination locations.” *Six Countries Dominated Rhino Horn Trafficking: CITES*, THE MEGHALAYAN (Nov. 18, 2022), <https://themeghalayan.com/six-countries-dominated-rhino-horn-trafficking-cites>.

19. Jimmiel Mandima, *South Africa’s Newly Legalized Rhino Horn Trade Could Fuel Chinese Demand*, AFRICAN WILDLIFE FOUND., <https://www.awf.org/blog/south-africas-newly-legalized-rhino-horn-trade-could-fuel-chinese-demand> (last visited Apr. 8, 2022).

20. *Id.*

21. Hubert Cheung et al., *China’s Legalization of Domestic Rhino Horn Trade: Traditional Chinese Medicine Practitioner Perspectives and the Likelihood of Prescription*, 9 FRONTIERS ECOLOGY AND EVOLUTION 1, 2 (2021).

22. See *id.* at 3.

23. See *id.* at 2.

24. See *Vietnam Gives Longest Ever Jail Term for Trading Rhino Horn: NGO*, BANGKOK POST (Dec. 8, 2021), <https://www.bangkokpost.com/world/2228563/vietnam-gives-longest-ever-jail-term-for-trading-rhino-horn-ngo>.

majority of individual rhino horn consumers do not face criminal sanction.<sup>25</sup>

### B. Effectiveness of the Current International Ban on Rhino Horn Trade

The mismatch created by the illegal international market of rhino horn and legal domestic markets of rhino horn in some states limits the long-term effectiveness of CITES. There were once over 500,000 rhinos living in Africa at the beginning of the 20th century and this number dropped below 70,000 in 1970.<sup>26</sup> Today, there are around 23,000 rhinos in Africa.<sup>27</sup> There is no doubt the international trade ban placed by CITES was effective in the first few decades of its force considering the total rhino population increased from 21,000 in 2009 to 27,300 in 2019.<sup>28</sup> But any benefits this policy could offer had been fully exploited by 2017 when the rhino population reached its most recent peak of 29,000.<sup>29</sup> The international ban on rhino horn trade was put in place for the sole purpose of preventing rhino from being poached to extinction.<sup>30</sup> Hence, increasing or decreasing rhino populations are the most direct indicators of how well this international ban is performing. As the rhino population continues to decline after 2017, the effectiveness of this international ban is in serious doubt.

### C. Why is There a Demand for Rhino Horns?

Asian countries, especially China and Vietnam, have been the leading consumer states of rhino horns, as rhino horns are used for practicing TCM.<sup>31</sup> Though there is no widely accepted conclusion

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25. Vu Hoai Nam Dang & Martin Reinhardt Neilsen, *We Asked People in Vietnam Why They Use Rhino Horn. Here's What They Said*, THE CONVERSATION (Apr. 30, 2019, 9:59 AM) <https://theconversation.com/we-asked-people-in-vietnam-why-they-use-rhino-horn-heres-what-they-said-116307>.

26. See *Black Rhinoceros (Diceros bicornis) Fact Sheet: Population & Conservation Status*, SAN DIEGO ZOO WILDLIFE ALL. LIBR. (May 16, 2023, 1:38 PM), <https://ielc.libguides.com/sdzg/factsheets/blackrhino/population>.

27. See *African Rhino Numbers Are Increasing Despite Poaching*, INT'L UNION FOR CONSERVATION OF NATURE (Sept. 21, 2023), <https://www.iucn.org/press-release/202309/african-rhino-numbers-are-increasing-despite-poaching>.

28. *2019 State of the Rhino Report: 10-Year Improvement in World Rhino Populations Offers Cautious Hope*, INT'L RHINO FOUND, <https://rhinos.org/blog/2019-state-of-the-rhino-report-10-year-improvement-in-world-rhino-populations-offers-cautious-hope/> (last visited Apr. 8, 2022) [hereinafter *2019 State of the Rhino Report*].

29. *Id.*

30. See *Trade in Rhino Horn: Where We Stand on Legalising the Trade*, TRAFFIC, <https://www.traffic.org/what-we-do/perspectives/trade-in-rhino-horn/> (last visited Apr. 8, 2022).

31. See Cheung et al., *supra* note 21, at 2.

on rhino horn's medical value, TCM uses rhino horn to "dispel heat, detoxify and cool the blood, and treat febrile diseases."<sup>32</sup> This used to be the major factor driving the illegal international trade of rhino horn. On the other hand, conspicuous consumption of rhino horn has only recently increased demand, based on a consumer research study. This reason is becoming the leading reason behind rhino demand in Asian countries.<sup>33</sup>

According to a recent survey, "the most popular perceived benefit of rhino horn use is emotional; this symbol of wealth and power is also strongly associated with success and therefore asserts one's social standing."<sup>34</sup> Nowadays people are buying rhino horns as "impressive gifts," as investments, or as exotic jewelries.<sup>35</sup> This new demand is based on a common assumption that the market value of rhino horn is extremely high. According to the World Animal Foundation, a rhino horn is worth \$60,000 per pound, which is more valuable than gold, diamonds, or cocaine.<sup>36</sup> Thus, demand for a luxury product could inform new perspectives on how to build a legal international rhino horn market.

#### D. *Who Are the Poachers in Africa?*

Because there is an international ban on rhino horn trade and purchasers are located on a different continent, an illegal international supply and distribution chain of rhino horn exists to fulfill the needs of end consumers. Illegal rhino horn trafficking is mostly carried out by organized crime and regional criminal syndicates.<sup>37</sup> These syndicates control the entire pipeline of international rhino horn trade, including poaching, storage, trafficking, and eventually, distribution of illicit rhino horns.<sup>38</sup> African terrorist and militant

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32. *Id.*

33. See Naomi Doak & Alegria Olmedo, *Rhino Horn Consumers, Who are They?*, TRAFFIC, <https://www.traffic.org/site/assets/files/8094/rhino-horn-consumers-who-are-they.pdf> (last visited Apr. 8, 2022).

34. *Id.*

35. See Doak & Olmedo, *supra* note 33; Victoria Gill, *Rhino Horn Smuggled as Jewellery*, BBC NEWS (Sept. 18, 2017), <https://www.bbc.com/news/science-environment-41269126>.

36. See Sara Santora, *Indian Officials Burn Nearly 2,500 Rare Rhino Horns Worth \$78M in Anti-Poaching Message*, NEWSWEEK (Sept. 23, 2021, 12:24 PM), <https://www.newsweek.com/indian-officials-burn-nearly-2500-rare-rhino-horns-worth-78m-anti-poaching-message-1632050>.

37. Billy Perrigo, *China Just Eased a Ban on Rhino and Tiger Parts. Here's How Organized Crime Fuels Illegal Poaching*, TIME (Oct. 30, 2018, 12:12 PM), <https://time.com/5438770/illegal-wildlife-trade-last-animals/>.

38. See *Organized Crime & Criminal Syndicates*, POACHING FACTS, <https://www.poachingfacts.com/faces-of-the-poachers/organized-crime-criminal-syndicates> (last visited Apr. 8, 2022).

groups like Al Shabaab and Lord's Resistance Army fund their operations partially through poaching.<sup>39</sup> These groups are drawn to poaching because of its extremely high profits and its relatively low and insignificant legal risk to the organizations.<sup>40</sup> Individual poachers who end up prosecuted or killed during poaching are merely "foot soldiers."<sup>41</sup> They are disposable to those criminal syndicates and easily replaced due to extreme poverty in so many areas in Africa.<sup>42</sup>

*E. Loss of Habitat is Another Leading Reason for Declining Rhino Population.*

It is widely accepted that, in addition to poaching, habitat loss contributes to rhino population decline.<sup>43</sup> Booming human population and the corresponding need for farming and agriculture activities has caused rhino habitat loss.<sup>44</sup> The average annual cost of protecting one rhino is about \$1,657<sup>45</sup> and funding from public donations and government is never enough.<sup>46</sup> This habitat loss concentrates the rhino population, and high-density rhino populations both raise the risk of disease transmission and make these rhinos easy targets for poachers.<sup>47</sup> In other words, the second leading reason for the declining rhino population is contributing to the first leading reason. Solving one without the other would not successfully reverse the devastating situation rhinos are facing now.

*F. Prior Successful and Unsuccessful Legalization Attempts on Animal Product*

One of the signature success stories on sustainable trade is the American alligator. Like rhino horns, alligator skins are harvested

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39. See Perrigo, *supra* note 37.

40. *Id.*

41. *Id.*

42. See Samuel Bostwick, *Impact of Extreme Poverty on Elephants and Rhinos*, THE BORGEN PROJECT (Oct. 15, 2019), <https://borgenproject.org/extreme-poverty-on-elephants-and-rhinos/>.

43. See *Black Rhino*, WWF, <https://www.worldwildlife.org/species/black-rhino> (last visited Sept. 26, 2023).

44. See *Rhino*, WWF, <https://www.worldwildlife.org/species/rhino> (last visited Sept. 26, 2023).

45. *How to Protect the Black Rhino Conservation Costs Lower in the Wild*, AFRICAN WILDLIFE FOUND. (July 1, 1999), <https://www.awf.org/news/how-protect-black-rhino-conservation-costs-lower-wild>.

46. *Trophy Hunting and Sustainable Use: Rhinos*, SAVE THE RHINO (July 5, 2019), <https://www.savetherhino.org/thorny-issues/trophy-hunting-and-sustainable-use-rhinos/>.

47. See *Rhino*, *supra* note 44.

for making luxury leather products.<sup>48</sup> High demand and unregulated trade once put American alligators on CITES Appendix I, which prohibits all commercial trade.<sup>49</sup> As the alligator population recovered, the American alligator was downlisted to Appendix II in 1997, which allows regulated commercial trade.<sup>50</sup> The alligator population steadily increased since the introduction of a regulated legal market.<sup>51</sup> Scholars have attributed the success of the trade to CITES's "universal tagging system for identification and tracking of crocodylian skins in international trade."<sup>52</sup> In the U.S., CITES tags are required for every legally harvested American alligator skin prior to exportation.<sup>53</sup> This system also functions as an anti-poaching mechanism because poachers are unable to obtain a traceable CITES tag for their illegally obtained alligator skin.<sup>54</sup>

Conversely, CITES's biggest failure was the one-off sales of ivory, which happened in 1999 and 2008.<sup>55</sup> The African elephant was listed on Appendix I since 1975 and remains on this list, which means there has been an international commercial trade ban on ivory for over forty years.<sup>56</sup> Botswana, Namibia, and Zimbabwe received one-time permits from CITES to sell government-owned ivory stockpile from deceased elephants to Japanese buyers in the 1999 auction.<sup>57</sup> The revenues generated by these sales were used exclusively for elephant conservation.<sup>58</sup> Even though these two one-off sales were

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48. Clif Horton & Bruce Weissgold, *Partnerships for Alligator Recovery and Trade*, XXX U.S. FISH & WILDLIFE SERV. ENDANGERED SPECIES BULL. 1, 10 (2005).

49. See *id.* at 11.

50. See *id.* at 11.

51. Frank J. Mazzotti et al., *Status of the American Alligator and American Crocodile in Southern Florida and Their Roles in Measuring Restoration Success in the Everglades*, THE CROC DOCS, <https://crocdoc.ifas.ufl.edu/publications/posters/statusalligatorcrocodile/> (last visited Apr. 8, 2022).

52. Clif Horton & Bruce Weissgold, *Success Story: American Alligator*, DALLAS SAFARI CLUB, <https://www.biggame.org/success-story-american-alligator/> (last visited Oct. 7, 2023).

53. See *id.*

54. See *id.*

55. See John Frederick Walker, *Ivory Trade Debate: Should the Global Ban on Ivory Be Lifted?*, YALE ENV'T 360 (Oct. 13, 2014), [https://e360.yale.edu/features/point\\_the\\_case\\_for\\_a\\_legal\\_ivory\\_trade\\_it\\_could\\_help\\_stop\\_the\\_slaughter](https://e360.yale.edu/features/point_the_case_for_a_legal_ivory_trade_it_could_help_stop_the_slaughter).

56. See Ann Linder, *Detailed Discussion of Elephants and the Ivory Trade*, ANIMAL LEGAL & HIST. CTR. (2016), <https://www.animallaw.info/article/detailed-discussion-elephants-and-ivory-trade>.

57. *Ivory Sales Get the Go-Ahead*, CONVENTION ON INT'L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (Jan. 12, 2021), [https://cites.org/eng/news/pr/2008/080716\\_ivory.shtml](https://cites.org/eng/news/pr/2008/080716_ivory.shtml). In 2008, the trading partners were Japan and China. *Did a Legal Ivory Sale Increase Smuggling and Poaching?*, NAT'L BUREAU OF ECON. RSCH. (Sept. 9, 2016), <https://www.nber.org/digest/sep16/did-legal-ivory-sale-increase-smuggling-and-poaching>.

58. *Ivory Sales Get the Go-Ahead*, *supra* note 57.



permitted by CITES under strict rules, elephant poaching skyrocketed following the sales, suggesting that it was a bad move.<sup>59</sup>

The legal regime in the international trade of ivory is very similar to that of international trade of rhino horns. The international commercial trade ban on both animal products has been in force for more than forty years, but there are still legal domestic markets in both range states and consumer states.<sup>60</sup> This mismatch provides smugglers and middlemen the opportunity to obtain ivory legally in certain range states and then smuggle them into a consumer state that allows for legal sales.<sup>61</sup>

### III. ANALYSIS

#### A. *The Current International Trade Ban is No Longer Helping the Rhinos.*

##### 1. The Rhino Population Reached the Tipping Point, and We Must Act Now.

Steady decreases in rhino population and slow reproduction require us to act immediately to increase rhino populations before it is too late. The total rhino population has increased from 21,000 in 2009 to 27,300 in 2019.<sup>62</sup> A solid 30% increase in rhino population in isolation might be seen as a success for rhino conservation, especially when this result gets combined with the fact that the recorded number of poached rhinos has declined steadily for the past six years.<sup>63</sup> However, the population decreased from 29,000 in 2017 to 27,300 in 2019, even while the numbers of recorded poaching also decreased.<sup>64</sup> How can we reconcile decreased poaching with decreased total rhino population?

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59. See Busani Bafana, *'Let Us Trade': Debate Over Ivory Sales Rages Ahead of CITES Summit*, MONGABAY (July 11, 2019), <https://news.mongabay.com/2019/07/let-us-trade-debate-over-ivory-sales-rages-ahead-of-cites-summit/>.

60. See Harleen Sehmi, *Closing Legal Markets for Illicit Ivory Will Save Africa's Elephants*, AFRICAN WILDLIFE FOUND. (Apr. 5, 2019), <https://www.awf.org/blog/closing-legal-markets-illicit-ivory-will-save-africas-elephants>.

61. See *id.* ("Japan is home to one of the world's largest ivory markets and continues to have a vibrant domestic trade."); GLOB. RTS. COMPLIANCE, *IVORY TRADE IN JAPAN: A COMPARATIVE ANALYSIS* 3 (2019).

62. *2019 State of the Rhino Report: 10-Year Improvement in World Rhino Populations Offers Cautious Hope*, *supra* note 28.

63. *Poaching Statistics*, SAVE THE RHINO, <https://www.savetherhino.org/rhino-info/poaching-stats/> (last visited Apr. 8, 2022).

64. See SAVE THE RHINO, *supra* note 63; *2019 State of the Rhino Report*, *supra* note 28.

The most ironic but obvious explanation is that the steady decrease in rhino poaching simply results from fewer rhinos to poach.<sup>65</sup> With more vulnerable and less protected populations eliminated, the remaining more vigilant and better protected rhinos scatter across large national parks or reserves.<sup>66</sup> It becomes harder for poachers to gain access to the remaining rhinos when population densities are lower. This new downward trend began in 2017 and shows that even with decreased poaching, more rhinos are poached than are born.<sup>67</sup> Without any human intervention, total rhino population will continue to decrease.

Slow net growth of rhino population is another reason we must start acting immediately. Using the relatively less endangered white rhino, as an example, a female white rhino takes six to seven years to reach sexual maturity and a male, seven to ten years.<sup>68</sup> The average gestation period is sixteen months and the birth intervals per calf is two to three years.<sup>69</sup> It will take, therefore, roughly ten years for a female calf and a male calf to grow up and give birth to a calf of their own. Human intervention cannot speed up this slow reproduction timeline, but without human intervention, a calf might not even be born between a rhino couple within the ten-year period.

## 2. The Current Rhino Horn Trade Ban No Longer Provides Positive Results in Rhino Conservation.

The international legal regime regulating rhino horn needs immediate change. Time is running out for consumer education programs to work, and both major range states and consumer states have begun to implement conflicting domestic laws, which could significantly reduce the effectiveness of the international trade ban on rhino horn. With that ban in place for more than forty years, rhino populations initially bounced back, but then fell from 70,000 in 1970 to 29,000 in 2017.<sup>70</sup> But the tipping point in 2019 signaled the end to the benefit the current international rhino trade ban

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65. Proposal to Remove the Existing Annotation to the Appendix II List of Eswatini's Southern White Rhinos to Enable Full appendix II Status for the Species in Eswatini, 18th meeting of the Conference of the Parties Colombo, May 23–June 5, 2019, CITES, [https://cites.org/sites/default/files/eng/cop/18/prop/020119\\_d/E-CoP18-Prop\\_draft-Ceratotherium-simum-simum-Eswatini.pdf](https://cites.org/sites/default/files/eng/cop/18/prop/020119_d/E-CoP18-Prop_draft-Ceratotherium-simum-simum-Eswatini.pdf).

66. *Id.*

67. See 2019 *State of the Rhino Report*, *supra* note 28.

68. *White Rhino*, HELPING RHINOS, <https://www.helpingrhinos.org/white-rhino/> (last visited Apr. 8, 2022).

69. *Id.*

70. 2019 *State of the Rhino Report*, *supra* note 28.

provides. No single legal regime is perfect and will guarantee positive outcomes forever. Faced with persistent poaching (financed by a robust rhino horn black market) and continued rhino habitat loss, we must devise a new legal regime that better addresses the critical situation rhinos face today, one quite different from the situation they faced in 1977.

Surely, the ultimate solution is to eliminate rhino horn demand altogether. If no one consumes rhino horn, then poaching will stop. “No demand, no killing” is the ideal world we would like to achieve, but it may take generations to change people’s minds because humans have used these animal products for thousands of years.<sup>71</sup> Of course, educational programs on rhino conservation and protection need expansion, but past the tipping point, we may no longer afford to wait for changed minds to work wonders before all rhinos go extinct.

The trend to legalize the domestic rhino horn trade is another reason we must think about changing the current legal rhino horn trade regime. In 2016, at the Seventeenth CITES Conference of the Parties, Swaziland (now Eswatini) submitted a proposal to bring back international trade in white rhino horns, which was rejected.<sup>72</sup> Three years later, at the Eighteenth CITES Conference of the Parties, both Swaziland and Namibia submitted proposals to bring back international rhino horn trade.<sup>73</sup> Although both proposals were rejected,<sup>74</sup> the two countries submitted similar proposals again at the 2022 CITES Conference of the Parties. Swaziland’s white rhino proposal was rejected a third time, but Namibia’s adapted proposal, to downlist its white rhinos from Appendix I to Appendix II with an annotation, was accepted.<sup>75</sup>

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71. See *Reducing Illegal Horn Trade*, SAVE THE RHINO, <https://www.savetherhino.org/what-we-do/reducing-illegal-trade/> (last visited Sept. 29, 2023).

72. See *A Legal Trade in Rhino Horn*, SAVE THE RHINO (Dec. 21, 2018), <https://www.savetherhino.org/thorny-issues/legal-trade-in-rhino-horn/>.

73. See *Proposals for Amendment of Appendices I and II – Eighteenth Meeting of the Conference of the Parties*, CONVENTION ON INT’L TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (Nov. 20, 2020), <https://cites.org/eng/cop/18/prop/index.php>.

74. See *Amendments to Appendices I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora*, Oct. 3, 2019, No. 2019/052, <https://cites.org/sites/default/files/notif/E-Notif-2019-052-.pdf> (demonstrating both proposals were not found in notification to the parties).

75. *Rhino Results at CITES COP19*, INT’L RHINO FOUND., <https://rhinos.org/blog/rhino-results-at-cites-cop19/> (last visited Sept. 29, 2023).

B. *The Proposed New International Legal Regime of Rhino Horn Trade Will Increase Rhino Population and Lower Rhino Horn Demand in the Long-Term.*

1. The New Law Must be in the Form of an International Multilateral Treaty Including All Rhino Range States and Rhino Horn Consumer States.

It is critical to have consensus at least among the major rhino range states and rhino horn consumer states, which includes South Africa, China, and Vietnam, for this legalization process. South Africa is home to the majority of the world's rhinos,<sup>76</sup> while China and Vietnam are the two largest rhino horn consumer states.<sup>77</sup> To build a successful and sustainable international rhino horn trade system, major players on both sides need to cooperate. When a new legal international trade regime forms, the decisions of smaller actors in either rhino range states or rhino horn consumer states will not significantly affect rhino conservation. If they choose to join the newly legalized rhino horn trade, they will be subject to the same requirements and standards. If some range states choose not to join the legalized trade, they will also have a better environment to protect the rhinos within their border because buyers will be directed to range states where legal rhino horn trade exists. If some consumer states choose not to join the legalized trade, individual consumers within those states may try to smuggle rhino horns from legalized states to their countries, which may create regional issues for consumer demand but would not affect the overall conservation of rhinos living in range states.

2. Utilizing the Existing CITES Framework is the Best Way to Achieve the Proposed Multilateral Treaty.

Under the current legal regime, the most convenient way to achieve this multilateral treaty is by passing and adopting new amendments to CITES. As the primary framework for regulating international wildlife trade, CITES has virtually all rhino range states and rhino horn consumer states as current parties, and CITES already includes all five rhino species in the Convention's appendices.<sup>78</sup>

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76. See *A Legal Trade in Rhino Horn*, *supra* note 72.

77. See John C. Cannon, *Investigation Finds "Thriving" Rhino Horn Trade in Asia*, MONGABAY (July 18, 2017), <https://news.mongabay.com/2017/07/investigation-finds-thriving-rhino-horn-trade-in-asia/>.

78. See Conference of the Parties on the Convention on International Trade in Endangered Species of Wild Fauna and Flora, *Conservation of Trade in African and Asian Rhinoceroses*, Res. Conf. 9.14 Rev. CoP19, 1, 4, (2019).

Amending the existing treaty requires less effort than persuading the same states to ratify a new treaty. Further, the existing legal structure of CITES is ready for use in the proposed legalization process. Only international trade in specimens of Appendices I species would be prohibited.<sup>79</sup> International trade in Appendices II specimens would be closely controlled by export permits.<sup>80</sup> Current international trade bans on all five rhino species could easily be lifted by downlisting some subspecies from Appendices I to Appendices II of the Convention. After that, CITES may set up new strictly monitored regulations for the rhino horn trade.

### 3. There Must Be a Multistep Process in the Rhino Horn Legalization to Ensure Long-term Success of the Rhino Horn Market.

Another critical aspect of legalization is the multistep process allowing proceedings to advance toward next steps only upon satisfying certain pre-determined goals. There is need for at least two stages in the legalization process.

Two goals must be reached in Stage One. One goal is to cultivate licensed rhino farms in range states, and the other goal is to register privately owned rhino horns. Currently, almost all remaining rhinos live in national parks and reserves with constant protection from rangers.<sup>81</sup> Because the single most important goal of this proposal is to increase rhino populations, expanding protected rhino habitats and implementing rhino breeding programs are the most direct solutions. Setting up a licensed rhino farm would boost rhino populations in a relatively short period of time. Also, having a steady supply of the product is the prerequisite for building a successful legal market for any product. After several years of cultivation, licensed rhino farms will provide a steady supply of rhino horns to the international market and those rhino horns will be harvested humanely. Some environmentalists may criticize this resolution for its semi-captive treatment of rhinos.<sup>82</sup> But having captive hornless rhinos alive on a farm is far better than the complete extinction of all rhinos.

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79. See Appendices, *supra* note 13.

80. *Id.*

81. See Rhino Facts, WORLD WILDLIFE FUND, <https://www.worldwildlife.org/species/rhino> (last visited Apr. 8, 2022).

82. Ed Stoddard, *Is Trouble Ahead for South Africa's Private Rhino Breeders?*, UNDARK (Dec. 8, 2021), <https://undark.org/2021/12/08/is-trouble-ahead-for-south-africas-private-rhino-breeders/>.

Registration of pre-legalization and post-legalization rhino horns is also crucial to the success of the legalization process. Without this step, people will not be able to tell legal rhino horns (humanely harvested from licensed rhino farms) apart from illegal rhino horns. There is no doubt that even with a legal rhino horn market, a black market will still exist, at least for a limited time either because of the limited supply from rhino farms, or because the legal process for obtaining rhino horn is more complex than acquiring horns from the black market.<sup>83</sup> Poachers will not disappear, so long as there exists a black market. Without this registration process, poachers will receive a permanent get out of jail free card for rhino horns poached before and after legalization. To encourage registration, the framework would have to give people a legal free pass for any illegally obtained rhino horns before a specified date. Otherwise, people with illegally obtained rhino horns would not want to register their horns for fear of punishment. But after completion of rhino horn registration, any newly harvested rhino horns will also be subject to registration. Going forward, any seized rhino horns without a proper registration will be clear grounds for significant criminal penalties to the owner of the unregistered rhino horns.

CITES could achieve this registration goal by adopting a universal tagging system similar to the one used for elephant ivory. Every piece of legally harvested rhino horn should have a unique tag; without it, export would be impossible. The tag should be inspected again once the rhino horns reach the consumer state for import.

Once CITES finishes registration of all pre-legalization rhino horns and rhino populations return to acceptable levels, the legalization process proceeds to Stage Two. Three key issues should be addressed at this stage to ensure a successful transition to a legal rhino horn market. First, the participating states should implement corresponding domestic laws to ensure domestic compliance with this new treaty amendment. Second, to add a layer of protection for this newly formed rhino horn market, member states should consider giving nongovernment organizations standing to sue private parties and organized crime in member state's domestic court. Third, CITES cannot permit a one-off rhino horn sale like the one-off ivory sale in 2008 which sparked a dramatic increase in ivory demand.

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83. See Vu Hoai Nam Dang & Martin Reinhardt Nielsen, *Rhino Horn Consumers Reveal Why a Legal Trade Alone Won't Save Rhinos*, THE CONVERSATION (Jan. 20, 2022, 8:23 AM), <https://theconversation.com/rhino-horn-consumers-reveal-why-a-legal-trade-alone-wont-save-rhinos-173507>.

This newly formed legalized rhino horn market will not function as planned without corresponding domestic laws. The international treaty only imposes international obligations on states but it does not become the states' domestic law if the state's legal system does not provide automatic application of international law in its domestic courts. Therefore, without corresponding domestic laws, licensed rhino farmers or rhino horn buyers would have no incentives to comply with this new treaty knowing that their actions would not be criminalized in their respective countries. This new proposal aims to provide actors in rhino horn trade with a legal alternative, which would look much more appealing when the illegal counterpart comes with a significant penalty.

Once this new amendment is adopted, there should be few obstacles in implementing corresponding domestic law in respective ranger and consumer states because major players in the international rhino horn trade will have already lifted the domestic trade ban or will be in the process of opening the domestic rhino horn market. This amendment is the last green light they need before they can proceed with their planned rhino horn market. All the major players in rhino horn trade are members of CITES. If the next CITES Conference of Parties adopts an amendment, then there is a high possibility that all ranger states and consumer states would vote "yes."

Because poaching is generally addressed with criminal law, only a state's government has standing in poaching prosecution.<sup>84</sup> Governments usually have limited resources and different priorities to balance. Poaching is hardly any state's top crime to prosecute.<sup>85</sup> On the other hand, there are a lot of large international non-government organizations (NGOs) with steady donations and devoted employees trying to do everything within their power to protect rhinos. Major range states should consider giving NGOs special standing in civil litigation against poachers and against the crime syndications behind them.<sup>86</sup> To achieve the optimal deterrence effect, the law should be designed to counter as many motivations behind people's criminal act as possible. Both individual poachers and organized crime groups are motivated by poaching's high profits. So, if being sued means losing the profits from poaching, individual poachers would be reluctant to take the risk. Criminal penalty

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84. Jacob Phelps, *Suing to Protect Valuable Wildlife*, CONSERVATION FRONTLINES (July 14, 2021), <https://www.conservationfrontlines.org/2021/07/suing-to-protect-valuable-wildlife/>.

85. *See id.*

86. *See id.*

would not achieve this result as effectively because many poachers live under extreme poverty and would rather go to jail as long as they still receive the poaching profit to support their families.<sup>87</sup> With the ever-increasing possibility of being sued and losing all poaching profits, individual poachers will be forced to turn away from poaching as a livelihood.

The key lesson to be learned from the unsuccessful one-off sale of ivory is short-term ban lifting will not help the animals. In fact, two one-off sales, while well intentioned to help elephant conservation, “killed” more elephants than they saved. First, for the past twenty years, the ban was lifted twice for ivory sale. Even if both were highly regulated targeted sales, it still created confusion in people’s understanding of ivory trade. Is it legal or is it illegal? Ivory with tag is legal but without tag is illegal? The end consumer of ivory products are individual buyers who generally lack the sophistication to understand this sometimes legal, sometimes illegal situation. Any confusion created by an inconsistency in law creates the misunderstanding that ivory may be legally traded internationally. Second, the one-off ivory sale created an illusion for consumers that the ivory was a “limited edition” product. People are drawn to limited edition products “to highlight their own individuality and social status by owning an exclusive item.”<sup>88</sup> Consumers already considered ivory product luxurious and by making a limited batch of ivory legal, CITES ignited people’s desire to possess ivory even more.<sup>89</sup>

Hence, in order to design a successful legal market for rhino horn, CITES must be clear from the beginning that this legalization process is not temporary. Obviously, demand for rhino horn will increase when legalization begins because the stigma of consuming rhino horn is removed. But consumer demand will not increase as significantly, because they would not worry about missing a “one-off sale” of rhino horn.

#### 4. Allowing the Market to Work Its Wonders Will Eventually Achieve Both Rhino Population Growth and Rhino Horn Consumer Behavior Correction.

The goal of this proposal is to increase rhino population. Because rhino horns are treated as products in consumer states, governments

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87. See Paula Froelich, *A Rhino Poacher in Africa Reveals Why—and How—He Kills the Animals*, N.Y. POST (May 16, 2020), <https://nypost.com/2020/05/16/a-rhino-poacher-in-africa-reveals-why-he-kills-the-animals/>.

88. *The Draw to Limited-Edition Items*, GRUBBRR (Aug. 6, 2020), <https://grubbr.com/why-are-people-so-drawn-to-limited-edition-items/>.

89. *Id.*



and conservationists in range states should adopt the perspective of a rhino horn consumer. In any market, there are two ways to increase the quantity of product supply: increasing production or decreasing demand. The proposed new legal market will impact both supply and demand. Further, legal trade will have a positive impact on other issues the rhinos are facing: the construction of new rhino farms not only creates new habitats for rhinos but also creates jobs for the local people.<sup>90</sup> Once people learn that protecting rhinos is protecting their livelihood, the entire community will turn away from poaching.

Basic market principles apply to rhino conservation because the leading reasons for rhino horn demand are its rareness and high price.<sup>91</sup> Rhino horn is treated as a luxury good by its users, so the theory of luxury goods applies here.<sup>92</sup> Banning trade of rhino horn created a black market, which further drove up prices. The higher the price, the more demand, and few rhino horns will remain on the market. With fewer rhino horns in the market, the price will keep going up. The extremely high price of rhino horn, in turn, attracts more demand because of its economic value and reflection of the owner's wealthy status. This vicious circle will not stop by itself with the current international ban on rhino horn trade. Knowing that the biggest incentive behind rhino horn buyers is its monetary value, lawmakers need to start treating it as a product in the market. The black market for rhino horn is not going anywhere whether there is a legal market for rhino horn or not. But to break the vicious circle mentioned above, a regulated rhino horn market is a must.

Developing licensed rhino farms is critical for legalization and to eventually create a self-sustainable option for rhino conservation. Legalization creates strong incentives for current and potential private conservatory organizations to join forces with the South African government and build rhino farms. Currently, private rhino breeders face financial difficulties establishing rhino farms because of the current international ban on rhino horn.<sup>93</sup> The only sustainable way for

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90. *Reasons for Legalising the Rhino Horn Trade*, SIYABONA AFR., <https://www.krugerpark.co.za/kruger-park-news-reasons-for-legalising-the-rhino-horn-trade-25515.html> (last visited Apr. 9, 2022).

91. See Rhino Facts, *supra* note 81.

92. "By definition, a luxury good is a good for which demand increases more than proportionally as income rises. Luxury goods are said to have high income elasticity of demand. In other words, as people become wealthier, they will buy more and more of the luxury good." Kimberly Caserta, *Luxury Good Demand 2-3* (2008) (B.A. thesis, Boston College) (on file with eScholarship@BC, Boston College University Libraries).

93. *World's Largest "Rhino Farm" at Risk of Collapse*, SAVE THE RHINO (Jun. 19, 2018), <https://www.savetherhino.org/thorny-issues/rhino-farm-at-risk-of-collapse/>.

these farms to continue their work is to harvest rhino horn humanely and to sell them for profit.<sup>94</sup> Every dollar earned by the rhino farm is a dollar taken away from criminals.<sup>95</sup> John Hume, the world's largest private rhino breeder, is a firm believer that legalization is the only way to save rhino populations due to increased costs of rhino conservation.<sup>96</sup> During the first few years, rhino farms would enjoy high prices previously generated by the black market, and part of profits recirculate to rhino conservation. Over a few decades, new suppliers will cause the price of rhino horn to decrease, forcing black market prices to drop as well. Because organized crime picked poaching for its lucrative return<sup>97</sup>, once rhino horn prices drop to a level less profitable than human trafficking or drug trafficking, these criminal syndications will be the first to leave this market. On the other hand, rhino farmers have a different motive: to save rhinos. Thus, they will be the last to leave the market even with decreased profits. Once rhino populations return to healthy numbers, a decline in the number of rhino farms will not be of concern so long as low market prices continue to squeeze out poachers and shut down the black market.

Developing rhino farms not only increases rhino populations but also creates new rhino habitats. In order to provide a healthy and secure environment for rhinos to live and breed, rhino farms need to acquire large tracts of land and convert them to a rhino-friendly environment, if not already so. A farm environment might not sound ideal for rhino lovers, but the harsh fact is that a third of South Africa's rhinos already live on private lands,<sup>98</sup> the modern "natural habitat" for rhinos. Very few rhinos live completely in the wild;<sup>99</sup> the vast majority of them live protected in national parks, reserves, private lands, or other fenced areas.<sup>100</sup>

Rhino farms face two main concerns from the public. First is the concern that rhino horns cannot be harvested without hurting the rhinos. If it did not work with elephant tusk, why would it work with

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94. *Id.*

95. *See A Legal Trade in Rhino Horn, supra* note 72.

96. *Id.*

97. *See* Perrigo, *supra* note 37.

98. Harriet Salem, *Is Farming Rhinos the Only Way to Save Them?*, DELAYED GRATIFICATION (Dec. 24, 2018), <https://www.slow-journalism.com/delayed-gratification-magazine/is-farming-rhinos-the-only-way-to-save-them>.

99. *See Where Do Rhinos Live? And Eight Other Rhino Facts*, WORLD WILDLIFE FUND (Sept. 19, 2019), <https://www.worldwildlife.org/stories/where-do-rhinos-live-and-eight-other-rhino-facts>.

100. *See African Rhinoceros Field Guide—Chapter Four*, DESTINATION WILDLIFE, <https://www.destinationwildlife.com/field-guides/african-rhinoceros/best-places-to-see-african-rhinos> (last visited Sept. 24, 2023).

rhino horns?<sup>101</sup> Second is the concern about the sustainable operation of rhino farms.<sup>102</sup> Some worry that, even with opened international trade of rhino horns, the cost of rhino farms is so high that they may not gain the ability to sustain themselves.<sup>103</sup>

Two major physiological differences between rhino and elephant address the possibility of having a sustainable rhino farm compared to previous failed attempts with elephant tusk. The first difference is the possibility of removal. The elephant tusk is connected to the skull of the animal. To completely remove an elephant's tusks<sup>104</sup> the only methods are either, to kill the elephant and remove the tusk from its skull, or to wait for the elephant to shed the tusk on its own.<sup>105</sup> Thus, the nature of the tusk makes it impossible to implement elephant farming as a conservation measure. The second difference is the possibility of regrowth. A tusk is an elephant's teeth and once removed, it will not grow back.<sup>106</sup> Conversely, rhino horns are like "nails." "Over the course of a thirty-five to forty-year life, a rhino on an 18-month trimming schedule will produce about 130 pounds of horn."<sup>107</sup> Rhino breeder John Hume uses a longer schedule of two to three years, because this operation requires rhinos to be put under anesthesia, which involves medical risk.<sup>108</sup> Even so, this operation is fairly common and was also used by the South African government as a protective measure against poachers during the COVID-19 pandemic.<sup>109</sup>

Some scholars are also concerned that the price of the legal rhino horn will never be able to compete with the price of the illegal rhino horn due to its relatively low fixed cost.<sup>110</sup> One report suggested that

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101. Jordan Trippeer, *Can an Elephant's Tusks Be Pulled Out Without Killing the Animal?*, SCIENCING (June 12, 2019), <https://sciencing.com/can-elephants-tusks-pulled-out-killing-animal-10058725.html>.

102. Geoffrey York, *Could a Legal Horn "Harvest" and Trade Save the Rhino?*, THE GLOBE AND MAIL (Sept. 30, 2016), <https://www.theglobeandmail.com/news/world/could-a-legal-ivory-harvest-and-trade-save-the-rhino/article32164243/>.

103. See Jasper A.J. Eikelboom et al., *Will Legal International Rhino Horn Trade Save Wild Rhino Populations?*, 23 GLOB. ECOLOGY AND CONSERVATION, Jun. 2020, at 1, 5.

104. Trippeer, *supra* note 101.

105. *Id.*

106. Laura Geggel, *Do Elephant Tusk or Rhino Horn Ever Grow Back?*, LIVE SCIENCE (Mar. 31, 2019), <https://www.livescience.com/65117-do-elephant-tusks-or-rhino-horns-regrow.html>.

107. *Id.*

108. See *World's Largest "Rhino Farm" at Risk of Collapse*, *supra* note 93.

109. See Sophie Lewis, *Dozens of Rhinos Dehorned to Prevent Coronavirus Lockdown Poaching Surge*, CBS NEWS (June 5, 2020), <https://www.cbsnews.com/news/dozens-of-rhinos-dehorned-to-prevent-coronavirus-lockdown-poaching-surge>.

110. DANG VU HUAI NAM ET AL., CONSERVING RHINOS BY LEGAL TRADE: INSIGHTS FROM A CHOICE EXPERIMENT ON RHINO HORN CONSUMERS 19–20 (2021).

for rhino horn farms to make a profit, prices must be set at a minimum of \$11,500 per kilogram (around \$25,358 per pound).<sup>111</sup> But the study the report cited was published in 2016, when no large scale rhino farms existed. The study's data was limited to small rhino breeders who had not yet achieved economy of scale. With new legalization efforts, large rhino farms will be built, and operation costs will be much lower after the first few cultivating years. Another major assumption made by the study is that a rhino farm will only continue operation if it can sustain itself independently.<sup>112</sup> But just like all the national parks in South Africa, which are partially funded by the government, newly developed rhino farms may enter into similar agreements. The new business will eventually generate tax income for the government and provide new job opportunities for local people. In exchange, the rhino farm owner could negotiate a deal with the government for a tax rebate or other government resources. These extra savings on costs could increase rhino farm economic competitiveness. Finally, the study did not discuss the conservatory organization, another group of rhino farm operators. These organizations' main purpose for entering the rhino farm business is to explore new ways of rhino conservation. Conservatory organizations usually receive charitable donations as their main source of funding. For this type of rhino farm owners, making ends meet is not determinative of their farm operations. As long as the rhino farm loss can be fully covered by donation revenue, they will not stop rhino farm operations, which means they can set rhino horn prices lower than the \$11,500 per kilogram as calculated in the study.

People consume rhino horns for various reasons. Some reasons can be controlled in relatively short periods of time (value driven desire of rhino horn), but others require decades of effort (misunderstanding of the medical value of rhino horn or religious significance of rhino horn). Conservationists are concerned that if CITES opens up the international rhino horn market, the demand for rhino horn may increase significantly.<sup>113</sup> This conclusion is based on the assumption that most rhino horn purchasers use them in Traditional Chinese Medicine (TCM).<sup>114</sup> But as the latest survey shows, TCM is no longer the main reason why people buy rhino horns in Vietnam. In China, the proposed rhino horn trade is "limited to powdered rhino horn sourced from captive bred animals" and only "qualified"

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111. *See id.* at 19.

112. *See id.* at 4.

113. *See Eikelboom et al., supra* note 103, at 3.

114. *See id.* at 6.

TCM practitioners in “eligible” hospitals have access to rhino horn powders.<sup>115</sup> This process has limited the average consumer’s access to rhino horn powders. Prescription from a qualified TCM practitioner is required before a patient can get access to rhino horn powder, so if rhino horn demand for the purpose of practicing TCM will increase depends heavily upon the TCM practitioner.<sup>116</sup> With the widespread acceptance of Western medicine, almost all Chinese no longer rely exclusively on TCM for medical treatment.<sup>117</sup> And it is widely acknowledged that even though rhino horn does contain some beneficial ingredients, it is neither essential nor magical in TCM practice.<sup>118</sup> The alleged medicinal benefit rhino horn provides could also be achieved by much cheaper Western medicine. Based on a 2018 interview conducted with eighty-four TCM practitioners in Guangdong province, the majority suggested that they are unlikely to increase their prescription of rhino horn over current levels even if rhino horn trade and medicinal use were legalized.<sup>119</sup> The major reason is that the types of cases suitable for rhino horn prescription are rare and if a patient’s condition warrants rhino horn prescription, then the condition is severe enough that the patient most likely requires hospitalization.<sup>120</sup>

Opponents of rhino horn legalization argue that dispensing with the stigma of rhino horn consumption could increase demand to an even higher level.<sup>121</sup> But according to an interview of rhino horn users in Vietnam, there is no stigma in their mind.<sup>122</sup> They see rhinos as exotic animals as they are killed in a remote foreign country, and they are not deterred from using rhino products even with the existence of both an international ban and domestic ban on rhino horn trade.<sup>123</sup>

Using rhino horn as a status symbol might sound more concerning to animal conservationists, but it is a much more controllable

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115. Cheung et al., *supra* note 21, at 2.

116. *See id.* at 3.

117. Xuefeng Shi et al., *Is Traditional Chinese Medicine “Mainstream” in China? Trends in Traditional Chinese Medicine Health Resources and Their Utilization in Traditional Chinese Medicine Hospitals from 2004 to 2016*, 2020 EVIDENCE-BASED COMPLEMENTARY AND ALT. MED., 2020 at 1, 2.

118. *See* Jeremy Hsu, *The Hard Truth about the Rhino Horn “Aphrodisiac” Market*, SCI. AM. (Apr. 5, 2017), <https://www.scientificamerican.com/article/the-hard-truth-about-the-rhino-horn-aphrodisiac-market>.

119. *See* Cheung et al., *supra* note 21, at 1, 3.

120. *See id.* at 5, 8.

121. *See* Dang and Nielsen, *supra* note 83.

122. *See* Rhino Facts, *supra* note 81.

123. *See id.*

demand compared to the demand generated by TCM or religious belief. Because of the high price of the rhino horn, people currently treat rhino horns as investments or luxury products.<sup>124</sup> This value-driven demand will decrease along with rhino horn price once a larger legal trade market exists for rhino horn. Consumers who purchase rhino horn as an investment will be the first group of consumers to lose interest once prices drop. Investors collect rhino horns due to their ever-growing price.<sup>125</sup> Increasing supply and then decreasing price will lower demand as well. The psychology behind luxury purchase is, in sum, about wealth displacement and the feeling of achievement.<sup>126</sup> To a certain point, it is not related to the actual product. To the buyer, it could be a sports car, a diamond, or a rhino horn. The high monetary value shared by all these products is why consumers buy. Hence, lowering rhino horn prices will be the most effective way to discourage these buyers. As the price goes down, more middle and even lower-class people will be able to purchase rhino horns. As rhino horns become more common in average households, they will start losing their role as status symbols. It fits the golden rule of the luxury product industry: luxury brands never want to discount their products because it hurts their brand images.<sup>127</sup> By increasing supply and reducing prices, the market should be able to reverse the mechanism. Once the rhino horn's image as luxury product is shattered, demand for rhino horn will shift to other value-stable luxury products.

#### IV. CONCLUSION

The debate over whether CITES should open the international rhino horn market has been ongoing for several years now. The major concern has always been whether legalization itself will induce a high demand for rhino horn due to the growing popularity of practicing TCM. The newest survey in Vietnam, the biggest rhino horn consumer state in the world, showed changing desires of rhino horn purchasers, which makes legalization a possibility.

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124. See Doak & Olmedo, *supra* note 33.

125. Timothy C. Haas & Sam Ferreira, *Combating Rhino Horn Trafficking: The Need to Disrupt Criminal Networks*, PLOS ONE, Nov. 2016, at 10, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167040>.

126. Pinar Yildirim & Z. John Zhang, *Less is More: Redefining the Luxury Goods Market*, KNOWLEDGE AT WHARTON (Apr. 6, 2021), <https://knowledge.wharton.upenn.edu/article/less-is-more-redefining-the-luxury-goods-market/>.

127. Jenna Sharma, *How Discounting Impacts a Luxury Retailer's Brand Image*, RETAIL BREW (Nov. 8, 2022), <https://www.retailbrew.com/stories/2022/11/08/how-discounting-impacts-a-luxury-retailer-s-brand-image>.

Treating rhino horn as a consumer product as it is perceived by its main users leads to the possibility of using basic market principles in regulating legal rhino horn market. This could provide rhinos a better chance to live.

Of course, this will not be the end of battle against rhino horn consumption. Eventually the only way to save the rhino is to convince people to stop using any rhino product. Educational programs and consumer outreach are critical in every step of rhino conservation. The ideal world of human-nature harmony will not be reached if there is a steady demand for wildlife products. But as of now we need this regulated legal market to boost the rhino population to a less concerning number.

