September 20, 2019

Chair: Scientific Authority
South African National Biodiversity Institute
2 Cussonia Avenue
Brummeria
Pretoria
0001
Republic of South Africa

Re: EIA Comments on South Africa 2019 White Rhinoceros Non-detriment Findings

Dear Scientific Authority of South Africa:

The Environmental Investigation Agency (EIA) is writing in response to the invitation to submit information relating to the non-detriment findings (NDF) for *Ceratotherium simum simum* (Government Gazette No. 42660, Notice No. 1105, dated 22 August 2019). We appreciate the opportunity to provide our comments and for the publication and circulation of written non-detriment findings for public input.

EIA is an international campaigning organization committed to investigating and exposing environmental crime and campaigning to protect endangered species and the natural world. EIA has worked to protect rhinos from poaching and the trade in their horn for nearly 30 years

EIA is opposed to domestic and international rhino horn trade for commercial and non-commercial purposes, except in legitimate scientific or law enforcement cases. EIA has serious concerns about the potential impacts that legal international trade in rhino horn, whether for commercial or primarily non-commercial purposes, will have not only on South Africa's white rhino population but also on all other populations of African and Asian rhino species.

The assertion that the ban on international trade in rhino horn under the auspices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has failed is repeated throughout the NDF. The consistently high level of rhino poaching over the past several years is the primary argument offered to justify this claim. However, labeling the CITES rhino horn trade ban as "failed" is an inaccurate and misleading claim that ignores historical context and key dynamic factors affecting trade including international and domestic politics, governance, economic development, enforcement, technological advancement, and consumer demand.

For instance, after the rhino horn trade ban was enacted in 1977 it took several decades for all rhino range, transit, and consumer states to accede to the Convention, amend legislation to comply with CITES, and implement the trade restriction. The international rhino horn trade ban, reaffirmed most recently at the 18th meeting of the Conference of the Parties to CITES (CITES CoP18) by the vast majority of Parties, including African and Asian rhino range states, has succeeded when Parties affected by rhino poaching and illegal rhino horn trade have instituted and enforced their own supporting domestic trade bans. This was the case in the 1990s and early 2000s after key rhino horn markets in China, Taiwan, Yemen, and South Korea were closed, which caused rhino poaching rates to drop off sharply and allowed rhino populations to begin to recover.[1] Advocating for and instituting policies that promote trade in rhino parts and derivatives undermines the ban and the efforts by the majority of CITES Parties to reduce demand for rhino horn and improve enforcement.

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EIA has focused its comments on the following three conclusions reached in South Africa's 2019 NDF for the Southern white rhinoceros (*Ceratotherium simum simum*) with which we respectfully disagree:

- "Considering the data and information presented in this NDF, it is clear that *C. simum simum* does not meet the biological criteria for inclusion in Appendix I of CITES and a proposal to effect a straight Appendix II listing (i.e. without an annotation) can be considered."
- "The export, for primarily non-commercial purposes, of rhinoceros horn that has been legally sourced, either through natural mortalities and/or horn harvest from wild populations, or from captive breeding facilities, will not be detrimental to the survival of the species in the wild provided that (1) the income derived from these exports contributes directly to the conservation of wild rhinoceros populations and (2) the captive breeding facilities meet the Scientific Authority's approved criteria for the captive breeding of white rhinoceros."
- "The registration of captive breeding facilities in accordance with CITES Resolution Conf. 12.10 (Rev. CoP15) in order to allow for the commercial trade in rhinoceros horn can also be considered."

1. South Africa's population of Southern white rhinoceros is experiencing a marked decline exacerbated by high levels of poaching and illegal trade, and any weakening of its protections under CITES are unwarranted.

EIA disagrees with the conclusion reached by the South African Scientific Authority that *C. simum simum* does not meet the biological criteria for inclusion in Appendix I of CITES and a proposal to effect a straight Appendix II listing (i.e. without an annotation) can be considered.

There is an ongoing marked decline for the continental white rhino population and for South Africa's wild white rhino population, which continues to be impacted by high levels of exploitation and vulnerability to extrinsic factors such as poaching and illegal trade, drought, and disease. The current CITES listing for South Africa's population of Southern white rhinoceros, which deems all specimens to be on Appendix I with exceptions for commercial trade in live animals to appropriate and acceptable destinations and hunting trophies, is justified in accordance with the biological criteria for Appendix I as described in Annex 1 of CITES Resolution Conf. 9.24 on *Criteria for amendment of Appendices I and II*.

A rhino poaching crisis has been raging across Africa for more than a decade which has seen more than 9,200 rhinos killed since 2006. All rhino populations are at risk from poaching and illegal trade, though the vast majority (86 percent) of the poaching in Africa has occurred in South Africa, which has lost at least 7,912 rhinos during this time.

The 2019 NDF for white rhino exports from South Africa was completed in March 2018 and utilizes outdated rhino population estimates from 2015. Updated continental and country-specific population estimates are available from the IUCN Species Survival Commission African rhino specialist group (AfRSG) in its report compiled jointly with TRAFFIC (2019 IUCN/TRAFFIC report) for CITES CoP18.[2]

According to the 2019 IUCN/TRAFFIC report, the continental white rhino population decreased by 15 percent from 2012 to 2017 down to an estimated 18,067 rhinos. By the end of 2017, approximately 15,625 southern white rhinos remained in South Africa.[3] This updated population estimate indicates a decline of eight percent in just two years from the 2015 population estimate of 17,208 rhinos used to inform the 2019 NDF.

From 2012 to 2017, Kruger National Park's white rhino population plummeted by more than half with a net loss of approximately 3,400 rhinos in 2015-2017 alone (after accounting for just over 300 rhinos removed for translocation purposes).[4] The declines recorded in Kruger National Park are conservative estimates given that nearly 20 percent of white rhino carcasses in the park are never detected. According to

Ferreira *et al*. (2018), between 4,750 and 6,165 white rhino carcasses may have gone undetected in Kruger National Park in the years 2016-2017.[5]

A severe, prolonged drought in 2015-2016 affected much of Southern Africa, including Kruger National Park, and exacerbated the poaching impacts on South Africa's white rhino population.[6] White rhinos are more adversely affected by drought conditions than black rhinos due to their reliance on grasses rather than browse, and from 2015-2017 the white rhino population of Kruger National Park exhibited an increased natural death rate and a decreased birth rate. According to Ferreira, le Roex, and Greaver (2019), the recovery of Kruger National Park's white rhino population may now take far longer due to the combined impacts of the drought and poaching, which may have compromised the resilience of the population.[7]

The rapid depletion of wild rhinos in South Africa has caused a significant shift in the proportion of rhinos possessed by the private sector. Privately owned rhinos are raised under a variety of management systems that that range from "semi-wild" to intensively-managed as part of captive breeding operations. The NDF states that approximately 28 percent of South Africa's white rhino population can be found on private land. However, according to the 2019 IUCN/TRAFFIC report more 7,000 rhinos are now found on private land in South Africa and now comprise approximately half of the country's entire white rhino population.[8] According to the definition of the term "wild"[1] offered by the AfRSG[9], it is clear that South Africa's wild white rhino population has experienced substantial declines due to poaching and drought.

Moreover, Annex 4 to Resolution Conf. 9.24 (Rev. CoP17) outlines the precautionary measures that CITES Parties have agreed to follow when considering the transfer of a species from CITES Appendix I to Appendix II. Species included in Appendix I should only be transferred to Appendix II if they do not satisfy the criteria for Appendix I and if *inter alia* the species is not in demand for trade and its transfer to Appendix II will not stimulate trade in or cause enforcement problems for any other species included in Appendix I, or the species is likely to be in demand but the Conference of the Parties is satisfied with appropriate enforcement controls and compliance with requirements of the Convention.

There is clearly significant demand for rhino horn in countries like China and Vietnam where rhino horn is used in traditional medicine or carved into trinkets. Based on publicly available information, between April 2006 and 18 September 2019 EIA has documented 677 rhino horn seizures globally involving approximately 6,732 kg of rhino horn.[10] 1,932 kg of rhino horn has been recovered in seizures made in or linked to China (28.7% percent of total seizures), with another 1,860 kg of rhino horn seized in or linked to Vietnam (27.6 percent of global seizures). This demonstrates that substantial demand for rhino horn exists in these two countries despite their domestic laws prohibiting trade in rhino horn. Much of the horn destined for illegal Asian markets is derived from South Africa. EIA has documented the seizure of approximately 2,493 kg of rhino in South Africa since April 2006.

The threats from commercial rhino horn trade to rhino populations located within and outside of range states that have expressed a desire to engage in commercial rhino horn trade have led CITES Parties to overwhelmingly reject rhino horn trade proposals at the two most recent meetings of the Conference of the Parties to CITES in September 2016[11] and August 2019.[12] Both African and Asian rhino range states voiced their opposition to these proposals, citing among their concerns the potential for legal commercial trade to stimulate demand thereby posing a significant risk to their rhino populations.[13] Indeed, at the 2nd Asian Rhino Range Countries Meeting held in February 2019 the Governments of Bhutan, India, Indonesia, Malaysia, and Nepal signed the New Delhi Declaration agreeing "to call to the attention of all countries that possible opening of international trade of rhino horn and other derivatives will have a severe detrimental impact on rhino populations in Asian rhino range countries."[14]

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[1] "Free ranging, usually in areas greater than 10 km^2, generally in the historic range of the taxon, living at natural density and spacing, without food supplementation, with only very occasional husbandry and veterinary interventions, and a natural breeding system."

South Africa's population of Southern white rhino is declining and remains at significant risk from poaching and illegal trade. EIA recommends no change to the current CITES listing for the Southern white rhino.

2. There is an unacceptable risk that legal rhino horn exports will substantially increase demand for rhino horn and cause rhino poaching rates to skyrocket cancelling out any short-term profits gained from trade.

EIA disagrees with the conclusion reached by South Africa's Scientific Authority that, "The export, for primarily non-commercial purposes, of rhinoceros horn that has been legally sourced, either through natural mortalities and/or horn harvest from wild populations, or from captive breeding facilities, will not be detrimental to the survival of the species in the wild provided that (1) the income derived from these exports contributes directly to the conservation of wild rhinoceros populations and (2) the captive breeding facilities meet the Scientific Authority's approved criteria for the captive breeding of white rhinoceros."

Legal Trade is Likely to Stimulate Demand for Rhino Horn and Increase Poaching

It is alarming that the Scientific Authority has downplayed the potential effects on global rhino poaching rates that could result from legal horn exports increasing demand for rhino horn products in consumer countries, especially considering that poaching is identified as the "current major threat" to South Africa's white rhinos in the NDF. EIA is further concerned that the Scientific Authority has made no commitment to amend its NDF if poaching rates do increase as a result of legal rhino horn exports.

The NDF cites Moyle (2018), who argues that there is no strong empirical or theoretical evidence that stigmatizing demand for rhino horn would be able to compensate for a lack of competition provided by legal trade, yet this argument fails to consider impacts legal trade could have on the level of demand, including the potential to stimulate increased demand.[15] Moreover, the goal of any trade scheme for rhino horn, whether that is commercial international trade or exports for primarily non-commercial purposes derived from commercial domestic trade, will be to maximize rhino horn sales so as to maximize profit regardless of the intended use of the profit. Thus, stimulating demand to increase levels of trade will be at the core of any rhino horn trade scheme, and with no accurate estimate of the potential consumer market for rhino horn in demand countries like China and Vietnam, a precautionary approach to an NDF analysis must heavily weigh the potential for consumer demand to skyrocket and in turn lead to increased poaching.

The NDF also references a study by MacMillan et al. (2017) which concludes that providing Vietnamese consumers an opportunity to acquire legally-sourced rhino horn would "crowd out" horns sourced from poaching because consumers preferred non-lethal harvesting of horn.[16] However, a separate study commissioned by USAID, which was not referenced in the NDF, also examined drivers of rhino horn consumption in Vietnam and in contrast to the findings of MacMillan et al. (2017) revealed that messaging about animal cruelty and extinction did not affect the purchase intentions of consumers, who felt that purchasing rhino horn was acceptable because they were not the ones conducting the killing.[17]

MacMillan et al. (2017) also expected that the price of rhino horn would fall due to a "loss of prestige and exclusivity" of rhino horn brought about by legal trade. This is however inconsistent with other studies that examined consumer attitudes toward rhino horn and other high-value wildlife products. Recent findings by Vu & Nielsen (2018) revealed a preference for wild-sourced rhino horn among Vietnamese consumers suggesting that legal trade could increase demand for poached rhino horn.[18] Similarly, a consistent consumer preference has been documented for wild-sourced big cat parts and derivatives over farmed sources (for example, see Gratwicke et al. (2008)[19] and World Animal Protection (2019)[20]). The results of these studies underscore the high degree of uncertainty with respect to drivers of demand and consumer preferences, which must be sufficiently considered in any precautionary NDF.

Legal Rhino Horn Exports Would Exacerbate Enforcement Challenges

It is also unclear whether the Scientific Authority fully considered the enforcement challenges legal rhino horn exports would pose in South Africa and in transit and consumer countries. As South Africa's experience with rhino pseudo-hunting has demonstrated, it is doubtful that the CITES Management Authority will be able to confidently conclude that exports of rhino horn will be used for primarily non-commercial purposes in the State of import, or that the State of import can ensure that rhino horn would not enter into illegal trade as has occurred previously with rhino hunting trophies.

From 2006 through 2012, South Africa's trophy hunting industry was co-opted by Asian nationals, predominantly of Vietnamese origin, who acquired rhino horns through legal trophy hunts and exported the horns to Asia where they were traded illegally. South Africa allowed these trophy exports to Vietnam to continue for six years despite the evidence of criminal activity and the failure of Vietnam to account for rhino trophy imports. Between 2003 and 2010 Vietnam submitted CITES trade data reporting the import of 170 rhino horns in the form of trophies sourced from South Africa. Vietnam's data failed to account for approximately 75 percent of the 657 horns exported to Vietnam according to the CITES trade data submitted by South Africa.[21] Only after the South African government prohibited the issuance of rhino trophy export permits to Vietnamese nationals in 2012 did the pseudo-hunting phenomenon subside.[22] However, while the NDF claims that pseudo-hunting has now "ceased" because of the amended Norms and Standards instituted in 2012, there is evidence suggesting that pseudo-hunting may still be occurring albeit at greatly reduced levels. For instance, the 2019 IUCN/TRAFFIC report identifies discrepancies in the rhino trophy export data provided by South Africa and import data provided by "non-traditional" trophy hunting countries including China, Malaysia, and Kuwait.[23]

Regardless of whether the South African CITES Authorities would be confident enough that rhino horn exports will legitimately be used for primarily non-commercial purposes to issue an export permit, it is unclear whether other countries would issue import permits for rhino horn considering that most CITES implementing legislation prohibits domestic rhino horn trade and rhino horn imports, except in special circumstances such as for law enforcement or scientific purposes.

South Africa's Legal Domestic Rhino Horn Market Facilitates Illegal Trade

As has been demonstrated for rhino horn and other high-value wildlife products from threatened species including elephant ivory, pangolin scales, and tiger parts, parallel legal markets stimulate demand, complicate enforcement, and provide laundering opportunities.[24] In 2009 a moratorium on domestic rhino horn trade was put in place in South Africa as rhino poaching levels were starting to spiral out of control and the existing regulatory framework for rhino management and trade was increasingly exploited. Pro-trade advocates responded by suing the government, and in April 2017 the South Africa Constitutional Court upheld a lower court ruling repealing the domestic trade moratorium based on the finding that the Department of Environmental Affairs (DEA) made a procedural error when instituting the moratorium.[25]

Before the moratorium was enacted, legal domestic rhino horn trade in South Africa provided opportunities to launder illegally sourced rhino horn onto the legal market and eventually make its way to consumers in Asia. For example, South Africa's permit system for possession and sale of rhino horn was taken advantage of by dealers who would sell multiple horns under the same permit, sometimes for weeks or months at a time.[26]

In 2014, the DEA conducted an analysis on the viability of legalizing domestic rhino horn trade, which ultimately recommended leaving the moratorium intact.[27] The DEA justified its recommendation by noting that the mechanisms for controlling a legal trade in South Africa were not in place, that the amount of rhino horn in privately owned stockpiles was unknown, and that some private rhino owners were noncompliant

with permitting regulations.[28] The DEA concluded that these factors would lead to laundering of illegal horn into stockpiles and trafficking rhino horn abroad if the domestic trade moratorium were lifted.[29] Only after these issues were rectified, and after a "secure, national electronic permitting system and rhino database" was established and utilized by all private rhino owners to disclose the exact contents of their rhino horn stockpiles, would the DEA consider lifting the domestic trade moratorium and consider offering a legal trade proposal at CITES.[30]

The issues identified in the 2014 viability analysis were not addressed before the moratorium was overturned in 2017 nor have they been addressed in the more than two years since domestic rhino horn trade was reinstated in South Africa. No nationwide electronic permitting system has been implemented, there is a backlog for RhODIS DNA analysis requests, and accurate estimates of the total amount of rhino horn kept in private stockpiles remains unknown, presenting a major risk that poached or otherwise illegally-acquired horn can be laundered through these stockpiles.[31]

Draft regulations for a legal domestic rhino horn trade framework were published for public comment in February 2017,[32] and a second set of draft regulations was published in October 2018 after the NDF was prepared, yet at time of writing these regulations have not been finalized.[33] EIA has serious concerns with both sets of draft regulations, which are described in comments submitted by the Species Survival Network in response to the February 2017 draft regulations,[34] and in comments submitted by EIA in response to the October 2018 draft regulations.[35]

Despite these enforcement risks, the government of South Africa has issued dozens of permits to buy and sell thousands of rhino horns since the moratorium was lifted in 2017. As of July 31, 2019, 23 permits were issued for the sale of 2,075 rhino horns and an undisclosed number of permits were issued to 27 buyers.[36]

Already, South Africa's domestic rhino horn market has been linked to illegal trade according to the DEA, which has expressed its "serious concern that some of the rhino horn which was sold in terms of permits issued by the department as part of the legal domestic trade bas been linked to illegal activities."[37] One of the most high-profile cases of illegal trade facilitated by South Africa's legal domestic market involved the April 2019 seizure of 167 rhino horns that originated from the stockpile of a private rhino owner who operates the largest captive rhino breeding facility in South Africa.[38] The horns were being transported without the proper permits and were allegedly destined for "South East Asian markets" according to the official police statement.[39] While the suspects were reportedly set to appear in the Brits Magistrate's Court on July 12, 2019, it is unclear if this occurred and the current status of the case is unknown.

Moreover, recent seizures of rhino horn in Asia originating from South Africa may be linked to illicit sales of rhino horn from private stockpiles.[40] It is crucial that the South African authorities and their counterparts in countries that have made these rhino horn seizures cooperate on enforcement action, including DNA analysis of seizures, to determine the source and nature of the illegally traded horns.

Allowing exports of rhino horn for primarily non-commercial purposes is a backdoor attempt to circumvent the position held by the majority of CITES Parties that international trade in rhino horn is detrimental to the survival of wild rhino species. Moreover, maintaining a domestic rhino horn market that is linked to illegal activities fails to comply with a decision adopted at CITES CoP18 for Parties to close domestic rhino horn markets that contribute to poaching or illegal trade.[41] EIA urges South Africa to prohibit exports of rhino horn and rhino horn products for non-commercial purposes and close its domestic rhino horn market to comply with the CITES decision adopted at CITES CoP18. At the very least, the Scientific Authority should commit to revising its NDF if legal exports result in increased poaching and illegal trade.

Criteria for Captive Breeding Facilities are Not Publicly Available

The NDF references 2018 *Criteria for the captive breeding of white rhinoceros* (Ceratotherium simum simum) *in South Africa* published by the South African National Biodiversity Institute, which reportedly incorporate the management practices of South Africa's largest rhino captive breeding operation. However, it appears that the criteria are not publicly available. This lack of transparency makes it impossible to determine the degree to which the approved captive breeding criteria could contribute to preventing detrimental impacts to wild rhinos resulting from trade in captive-sourced rhino horn.

3. Captive breeding of rhinos for commercial purposes undermines efforts to conserve wild rhinos and should not be supported under any circumstances.

EIA disagrees with the conclusion reached by the South African Scientific Authority that it is appropriate to consider registering a captive breeding facility with CITES to allow for legal international commercial trade in white rhino horn.

Registration of any captive breeding facility for a CITES Appendix I-listed species is subject to the approval of CITES Parties as described in Resolution Conf. 12.10 (Rev. CoP15). It is the position of the vast majority of CITES Parties that the ban on international commercial trade in rhino horn should be maintained for the benefit of the survival of all rhino species. Indeed, this was reaffirmed by the outcome of the recent vote on Eswatini's proposal at CITES CoP18 to trade in rhino horn from its population of Southern white rhino (25 in favor, 102 opposed, and 7 abstentions).[42] It is therefore likely that a Party would object to the registration of the captive breeding operation and the Standing Committee would need to consider whether or not to accept the application.

As established earlier in these comments, EIA is opposed to domestic and international rhino horn trade for commercial and non-commercial purposes, and the arguments presented previously are largely applicable to international commercial trade in rhino horn sourced from a registered captive breeding operation.

As noted by Taylor et al. (2017), legalizing international trade in rhino horn may incentivize private rhino owners to convert their rhino management schemes to intensive breeding operations so as to maximize horn production, which could lead to wild rhino populations becoming more uncommon with negative consequences for wild rhino conservation.[43] This is especially true for registered captive breeding operations since this could incentivize the private rhino owner community to adjust their management practices to meet the CITES conditions for "animal species bred in captivity" under Resolution Conf. 10.16 (Rev.) and the registration requirements detailed in Resolution Conf. 12.10 (Rev. CoP15). As the AfRSG has previously recognized, the primary emphasis of rhino conservation should be wild rhino populations, and attention and funds should not be deflected away from this dominant priority.[44]

All rhino populations remain at risk from poaching and illegal trade. International commercial trade in rhino horn from CITES registered captive breeding facilities would exacerbate these threats by increasing demand for rhino horn, undermining the CITES international trade ban, and incentivize captive rhino breeding at the expensive of wild rhino conservation efforts. EIA therefore believes it is not appropriate to consider the registration of a rhino captive breeding facility with CITES to allow for international commercial trade in rhino horn.

Conclusion

The Southern white rhinoceros (*Ceratotherium simum simum*) remains at significant risk from poaching and illegal trade, in addition to other compounding threats such as drought and disease. South Africa's population of southern white rhino in decline, which has in turn resulted in a decrease in the continental

white rhino population by approximately 15 percent from 2012 to 2017. Global seizure data demonstrates that the demand for rhino horn remains significant, especially in China and Vietnam.

International trade in rhino horn, whether for commercial purposes or primarily non-commercial purposes, would increase demand for rhino horn that could generate a catastrophic rise in poaching levels for all rhino species. The international community has recognized the substantial risks associated with the trade in rhino horn, and has repeatedly upheld the CITES ban on international trade in rhino horn. Repealing this trade ban, or circumventing the ban through the exploitation of exemptions and loopholes, ignores the risks posed to rhinos by trade in their horn and undermines demand reduction and enforcement efforts employed by the global community.

EIA opposes all domestic and international trade in rhino horn, with the exception of legitimate scientific and law enforcement purposes, and respectfully disagrees with the three main conclusions reached in this NDF that: exports of rhino horn for non-commercial purposes would not be detrimental to the survival of wild rhinos, that it is appropriate to consider a straight Appendix II listing for the white rhino, and that it is appropriate to consider the registration of rhino captive breeding facilities with CITES. EIA urges South Africa to prohibit exports of rhino horn and rhino horn products for non-commercial purposes and to close its domestic rhino horn market to consistent with the decision[45] adopted at CITES CoP18.

Sincerely,

Taylor Tench
Policy Analyst
Environmental Investigation Agency

[1] Reeve, R. (2014). Policing international trade in endangered species: the CITES treaty and compliance. Routledge.
[2] CITES 18th Conference of the Parties 2019. CoP18 Doc. 83.1 Annex 2 African and Asian Rhinoceroses – Status, Conservation and Trade
[3] Id.
[4] Id.
[5] Ferreira S. M., Hass T., Le Roex, N, Greaver, C. and Simms, C. (2018b). *Evaluating the protection of rhinoceroses from poaching*. Unpublished SANParks report.
[6] CoP18 Doc. 83.1 Annex 2
[7] Ferreira SM, le Roex N, Greaver C (2019) Species-specific drought impacts on black and white rhinoceroses. PLoSONE 14(1):e0209678.https://doi.org/10.1371/journal.pone.0209678
[8] CoP18 Doc. 83.1 Annex 2
[9] Leader-Williams, N., Brett, R. A., Brooks, M., Craig, I., du Toit, R. F., Emslie, R., ... & Stockil, O. (1997). A scheme for differentiating and defining the different situations under which live rhinos are conserved. Pachyderm, 23, 24-28.
[10] EIA data available upon request.
[11] CITES 17th Conference of the Parties 2016. CoP17 Plen. Rec. 4 (Rev. 1)
[12] CITES 18th Conference of the Parties 2019. CoP18 Plen. Rec. 3
[13] CITES 17th Conference of the Parties 2016. CoP17 Com. I Rec. 14 (Rev. 2)
[14] New Delhi Declaration to secure the future of Asian Rhinos. (2019). The 2nd Asian Rhino Range Countries Meeting
[15] Moyle, B., 2018. Wildlife markets in the presence of laundering: a comment. *Biodiversity* & *Conservation* 26: 2979-2985.
[16] MacMillan, D., Bozzola, M., Hanley, N., Kasterine, A. & Sheremet, 0., (2017). Demand in Viet Nam for rhinoceros horn used in traditional medicine, International Trade Centre, Geneva, Switzerland.
[17] GlobeScan (2018). *USAID Saving Species Research Study on Consumer Demand for Elephant, Rhino and Pangolin Parts and Products in Vietnam*. October 2018, USAID Saving Species Vietnam (USS). Hanoi, Viet Nam.
[18] Dang Vu, H. N., & Nielsen, M. R. (2018). Understanding utilitarian and hedonic values determining the demand for rhino horn in Vietnam. Human dimensions of wildlife, 23(5), 417-432.
[19] Gratwicke, B., Mills, J., Dutton, A., Gabriel, G., Long, B., Seidensticker, J., ... & Zhang, L. (2008). Attitudes toward consumption and conservation of tigers in China. *PloS one*, *3*(7), e2544.
[20] World Animal Protection. 2019. *Trading Cruelty – how captive big cat farming fuels the traditional Asian medicine industry*. London, United Kingdom.
[21] Milliken, T. and Shaw, J. (2012). *The South Africa – Viet Nam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates.* TRAFFIC, Johannesburg, South Africa.
[22] Id.
[23] CoP18 Doc. 83.1 Annex 2
[24] EIA. (2012). *Blood Ivory*. London, United Kingdom; Xu, L. et al. (2016). *An Overview of Pangolin Trade in China*. TRAFFIC, Cambridge, United Kingdom; EIA. (2013). *Hidden in Plain Sight*. London, United Kingdom.
[25] Bale, R. (2017). *Breaking: Rhino Horn Trade to Return in South Africa*. National Geographic.
[26] Hübschle, A. (2016). A game of horns: transnational flows of rhino horn (Doctoral dissertation, Universität Köln Köln).
[27] South Africa Department of Environmental Affairs. (2014). The viability of legalising trade in rhino horn in South Africa.
[28] Id.
[29] Id.
[30] Id.

[31] South Africa Department of Environmental Affairs. (2019). Rhino Species Conservation and Trade in South Africa, Part 1. Side Event to the 18th Conference of the Parties to CITES
[32] Government Gazette, No. 40601, Notice No. 74, dated 8 February 2017
[33] Government Gazette, No. 41919, Notice No. 986, dated 21 September 2018
[34] SSN. (2017). Comments on South Africa's Draft Regulations for the Domestic Trade in Rhinoceros Horn or a Part, Product or Derivative of Rhinoceros Horn. Available at: https://eia-international.org/wp-content/uploads/SSN-RWG-comments-on-draft-South-African-rhino-trade-regulations.pdf
[35] EIA comments available upon request.
[36] South Africa Department of Environmental Affairs. July 2019. Department of Environment, Forestry and Fisheries reports back on rhino poaching in first six months of 2019.
[37] Id.
[38] Beega, S. (2019). *SA's largest private rhino breeder, John Hume, says seized horns are his property.* Saturday Star.
[39] South African Police Service. 2019. https://www.saps.gov.za/newsroom/msspeechdetail.php?nid=20103
[40] EIA. (2019). *Stop the Slaughter: Close Domestic Rhino Horn Markets*. Washington, DC, USA
[41] CITES 18th Meeting of the Conference of the Parties. 2019. CoP18 Com. II Rec. 9
[42] CoP18 Plen. Rec. 3
[43] Taylor, A., Balfour, B., Brebner, D. K., Coetzee, R., Davies-Mostert, H., Lindsey, P. A., Shaw, J. and 't Sas-Rolfes, M. (2017). *Sustainable rhino horn production at the pointy end of the rhino horn trade debate*. Biological Conservation 216: 60-68. http://dx.doi.org/10.1016/j.biocon.2017.10.004.
[44] Leader-Williams, N., Brett, R. A., Brooks, M., Craig, I., du Toit, R. F., Emslie, R., ... & Stockil, O. (1997). A scheme for differentiating and defining the different situations under which live rhinos are conserved. Pachyderm, 23, 24-28.
[45] CoP18 Com. II Rec. 9