

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Sixteenth meeting of the Conference of the Parties
Bangkok (Thailand), 3-14 March 2013

Interpretation and implementation of the Convention

Species trade and conservation

Rhinoceroses

REPORT OF THE SECRETARIAT

1. This document has been prepared by the Secretariat.

Overview

2. Illegal trade in rhinoceros horn continues to be one of the most structured criminal activities currently faced by CITES. There are clear indications that organized criminal groups are involved in rhinoceros poaching and illegal trade in rhinoceros horn.
3. Some populations of rhinoceroses could be seriously affected by continued high levels of poaching and go into decline if the illegal killing continues to escalate at the current rate, especially in southern Africa.
4. The Secretariat has engaged in a number of initiatives and conducted a wide range of activities in support of enforcement efforts to combat rhinoceros poaching and the illegal trade in rhinoceros horn since the 15th meeting of the Conference of the Parties (CoP15, Doha, 2010). In May 2011, the Secretariat convened a CITES Ivory and Rhinoceros Enforcement Task Force and distributed an updated briefing document on the *Poaching of and illegal trade in rhinoceros*. In 2012, in collaboration with the United Nations Television (UNTV), it produced a video documentary titled *Rhinos under threat*¹. The Secretariat also contracted TRAFFIC to conduct an assessment of available scientific evidence related to the use of rhinoceros horn in traditional medicine and further supported the development of a project, approved by the Governing Council of the Global Environment Facility (GEF), focusing on white and black rhinoceroses as key species and aimed at strengthening wildlife forensic capabilities in South Africa to combat wildlife crime. Detailed information on these and other activities is presented in this document.
5. At its 15th meeting (Doha, 2010), the Conference of the Parties adopted the following Decisions on *Conservation of and trade in African and Asian rhinoceroses*:

Directed to the Secretariat

15.71 *The Secretariat shall:*

- a) *examine the implementation of Resolution Conf. 9.14 (Rev. CoP15) in those range States where illegal killing of rhinoceros poses a significant threat to populations of rhinoceros, particularly Zimbabwe and South Africa;*

¹ See http://www.cites.org/eng/news/pr/2012/20120618_rhinos_under_threat_rio.php.

- b) *examine progress with regard to curtailing illegal trade in rhinoceros parts and derivatives by implicated States, particularly Viet Nam; and*
- c) *report on the implementation of Resolution Conf. 9.14 (Rev. CoP15) at the 61st, 62nd and 63rd meetings of the Standing Committee.*

15.72 *The Secretariat shall:*

- a) *facilitate, as a matter of urgency, and with others partners as appropriate, bilateral exchanges between key rhinoceros range States and rhinoceros horn consumer States, to improve wildlife enforcement cooperation efforts;*
- b) *report at the 61st and 62nd meetings of the Standing Committee (SC61 and SC62) on these efforts;*
- c) *seek funds to convene a joint CITES Ivory and Rhinoceros Enforcement Task Force. Besides the Secretariat, members should include the ASEAN Wildlife Enforcement Network Programme Coordination Unit, INTERPOL, the Lusaka Agreement Task Force, the United Nations Office on Drugs and Crime, the World Customs Organization and those Parties in Africa and Asia that are currently most affected by the smuggling of ivory and rhinoceros specimens. Priority should be given to including the following Parties: Cameroon, China, Ethiopia, Kenya, the Lao People's Democratic Republic, Mozambique, Nepal, the Philippines, South Africa, Thailand, the United Arab Emirates, the United Republic of Tanzania, Viet Nam and Zimbabwe. The Task Force should undertake an exchange of intelligence regarding smuggling of ivory and rhinoceros specimens and develop strategies for combating illegal trade; and*
- d) *report on the work of the Task Force at SC61.*

Directed to the Standing Committee

15.73 *At its 61st and 62nd meetings, the Standing Committee shall consider the reports of the Secretariat requested under Decision 15.72 and determine what further actions, if any, are necessary.*

- 6. As required in Decision 15.73 the Standing Committee reviewed this subject at its 61st and 62nd meetings (SC61 and SC62, Geneva, August 2011 and July 2012)².
- 7. The Secretariat issued Notification to the Parties No. 2012/014 of 20 February 2012 to facilitate its reporting at SC62 and to assist the Standing Committee Rhinoceros Working Group, established at SC61, in implementing its mandate. Responses to the Notification were received from the 27 Member States of the European Union and eight other Parties, and made available to the Working Group (chaired by the United Kingdom of Great Britain and Northern Ireland). The Working Group welcomed these responses but requested further information on the outcomes of actions taken to tackle the current crisis, in order to assess what measures were successful and could be transferred to other countries. On 27 August 2012, the Secretariat issued Notification to the Parties No. 2012/053 to facilitate its reporting at the 63rd meeting of the Standing Committee and to assist the Rhinoceros Working Group in fulfilling its mandate. Responses were received from the 27 Member States of the European Union and four other Parties, and provided to the Working Group.
- 8. At SC62, the Standing Committee called on Viet Nam to submit a written report to the Secretariat, by September 2012, describing its progress in the implementation of Resolution Conf. 9.14 (Rev. CoP15) on *Conservation of and trade in African and Asian rhinoceroses*, and in support of the activities to be conducted by the Working Group. The Secretariat would like to take this opportunity to thank Viet Nam for the comprehensive report that it provided in response to this request.
- 9. Document CoP16 Doc. 54.1 (*Report of the Working Group*) was prepared by the Chair of the Rhinoceros Working Group and has been submitted with the approval of the Chair of the Standing Committee. It describes the activities and the recommendations of the Working Group, and also provides an overview of

² See documents SC61 Doc. 45.1, SC62 Doc. 47.1 and SC62 Doc. 47.2.

the responses received following Notifications to the Parties Nos. 2012/014 and 2012/053, and the report from Viet Nam (as mentioned in paragraph 8 above). The Secretariat will provide comments on document CoP16 Doc. 54.1 directly in that document.

10. The Secretariat has limited to South Africa, Viet Nam and Zimbabwe its detailed reporting on the implementation of Resolution Conf. 9.14 (Rev. CoP15) by specific Parties which is requested in Decision 15.71 paragraphs a) and b). In addition, however, it has also reported on other relevant matters.

11. In resolution Conf. 9.14 (Rev. CoP15), the Conference of the Parties:

RECOMMENDS that the IUCN/SSC African and Asian Rhino Specialist Groups and TRAFFIC submit at least six months before each meeting of the Conference of the Parties a written report to the Secretariat on:

- a) the national and continental conservation status of African and Asian rhinoceros species;*
- b) trade in specimens of rhinoceroses;*
- c) stocks of specimens of rhinoceros and stock management;*
- d) incidents of illegal killing of rhinoceroses;*
- e) enforcement issues;*
- f) conservation actions and management strategies with an evaluation of their effectiveness; and*
- g) measures by implicated States to end the illegal use and consumption of rhinoceros parts and derivatives;**

DIRECTS the Secretariat to:

- a) distribute the report of the IUCN/SSC African and Asian Rhino Specialist Groups and TRAFFIC to range and implicated States for any comments;*
- b) on the basis of the report and the comments received from the range and implicated States, formulate recommendations and draft decisions for consideration by the Conference of the Parties as appropriate; and*
- c) encourage the Parties to financially support the IUCN African and Asian Rhino Specialist Groups and TRAFFIC in the compilation of information from the range States and the reporting thereof to the Secretariat.*

12. The Secretariat received the final version of the report from the IUCN/SSC African and Asian Rhino Specialist Groups and TRAFFIC in late December 2012 (see Annex 2). The Secretariat would like to take this opportunity to thank IUCN and TRAFFIC for their report.

13. The draft report indicates that overall populations of both African species, the white rhinoceros (*Ceratotherium simum*) and the black rhinoceros (*Diceros bicornis*), continued to increase in the wild despite high and increasing levels of poaching. White rhinoceros populations now total about 20,165 individuals, and black rhinoceros populations about 4,880.

14. With regard to the Asian species, the draft report indicates that numbers of the greater one-horned rhinoceros (*Rhinoceros unicornis*) has increased from 2,540 in 2005 to 3,624 at present. The Indochinese subspecies of the Javan rhinoceros (*Rhinoceros sondaicus annamiticus*) is now extinct with the last individual having been poached in Viet Nam in 2012, and the nominate subspecies of the Javan rhinoceros (*Rhinoceros sondaicus sondaicus*) is now only found in one small population of 35 to 45 individuals in west Java, Indonesia. The Sumatran rhinoceros (*Dicerorhinus sumatrensis*) is currently

* The presentation of this list in seven paragraphs was agreed at the 61st meeting of the Standing Committee, as part of the non-substantive review of the Resolutions conducted in compliance with Decision 14.19. As the Spanish and French reviews are less advanced, the text in those languages still appears divided in two paragraphs only.

restricted to a few isolated populations in Sabah (Malaysia) and Sumatra (Indonesia), and no confirmed records are available that indicate any Sumatran rhinoceroses remain in Cambodia, Myanmar or Thailand.

15. The number of rhinoceroses illegally killed in South Africa has reached its highest levels in recent history and off-take will eventually become unsustainable if poaching incidents continue to increase at current rates. Responses received following Notifications to the Parties Nos. 2012/014 and 2012/053 indicates a variety of measures implemented by Parties to put an end to the current high levels of rhinoceros poaching and the associated illegal trade in rhinoceros horn. Despite these measures and significant resources being invested to combat rhinoceros poaching and illegal rhinoceros horn trade and commendable efforts by enforcement authorities in a number of countries, the number of rhinoceroses poached on an annual basis continues to rise at an alarming rate.
16. Illegal trade in rhinoceros horn continues to be one of the most structured criminal activities currently faced by CITES. There are clear indications that organized crime groups are involved in rhinoceros poaching and illegal rhinoceros horn trade. These groups operate in range States as well as Europe, where thefts of rhinoceros horns from museums, auction houses, antique shops and taxidermists have occurred. Seizures have also been made in Australia, Hong Kong SAR and the Philippines. In the United States of America, seven people were arrested on charges of illegal trafficking rhinoceros horn in February 2012. Illegal rhinoceros horn trade has therefore become a major problem and has an impact on several continents. Increased international cooperation and a well-coordinated law enforcement response are required to address this threat effectively.

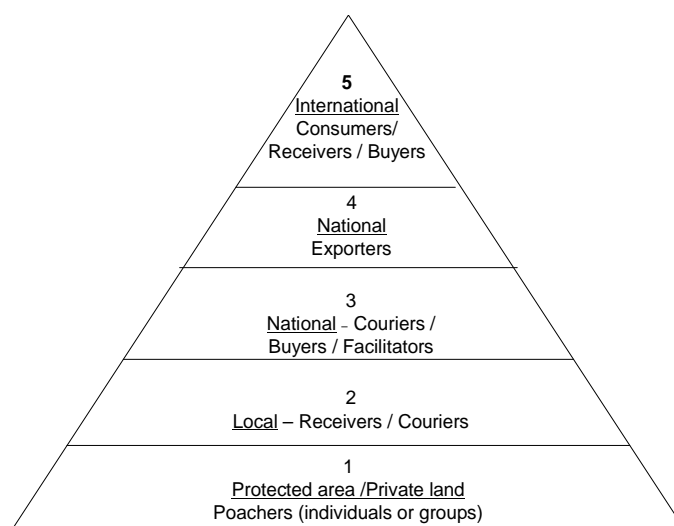
South Africa

17. Rhinoceros poaching incidents in South Africa and Zimbabwe account for an estimated 94 % of all recorded rhinoceros deaths in Africa since 2006. Table 1 below demonstrate the growing threat to which these species are exposed, with 2011 and 2012 displaying the highest levels of poaching of white and black rhinoceroses in South Africa in recent history. .

**Table 1: Number of rhinoceroses poached each year
in South Africa for the period 1 January 2007 to 16 October 2012.**

2007	2008	2009	2010	2011	2012 (16 October)
13	83	122	330	448	455

18. Intelligence gathered by South African enforcement authorities clearly indicate the involvement of organized crime groups in rhinoceros poaching. As highlighted in the diagram below, reported at SC62, the structure of organized crime groups involved in rhinoceros related crimes in South Africa has five different levels, from poachers to the end consumer.



Five levels in the structure of organized crime groups involved in rhinoceros poaching and illegal rhinoceros horn trade in South Africa

19. Investigation complexity differs significantly between Levels 1 and 5. Current enforcement activities in rhinoceros range States address criminal syndicate members from Levels 1 to 3 relatively effectively. However, these individuals are often easily replaced and the threat will continue to exist for as long as enforcement activities do not address the driving force behind these individuals (Levels 4 to 5). From 1 January 2012 to 16 October 2012, South African authorities arrested a total of 207 offenders involved in illegal trade in rhinoceros horn. Table 2 reflects the different levels of criminal activity with which these arrested suspects were associated. Organized crime syndicate members on Levels 4 and 5 are often located in consumer countries and beyond the reach of enforcement authorities in range countries. For this reason, increased international cooperation and coordination are vital. The Secretariat continues to believe that considerable scope exists for increased communication, collaboration and coordination between relevant enforcement agencies at national and international level. The Secretariat has drafted a decision with the aim of achieving this goal (see Annex 1 to this document).

Table 2: Arrests in South Africa from 1 January 2012 to 16 October 2012 at each level of the criminal chain.

Levels in the criminal chain	Number of suspects arrested
Level 1 (poachers)	179
Level 2 (receivers / couriers)	10
Level 3 (couriers / buyers / facilitators)	18
Level 4 (exporters)	0
Level 5 (consumers / receivers / buyers)	0
	Total: 207

20. In February 2012, South Africa’s National Department of Environmental Affairs (DEA) advised its Provinces to stop issuing hunting permits to Vietnamese citizens until such time as Viet Nam had verified and confirmed that hunting trophies exported from South Africa to Viet Nam were still in legal possession of hunters as hunting trophies. In April 2012, the DEA also issued revised norms and standards for the marking of rhinoceros and rhinoceros horn and for the hunting of rhinoceros for trophy hunting purposes. Compulsory attendance by a wildlife official is now legally required at all rhinoceros hunts, and hunting *curriculum vitae* from applicants which show their hunting bona fides and experience in their country of origin and with African game are now required before permits may be granted. The norms and standards also require mandatory DNA sampling of horns.

21. These measures were implemented to prevent pseudo-hunting, whereby individuals with no hunting experience or background are recruited by organized crime groups to hunt rhinoceroses with the purpose of obtaining their horns for purposes other than hunting trophies. The counter-measures have proved

effective in that they resulted in a change in *modus operandi* used by criminal networks: whilst applications for hunting permits from Viet Nam significantly decreased after these measures were implemented, authorities became aware of an increase in hunting permit applications from other countries not historically associated with rhinoceros trophy hunting. In this regard, the Czech Republic's response to Notification No. 2012/053 indicated that Czech citizens, usually from one area in northern Bohemia, were reported to be recruited by individuals with contacts in the Vietnamese community living in the Czech Republic. These recruited "hunters" are not members of any Czech hunting association, do not have hunting licences and have no previous hunting experience. They allegedly travel to South Africa to hunt a rhinoceros at a selected location, identified by the recruiter. Expenses of the "hunter" are paid by the recruiter, and the recruiter requires the "hunter" to sign a declaration to give up the hunting trophy in favour of the recruiter after the hunt. The "hunter" returns to the Czech Republic after the hunt and the recruiter then obtains an export permit for the rhinoceros horn to be exported to the Czech Republic as a personal hunting trophy of the hunter. Once the trophy reaches the Czech Republic it is laundered into illegal trade. Authorities in the Czech Republic and South Africa have been cooperating to address this new trend.

22. At SC62, the Secretariat reported that an increasing number of professional hunters were getting involved in illegal rhinoceros horn trade. The trophy from a legal hunt is exported to the hunters after the hunt, but once the hunters received the trophies in their home countries, some hunters remove the real horn from the trophy and replace it with a fake horn³. In light of these new trends, Parties are encouraged to implement adequate legislation and enforcement controls, to prevent horns that are part of legally exported trophies from being used for other purposes, and to ensure that these trophies remain in the possession of their owners for the purpose indicated in the CITES export permit. The Secretariat further encourages all Parties that issue permits or certificates authorizing the movement of specimens of rhinoceroses, including pre-Convention certificates, to advise the countries of destination, so that the true nature of the trade may be scrutinized.
23. The South African Government appointed a Rhinoceros Issues Manager (RIM) in 2012. The RIM will coordinate a National Rhinoceros Dialogue process which was started in South Africa and has consulted widely to determine how best to meet a number of rhinoceros conservation goals. As part of a dialogue process, seven consultative meetings were held in South Africa from May to August 2012 on a range of rhinoceros-related matters. The RIM will prepare a report with recommendations for the South African Minister of Environmental Affairs.
24. The Secretariat believes that South Africa has put in place comprehensive measures to control trophy hunting adequately and to avoid pseudo-hunting. The effectiveness of these measures is reflected in the significant decrease in applications for hunting permits from Viet Nam, as well as through the identification of the changed *modus operandi* of crime groups mentioned in paragraph 21 above. The Secretariat hopes that South Africa will maintain its rigorous approach to checking with destination countries if they have measures in place to monitor and regulate the movement and possession of rhinoceros horn. Parties are encouraged to implement measures at the national level to ensure that rhinoceros horns acquired as legal hunting trophies remain in lawful possession.
25. In South Africa, the number of rhinoceros-related arrests and convictions with deterrent custodial sentences without the option of a fine has increased. In a number of cases, criminals involved in rhinoceros poaching and illegal rhinoceros horn trade have been sentenced to six to 12 years' imprisonment, and in two further cases the offenders were sentenced to 25 and 29 years imprisonment.

Viet Nam

26. At SC61, the Secretariat reported that a workshop on multi-agency national and international coordination and collaboration had been organized by TRAFFIC and the Wildlife Conservation Society, in conjunction with the Government of Viet Nam. This meeting was held in Ha Noi, Viet Nam, in early December 2010. Specialized staff from the International Consortium on Combating Wildlife Crime (ICWC) acted as resource persons during the event. These included officials from ICPO-INTERPOL and the United Nations Office on Drugs and Crime in Bangkok, the World Customs Organization's Regional Intelligence Liaison Office in Beijing and the CITES Secretariat in Geneva. A senior official from the ASEAN Wildlife Enforcement Network (ASEAN-WEN) Programme Coordination Unit in Bangkok and a wildlife law enforcement officer from South Africa also participated. The workshop allowed officials in Viet Nam to discuss with their international counterparts and colleagues the difficulties they face in combating illegal

³ See document SC62 Doc. 47.2.

trade in wildlife. Special attention was given to illegal trade in tigers, elephant ivory, pangolins and rhinoceros horn. The workshop built upon an exchange between law enforcement officials from South Africa and counterparts in Viet Nam, which had been facilitated by TRAFFIC in October 2010⁴.

27. Governmental officials from Viet Nam visited South Africa in September 2011 to discuss the illegal trade in rhinoceros horn. This visit, also facilitated by TRAFFIC, followed the October 2010 mission of a five-member South African delegation to Hanoi and Ho Chi Minh City, Viet Nam, to discuss rhinoceros horn trafficking between the two countries. One of the outcomes from the bilateral cooperation was an agreement to develop a Memorandum of Understanding (MoU) on improving efforts to enhance wildlife protection. It is expected that this MoU will be signed in late 2012.
28. Rhinoceros horn has historically been used in traditional medicine in Asia to treat, *inter alia*, fever and cerebrovascular disease. However, the current levels of demand appear to be driven by other factors such as a belief that rhinoceros horn may act as an effective treatment for cancer. Further, a new trend has developed in Viet Nam, with the horn being increasingly used to cure the effects of over consumption of recreational drugs for example alcohol. Possession of one or more rhinoceros horns is also regarded as a status symbol amongst some rich and influential individuals and some have even suggested that individuals may be stockpiling horns and be banking on extinction⁵.
29. Intelligence suggests that significant quantities of rhinoceros horn are destined for markets in Viet Nam, but that traders are becoming increasingly flexible in the routes used to smuggle the illegal horns. For example, on 23 August 2012, Hong Kong Customs intercepted a parcel declared as "ceramic sculpture", en route from Mozambique to Viet Nam. During examination, five pieces of rhinoceros horn weighing a total of 13.62 kg were found. On 25 August 2012, the Bureau of Customs of Manila, Philippines, seized six pieces of rhinoceros horn weighing 8.5 kg, which had arrived at the Manila International Container Port from Mozambique. And on 14 September 2012, a Vietnamese citizen was arrested at Hong Kong International airport in possession of 18 pieces of rhinoceros horn. Intelligence on individuals of Asian nationalities involved in the trade in South Africa suggests that the majority of Asian nationals arrested in South Africa for rhinoceros crimes were from Viet Nam, followed by China and Thailand. The measures implemented by South Africa to prevent pseudo-hunting, and intelligence received from the Czech Republic as discussed in paragraphs 20 and 21 of this document, suggests that criminal groups have been implementing new strategies to facilitate the ongoing flow of illegal rhinoceros horns to Viet Nam.
30. Legislation in Viet Nam makes provision for custodial sentences of two to seven years, and fines of up to USD 25,000 for offences related to illegal trade in rhinoceros horn. Nevertheless, arrests and prosecutions related to this illegal trade appear to be limited.
31. At SC62, the Standing Committee encouraged Viet Nam to:
 - i) *as a matter of urgency, conclude the stock check of rhinoceros hunting trophies to verify the use of such trophies at the national level, as described in paragraph 6 [of document SC62 Doc. 47.2]; and*
 - ii) *fully investigate incidents where results of such verifications indicate that individuals are no longer in possession of horns they imported as trophies, and share the results of such investigations with countries where the trophies originated from to ensure that all possible links of the criminal chain can be fully investigated.*
32. From the report subsequently submitted by Viet Nam (see paragraph 8 above), it is evident that there remain loopholes in the legal system with regard to rhinoceros horn trophies. Viet Nam reported that rhinoceros horn owners are not allowed to sell their rhinoceros horn trophies and that national regulations also prohibit the selling of rhinoceros horn. However, Viet Nam further reported that its national legislation does not make provision for rhinoceros horns that are donated or disposed of as gifts to other persons, since Viet Nam's national civil law determines that the owner of the trophy has the right to decide how to use it. It is indicated that many hunters cut the rhinoceros horn trophies into pieces to give away to family members or friends as souvenirs after the import of legal hunting trophies into Viet Nam. Some also cut the rhinoceros horns into pieces to make various articles such as lamp bases, bowls or cups. Since the hunting trophy is a personal effect, authorities in Viet Nam find it difficult to control and monitor such

⁴ See document SC61 Doc. 45.1.

⁵ See <http://oxrep.oxfordjournals.org/content/28/1/180.full?sid=2767d944-6e9c-44c4-a56e-ce0107b3a83d>.

articles. There are currently no regulations or sanctions in Viet Nam for individuals that are no longer in possession of a trophy. Likewise, there is no regulation in place that makes it compulsory to keep the horn intact and not be disposed of without prior authorization.

33. In its report to the Secretariat, Viet Nam indicated that, in June and July 2012, the CITES Management Authority conducted random checks of imported rhinoceros hunting trophies of 40 hunters. The results of these checks were as follows:
- Seven hunters had the whole horn in their possession and kept them as trophies in their houses with legal documents;
 - Nine hunters had cut the horns into small pieces, of which some had been kept and the rest had been given away to relatives or friends;
 - Six hunters had used the horns to make various articles such as lamp bases, candle holders, bowls or cups;
 - Eleven hunters were not at home and the imported horns could not be inspected; and
 - Seven hunters no longer possessed the rhinoceros horns. Some declared that they had lost or given away the horns, or gave other reasons. None of them stated that they had sold the horns and the Management Authority indicated that it would be difficult to prove or to find evidence that they sold the horns.
34. The Secretariat is of the opinion that the results of the verification of rhinoceros hunting trophies give cause for concern. It is evident that a large number of trophies have not been retained as such once they entered Viet Nam, and significant scope exists for rhinoceros horns from trophies legally imported into Viet Nam to be laundered into illegal trade. In its report to the Secretariat, Viet Nam stated that rhinoceros horn was neither commonly nor widely used in the country. Nevertheless, there is evidence that rhinoceros horn is destined for illegal markets in Viet Nam. In this connection, the Secretariat believes that more can be done to identify those individuals who supply the illegal Vietnamese market with rhinoceros horns that were legally and illegally imported into the country. These individuals represent Levels 4 and 5 of the crime chain described in paragraph 18 and 19 above, and identification and prosecution of these role players would significantly contribute to addressing the entire organized crime chain. Viet Nam should investigate the fate of each rhinoceros trophy that was imported into the country and it should expeditiously adopt legislation to address the existing regulatory void that checks have brought to light. The Secretariat has drafted a decision in this regard, which is contained in Annex 1 to this document.
35. The Secretariat was encouraged to learn from the report of Viet Nam that the Prime Minister issued an order to the Ministry of Agriculture and Rural Development, Ministry of National Defence, Ministry of Public Security, Ministry of Finance, Ministry of Industry and Commerce and all Provinces, to increase enforcement actions to combat illegal trade in wildlife, including rhinoceros horn. Viet Nam reported a number of initiatives to combat illegal trade in rhinoceros horn, and wildlife crime in general, more effectively. This includes the establishment of the Viet Nam Wildlife Enforcement Network (Viet Nam-WEN) in 2010, a number of training courses to strengthen enforcement capacity to combat illegal wildlife and rhinoceros horn related crimes, investigations into the sale of rhinoceros horn in traditional medicine pharmacies and on the Internet, and a range of other activities. The Secretariat, however, remains concerned about Viet Nam's implementation of Resolution Conf. 9.14 (Rev. CoP15), in particular the implementation of paragraph b) and f) under the first "URGES". The Secretariat has drafted a decision to address this concern, which is contained in Annex 1 to this document.

Zimbabwe

36. The draft report of the IUCN/SSC African and Asian Rhino Specialist Groups and TRAFFIC highlights that Zimbabwe is experiencing relatively high levels of poaching and that white rhinoceros numbers in that country have dropped below 300 individuals and those of black rhinoceros below 500. Zimbabwe has submitted a report to the Secretariat in response to Notification to the Parties No. 2012/014. This indicates that a total of 46 rhinoceroses (36 black and 10 white) died between January and December 2011. Out of these mortalities, 35 (28 black and seven white) were poached and the remainder (11) died of other causes. Zimbabwe further reported that this was less than in 2010 when 52 rhinoceroses had been poached. The report received from Zimbabwe indicates that 433 rhinoceroses were poached between

2000 and 2011 and that, on average, the rate of poaching was 39 rhinoceroses per year, i.e. between three and four per month.

37. Zimbabwe further reported that there was an increase in the rate of poaching of both species over the 12-year period (2000-2011), and that 2003 marked the start of increased poaching that had reached its peak in 2008. Poaching was responsible for 78 % of deaths of black rhinoceroses and 67 % of deaths of white rhinoceroses over this period. It was further reported that poaching peaked when the economic situation of the country was at its worst, between 2007 and 2008. The Zimbabwe Parks and Wildlife Management Authority and most of the rhinoceros custodians were then at their weakest in terms of supporting and resourcing their field operatives. It is however reported that there was a yearly reduction in the numbers of rhinoceroses that were poached in the period from 2009 to 2011.
38. Zimbabwe reported that it has continued to support the existence of Intensive Protection Zones (IPZs) for black rhinoceroses on State land since the early 1990s. Black rhinoceroses were captured in areas of high risk of poaching and relocated to four IPZs throughout the 1980s and in the early 1990s where resources for conservation were concentrated. During the same time, some rhinoceroses were moved onto private properties where they are being conserved on a custodianship basis.
39. From 1 January 2011 to 31 December 2011, there were 13 serious incidents between enforcement authorities and rhinoceros poachers and illegal rhinoceros horn dealers. Five poachers were killed and 37 poachers and dealers were arrested in these incidents. Two vehicles, six rhinoceros horns, 12 rifles and 297 assortment of ammunition were recovered. Three cases were brought to court and the offenders were convicted. The other cases are pending. The Secretariat noticed from the report that deterrent sentences of respectively 12, 13 and 21 years' imprisonment were passed in the three cases that went to court.
40. The report further highlighted a number of activities that are being conducted in Zimbabwe and include, amongst others, joint operations, resource mobilization and improved border control. Zimbabwe reported that the biggest challenges faced in relation to rhinoceros conservation were the targeting and successful prosecution of poachers associated with organized crime groups, habitat loss, and inadequate resources for law enforcement and awareness programmes.

CITES Ivory and Rhinoceros Enforcement Task Force

41. In accordance with Decision 15.72, and thanks to funding provided by the European Commission, the Secretariat convened a CITES Ivory and Rhinoceros Enforcement Task Force from 17 to 19 May 2011 at the United Nations Office in Gigiri, Kenya⁶. The meeting was attended by 20 officials representing wildlife authorities, Customs, national parks, the police and enforcement agencies from 12 countries (China, Ethiopia, Kenya, Mozambique, Nepal, the Philippines, South Africa, Thailand, the United Kingdom, the United Republic of Tanzania, Viet Nam and Zimbabwe). ICPO-INTERPOL, the Lusaka Agreement Task Force, the World Bank and the World Customs Organization were also represented. The Task Force considered intelligence supplied by Australia, Canada and the United States.
42. The CITES Ivory and Rhinoceros Enforcement Task Force meeting enabled an excellent exchange of information regarding illegal trade in specimens of rhinoceroses. The Task Force also agreed that the briefing document on *Poaching of and illegal trade in rhinoceros*, prepared by the Secretariat following a CITES Rhinoceros Enforcement Task Force meeting in Nairobi, Kenya, in November 2008, should be updated and re-distributed⁷. The purpose of that document was to bring to the attention of political and law enforcement policy-makers and senior managers the serious levels of crime against rhinoceroses.
43. The Secretariat subsequently used the intelligence gathered during the 2011 Task Force meeting to update the briefing document and the revised version was distributed in September 2011, observing the restricted-circulation rating of the document.
44. The World Bank, as a partner in ICCWC⁸ has significant capacity in the field of anti-money laundering and asset recovery, and it offered to provide its expertise in these fields at the 2011 Task Force meeting.

⁶ See http://www.cites.org/eng/news/pr2011/20110524_taskforce.shtml.

⁷ See document SC58 Doc. 37.

⁸ See document CoP16 Doc. 15.

45. The sophisticated organized crime groups involved in the illegal trade in rhinoceros horn earn significant amounts of money through their activities. The Secretariat believes that anti-money laundering and asset recovery capacity-building material and related training could contribute significantly to the fight against illegal rhinoceros horn trade and other wildlife crimes. Legislation in African rhinoceros range States make provision for imprisonment and fines to serve as a deterrent to rhinoceros crime. Prescribed fines with maximum amounts, however, often lose their value after a few years because of inflation. With the rapid increase in black market prices and increasing involvement of organized crime, mandated maximum fines often bear little relation to the value of rhinoceros related crimes. It is therefore important that persons arrested for involvement in rhinoceros-related crimes be charged and tried under a combination of relevant laws that carry the highest penalties, whenever possible.
46. Assets worth USD 6.7 million were seized from three members of an organized crime syndicate, prosecuted for crimes related to rhinoceros poaching and illegal rhinoceros horn trade, in a prominent South African case. In another South African case, an offender was sentenced to eight years' imprisonment and a fine of USD 125,000 (to go to the Environmental Management Inspectorate) after being convicted of un-permitted dehorning of rhinoceros, and illegally trying to sell the rhinoceros horns. The Asset Forfeiture Unit also confiscated his game farm, vehicles, and other property to the value of another USD 1,390,000. Wildlife legislation should, as far as possible, be supported by anti-money laundering and asset forfeiture legislation when offenders targeting wildlife are members of organized crime groups.
47. It is evident that the effective use of anti-money laundering and asset forfeiture legislation in wildlife crime cases will benefit not only the rhinoceros but also a wide range of CITES-listed species. The use of such legislation, as appropriate, will prevent criminals from benefiting from the proceeds of their crimes and will further promote deterrent penalties. The Secretariat believes that, combined with strict penalties, this will be an effective deterrent and that it will significantly contribute to putting an end to the current high levels of wildlife crime.
48. Participants in the Task Force meeting also agreed that greater communication, collaboration and coordination were needed at national and international levels, and they committed to increasing the exchange of information. The Secretariat is encouraged by the report submitted to it by South Africa in response to Notification to the Parties No. 2012/014, indicating that draft MoUs on wildlife trafficking and enforcement, and in particular on increased cooperation with regard to rhinoceros-related matters were being prepared for signature with China and Viet Nam.

Forensic technology and controlled deliveries

49. The Governing Council of the Global Environment Facility (GEF) has approved a project, endorsed by the Secretariat, which will strengthen wildlife forensic capabilities in South Africa to combat wildlife crimes⁹. The aim of the South African project is to ensure the sustainable use of protected wild fauna and flora by strengthening enforcement and the use of wildlife forensics.
50. Through this project, it is envisaged that South Africa's capacity to conduct wildlife crime forensic analysis will be strengthened. It is also foreseen that South Africa will then be in a position to provide wildlife forensic support to other countries affected by wildlife crime in the region. The initial phase of this project will focus on white and black rhinoceroses as key species, but it can be broadened to include others¹⁰.
51. The use of forensics to link seized wildlife products to crime scenes and implicated suspects will contribute to the investigation, facilitate the identification and successful arrest of implicated suspects, and promote successful prosecution.
52. South Africa has developed methods for analysing nuclear DNA from rhinoceros horns. The Rhino DNA Index System (RhoDIS) was developed and is run from South Africa's University of Pretoria's Veterinary Genetics Lab (VGL). RhoDIS allows individual rhinoceros to be identified from horn, blood, tissue, etc. Special sample collection kits and data forms have also been developed and widely distributed. Conservation officers and enforcement authorities have been trained in DNA collection techniques to ensure that the chain of evidence is maintained and that information collected can be used in court. Over 5,500 samples have been collected and submitted to the VGL. Other range States in Africa are also

⁹ See http://www.cites.org/eng/news/pr2012/20120613_rhino_project.php.

¹⁰ See document SC62 Doc. 47.2.

collaborating and there are ongoing efforts to include more DNA samples from the continent's rhinoceroses into this database. To date, samples from Botswana, Kenya, Namibia, Swaziland and Zimbabwe have been submitted to and included in the database.

53. The use of DNA forensics in cases of illegal trade in rhinoceros horn has already proven to be very effective. DNA evidence has been used successfully in a number of rhinoceros-related cases in South Africa and it is routinely used in numerous criminal investigations. International cooperation is bearing fruit as a recent Kenyan investigation has also been aided by DNA analysis.
54. In mid-November 2011, China seized 33 rhinoceros horns and a number of ivory products in Hong Kong SAR¹¹. The Secretariat has noticed that very good cooperation is taking place between China and South Africa and that experts from South Africa will visit China to collect DNA samples from the seized rhinoceros horn, which will aid in establishing the origin of the rhinoceros horns and could lead to prosecutions. The Secretariat has noted that the collection of these samples is subject to a request for Mutual Legal Assistance in Criminal Matters between China and South Africa, and Parties are reminded that the exchange of specimens that could be used as evidence in court must always be done in accordance with relevant legislation regulating the exchange of such specimens.
55. Given that South Africa is home to 73 % of the wild rhinoceroses in the world, the current large number of rhinoceroses poached in South Africa and the comprehensive DNA database that South Africa maintains, the provision of DNA samples can greatly assist in linking seized horns to specific rhinoceros poaching scenes. Such evidence can therefore significantly contribute to addressing the entire crime chain and Parties are encouraged to provide DNA samples from rhinoceros horn seizures to authorities in South Africa when the origin of such horns is not known.
56. Through interaction with different authorities the Secretariat has learnt that significant uncertainty exists amongst many Parties with regard to the most appropriate procedure to follow when CITES specimens are exchanged internationally for judicial purposes. Investigation officers and other relevant authorities are often confronted with the challenge of identifying the most appropriate way through which such specimens should be exchanged between the country of seizure and country of origin or, alternatively, between the country of seizure and the country where an appropriate wildlife forensic facility is available. The different options may include: an official request for Mutual Legal Assistance in Criminal Matters, as in the case between China and South Africa mentioned in paragraph 54 above; or registering the seizure as an ICPO-INTERPOL project to facilitate the repatriation of samples or to take samples for research purposes, noting that, if the latter option is used, such samples can normally not be used as evidence in court due to legislative requirements.
57. The Secretariat is conscious that national legislation and requirements will be different from country to country, but it believes that it would be useful to develop guidelines on procedures that can be used for the international exchange of CITES specimens to be used as evidence in court. The Secretariat has drafted a decision in this regard, which is contained in Annex 1 to this document. The Secretariat takes this opportunity to remind Parties that it has established a Memorandum of Understanding with the forensic science laboratory of the U.S. Fish and Wildlife Service, which has offered to make its facilities available to CITES Parties. Attention is also drawn to CITES Alert No. 13, which provides information on ballistic evidence support that may be particularly relevant to Parties experiencing poaching.
58. The use of specialized investigation techniques, such as controlled deliveries, can also significantly impact on organized crime groups and their activities, by ensuring that the entire crime chain from country of origin to countries of transit and destination is addressed.
59. Although seizures can be regarded as an indicator of successful enforcement activity, investigations too often stop at the point of seizure. Thorough follow-up investigations through the use of available wildlife forensic technology or specialized investigation techniques are vital to ensure that all possible leads are pursued and that all possible evidence is gathered to identify, trace, arrest and prosecute criminals at every level of the crime chain.
60. The Secretariat is conscious that the right circumstances must prevail to implement specialized investigation techniques successfully. However, it is also convinced that the opportunities that present

¹¹ See Notification to the Parties No. 2012/020 of 6 March 2012.

themselves are not always explored and utilized. The Secretariat has drafted a decision in this regard, which is contained in Annex 1 to this document.

CITES rhinoceros documentary

61. Thanks to external funding provided by the Marshall Foundation, the CITES Secretariat, in cooperation with the United Nations Television (UNTV), has developed a video documentary about the current surge in the illegal killing of rhinoceroses and international trade in rhinoceros horn, and the efforts deployed by authorities in South Africa and Viet Nam to address these problems. Filming for this documentary, titled *Rhinos under threat*, took place in South Africa, Swaziland and Viet Nam¹². This documentary should assist in raising awareness of the scale and impact of rhinoceros poaching and illegal trade in rhinoceros horn. It should also provide insight into ongoing initiatives and promote a better understanding of the nature of the threat. The film was premièred on 18 June 2012 at the prestigious Odeon cinema in Rio de Janeiro. This launch took place during the Rio+20 United Nations Conference on Sustainable Development, as part of the Good Planet Film Festival led by UNEP Goodwill Ambassador Yann Arthus-Bertrand¹³. The documentary will also be screened during the present meeting.
62. China has informed the Secretariat that this documentary will be used as part of a public education programme that is being developed. The Czech Republic has also informed the Secretariat that the documentary will be used to raise awareness amongst the enforcement community with regard to rhinoceros related crimes.
63. The Secretariat would like to express its sincere appreciation to the South African Police Service, the South African National Prosecution Authority, South African National Parks, the Onderstepoort Veterinary Genetics Laboratory, University of Pretoria, Big Game Parks, Swaziland, the CITES Management Authority of South Africa, the CITES Management and Scientific Authorities of Viet Nam, the Press Department of the Ministry of Foreign Affairs of Viet Nam and the Radio and Television Section, United Nations Information Service, Geneva, without which the production of this documentary would not have been possible.

Assessment of the use of rhinoceros horn as traditional medicine

64. With financial support from the United Kingdom, the Secretariat contracted TRAFFIC in March 2012 to identify available scientific evidence and documented evidence of traditional cultural practices and beliefs related to the medicinal properties of rhinoceros horn, and in particular their alleged curative properties for cancers and strokes.
65. The ensuing report is based on a literature review and information collected by non-governmental organizations (particularly TRAFFIC offices in East and Southeast Asia), and focuses on five historical consumer markets¹⁴.

Other related matters

66. Poachers originating from Mozambique have been involved in numerous poaching incidents in South Africa's Kruger National Park. The Secretariat believes that the implementation of the convention could be significantly improved in Mozambique. The Secretariat corresponded with the CITES Management Authority of Mozambique on 19 September 2012, following the two seizures referred to in paragraph 29 of this document. Mozambique was requested to submit a report to the Secretariat in response to Notification to the Parties No. 2012/053. At the time of writing, no reply had been received. The Secretariat intends to assist Mozambique with the development of adequate legislation to implement CITES, and the requested report would greatly help with identifying other possible areas of assistance.
67. In January 2011, the Secretariat conducted a mission to Nepal, which provided an opportunity to liaise with the Chief Wildlife Warden of Chitwan National Park, which has been a site of significant poaching of rhinoceroses in the past. It was pleased to learn that poaching has greatly diminished¹⁵. Since this

¹² See <http://www.youtube.com/watch?v=t3m7FOXOLbY&feature=plcp>.

¹³ See http://www.cites.org/eng/news/pr2012/20120618_rhinos_under_threat_rio.php.

¹⁴ See document SC62 Doc. 47.2 Annex (Rev. 2).

¹⁵ See document SC61 Doc. 45.1.

mission, the Secretariat has become aware of media reports indicating that rhinoceros numbers in Nepal have increased significantly in recent years, thanks to tightened security against poachers and community-based conservation programmes¹⁶. The draft IUCN/SSC African and Asian Rhino Specialist Groups and TRAFFIC report indicate that, since CoP15, rhinoceros poaching in Nepal has declined, and in the last 17 months, only one rhinoceros has been poached in the country (in Chitwan National Park, which is a UNESCO World Heritage Property and home to 94 % of Nepal's rhinoceroses), with no reported poaching in 2011. UNESCO has commended the Nepalese authorities for their successful efforts to protect endangered species, and particularly rhinoceroses in their national parks. Such success should be considered against the background of the heavy poaching that occurred during the recent socio-political unrest, when at least 149 rhinoceros were poached between 1999 and mid-2007.

68. Increasing alarm for the fate of the two rarest rhinoceros species, the Javan and Sumatran rhinoceroses, and growing concern over the increased illegal hunting of rhinoceroses and demand for rhinoceros horn affecting all five species of rhinoceros, prompted President Susilo Bambang Yudhoyono of Indonesia to declare 5 June 2012 the start of the International Year of the Rhino. The Year of the Rhino draws attention to the plight of rhinoceroses and the Secretariat welcomes this initiative.

Final remarks

69. Illegal rhinoceros horn trade is conducted by sophisticated organized crime groups and involves the use of specially-recruited couriers and fraudulent hunters, money-laundering, fraudulent applications for hunting licences and CITES documents, violations of currency controls and corruption of officials.
70. Adequate legislation and enforcement controls to ensure that trophies remain in the possession of their owners for the sole purpose indicated in the CITES export permit is essential and enforcement authorities should be legally empowered to conduct inspections to ensure that such trophies remain in lawful possession.
71. The Secretariat believes that draft decisions related to anti-money laundering, controlled deliveries and the establishment of Wildlife Incident Support Teams, as proposed in other enforcement and species-specific documents prepared for the present meeting, will also positively impact on the prevention of rhinoceros poaching and illegal trade in rhinoceros horn and that they will complement the draft decisions proposed in Annex 1 below.

Recommendations

72. The Conference of the Parties is invited to note this document and adopt the draft decisions contained in Annex 1 to the present document.
73. Decisions 15.71, 15.72 and 15.73 have been implemented and the Secretariat proposes that they be deleted.

¹⁶ See document SC62 Doc. 47.2.

DRAFT DECISION OF THE CONFERENCE OF THE PARTIES

Rhinoceroses

Directed to all Parties

16.AA All Parties should:

- a) report rhinoceros horn seizures to countries of origin if origin can be determined, to enable such countries to conduct appropriate follow up investigations;
- b) fully exploit rhinoceros horn seizures by using innovative investigation techniques, such as controlled deliveries and the forensic technologies at their disposal, as appropriate, in cases related to illegal rhino horn trade;
- c) advise the countries of destination when they issue permits or certificates authorizing the movement of specimens of rhinoceroses, including pre-Convention certificates, so that the true nature of the trade may be scrutinized.

Directed to all Parties where rhinoceros horn is consumed

16.BB All Parties where rhinoceros horn is consumed should engage in public awareness and demand reduction campaigns highlighting the current serious levels of criminality associated with illegal trade in rhinoceros horn and the impact of illegal trade on the species. Demand-reduction strategies should be implemented for an adequate duration and on a large enough scale to achieve a measurable change in consumer behaviour that will reduce consumption of rhinoceros horn of illegal origin.

Directed to Viet Nam

16.CC Viet Nam should expeditiously adopt legislation to strengthen its control of trade in rhinoceros horn by implementing control mechanisms to verify that individuals who import rhinoceros horn trophies do not use it for other purposes. An investigation should be initiated where individuals that are no longer in possession of the horns they had imported.

Directed to the Secretariat

16.DD The Secretariat shall:

- a) subject to external funding, convene a CITES Rhinoceros Enforcement Task Force consisting of representatives from Parties affected by rhinoceros poaching and illegal trade in rhinoceros horn, the International Consortium on Combating Wildlife Crime partner organizations, EUROPOL and, as appropriate, other Parties and experts. The Task Force should develop strategies to improve international cooperation, taking into consideration ongoing initiatives (such as the Memorandum of Understanding (MoU) between South Africa and Viet Nam), and promote similar MoUs as appropriate;
- b) subject to external funding, develop, in conjunction with relevant institutions and experts, a manual containing guidelines on best practices, protocols and operational procedures, that will promote the use of wildlife forensic technology;
- c) examine the implementation of Resolution Conf. 9.14 (Rev. CoP15) in those range States where the illegal killing of rhinoceros poses a significant threat to the populations of these species, particularly Mozambique, South Africa and Zimbabwe;
- d) examine progress with curtailing illegal trade in rhinoceros parts and derivatives by implicated States, particularly Viet Nam; and
- e) report on progress with the implementation of this Decision at the 65th and 66th meetings of the Standing Committee, and formulate recommendations as necessary.



African and Asian Rhinoceroses – Status, Conservation and Trade

A report from the IUCN Species Survival Commission (IUCN/SSC) African and

Asian Rhino Specialist Groups and TRAFFIC to the CITES Secretariat

pursuant to Resolution Conf. 9.14 (Rev. CoP15)*

Richard H Emslie^{1,2}, Tom Milliken^{3,1} and Bibhab Talukdar^{2,1} (compilers)

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² IUCN/SSC Asian Rhino Specialist Group (AsRSG)

³ TRAFFIC

1. Introduction

The CITES Parties, through Resolution Conf. 9.14 (Rev. CoP15), have mandated IUCN/SSC's African Rhino Specialist Group (AfRSG), Asian Rhino Specialist Group (AsRSG) and TRAFFIC to prepare a report for the 16th meeting of the Conference of the Parties (CoP16) "on the national and continental conservation status of African and Asian rhinoceros species, trade in specimens of rhinoceros, stocks of specimens of rhinoceros and stock management, incidents of illegal killing of rhinoceroses, enforcement issues, and conservation actions and management strategies, with an evaluation of their effectiveness" and "measures by implicated states to end illegal use and consumption of rhino parts and derivatives. This report primarily deals with trends since CoP15 and constitutes fulfilment of that mandate.

2. African Rhinos

2.1 Status and trends

Continental rhino numbers were updated at the AfRSG meeting in March 2011, with estimates reflecting the population status of Africa's rhinos as of December 2010. The AfRSG should be able to provide Parties with updated statistics as of December 2012 at CITES CoP16. Despite high and increasing levels of poaching, both rhino species have continued to increase in the wild, with **white rhino** (*Ceratotherium simum*) up from 17,475 in 2007 to 20,165 and **black rhino** (*Diceros bicornis*) up from 4,230 in 2007 to 4,880 (Table 1 & Figure 1). The IUCN Red List status of the two African species remains unchanged with the white rhino *Near Threatened* and the black rhino *Critically Endangered*.

* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

Table 1: Estimated numbers of African rhino by country as of 31 December 2010 (IUCN/SSC AfRSG)

Species Subspecies	White rhino				Black rhino				
	<i>C.s.cottoni</i>	<i>C.s.simum</i>	Total	Trend	<i>D.b.bicornis</i>	<i>D.b.michaeli</i>	<i>D.b.minor</i>	Total	Trend
	(northern)	(southern)			(south-western)	(eastern)			
Angola					1			1	?
Botswana		135	135	Up			7	7	Up
Kenya	4	361	365	Up		594		594	Up
Malawi							24	24	Up
Mozambique		6	6	Down			1	1	?
Namibia		469	469	Up	1,750			1,750	Up
South Africa		18,796	18,796	Up	171	60	1,684	1,915	Up
Swaziland		88	88	Up			17	17	Stable
Tanzania						88	25	113	Up/Down?
Uganda		9	9	Up					
Zambia		7	7	+Intro			27	27	Up+Intro
Zimbabwe		290	290	Down			431	431	Down
Totals	4	20,160	20,165	Up	1,920	740	2,220	4,880	Up

(With exception of northern white rhino subspecies, Continental totals rounded to nearest 5)

The majority of Africa's (black and white) rhinos (98.3 %) continue to be conserved by four range States: South Africa, Namibia, Kenya and Zimbabwe (Table 1). Botswana, Tanzania and Swaziland each conserve over 100 rhinos with smaller numbers in Zambia, Malawi, Uganda, Mozambique and Angola.

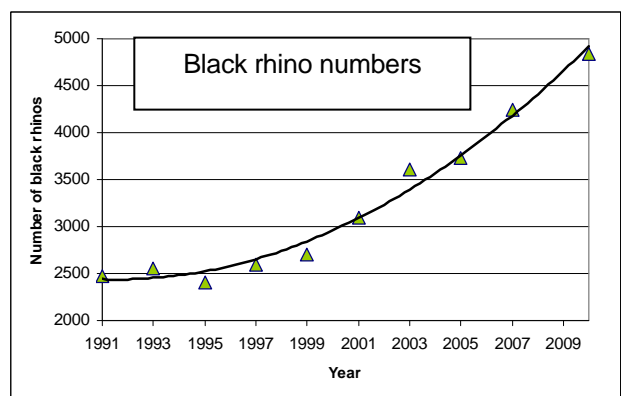
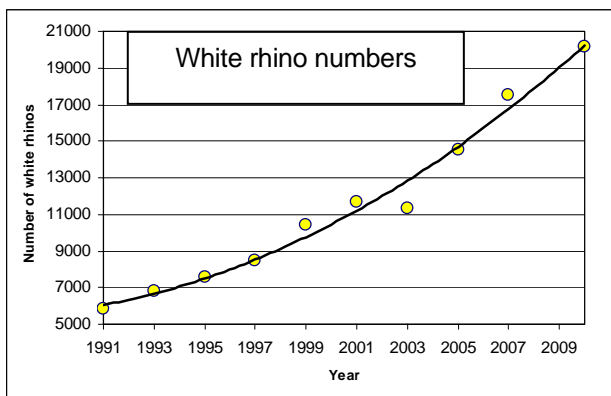
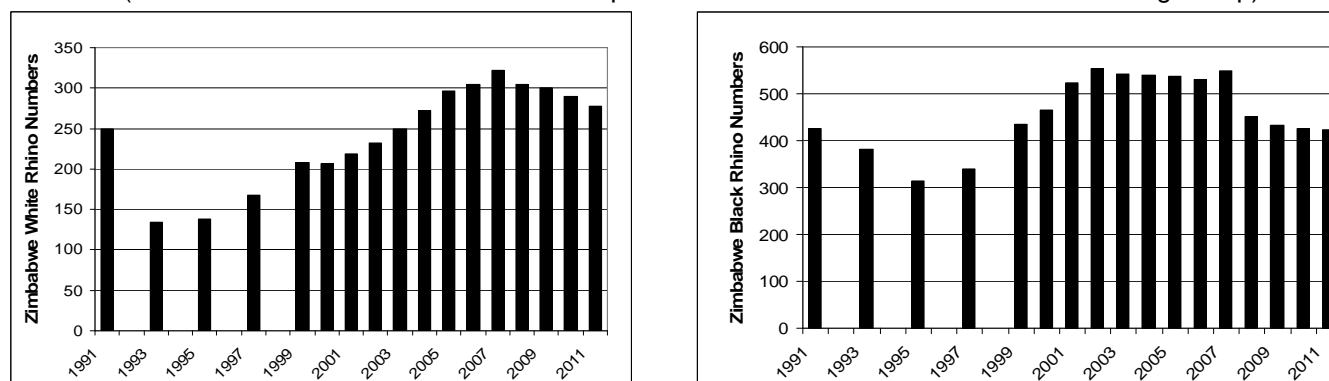


Figure 1: Changes in numbers of white and black rhino in Africa 1991-2010 (IUCN/SSC AfRSG data)

Since 1991 white rhino numbers in Africa have increased by an average of 6.8 % per annum (Figure 1). South Africa remains the major white rhino range State conserving 18,800 individuals (93.2 %). Total white rhino numbers in other range States have also increased, reaching a total of 1,370 by the end of 2010 with Namibia and Kenya accounting for over 300 each. White rhino numbers in Zimbabwe have declined 19 % since 2007 with numbers dropping below 300 (Figure 2), primarily due to declines in some State run reserves negating increases elsewhere. Numbers in Botswana, Swaziland and Uganda continue to grow and a small number of white rhinos have been introduced (out of historical range) to a location in Zambia. While all four northern white rhino translocated to Kenya from Dvur Kralove Zoo in the Czech Republic have mated, there are no confirmed pregnancies yet.

Figure 2: White and black rhino population trends in Zimbabwe 1991-2011
(IUCN/SSC AfRSG data and Zimbabwe report to CITES Secretariat/ CITES Rhino Working Group)



Since black rhino numbers reached their nadir at 2,410 in 1995, numbers in the wild have doubled to 4,880 (an average annual increase of 4.8 %). Updated subspecies totals in 2010 were 2,200 *D. b. minor*, 1,920 *D. b. bicornis* and 740 *D. b. michaeli* distributed across 11 countries in Africa (Table 1).

At the end of 2010 there were an estimated 121 AfRSG-rated **Key** and **Important** populations of conservation significance (based on population sizes and trends Emslie *et al.*, 2007) in Africa, conserving 85.5 % and 83.1 % of the continent's white and black rhino respectively. This is down from 133 in 2007, due to heavy poaching in and translocations from some previously rated populations. This represents the first decline in the number of AfRSG-rated populations since the system was started in 1995.

In IUCN/TRAFFIC's CoP15 report, Zimbabwe was the only one of the four major rhino range States where poaching had reached sufficient levels to reduce overall rhino numbers, with black rhino numbers declining by almost a quarter from 558 to 424 between 2007 and 2009. However, following a significant reduction in poaching since it peaked in 2008, Zimbabwe's black rhino numbers have stabilised at around 425-430 with the lowveld continuing to be the rhino stronghold.

2.2 Poaching and Illegal Killing

From 2006 through September 2012, a minimum of 1,997 rhino were reportedly poached in 11 of the 12 rhino range States in Africa – only Uganda had no poaching incidents. Data for Tanzania could be incomplete and therefore poaching might be higher than indicated in Table 2. Since 2006, 91.2 % of all reported poaching deaths in Africa have occurred in Zimbabwe and South Africa (Table 2 and Figure 3); with Kenya and Mozambique accounting for most of the remainder. Since CoP15 the illegal killing of rhinos has markedly escalated and the projected estimate for 2012 is expected to reach 650 rhinos, the highest level in two decades. In spite of many measures taken to deter rhino poaching and rhino horn trade, losses in South Africa continue to drive the escalating trend with record poaching deaths for the fifth straight year in a row. High prices in illegal Asian markets, criminality in the wildlife industry, government policy lapses and occasional complicity, and Asian-run criminal syndicates stand behind the continuing attrition in South Africa (Milliken and Shaw, 2012). While the majority of rhinos continue to be shot, in some cases poachers are using quieter methods to avoid detection including the use of silencers, veterinary immobilizing drugs and poison. Elsewhere in Africa, Zimbabwe and Kenya follow South Africa with the next greatest numbers of rhino losses, although rhino poaching in both countries has apparently declined in 2012. The fourth highest number poached (and highest relative level of poaching) was in Mozambique (Table 2), where the situation remains grave with virtually all known animals in areas adjacent to Kruger National Park having been poached. Most of the recent poaching in Mozambique involved rhino that have migrated into the country from Kruger Park in South Africa. Since CoP15, Botswana, Malawi and Swaziland have also recorded their first instances of rhino poaching in recent years. Only in Uganda has the small introduced population of white rhinos, under 24-hour field protection, not experienced any poaching since 2006.

Conserving 83 % of Africa's rhinos and 73 % of wild rhinos in the world, South Africa is the premier rhino range State globally. Since 2009, South Africa has continued to experience the highest absolute levels of poaching, and in 2010/11 these losses represented a 1.9 % average annual mortality against the country's historical (1992-2010) rhino population growth rate of +6.9 % per annum. Relative annual poaching levels in Kenya remain similar to South Africa, albeit at slightly higher levels (2.4 % per annum for 2010/11). This is why overall rhino numbers in South Africa and Kenya have continued to increase in spite of persistent poaching (Table 2 and Figure 4). However, if poaching were to continue to increase between +34 % to +46 % a year, as it has done in South Africa over the last two years, it is estimated that deaths could begin to exceed births as early as 2015-2016. Poaching levels have declined in Zimbabwe since 2008, but relative poaching rates for 2010 and

2011 still represented at least 6.0 % of the total population annually. In the first nine months of 2012, poaching levels have increased in South Africa to 2.7 % of the population, but encouragingly poaching has declined in both Kenya and Zimbabwe to 1.7 % and 2.4 % of the population respectively. Poaching levels remain very low in Namibia, and the country has been developing a security strategy to increase protection of its elephants and rhinos. It is projected that the *number of recorded rhinos poached in 2012 could exceed 650*.

Table 2: Minimum numbers of recorded poached rhinos in Africa, 2006 – September 2012
(Data from AfRSG, TRAFFIC and CITES Rhino Working Group)

Country	2006	2007	2008	2009	2010	2011	9/ 2012	Countr y Totals
Botswana	0	0	0	0	0	2	0	2
DR Congo	0	0	2	2	0	0	0	4
Kenya	3	1	6	21	22	25	12	90
Malawi	0	0	0	0	0	0	1	1
Mozambique	0	9	5	15	16	10	12	67
Namibia	0	0	0	2	2	1	0	5
South Africa	36	13	83	122	333	448	425	1,460
Swaziland	0	0	0	0	0	2	0	2
Tanzania	0	0	2	0	1	-	0	3
Uganda	0	0	0	0	0	-	0	0
Zambia	0	1	0	0	0	0	0	1
Zimbabwe	21	38	164	39	52	35	13	362
Total	60	62	262	201	426	523	463*	1,997

Looking at South Africa in more detail, the left hand bars in Figure 3 show that illegal killing of rhino has increased every year since 2007. This has occurred despite CITES bans on legal horn trade, increased law enforcement effort in the field (South African National Defence Force and police personnel being stationed in Kruger National Park since August 2011), increasing arrests, and a good conviction rate in cases that come to court with some significant sentences being handed down and in other cases asset forfeiture being imposed. Rhino losses continue to mount with more than 1.5 rhinos being killed each day in 2012. While Figure 3 shows that rhino poaching in South Africa levelled off for four consecutive quarters from October 2010 through September 2011 the upward trend in poaching has subsequently continued. The impact of a protracted strike by field rangers in Kruger National Park in early 2012 on poaching levels remains unclear, but intelligence has indicated that some Mozambican poachers were aware and took advantage of the situation. It is difficult conclusively to determine the causes behind short-term fluctuations in rates of poaching in South Africa and other countries without undertaking a full analysis of the key drivers that operate along the entire rhino horn trade chain. However the decision to prevent nationals of Viet Nam from obtaining hunting licenses, and changes to the law requiring a law enforcement official to attend every hunt, and to require prospective hunters to demonstrate their *bona fides* (i.e. they are genuine sport hunters) appears to have significantly constricted the illicit rhino horn supply from pseudo-hunting; and this might have resulted in shifts to other sources of horn such as poaching (the largest source of illegal horn), illegal dehorning, or thefts. However other factors that are completely unrelated to South Africa's policy decisions and legislative and law enforcement changes (such as increasing corruption, the emergence of new markets or the escalation in existing demand, etc.) could be behind these increases.

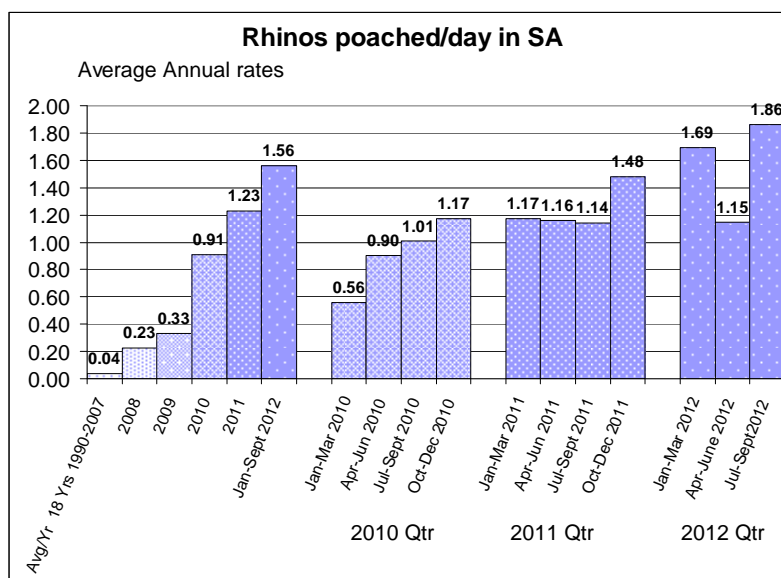


Figure 3: Rhino poaching per day in South Africa by year and by quarter since January 2010
(South African National Wildlife Crime Reaction Unit and Department of Environmental Affairs)

2.3 Trade

Since CoP14, TRAFFIC and IUCN's AfRSG have documented a steady increase in the volume of rhino horns illegally leaving the African continent (Milledge, 2007; Milliken *et al.*, 2009). In terms of trade routes and dynamics, illegal killing has centred upon southern Africa, while the principal end-use market has been Viet Nam. At CoP15, the Parties adopted Decision 15.71 calling for the CITES Secretariat to “*examine the implementation of Resolution Conf. 9.14 (Rev. CoP15) in those range States where illegal killing of rhinoceros poses a significant threat to populations of rhinoceros, particularly Zimbabwe and South Africa*” and to “*examine progress with regards to curtailing illegal trade in rhinoceros parts and derivatives by implicated States, particularly Viet Nam.*” Since then, rhino poaching and illegal horn trade have continued to escalate to the highest levels recorded in over 20 years.

The collective loss of horns from poaching, thefts from natural mortalities, government stocks and especially museums and private collections, suspected abuse of legal trophy hunting, and illegal private sector sales suggest that criminals have attempted to move over a minimum of 4,286 rhino horns into illegal trade over the last 45 months including September 2012 (Table 3). This suggests that criminal activity has involved an estimated mean of 95 rhino horns each month during this period, which is nearly three times the 34 rhino horns that were estimated to be moving into trade each month in the 45-month period from 2006 to September 2009 (Milliken *et al.*, 2009). Using appropriate average weights for black and white rhino horn given in Pienaar *et al.* (1991), and assuming that 85 % of horn exports (apart from pseudo-hunting) were white rhino horn, in the region of 12.6 tonnes of rhino horn were sourced in Africa for illegal Asian markets between 2009 to September 2012.

Table 3: Estimated number of rhino horns going to illegal markets in Asia from Africa, 2009 to September 2012 (TRAFFIC, IUCN/SSC AfRSG)

Description of source or recovery of horns	Number of horns
Source of horns to illegal markets	
Horns taken from poached rhinos	3,226
Horns stolen from natural mortalities (estimate)	36
<i>Thefts from government stockpiles</i>	10
<i>Other thefts in Africa</i>	44
Horns illegally sold from private stocks (estimate)	250
White rhino horns obtained from legal trophy hunts (estimate)	720
Subtotal:	4,286

Description of source or recovery of horns	Number of horns
<i>Recovery of illegally obtained horns by government enforcement agencies</i>	
Confiscations/seizures in Africa	213
Recoveries in the field of horns from illegally killed rhino (estimate)	10
Subtotal:	223
Balance of horns leaving Africa en route to illegal trade in Asia	4,063

South Africa remains the principal source of rhino horn for the illicit trade. In the wake of scaled-up law enforcement actions against rhino crime in South Africa, neighbouring Mozambique appears to be emerging as a highly important entrepôt and transit country as well as the source of many of the poachers operating in South Africa constituting the highest number of foreign national arrests. An increasing number of rhino horns are believed to be moving out of Mozambican exit ports, including the international airport in Maputo, with horns then moving on to airports in Kenya (Nairobi), Ethiopia (Addis Ababa) and Mauritius for onward export to Asia. Despite inadequate legislation in Mozambique having been identified as a serious issue as far back as CoP14, rhino poaching and trading in horn is still only treated as a misdemeanour and not a criminal offence. In terms of final destinations, Viet Nam continues to be identified as the leading country of import, but Chinese involvement in the trade has increased as evidenced by the number of seizures in that country (including Hong Kong SAR) since CoP15 (Table 4).

Although the Viet Nam government has reported to the CITES Secretariat and Rhino Working Group in September 2012 that “*rhino horns are neither commonly nor widely used in Viet Nam as mentioned by a couple of NGOs*”, the evidence overwhelmingly suggests otherwise. South Africa’s data on rhino hunting applications and exports of hunting trophies all point to Viet Nam as the leading country involved in the trade (Figure 5). The recruitment of sport hunters in the Czech Republic and Poland to obtain rhino horns in South Africa on behalf of Vietnamese operatives is further evidence. Seizure data in South Africa also implicates Viet Nam: of 43 documented arrests of Asian nationals for rhino crimes in South Africa, 24 were Vietnamese (56 %), 13 were Chinese (28 %), with the remainder from Thailand and Malaysia (Milliken and Shaw, 2012); Vietnamese nationals have also been arrested in Mozambique with rhino horns. Law enforcement data in the US also overwhelmingly implicates Viet Nam as the primary destination for rhino horns sourced in North America. Viet Nam also appears to be the only country in the world where rhino horn paraphernalia (bowls with serrated surfaces for grinding) to facilitate home medication are widely available and where fake rhino horns are commonly found in the marketplace, the offer for sale of which is not apparently a criminal offense under the country’s wildlife trade law.

In addition to Viet Nam, China also appears to be emerging as a country of concern on the basis of Asian seizure data (Table 4), the large number of European export permits issued in the recent past to move auctioned rhino horns and antique libation cups to China (G. Jeldon, pers. comm. to T. Milliken) and the large number of live white rhino that were imported to China apparently by a private company interested in the production of rhino horn medicines (Beech and Parry, 2011; Nowell, 2012). For these reasons, the rhino horn trade in China is more active than previously recognized and needs to be assessed more deeply.

Beyond Africa, thefts of displayed rhino horns throughout Europe have increased, with further reports coming from the United States and even Argentina. Data based largely on EUROPOL reports indicate that since 2009, 94 rhino horns (82 in 2011) have been stolen, including 12 imitation horns, and five rhino horn carvings or libation cups. These thefts represent highly organized criminal activity systematically targeting museums, antique dealers, auction houses, taxidermists and private collectors. The marked increase in thefts (which until recently were very rare) has coincided with the escalation of poaching in Africa. Museum taxidermy specimens have also often been destroyed or damaged in the process of removing rhino horns. In total, these data represent 80 different thefts in 18 countries worldwide. Strengthening the issuance of export permits for rhino horns from Europe has coincided with significantly fewer horns being stolen in the first half of 2012. Interestingly, in two separate events, China seized rhino horns coming from Denmark and the Netherlands within months of horn thefts from the Zoological Museum in Copenhagen and the Museum of Natural History in Rotterdam (EUROPOL data). Whether these seizures can be linked to these particular thefts needs to be determined but rhino horn entering illicit trade from either of these European countries is not typical. Rhino horn thefts on this scale attest to the globalized nature of the current rhino horn trade and present a severe challenge to law enforcement. In addition, law enforcement investigations in the US suggest that at least

another 160 rhino horns were illegally sourced and allegedly exported mainly to Viet Nam but also China since CoP15 in 2010 (USFWS, pers. comm. to T. Milliken).

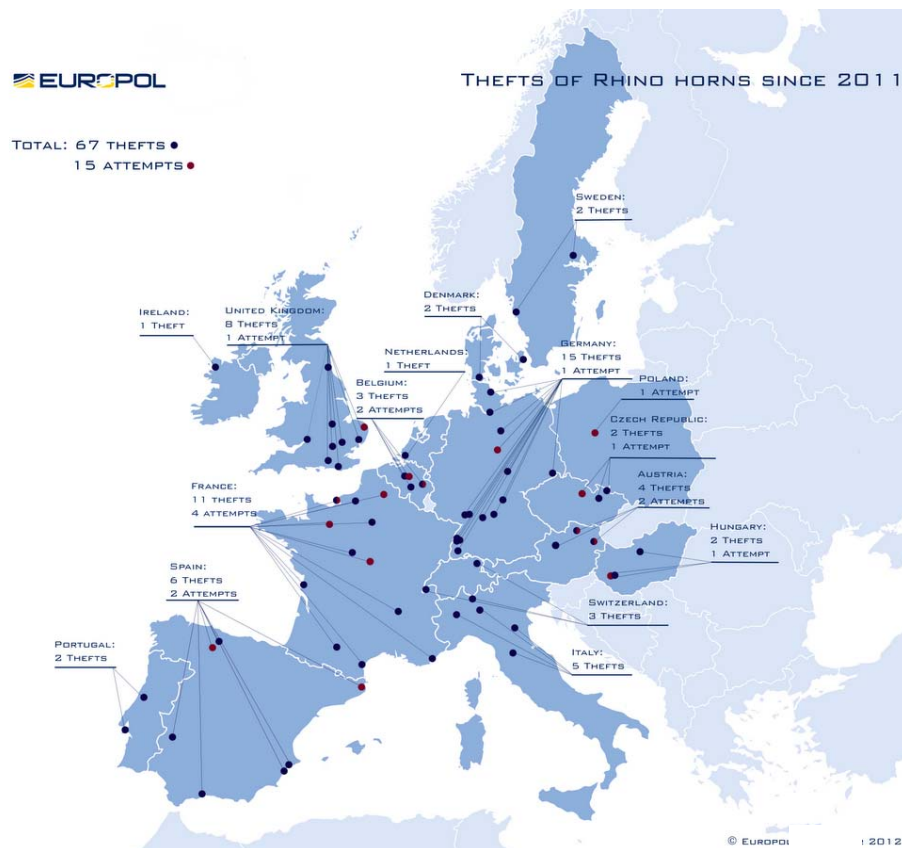


Figure 4: Thefts and attempted thefts of rhino horns in Europe since 2011 (EUROPOL)

Rhino horn seizure data for China (including Hong Kong SAR), Viet Nam and Thailand indicate that, in 38 separate incidents, approximately 98 rhino horns, weighing an estimated 227 kg, have been seized between January 2009 and September 2012 (Table 4). China accounted for nearly 80 % of the reported seizures in Asia, accounting for two-thirds of the estimated number and weight of horns seized since 2009. Further, the data suggest that China is steadily becoming more prominent as a destination for illegal rhino horn shipments, although evidence of cross-border trade between China and Viet Nam is restricted to only two separate events, in which China seized three rhino horns coming from Viet Nam. Although Viet Nam is believed to be the world's leading consumer country, in terms of seizures it ranks second to China, suggesting a much poorer level of law enforcement. Further, Viet Nam recently provided penalties given for rhino crime offences, the majority of which appeared to be unspecified "administrative fines", with jail sentences never apparently being imposed. Thailand has made only two seizures during this period, but it is not known whether the rhino horns were for local consumption or re-export to other Asian markets.

Table 4: Rhino horn seizures in Asia, January 2009 – September 2012

(Data from ETIS; China Ecomessage report; Viet Nam CITES Management Authority to CITES Rhino Working Group, September 2012; TRAFFIC)

Year	China (including Hong Kong SAR)			Viet Nam			Thailand		
	Number of rhino horn seizures	Estimated number of rhino horns	Estimated weight (kg) of rhino horns	Number of rhino horn seizures	Estimated number of rhino horns	Estimated weight (kg) of rhino horns	Number of rhino horn seizures	Estimated number of rhino horns	Estimated weight (kg) of rhino horns
2009	3	5	4.90	3	15	37.10	-	-	-
2010	10	12	22.46	-	-	-	1	1	1.33
2011	14	49	123.47	2	4	11.76	1	3	2.7
2012	3	1	1.10	1	8	22.00	-	-	-
Total	30	67	151.93	6	27	70.86	2	4	4.03

An estimated 4,063 rhino horns, (approximately 12 tonnes), are believed to have been illegally exported from Africa between 2009 through September 2012 (Table 3). Seizure data (Table 4) indicate that 2.3 % of the potential illegal rhino horns landed in Asia are being detected and seized by Asian law enforcement authorities. This very low rate of interdiction calls for far more attention to be placed on detecting and seizing illicit rhino horn trade in the region. In Africa, ongoing recoveries of horn from law enforcement actions have yielded at least 223 rhino horns, representing an interdiction rate of 5.2 %. This is far lower than recent recovery rates which have steadily declined since 2001 when 68 % of horns were recovered through law enforcement actions (Milliken *et. al.* 2009). The drop in law enforcement effectiveness has coincided with increasing involvement of organised criminal syndicates with rapid, highly adaptable distribution channels in place.

The trade in live rhinos was highlighted in the IUCN/TRAFFIC CoP15 report with China's acquisition of large numbers of live rhinos from South Africa requiring clarification. Since then, it has been reported that most of these rhinos were to be used as part of an undisclosed commercial rhino farming venture of a private pharmaceutical company for the future production of rhino horn medicine for domestic consumption (Beech and Perry, 2011). UNEP-WCMC CITES data indicate that live sales between South Africa and China have continued. In 2009 and 2010, South Africa reportedly exported 52 live rhinos to China, whilst China reports receiving 42 animals. Viet Nam and Myanmar each received six live white rhino from South Africa. Since 2011, South Africa's policy has been to consult the World Association of Zoos and Aquaria (WAZA) to determine appropriate destinations for export. Regardless, current numbers and the status of live rhinos that have been legally exported to Asian countries that have traditionally used rhino horn as medicine is not known as there is no formal reporting procedure to track these animals following importation or any horn stockpiles resulting from mortalities. While it is now a legal requirement in South Africa for any rhino moved to be DNA sampled, this was not done for most of the live rhino previously exported to Asia.

Vietnamese nationals have continued to be active participants in the sport hunting of white rhino in South Africa since 2003. Overall Vietnamese citizens have hunted more than 400 rhino legally on privately-owned properties throughout the country over the last nine years (Milliken and Shaw, 2012). Serious discrepancies between the rhino horn trophy export data from South Africa and the import data of Viet Nam previously noted in the IUCN/TRAFFIC CoP15 report have continued with only about a quarter of legally exported rhino horn trophies from South Africa being declared at the point of importation in Viet Nam (Table 5). Milliken and Shaw (2012) stated:

The failure to adequately account for legal rhino horn trophies is a serious issue and serves to foster a legal channel of trade into an otherwise illegal market for rhino horn. Under the CITES provisions that govern the export of C. s. simum white rhino trophies, legitimate rhino horn trophies are not eligible for commercial trade and are to remain non-commercial "personal effects" in perpetuity. To be effective, however, this condition requires the government of Viet Nam to account for such trophies at the point of importation and, thereafter, have a mechanism to monitor their ownership once they are within their country.

Table 5: South Africa's reported exports of rhino horn contrasted with Viet Nam's reported imports of rhino horn, 2006-2009 (CITES annual report data; data presented to CAWT meeting, September 2011; data from Viet Nam CITES Management Authority to CITES Rhino Working Group, September 2012)

Year	No. of rhino horns exported from South Africa to Viet Nam (CITES Annual Report Data)	No. of rhino horns imported by Viet Nam from South Africa (CITES Annual Report Data)	No. of rhino horns imported by Viet Nam from South Africa (Viet Nam CAWT presentation, September 2011)	No. of rhino horns imported by Viet Nam from South Africa (Viet Nam letter to CITES Rhino Working Group, September 2012)
2006	98	12	8	12
2007	146	26	42	42
2008	96	60	22	18
2009	136	26	14	14
2010	131	30	20	16
2011	-	-	24	32
08/2012	-	-	-	36
Total	607	154	130	170

'Trophies' counted as two horns.

Viet Nam's September 2012 report to the CITES Secretariat for consideration by the CITES Rhino Working Group indicates that the country has no legal provisions governing what happens to privately possessed rhino horn trophies that were legally imported. The results of 40 "random checks" of such trophies showed potential for illegal trade in 82.3 % of the cases examined (33 out of 40 cases), including the 27.5 % (11 hunters) who were not available and nothing is known about the status of their horns. In only 17.5 % of the cases could it be confirmed that the horns imported were still in an unadulterated form (7 out of 40). The report states that horns are being crafted into lamps, candle stick holders, bowls and cups, but there is no indication of how the shavings, powder and other waste material resulting from the manufacturing process is disposed of, allowing another potential avenue of illicit trade.

For Viet Nam, the number of horns imported has varied with CITES Annual Report data, information presented by Viet Nam to a September 2011 Coalition Against Wildlife Trafficking (CAWT) meeting, or Viet Nam's letter to the CITES Rhino Working Group in September 2012 showing different figures. CITES annual report data also indicate that, from 2009-2011, South Africa exported 34 rhino horns to China, Thailand and Laos as hunting trophies, of which only six were reported as imports. During the same period, the Czech Republic and Poland also reported receiving 20 and 28 rhino horns from South Africa, respectively. The Czech Environmental Inspectorate has subsequently confirmed that *"the horns are imported as hunting trophies but the purpose of the import is ... delivery to the Vietnamese market"*. Vietnamese based in the Czech Republic were reportedly behind the recruitment of individuals to hunt rhino in South Africa and bring the trophies back to Europe for onward trade to Asia (Rihova, 2012). Similar suspicions were raised concerning the sudden entry of Polish hunters into the South Africa rhino hunting trade.

Criminal syndicates quickly adapted to changes in South Africa's law restricting hunting to one rhino per person per year by recruiting individuals to pose as hunters. In some cases Professional Hunters in South Africa, rather than the "hunter" listed on the permit, illegally shot the rhino, which is a violation of the country's hunting laws. In February 2012, South Africa's National Department of Environmental Affairs recommended that provinces not issue hunting permits to Vietnamese citizens until Viet Nam had satisfactorily reported back on the status of previously exported hunting trophies to demonstrate that an effective national control system was in place. This was followed in April 2012 with the publication of revised laws for marking rhinos and rhino horn, and for trophy hunting of rhino. Compulsory attendance by a provincial official at all hunts, and hunting CVs from applicants which demonstrate membership in a bona fide hunting organisation in their country of origin together with details of their African hunting experience are now required before permits can be granted. DNA sampling of horns is also mandatory. In April 2012, the Minister formally suspended the issuance of hunting permits to Vietnamese citizens. These measures have led to a marked decline in rhino hunting applications by citizens from Southeast Asia, the Czech Republic and Poland (Figure 6). According to South Africa's Department of Environmental Affairs (DEA), there has been a significant reduction in rhino hunting applications

in 2012 compared to 2011; and as of September 2012 there had not been a single white rhino hunting permit application by a resident of Viet Nam, China or Thailand since the measures were implemented.

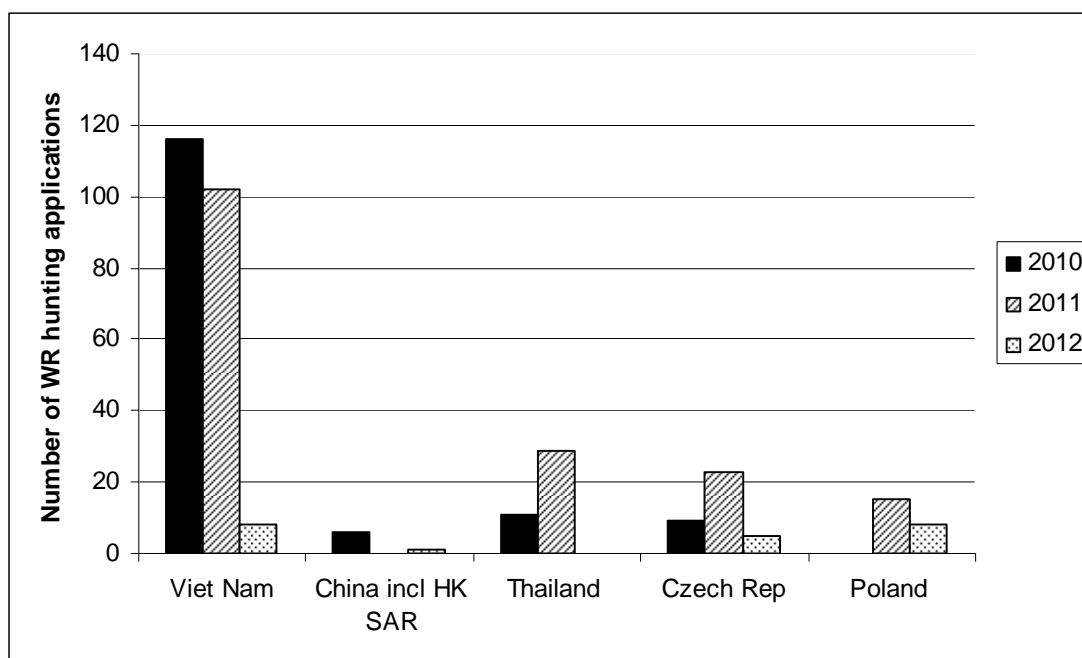


Figure 5: Data on rhino hunting applications in South Africa from key countries
(Data from South Africa's Department of Environmental Affairs)

Sport hunting prices escalated once pseudo-hunting commenced, pricing many hunters from traditional hunting countries out of the market. The recorded average number of white rhinos hunted each year in South Africa over the period 2007 through 2010 was 116, with Asian hunters predominating. Prior to this development, 35-70 white rhino had been hunted each year. With the clampdown on pseudo-hunting, it is expected that the number and price of rhino hunts will decline and hunters from traditional rhino hunting countries, such as the US, Germany and Spain, will return as the principal clients. However, given the use of proxy hunters from the Czech Republic and Poland to acquire rhino horns for Asian markets in 2011, there remains a continued need to be vigilant in ensuring that only bona fide hunters are granted permits.

Legal internal trade in live rhinos in South Africa is also being undermined. Although private rhino owners in South Africa conserve more rhinos than there are in the rest of Africa, the escalation in poaching has significantly increased security costs and risks to rhinos and staff. This has led to a decline in live rhino sale prices from 2008 through 2011, with an estimated decline of USD63 million in the value of the country's white rhino. In 2012, white rhino live sales are expected to decline further, but exports to Namibia's private sector are increasing and may provide some respite. At the same time, the number of private rhino owners in South Africa disinvesting in rhinos has increased. There is concern that the move away from rhino ownership may ultimately threaten the biological management of white rhinos, as the private sector greatly contributed to the rapid increase in numbers in the past. The escalating poaching threat combined with declining financial incentives threatens to curtail and may ultimately reverse the expansion of rhino range and numbers in South Africa. Reduced live sales may also seriously affect conservation budgets of both state agencies and private sector owners at the very time increased resources are needed to support rhino protection.

2.4 Major conservation actions and field activities

The overall increase in rhino numbers since 1995 (Figure 1) is the result of protracted investment in field conservation efforts, including protection, monitoring and translocations, to maintain productivity of established populations and to create additional populations with good growth prospects. Many rhinos today occur in fenced sanctuaries and intensive protection zones where law enforcement effort can be effectively concentrated.

In Zimbabwe, in response to poaching, disturbance and land pressure issues in some areas, vulnerable rhinos have been caught and taken to locations that are considered safer. Despite declining poaching losses in Zimbabwe, rhino numbers in the country have continued to decline since CoP15 in 2010. The recent re-allocation of hunting concessions to new partners in the Save Valley Conservancy, a rhino stronghold in the

country, could pose additional economic threats if the funding available for monitoring and anti-poaching efforts operations is reduced as a result.

In South Africa, there have been a number of initiatives since CoP14 in 2007 to deal with the escalating poaching challenge. Measures taken include increased numbers of personnel (rangers, army and police) in selected locations such as Kruger National Park; the formation of an interim National Wildlife Crime Reaction Unit bringing together wildlife investigators, police dealing with organized crime, the national prosecuting authority, revenue services, army and the asset forfeiture unit; the elevation of rhino crime to be a top priority crime; increased intelligence gathering; appointment of experienced advocates to prosecute cases; and regular use of DNA evidence. These efforts have led to increasing number of arrests, convictions with significant custodial sentences, and the imposition of significant asset forfeitures and additional fines. With support from the CITES Secretariat, the Governing Council of the Global Environment Facility (GEF) has indicated the possibility of making a \$2.7 million grant towards strengthening the current wildlife forensic capabilities in South Africa and South Africa is busy developing a proposal.

The RhODIS™ rhino DNA database developed and run from South Africa's University of Pretoria's Veterinary Genetics Lab (VGL) continues to expand and DNA analyses are increasingly being used in criminal investigations and prosecutions. A total of 12,000+ samples from 5,600 rhino have been collected and submitted to the VGL. Since April 2012, South Africa legally requires horn stockpiles and trophies to be DNA-sampled, as well as all animals that are immobilised in management operations. Special collection kits have been developed to ensure that the chain of evidence is maintained. There are plans for a similar system to be developed for Asian rhinos. A motion passed at the recent IUCN World Conservation Congress called upon African range States to expand further the use of DNA profiling of horns (using the RhODIS) as an innovative means of combating the illegal killing of rhinos and the trafficking of horn.

In Kenya, measures taken have included increasing numbers of rhino rangers; the conversion of rhino scouts on private rhino lands into Kenya Police Reservists; the enhanced use of sniffer, tracker and search dogs at the ports of entry/exit; and the relocation of rhinos from high-risk areas. Intelligence networks have also been strengthened.

2.5 Management plans and strategies

Botswana, Kenya, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe all have national rhino strategies that were mostly developed following stakeholder workshops and generally employ a logical framework approach using recommended conservation strategies for African rhinos. These plans are reviewed every 5-10 years. Since CoP15 in 2010, Kenya and Tanzania have completed revisions of their rhino strategies; a revised South African black rhino biodiversity management plan awaits the Minister's approval, and a South Africa white rhino plan has been drafted; a revised Zimbabwean plan has been completed, but its publication is awaiting final approval from the Minister of Environment. A draft revised Botswana plan is also apparently nearing finalisation and official approval. Rhino conservation strategies are only as good as the degree to which they are implemented on the ground and insufficient coordination and implementation remains a concern in some countries, particularly Tanzania. Further, the lack of a conservation plan for rhino in Malawi remains a serious concern.

At the global level, the rhino motion (M026) passed at the September 2012 IUCN World Conservation Congress in Jeju, South Korea encouraged "*range States to maintain enabling land-use and investment policies together with support for appropriate and well-managed, sustainable, income-generating options that encourage investment in rhinos, sustainable populations and which help fund effective conservation*". The IUCN motion also provided recommendations addressing poaching, monitoring and management issues to support rhino population growth. The motion has now been formalized as IUCN Recommendation #138 which can be viewed here (<http://portals.iucn.org/docs/iucnpolicy/2012-recommendations/en/WCC-2012-Rec-138-EN%20Conservation%20of%20rhinoceros%20species%20in%20Africa%20and%20Asia.pdf>).

2.6 Coordination and implementation mechanisms

Rhino range States promote Africa-wide coordination through membership in the IUCN/SSC AfRSG. Regional coordination occurs through various forums and groups, including the Southern African Development Community's Rhino Management Group (SADC-RMG) and the Rhino and Elephant Security Group/Interpol Environmental Crime Working Group, which benefit from regular meetings. The East African Community Rhino Management Group (EAC-RMG) has also been formed to consolidate rhino conservation efforts in that region but differing views on wildlife management seemingly prevent close collaboration.

There has been a noticeable increase in public engagement on rhino issues in South Africa during 2012 including a South African Parliamentary Portfolio Committee meeting in January, and the start of a major National Rhino Dialogue process under a Rhino Issues Manager. The latter process has included seven consultative meetings on a range of rhino issues and a report is being prepared for the Minister with recommendations. A government-commissioned study on dehorning as a means to protect rhinos has been completed, and another commissioned feasibility study assessing the lifting of the national moratorium on horn sales is at the final review stage. In addition, an expert workshop was held to evaluate the risks and benefits of alternative management strategies. Civil society, including the media, is also playing an increasingly prominent role in awareness and funding-raising for anti-poaching activities.

2.7 Rhino horn stocks

Within Africa, rhino horn stocks grew from a reported 19,850 kg in 2006 to 21,078 kg in 2007. At the 2011 IUCN/SSC AfRSG meeting, eight rhino range States provided information on rhino horn stockpiles, which combined with previous estimates from Botswana, totalled nearly 23,700 kg. Updated data, however, were not provided by Botswana, Tanzania, Mozambique and Angola. At CITES CoP15 in 2010, another 5,219 kg of rhino horns was reportedly held by five other CITES Parties. Estimates of continental stockpiles will be updated at the next IUCN/SSC AfRSG meeting in February 2013.

2.8 Legislation and prosecutions

Many African rhino range States have mandated jail terms and fines to serve as a deterrent to rhino crime. Prescribed fines with maximum amounts, however, often lose their value after a few years due to inflation. With the rapid increase in black market prices, mandated maximum fines also now often bear little relation to the value of rhino crimes to organised criminal syndicates, and may be acting to incentivise criminals. For example, maximum fines in Kenya are currently only USD500 and bear no relation to the economic value of the crime, but moves to significantly increase financial penalties are well advanced. It is important that, whenever possible, rhino criminals are prosecuted using a combination of laws which carry the highest penalties. Given that even fines of USD125,000 represent only a small tax on syndicate turnover, it is important that prosecutors wherever possible seek custodial sentences (possibly with additional fines and asset forfeitures) rather than just fines whenever possible.

Resolution Conf. 9.14 (revCoP15) calls upon range States “to be vigilant in their law enforcement efforts including ... the application of appropriate penalties to act as effective deterrent”. As previously reported, there is a need for some countries, especially Mozambique (where rhino poaching and horn dealing are still only misdemeanours and not criminal offences), to revise their legislation to introduce penalties that act as a deterrent. Proposed changes to Mozambique’s legislation have not yet been approved by the Council of Ministers. In Zimbabwe, a recommendation for minimum sentences has been submitted to the Attorney-General’s office for consideration and revision of the low penalties in Kenya is also under consideration.

In South Africa, the number of rhino-related arrests and convictions with deterrent custodial sentences without the option of a fine has increased. A number of jail terms of 6-12 years have been handed down, whilst a Thai national was sentenced to 40 years imprisonment, a Vietnamese citizen to 25 years and South African and Mozambican poachers to 29 years each. However, most arrests concern lower level operatives, whilst the leadership of syndicates generally evade arrest. The increased use of asset forfeiture and multiple charges suggests that rhino crimes will not be tolerated, including one case where the accused face 1,872 charges and have had some USD6.7 million of their assets secured prior to finalisation of the case. In another case, a person convicted of un-permitted dehorning and illegally trying to sell horn from dehorning (i.e. no rhinos were poached) was sentenced to eight years, plus a fine of USD125,000 to go to the Environmental Management Inspectorate as well as forfeiting an additional USD1.39 million worth of assets. The use of asset forfeiture and charging the accused under a suite of laws is a strategy that other range states may wish to consider.

3. Asian rhinos

3.1 Status and trends since CoP15

Current estimates of Asian rhino species by range State are summarized in Table 6 based on information being collated and maintained by the IUCN/SSC AsRSG.

Table 6: Estimate of Asian rhino numbers by country, species and subspecies with trends since CoP15 report (IUCN/SSC AsRSG June 2012).

Species	Greater One Horned		Lesser One Horned				Sumatran			
	<i>R.unicornis</i>	Trend	<i>R.s.sondaicus..</i>	<i>R.s.annsmiticus</i>	Total	Trend	<i>D.s.sumatrensis</i>	<i>D.s.harrissoni</i>	Total	Trend
India	2730+	Up								
Nepal	534+	Up								
Pakistan	??	Unknown								
Indonesia			35-45		35-45	Stable	120-180		120-180	Down
Malaysia							??	20-30	20-30	Down
VietNam				Extinct	0	Extinct in 2010				
Total	3,264	Up	35-45	Extinct	35-45	Stable/Down?	120-180	20-30	140-210	Down

The **greater one-horned rhino** (*Rhinoceros unicornis*) is now distributed primarily in the eastern part of its former range and is rated Vulnerable in the IUCN red list. The most recent surveys as of June 2012 confirm numbers continue to increase, reaching 3,624, up from 2,800 in January 2007. Assam is the stronghold for the species in India with about 2,501 rhinos in four populations. The state of West Bengal in India has about 200 rhinos, with the remainder in India occurring in Uttar Pradesh. The largest population of rhino in India increased from, 2,048 in 2009 to 2,290 in 2012. Over the last 4-5 years 3-4 free ranging rhinos have also been moving in and around an area in Uttar Pradesh. Previous reports have recorded that Nepal's greater one-horned rhinos had suffered heavy poaching during a period of socio-political unrest in the country, with numbers falling by almost one-third from the 612 present in 2000. Encouragingly, surveys in 2011 found numbers in Nepal had increased to 534 from the 435 counted in the last census in 2008. As in India, the majority of rhinos in Nepal occur in one population, which has increased from 408 in 2008 to 503 in 2011.

Since CoP15 in 2010, the Indochinese subspecies of **Javan rhino** (*Rhinoceros sondaicus annsmiticus*) has gone extinct with the last individual being shot in Cat Tien National Park, Viet Nam for its horn in 2010. The **Critically Endangered Javan rhino** (*Rhinoceros sondaicus sondaicus*) is now only found in one population in a National Park in west Java, Indonesia with a population of 35-45 rhinos (based on 2011/12 camera trapping results). While there is no evidence of any Javan rhinos being poached in this park since CoP15, in the absence of active biological management to improve rhino nutrition and encourage reproduction, the population has stagnated and even declined slightly from an estimated 43-57 in 1995. The need for improved biological management is clear when one considers that had a 5 % annual net metapopulation increase (minimum metapopulation growth target for African rhino) been achieved over the same period, Javan rhino numbers would have more than doubled to 91-124 today. The current range of the Javan rhino is also vulnerable to potential volcanic activity and tsunami destruction. Thus on biological management and strategic grounds, there is an urgent need to translocate some animals out of the existing population to establish a second wild population in a sufficiently large area of suitable habitat that can be well protected and where the population has room to grow. Reducing densities in the existing, donor population should also improve dietary quality and breeding of remaining animals. Possible additional actions to increase rhino numbers in the original population could include alien plant control and a possible reduction in numbers of a potential competing herbivore,

The **Sumatran rhino** (*Dicerorhinus sumatrensis*) is currently restricted to a few isolated populations in Sabah-Malaysia and Indonesia. No confirmed records are available to indicate that any Sumatran rhino remain in Myanmar, Thailand or Cambodia. In contrast to India and Nepal and a number of African rhino range States, there has been very limited government support and funding for rhino conservation efforts in Southeast Asia. Vast areas of suitable rhino habitat have been altered for palm oil cultivation and other forms of development, leaving rhinos vulnerable to poaching. In some cases, protected areas have also suffered human encroachment and clearing. As previously reported, the status of Sumatran rhino in Peninsular Malaysia is unclear and needs confirmation. Since 2011, Malaysia's Department of National Parks and Wildlife Conservation undertook surveys of previous known rhino range in peninsular Malaysia, but no evidence of Sumatran rhino was found. Thus the species has probably gone extinct in Peninsular Malaysia: if any still survive, they are unlikely to constitute viable populations. Elsewhere in Malaysia, the current population of the Sumatran rhino subspecies *D. s. harrissoni* in Sabah on Borneo is estimated at between 20 and 30 rhinos in two areas, with another location in south-western Sabah possibly holding a few more animals. Any non-viable pockets of small numbers of rhino in Sabah need to be captured and consolidated to facilitate breeding.

The Sumatran rhino population in Indonesia *D. s. sumatrensis* is also facing challenges from habitat alteration and invasive species and total numbers in Indonesia appear to be slightly declining with around 120-180 rhinos as of June 2012 distributed in three main conservation areas (based on footprints encountered during regular anti-poaching patrols). Since the 2009 IUCN/TRAFFIC CoP15 report the clearance of encroaching settlement in one important protected area has now been completed, natural vegetation has grown back and is now

attracting Sumatran rhinos. The authorities have also initiated an eviction drive against settlement in a second national park, but some encroached areas remain and still have to be cleared.

3.2 Poaching

Sumatran rhino poaching data in the major range state of Indonesia is scarce. Since CoP15 in 2010, Rhino Protection Units working in Sumatran rhino areas have not detected any Sumatran rhino carcasses on their patrols. The failure to find any firm evidence for the continued presence of Sumatran rhino in Peninsular Malaysia over the past eight years raises the likelihood that populations from Peninsular Malaysia have been wiped out due to poaching, habitat conversion and management neglect.

While the last remaining animal of the Vietnamese subspecies of Javan rhino in Cat Tien National Park in Viet Nam has been shot since CoP15 in 2010; there is no evidence of any Javan rhinos being poached in the one remaining population in Indonesia over the last three years.

Since CoP15, greater one-horned rhino poaching in Nepal has declined, and in the last 17 months only one rhino has been poached in the country's main rhino population (which conserves 94 % of Nepal's rhinos) with no reported poaching in 2011. UNESCO has applauded the Nepalese authorities for their successful efforts to protect threatened species, particularly rhinos, since the heavy poaching that occurred during socio-political unrest in the late 2000s. From 2010 until June 2012, India lost about 40 rhino to poaching including two of the rhinos translocated to a national park in Assam. After a five-year period of no poaching in another small Assamese population, four rhino were poached in 2011-2012. These combined annual losses represent a low level of illegal off-take equivalent to 0.6 % of overall Indian numbers and the national population continues to increase. Following severe seasonal flooding, increased poaching of rhinos that moved outside the largest national park population has been reported. However compared to many African range States, poaching levels in India remain low and one can speculate that the dramatic increase in prices paid for African horn and the greater amount of horn/rhino in Africa might be reducing pressure on Asian rhino. However there is no room for complacency.

3.3 Trade

The 2009 IUCN/TRAFFIC report to CoP15, which was based upon law enforcement personnel interrogations of arrested poachers and traders, showed that the major trade route for rhino horns from South Asia was from Assam to Kathmandu in Nepal, via Siliguri or Kakarbhita, and then on to Tibetan Autonomous Region with the ultimate destination being China. Previous reports also suggested that only about one-tenth of Indian rhino horn moves to end-use destinations through the India-Myanmar border. The extent of Asian rhino horn usage and trade in consumer markets in China, Viet Nam and other east and southeast Asian countries is not well known and further work is required to assess this important issue.

3.4 Major conservation actions and field activities

Just as in Africa, the greatest successes with rhino conservation in Asia have occurred where there has been significant political will and dedicated staff commitment to undertake effective field conservation action. In India, anti-poaching and, more recently, reintroductions into former range are key components of rhino conservation. As part of the Indian Rhino Vision 2020 (IRV 2020) project, between 2008 and March 2012, a total of 18 greater one-horned rhinos were translocated from two source populations in Assam to re-establish the species in an Assamese protected area that had lost all of its rhinos during a period of socio-political unrest. The proposed next step under IRV 2020 is to re-establish another population in an Assamese wildlife sanctuary that had previously held about 70 rhinos until 1985 when all rhinos were poached during a period of local socio-political instability.

Greater one-horned rhinos in Nepal's second biggest population are being monitored using ID-based approaches to assist management. The Nepalese authorities are presently preparing a strategy on anti-poaching and illegal wildlife trade. They have also initiated trans-boundary relations with a tiger reserve in India through formal information sharing with officials and local communities. Despite the negligible poaching in Nepal recently, the regular arrest of poachers indicates that the threat posed by the illegal rhino horn trade remains. It is hoped that the strategy of heightened anti-poaching operations, together with improved management of habitat, will continue to positively impact on rhino numbers.

In Indonesia, following rapid assessment of potential areas for a second population of Javan rhino, attention has focused on an approximately 150 km² area near the existing population which has been identified as suitable for the establishment of a second population. This second population would be closely monitored and

protected, with unpalatable invasive species like *Arenga* being controlled to improve habitat for Javan rhino. Whilst the setting up of this second population is still at the planning stage, it does appear that a translocation exercise may finally occur.

Taman Negara National Park is being given the highest priority for wildlife protection by the government in Malaysia. However this appears to be a case of too little too late with no recent sightings or camera-trap photographs of Sumatran rhinos in this Park (or indeed elsewhere in Peninsular Malaysia despite surveys).

In Sabah in Malaysia, inadequate field protection and, in some places, destruction of natural habitat to make way for oil palm plantations has resulted in numbers of the rarest subspecies of Sumatran rhino (*D. s. sumatrensis*) declining to low numbers. Some of the remaining animals are now isolated in small unviable groups. In an attempt to prevent the extinction of this subspecies in the wild, the newly formed Borneo Rhino Alliance (BORA) is taking steps to strengthen Rhino Protection Units (RPU) and to increase monitoring. Wildlife authorities in Sabah have developed a small 20 ha fenced 'Borneo Rhino' area within one wildlife reserve which is being stocked with rhino translocated from unviable outlier sites to provide mating opportunities and provide better protection and monitoring.

3.5 Management plans and strategies

In 2006, the Nepalese government developed a Greater One-horned Rhinoceros Conservation Action Plan for Nepal (2006-2011) and this is now due for revision. India still does not have a national rhino strategy, as conservation is currently coordinated at the state level. There is an urgent need to develop a national plan in India to complement the efforts of state authorities in Assam, West Bengal and Uttar Pradesh. The IUCN/SSC AsRSG is negotiating with the Indian government to prepare such a plan. In Malaysia, BORA has initiated the Sabah Rhino Plan with a goal of preventing extinction of the Sumatran rhino in Sabah and rebuilding numbers to viable levels through minimizing poaching and consolidating outlier rhino populations. In Indonesia, the government has produced the Indonesian Rhino Conservation Strategy and Action Plan 2007-2017 for both Javan and Sumatran rhinos. Its value will depend on the level of implementation, but long-term goals call for increasing rhino numbers and creating a number of significant populations. Up to 30,000 km² of forest are earmarked in four to five national parks under the plan to secure the future of Sumatran rhino in Indonesia. For the Javan rhino, the immediate action plan target is to increase numbers in the wild through improved biological management and especially the creation of a second population in suitable habitat.

3.6 Coordination and implementation mechanisms

Increasing alarm for the fate of the two rarest rhinoceros species, the Javan and Sumatran rhino, and growing concern over the increased illegal hunting of rhinos and demand for rhino horn affecting all five species of rhino, prompted President Susilo Bambang Yudhoyono of Indonesia to declare 5 June 2012 as the start of the International Year of the Rhino reflecting his government's commitment to emergency actions to save the Javan and Sumatran rhinos from extinction. Proposed actions include: establishing a high-level task force of national and international experts on rhino population and habitat management; identifying the most suitable areas for establishing free-ranging rhinoceros populations; allocating sufficient resources to enforce their protection, to maximize the breeding potential of the remaining animals; and conducting regular, frequent and intensive monitoring of all rhino populations. The President took this step at the request of IUCN, other conservation organisations and 11 rhino range States in Africa and Asia, which gave their formal support for the initiative. The Year of the Rhino draws attention to the plight of rhinos and the need for increased conservation action to secure the future of all five species of rhino in Africa and Asia. It recognises that actions speak louder than words, and seeks to encourage political will and, in particular, increase field conservation action to achieve these aims. However, as of mid-September 2012, the proposed high-level Rhino Task Force has not yet been constituted. A meeting of the SSC Chair, AsRSG Chair and Indonesian delegates was held at the IUCN Congress in Jeju, South Korea in September 2012 where it was emphasised that the Indonesian Government should at the earliest opportunity convene a Rhino Task Force that will be chaired by the Indonesian Minister for Forests to catalyse implementation of field actions needed to monitor, biologically manage and protect Javan and Sumatran rhinos and their habitats. In addition, following consultation of both African and Asian rhino range States, a motion (M026) on the conservation of rhino was approved at IUCN's World Conservation Congress in September 2012 and has now been formalized as IUCN Recommendation #138 (<http://portals.iucn.org/docs/iucnpolicy/2012-recommendations/en/WCC-2012-Rec-138-EN%20Conservation%20of%20rhinoceros%20species%20in%20Africa%20and%20Asia.pdf>).

Since 2010, there has been one full meeting of the AsRSG in Assam in February 2010 and a Southeast Asia meeting of AsRSG members in March 2012.

3.7 Horn stockpiles

Despite the CITES request for data pursuant to Decision 4.88, no rhino horn stock information was made available by any Asian range States for this report. In India, based on the forest department rhino horn stock registry, more than 1,500 rhino horns have reportedly been deposited in various treasuries, with more than 90 % in Assam. There, most rhino horn stock is from recoveries from natural mortalities, but about 10 % of the horns derive from seizures. Through 2008, in West Bengal, 20 rhino horns were recovered from natural mortalities, with a further 13 horns from seizures. Rhino horn stocks in Nepal, Malaysia and Viet Nam are not known, but in Indonesia, a few horns are reportedly in government custody. Overall, there remains considerable room for improvement in the management and reporting of rhino horn stocks in Asia. The extent of rhino horn stocks in some previous horn consuming nations, including Thailand, is also unknown.

3.8 Legislation

Overall, most Asian range States provide full protection to rhino species under their wildlife legislation. Jail terms are generally high, but compared to the illegal value of horns to criminals, fines in both India and Nepal remain extremely low. Convictions are few and sentences are often lenient. Capturing rhino poachers and traders, and collecting sufficient evidence for successful convictions, has proved to be very challenging. As part of attempts to counter the lucrative illegal wildlife trade, in September 2010, the President of India amended the 2009 Wildlife Protection (Assam Amendment) Act to increase sentences for offenders in the state of Assam. The minimum term for imprisonment of convicted offenders was increased from three to seven years in jail, whilst a second conviction leads to ten years in jail. Fines have also been increased to from USD190 to USD950. A third-time offender now stands to get life imprisonment with a USD1,400 fine. While these increased fines may represent a significant amount to a poor rural subsistence farmer, they bear no relation to the economic value of rhino crimes to organised criminals. The Assamese government has also provided immunity to all forest officers under Code of Criminal Procedure (CrPC) 1973. This gazetted notification enables forest officials to exercise their duties with more legal teeth and support. These Assamese initiatives are likely to be copied by other states in India to strengthen efforts to combat wildlife crime. In Nepal, stiff penalties for poaching continue to be applied. In December 2006, four rhino horn smugglers were sentenced to 14 years imprisonment and fined USD1,360 each.

4. Measures by implicated states to end illegal use and consumption of rhino parts and derivatives

In CITES Decision 15.71, Viet Nam was identified as an “implicated State” in terms of “illegal trade in rhinoceros parts and derivatives”. Pursuant to the CITES Notification to the Parties 2012/14 and a request from the CITES Rhino Working Group outlined in SC62 Inf. 13, the government of Viet Nam provided a report to the CITES Secretariat on various issues related to the trade in rhino horn. In terms of measures taken to reduce illegal trade in rhino horn, Viet Nam noted the need to improve passenger and cargo controls on traffic from Africa; to enhance cross-sectoral cooperation in the domestic market; to hold workshops and training on rhino horn trade issues for enforcement agencies; to sign and implement a Memorandum of Understanding on Biodiversity Conservation and Protection between Viet Nam and South Africa; to raise public awareness through information presented on government websites; to monitor live captive rhinos in the country’s zoos; to improve management of rhino horn trophies; and to conduct investigations and market surveys on rhino horn trade in domestic markets and over the internet. It is not clear, however, how actively these measures are currently being implemented to address rhino horn trade issues. In reviewing this submission, members of the CITES Rhino Working Group have highlighted areas of concern, especially Viet Nam’s inability to monitor legally imported rhino horn trophies to ensure that they never become part of the illegal trade. Overall, further clarification is sought on whether or not the selling or offer for sale of ‘fake’ rhino horn on the market constitutes a criminal offence; whether or not current penalties serve as an effective deterrent to rhino crime in the face of escalating illicit market prices; and whether or not rhino horn as medicine is sanctioned in any manner. Concerning this latter point, NGOs have reported that “between 2002 and 2007, at least five comprehensive Vietnamese-language traditional medicine pharmacopoeias were published which feature sections on rhino horn as medicine” (Milliken and Shaw, 2012).

Although not subjected to the same oversight scrutiny as Viet Nam, China has also submitted a report to the CITES Rhino Working Group indicating that it has banned all international and domestic trade in rhino horn and its product since 1993 and that all stockpiled rhino horns have been registered and sealed since that time. Permits from the State Forestry Administration (SFA) are required for captive breeding of rhinos, the purchase and sale of live rhinoceros requires approval by SFA, and any rhino horn produced by such facility needs to be sealed under the supervision of forestry department personnel to prevent it from entering the illegal market. Approved research on the medicinal effect of rhino horn is the only avenue of usage allowed in China at this

time. The maximum penalty for rhino horn trade infractions under China's Criminal Law is life imprisonment, concurrently with a confiscation of personal property. The control of trade in rhino is treated a priority agenda item at various training events for wildlife enforcement personnel in China.

5. Conclusions and recommendations

Rhinos are facing a crisis and there is no room for complacency. If not halted, the continuing escalation of rhino losses in Africa, especially in South Africa, Zimbabwe and Mozambique, threatens to reverse the commendable conservation achievements of the last two decades. Southern Africa remains at the epicentre of the largest flow of illicit rhino horns in over 20 years to Asia, especially Viet Nam and possibly China, for a revived trade largely driven by new uses and trade dynamics. Whilst the countries noted in CITES Decision 15.71 (South Africa, Zimbabwe and, more recently, Viet Nam) have provided updates and reports to the CITES Standing Committee since CoP15 in 2010, the CITES Parties have generally noted these reports without requiring any further specific actions for addressing problematic issues. The CITES Rhino Working Group, however, has made some specific recommendations for consideration at the 63rd meeting of the CITES Standing Committee. If agreed, the process for monitoring progress on the implementation of any recommended actions, and the remedial steps needed if there is lack of progress, remain to be determined, but should be considered as an integral part of the effort to mitigate rhino poaching and curtail illegal trade.

Of the four most important rhino range States in Africa, Zimbabwe's situation remains serious. Although in absolute terms poaching has declined (Table 2), poaching levels since CITES CoP15 have caused the country's rhino population to decline (Figure 2). **Zimbabwe should, therefore, remain one of the leading priorities in any future CITES review process that examines the implementation of Resolution Conf. 9.14**, keeping a focus upon monitoring rhino and poaching and the status of law enforcement actions, including the investigation and prosecution of rhino crime.

Since CITES CoP15 in 2010, year-on-year rhino losses in South Africa have continued to increase with each successive year reaching new heights despite the allocation of more resources and manpower in the field, more regulation with respect to rhino hunting and ownership, greater numbers of arrests and increasingly more stringent penalties. Although national rhino numbers continue to increase, as the country is losing the greatest number of rhinos to poaching and the source of the greatest number of horns for illegal markets **South Africa also remains a priority for CITES attention under Resolution Conf. 9.14**, especially with respect to improving coordinated information management at the national level on rhino numbers and horn stocks in the private sector, the occurrence and details of sales of live rhinos, and translocations (including exports). The very positive effects of measures taken early in 2012 to clamp down on leakage of horn into illegal markets through pseudo-hunting is commendable, but all Parties should remain vigilant and work with the South African government to ensure that import permits for hunting trophies are only given to *bona fide* hunters.

Cross-border issues with Mozambique are another significant factor impacting the current situation in South Africa. On a bilateral basis, South Africa has accorded Mozambique elevated attention, and this should continue as many of the poachers in South Africa come from Mozambique given its proximity to Kruger National Park and since rhino poaching in Mozambique is still only a misdemeanour and not a criminal offence. Mozambique is also increasingly playing the role of a major entrepôt and export country for illicit horns to Asian markets. For this reason, **Mozambique should also be made a priority country for CITES review under Resolution Conf. 9.14** and should be asked to report back on steps taken to reduce poaching by its citizens, progress towards making rhino crimes a criminal offence with appropriate penalties as well as efforts to control illegal trade in rhino horns.

Given the history of rhino horn trade in Africa, there is an inherent risk that the scale of poaching in southern Africa could quickly spread and affect other range States, especially as organised, innovative, well-financed and highly-mobile criminal groups with direct linkages to Asian consumer countries are most heavily implicated in the illicit trade. For this reason, **any signs of increased rhino poaching in Kenya, or any other rhino range State, need to be carefully monitored to support "early warning" and the ability to react with effective law enforcement responses. Further, increased efforts under Resolution Conf. 9.14 to promote cross-regional collaboration and contact between African and Asian law enforcement authorities are needed.**

The use of standardised DNA profiling (using RhODIS protocols for African rhino horn and a similar initiative for Asian horn) needs to be expanded to other States around the world with ex-situ rhinos and horn stocks (particularly zoos and museum specimens) to facilitate monitoring and investigations with regard to illegal trade in horn.

In Asia, since CITES CoP15 in 2010, positive conservation efforts have been noted in India and Nepal where rhino numbers are increasing. Nepal, in particular, seems to have successfully addressed a serious poaching crisis that was reported to CITES CoP14 in 2007. **The main concerns in Asia now lie in Malaysia and Indonesia.** With the extinction of the Javan rhino in Viet Nam, there remains an urgent need to create another secure wild population of Javan rhino using founder stock from Indonesia's sole Javan rhino population. Further, **Indonesia and Malaysia are encouraged to enhance field protection, monitoring and biological management of their remaining Sumatran and Javan rhino**, especially in Sumatra and Sabah. It is also recommended that rhino poaching cases in Asia are more formally documented both within and outside protected areas to better ascertain the number of rhinos killed and to strengthen enforcement and intelligence. **Asian rhino range States are once again requested to formally report on their rhino horn stockpiles to the CITES Secretariat.**

With respect to end-use markets, **Viet Nam should remain a priority country for CITES oversight attention under Resolution Conf. 9.14 as the situation requires urgent attention.** In particular, Viet Nam needs to demonstrate strong political will to curtail the country's thriving rhino horn trade; develop a robust regulatory framework for ensuring that legally-imported rhino horn trophies are not entering commercial trade; strengthen legislation concerning the sale, offer for sale, or possession of fake rhino horns and improve law enforcement capabilities to prohibit rhino horn sales and use in internal markets and through the internet. There are worrying signs that corruption remains a challenge to effective law enforcement.

The role of China in the rhino horn trade needs to be further assessed but seizure data and exports from Europe suggest far more illegal rhino horn activity in that country than was previously documented. The status of previously imported live white rhino in China should be tracked in view of documented business plans for commercial harvesting of rhino horn for the production of items marketed as medicine. For this reason, **China should also be considered a priority country for continuing assessment pursuant to Resolution Conf. 9.14.**

IUCN also draws the attention of Parties to recommendations in Motion 26 passed at the 2012 IUCN World Conservation Congress in Jeju, South Korea which has now been formalized as IUCN Recommendation #138 (<http://portals.iucn.org/docs/iucnpolicy/2012-recommendations/en/WCC-2012-Rec-138-EN%20Conservation%20of%20rhinoceros%20species%20in%20Africa%20and%20Asia.pdf>). Parties may wish (as happened at CITES CoP15) to consider drafting recommendations they support as Decisions for consideration by CITES CoP16. Finally, Parties and donor agencies are requested to continue supporting TRAFFIC and IUCN's AsRSG and AfRSG to enable them to collect, compile and analyse data and to write summary reports for CITES meetings to support rhino conservation around the world.

Acknowledgements and main sources of information

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