Reach and messages of the world's largest ivory burn

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Abstract

Recent increases in ivory poaching have depressed African elephant populations. Successful
enforcement has led to ivory being stockpiled. Stockpile destruction is becoming increasingly
popular, and most destruction has occurred in the last five years. Ivory destruction is intended
to send a strong message against ivory consumption, both in promoting a taboo on ivory use
and catalyzing policy change. However, there has been no effort to establish the distribution
and extent of media reporting on ivory destruction events globally. We analyze media coverage
across eleven important nation states of the largest ivory destruction event in history (Kenya,
30 April 2016). We used a well-accepted online media crawling tool and key language
translations to search online and print newspapers. We found most online news on the ivory
burn came from the US (81% of articles), while print news was dominated by Kenya (61% of
articles). We subjected online articles from five key countries and territories to content analysis
and found 86-97% of all online articles reported the burn as a positive conservation action,
while between 4-50% discussed ivory burning as having a negative impact on elephant
conservation. Most articles discussed law enforcement and trade bans as effective for elephant
conservation. There was more relative search interest globally on the 2016 Kenyan ivory burn
than any other in five years. Our study is the first attempt to track the spread of media around
an ivory burn and is a case study in tracking the effects of a conservation-marketing event.

Introduction

African elephant (*Loxodonta spp.*) conservation has been bolstered by recent commitments
made by the United States, France, and China to close down their legal ivory markets in 2016
(Yu et al. 2016). These follow widespread African elephant declines caused by the most

34   significant poaching since the 1989 ivory ban (Chase et al. 2016). An estimated 144 000

35   elephants were killed between 2007-2014 across sub-Saharan Africa (Chase et al. 2016).

36   Resultantly, elephants are increasingly threatened across much of their range. Stakeholders in

37   African elephant management broadly agree that this poaching surge is the result of a renewed

38   wave of demand for ivory products (CITES 2016).

39   In 1989, Kenya took action against the ivory trade by burning 12 tons of ivory in a public

40   spectacle in the country's capital (Schiffman 2016). Since then, 20 other countries have

41   followed suit, including many elephant range states contributing to a total of 29 destruction

42   (burn and crush) events. Most of these have occurred since 2011 and a total of 256 tons of ivory

43   have been burnt and crushed, that is approximately a quarter of Africa's total ivory stockpile

44   (CITES 2016). The largest ivory destruction event in history took place in Kenya on 30 April,

45   2016 where over 105 tonnes of ivory was burned (Biggs et al. 2016).

46

47   There are a number of key reasons for burning ivory including: 1) it is an awareness and

48   publicity campaign (Schiffman 2016), 2) it sends a message to poachers and consumers that

49   elephant poaching is intolerable (Schiffman 2016), 3) destruction reduces the available supply

50   of ivory (Kahumbu and Halliday 2016) and 4) it demonstrates a stand against the ivory trade

51   (Laing 2016) (Figure 1). Burning ivory forms an important component of a broader campaign,

52   which attempts to stigmatize its use. However, ivory stockpile destruction could produce

53   unintended outcomes. If ivory price increases with rarity, then reducing supply through

54   destruction events could theoretically increase elephant extinction risk (Holden and McDonald-

55   Madden 2017). Unfortunately, there is no empirical evidence that confirms or refutes this

56   concern (Biggs et al. 2016). Because destroying ivory in such spectacles could potentially aid

57   or hinder elephant conservation, it is essential to monitor their impact on elephant poaching

58   and ivory trafficking (Biggs et al. 2016). While this is a difficult task, due to uncontrollable

59   confounding factors, analyzing the reach of media coverage is an important first step. The

60   ability of ivory burns and crushes to spread a strong message that reduces poaching and

61   trafficking may rely on the effectiveness of media reporting, including spread and content.

62

63   Achieving these objectives may rely in part on the effectiveness of media reporting, including

64   spread and content. Given the increasing popularity of ivory destruction, it is surprising that

65   limited information is available on the media covering these events, and little is known about

66   their true impact. Here we present the first assessment media coverage reporting on the 30 April

67   2016 ivory burn in Kenya. We track the number of online and print news articles in key ivory

68 consumer, African elephant range, and wildlife charity countries, report on the relative Google
69 search interest of the term "ivory burn" over five years globally and compare the content of
70 news originating from the major ivory consumer states and the UK and USA.
71

Methods

73 We assessed online and print media coverage of the ivory burn in 11 countries important for
74 elephant conservation and the ivory trade. First, we selected Mainland China, Hong Kong,
75 Thailand, Vietnam, Taiwan, Philippines, and Japan – these are the most prominent ivory
76 consumer states. Second, we assessed coverage in Tanzania, where most savannah elephant
77 poaching has occurred in the last eight years (Chase et al. 2016) and Kenya, where the ivory
78 burn on 30 April 2016 was carried out. Third, we assessed coverage in the USA, and UK where
79 the vast majority of animal welfare (e.g. International Fund for Animal Welfare) and
80 conservation NGOs that work on elephant conservation in Africa (e.g. Zoological Society of
81 London and Wildlife Conservation Society) are headquartered. In addition, we assessed
82 relative internet search interest for the term "ivory burn" globally (198 states with Google
83 access), over a five-year period to assess whether the 30 April 2016 burn received more relative
84 search interest compared to previous burns.
85

Spread of media coverage

Online news sources

88 We used a "Big Data" analysis approach through the online media crawling tool of the
89 Meltwater Group, one of the world's largest media monitoring companies (Meltwater 2016).
90 The crawling tool has been used in previous studies to collect online news data on issues
91 ranging from the conservation of African lions *Panthera leo* (e.g. Macdonald et al. 2016) to
92 public attitudes towards police in Finland (e.g. Kääriäinen et al. 2016). The crawling tool uses
93 an automated algorithm that search news articles from over 275 314 news sources globally
94 (Macdonald et al. 2016). The search covers 91 languages and at least one million authors. We
95 used the Boolean search terms "ivory", "Kenya" and "burn" in English for each state and also
96 translated these terms into the most commonly spoken language in each of our countries of
97 interest. We limited our search to articles strictly with these keywords in their titles or within
98 their first paragraph (Supporting Information 1). We did this as some articles only made short
99 mentions of matters pertaining to the ivory burn in Kenya and had little to do with the context
100 of ivory usage or elephant conservation. Our sampling period encompassed 106 days (1 April

2016-15 July 2016), which covered information over the month building up to the event and two and a half months after it. We quantified the total number of articles published per state, the total sources searched per state and a metric of media saturation (Macdonald et al. 2016), which is simply the number of articles divided, by the total number of news sources per state.

Print media sources

To supplement our online media analysis, we examined the five largest print newspapers (by circulation) in each state of interest. For Mainland China (the main consumer market of ivory; Stiles et al. 2015), we considered the five largest newspapers in three key regions, 1) Hong Kong, 2) Mainland China overall and 3) Beijing city (China's capital). The majority of media attention across both print and online news centered on the day of the ivory burn (30 April 2016) but we tracked print articles one week before and after the event (Figure S1). Our print newspaper-sampling window was therefore 15 days from 23 April-7 May 2016. We examined the total number of articles published in each state and a metric of media saturation (articles divided by total number of newspapers sampled; Macdonald et al. 2016). We were also interested in the prominence of the ivory burn as a news item. We, therefore, noted the page number on which articles appeared, the relative size of articles (2, 1, ¾, ½, 1/3, ¼ or <1/4 page) and whether the article was accompanied by a photograph. We also noted additional pictorial stories and paid advertisements pertaining to the event.

Relative search interest

We were also interested in how Internet search activity about ivory burns in general changed around the time of the 2016 ivory burn. Google Trends provides an indicator of internet user searches over time (Ladle et al. 2016) and has been widely applied in studies on the popularity of environmental topics (Nghiem et al. 2016; Ficetola 2013). We downloaded data on relative internet search interest of users for the search term "ivory burn" globally (198 nations with Google access). We used Google Trends "Explore" function and input the terms *ivory burn* (no quotations), assessing relative search interest over approximately five years (1820 days; 11 Sept 2011- 4 Sept 2016) to compare attention at the time of the 30 April burn compared to previous burns. The reported numbers are scaled on a range of 0-100, as a percentage of total searches in a given location and time period (Ladle et al. 2016; Google 2016).

Content of media coverage

Media content analysis

We supplemented our analysis of media coverage with content analysis. We examined the discourse of articles in a selection of countries from our sample. Taiwan, a smaller ivory consumer known to serve as a transition point in ivory shipments (Underwood et al. 2013), featured highly in our media coverage assessment, so we, assessed the content of online articles from Mainland China, Hong Kong, UK, USA and Taiwan. We followed the media content approach described by Macnamara (2005) and Gao (2014) and coded articles into different categories. Using the sample of recovered articles from our online news sources, four authors (Choi, Braczkowski, Gan and O' Bryan) each coded 20 randomly selected articles and followed an *a priori* coding protocol of major article themes, the framing of the ivory trade, and the individuals or stakeholders quoted in the articles (see Table 1 for a full description) (Bhatia et al. 2013). We selected the 50 highest reaching online news articles per state but, because our analysis was done *post hoc* to the ivory burn event, some article hyperlinks had expired. We, therefore, only provided content analysis for unique articles (removing duplicates per state) with functional hyperlinks (Supporting Information 2). Media content categorization or "coding" requires consensus amongst at least two individuals (Lombard et al. 2002). We used Cohen's Kappa to assess the agreement between each of our two state-specific coders (Choi and Gan for Chinese, Hong Kong and Taiwan samples and Braczkowski and O' Bryan for the UK and USA samples; Geertzen and Hunt 2009, Gao et al. 2016). Results of the data were only accepted with Kappa values of 0.7 or above. This represents an adequate level of consensus among coders beyond chance (Lombard et al. 2002).

Results

Spread of media coverage

Online news sources

We sampled 122 647 online news sources and found a total of 1944 articles from our 11 states of interest (Figure S2). Online news coverage of the ivory burn was strongest in the UK and USA. The majority of articles came from the USA (81%), which also featured the highest number of individual sources searched (59%). Taiwan (82 articles), the UK (76 articles) and Mainland China (61 articles) followed but collectively only made up 11% of total articles. Notably, Taiwan had 21 more articles than Mainland China despite having 96% fewer sources searched. Additionally, 59% of all Chinese articles (n=36/61) were written in English. This

166   was lower in other states (e.g. 20% of Hong Kong sample; Figure S3). Media saturation

167   (articles/total sources) was highest in the states of Kenya, Tanzania and Taiwan (Figure S4).

168   **Print media sources**

169   We searched a total of 885 daily editions, including weekend editions, from 59 unique

170   newspapers over the 15-day period from eleven states (12 regions, Figure S4). This yielded a

171   total of 96 articles detailing information pertaining to the 30 April ivory burn event in Kenya,

172   the highest of any country. We also found four pictorials (a photo feature), six adverts, and two

173   cartoons (all from Kenya). Print news on the ivory burn peaked from 29 April-2 May 2016

174   (65% of all articles). Kenya had the highest number of articles printed in its five largest

175   newspapers (61% of all articles), followed by the UK (9%) and Mainland China (7%; Figure

176   S4). There were no news articles recovered from the five largest print newspapers in Vietnam,

177   and there was only one recovered from the Hong Kong sample. Print media saturation around

178   the event was highest in Kenya, between seven and 47 times the saturation in other countries

179   investigated (Figure S4). The mean page number where articles were found was 15, and 73%

180   of all articles had an accompanying photograph. The majority of articles (76%) were a half a

181   page long or less. Six articles made the front page (two from the UK, two from Kenya, one

182   from Tanzania and one from Japan).

183

184   **Relative search interest**

185   Our examination of the search terms "i*vory burn*" in Google Trends showed that no ivory burn

186   event over the previous five years attracted as much search interest as the one on the 30 April

187   2016 (Figure S5).

188

189   **Content of media coverage**

190   We coded a total of 140 articles that had functional hyperlinks at the time of data collection

191   (UK n=44; US n=49; Mainland China n=21; Hong Kong n=7 and Taiwan n=19), removing any

192   duplicates in each state sample. Notably, 76% of our Chinese content analysis sample (15/21

193   articles) was written in English. Our inter-coder reliability estimates derived from Cohen's

194   Kappa analysis were all above 0.7 (UK=0.80; US=0.83; CH=0.79; HK=0.73 and TW=0.73).

195   The majority of articles in our content analysis for all regions reported on the ivory burn as

196   something that was seen as a positive action for elephant conservation (range=86-98%; Table

197   2) but Hong Kong and Taiwan had higher incidence of discussions in articles on negative

198   consequences of burning ivory (50 and 32% respectively vs. 16, 9 and 5% for the UK, US and

199   Mainland China respectively). In most cases, articles that discussed these negative

200 consequences made reference to economists and consultants who thought burning ivory would
201 increase its price. Very few articles discussed legal ivory trade as a legitimate activity that
202 could be regulated (range=3-10%) and the majority of articles cited trade enforcement and anti-
203 poaching as conservation solutions (range=55-100%). This occurrence was higher in Mainland
204 China, Hong Kong and Taiwan (range=76-100%) vs. the UK (55%) and USA (62%). Where
205 individuals were quoted or interviewed in the articles, the majority were government officials
206 (57%).
207

Discussion

209 Ours is the first study to analyze media coverage and content surrounding the largest ivory
210 destruction event in history (Kenya, April 30th 2016). We found media coverage was greater
211 than previous ivory destruction events. However, coverage was not uniform as online media
212 coverage was much greater in the USA than in East Asia, and coverage in print media was
213 predominantly limited to East Africa. Since news coverage of the burn was not well represented
214 in some consumer states, there may be opportunities to better target conservation messages
215 related to future ivory destruction events. Our content analysis showed ivory destruction was
216 largely reported as a positive conservation action, suggesting the message communicated
217 through the media was in line with the overall objectives of the ivory burn such as
218 demonstrating a stand against the ivory trade and contributing to a broader campaign of
219 stigmatizing the use of ivory.
220

Spread of global news

222 Media coverage was greatest in the USA which is unsurprising since it has the largest number
223 of media sources (Chyi and Sylvie 2001) and has been closely involved in recent African
224 Elephant conservation efforts. The US is also the base of major NGOs working in Africa and
225 many high-profile individuals in Western societies have played crucial roles in increasing
226 media and public interest in conservation, which may account for the relatively high coverage.
227

228 Mainland China, the primary consumer of ivory, had relatively low online media coverage. It
229 is plausible that the three-day Chinese Labor Day, celebrated from April 30th – May 2nd, which
230 directly overlapped with the burn, subsequently dominated the coverage. Contrastingly,
231 Mainland China had one of the highest print media saturation levels when adjusted for

232 sampling bias. This also indicates that timing is important when choosing the date of an ivory
233 destruction event.
234
235 Interestingly, Taiwan showed a high media saturation relative to its size and the number of
236 online news sources. Taiwan is considered a transit point for the ivory trade and it did
237 experience a 40% increase in worked ivory between 2010 and 2011 (Underwood et al. 2013).
238 The high incidence of online news in Taiwan could be owed to the fact that it has one of the
239 highest freedom of the press in Asia and the longest history in publishing Chinese-language
240 online newspapers, The China Times (Chyi and Huang 2011). According to a recent survey on
241 media use, the internet has become the second largest source for news (46.55% of the
242 respondents aged 11 and above) in Taiwan after television (59.33%; Rainmaker XLM, 2016).
243

Content of news detailing the ivory burn

245 Our results suggest that both western states and key ivory consuming states reported on the
246 ivory burn as a positive action for elephant conservation. Additionally, there was
247 overwhelming support for ivory trade bans and anti-poaching as solutions to the poaching
248 crisis. This is in line with what could be expected from local media narratives, because 22 of
249 the 183 (and 8/11 in this analysis) CITES member states (including the largest ivory markets
250 China and Hong-Kong) have implemented ivory destruction since 1989. Moreover, these
251 narratives largely support Mainland China and Hong Kong's recent pledges to phase out
252 commercial ivory trade by the end of 2017 and 2021 respectively (Cheung et al. 2017; Actman
253 2016; Yu et al. 2016; Neme 2016). The only worrying result we found for the Chinese and
254 Hong Kong samples was that few online articles we analyzed for message content were printed
255 in English. This was 59% for the Chinese sample and 20% for the Hong Kong sample
256 respectively. This is notable as a low proportion of the Chinese population reads English and
257 hence the actual population who read the articles may be lower than our results predict. This
258 could be owed at least partly to a failure of the Meltwater search engine to account for smaller
259 Chinese newspapers.
260

Caveats and other ivory burn news channels

262 Our study has made the first attempt to track the spread of global written news on history's
263 largest ivory burn event through two key avenues (online news and print news). However, there
264 are some caveats. First, although we used the most powerful media crawling tool available
265 commercially, we cannot be certain that it did not miss the smaller online news outlets. Second,

266   our content analysis featured a small sample size, and also failed to assess how members of the
267   public responded to messages being sent. Third, we did not track news sent through radio,
268   television and social media. It is possible that these forms of media have great sway in reaching
269   the mass public. For example, on the 23 April 2017 the African Wildlife Foundation generated
270   over 600 million impressions about the burn on Twitter, reaching an estimated 130 million
271   unique accounts (Paula Kahumbu pers.comm). This and other social media posts on Twitter
272   and Facebook with the hashtags #LightAFire, #WorthMoreAlive, #StopTheTrade and
273   #Tweet4Elephants were actively shared by several NGOs (e.g. Save the Elephants, National
274   Geographic Society and WCS) as well as government entities (e.g. Kenya Wildlife Service)
275   during the Giants Club Summit (see: http://spaceforgiants.org/giantsclub/summit/; 28th – 30
276   April) and the ivory burn on 30 April 2016. The #WorthMoreAlive hashtag on Twitter, for
277   example, was shared the most in Kenya, the UK and USA, with far less coverage in far east
278   Asia (see: http://www.techweez.com/2016/05/06/twitter-map-of-the-ivory-burn-in-kenya/). It
279   is possible, and in fact likely, that there was considerable social media activity on Weibo, the
280   Chinese equivalent of Twitter, having 313 million MAU's and 139 million average DAU's in
281   December   2016   (http://media.corporate-
282   ir.net/media_files/IROL/25/253076/WeiboCorp_20F_20170427.pdf). We cannot rule out that
283   the low incidence of media coverage (particularly from online news sources) in China could
284   also be owed to the country's limitations on the freedom of press (King et al. 2013). However,
285   with China's recent policy pledges at the highest government levels to ban the domestic ivory
286   trade we doubt Chinese authorities would intentionally restrict the quantity of news articles
287   being published on the ivory burn. Finally, we feel that we would have ideally also provided a
288   percentage of ivory burn articles of total articles, but if the distribution of total articles in each
289   news source varies systematically between countries hen our results could be misleading,
290   however total potential sources is the best data we have and should at least approximately be
291   reasonably correlated with the total number of all articles published in these sources.
292

Suggestions on future attempts to track global conservation events and importance
for conservation messaging

295   The year 2016 was a seminal one for African elephant conservation and the ivory trade. African
296   elephants and the ivory trade were prominent in discussions at the World Conservation
297   Congress and the 17th Conference of the Parties to the Convention on the Trade in Endangered
298   Species (CITES). In addition, shortly after the Kenyan burn in April, the United States and
299   France committed to near total bans of their domestic ivory markets (2 June and 2 August 2016

300 respectively, and President Obama originally made the pledge in September 2015 during
301 President Xi's US visit where Xi, on the same occasion, declared China's intention to close its
302 domestic ivory market), a policy action, which is now comparable to other EU states.

304 We argue that the staging of ivory destruction events could be improved to ensure messages
305 reach all the relevant demographics. If policy makers are the demographic targeted by ivory
306 burning (i.e. witnessing the spectacle and reading about it), then timing of destruction events
307 should be around key meetings and more leaders of source, transit and demand countries be
308 invited to attend them. If ivory consumers, poachers and dealers are the intended recipients of
309 news on ivory burns, we suggest that an intelligent media strategy be developed to lengthen
310 the period of news coverage to weeks or months to draw out the messages and maximize
311 coverage in print, radio and online media within ivory consumer states by local NGO's and
312 governments within consumer countries. Major opportunities to reach mass public in ivory
313 consumer states include public holidays and other events with the potential to affect the spread
314 of news. The reach of a news story can also be enhanced by involving celebrities who are
315 recognized in the target communities (Duthie et al. 2017).

317 Further attempts to track the spread and content of media reporting on ivory destruction are
318 necessary to better plan these events in future. For example, the Project Ocean Partnership (a
319 campaign to raise awareness about overfishing, change eating habits of consumers and raise
320 money for marine reserves) between the Zoological Society of London and the department
321 store Selfridges tracked outreach metrics of printed and online articles, blogs, radio and
322 television (they estimated that through all of these media channels, some 400 million people
323 were reached during the campaign in 2011 ; Wright et al. 2015). Our work adds some elements
324 for a case study in the emerging field of conservation marketing, which has been cited as a
325 powerful tool which could be used to change the behaviour and attitude of the public towards
326 wildlife products (Veríssimo et al. 2016; Wright et al. 2015; Veríssimo et al. 2011; Smith et al.
327 2010). However future studies should explicitly factor in the behavioral response of the
328 intended target audiences and make more effort in identifying who the target audience is.

330 The spectacle of ivory burns have been a prominent part of efforts to conserve the African
331 elephant to date, and will likely remain so. Conservation interventions, whether they are related
332 to illegal wildlife trade or other drivers of biodiversity loss, ideally should be evidence-based,
333 and to do that (and to be more effective in future) could include monitoring and evaluation as

334 part of their design (e.g. Wright et al. 2015). We recommend that governments, scientists and
335 key elephant management policy makers follow our lead in attempting to track the spread and
336 content of conservation events such as the 30 April 2016 ivory burn in order to understand
337 impact and refine strategies. The results from this study can be used to ensure that the desired
338 messages from future ivory burning events have a broader reach and are more effectively
339 targeted to their audiences, to achieve better conservation outcomes. Finally, it is imperative
340 that budgets dedicated to ivory destruction include an investment for monitoring and evaluation
341 of impact.

342

348

349 **Supporting Information**

350

351 All raw data, search terms and links to PDF articles used in the online media analysis are
352 provided in supplementary materials section online. Supporting information figures are
353 referred to in text and may also be found online. The functionality of all spreadsheets lies with
354 the authors and queries may be directed to the corresponding author.

355

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468 **Tables**

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471 **Table 1.** Coding categories and descriptions used for our sample of online and print news articles taken from the UK, USA, China, Hong Kong and Taiwan.

Category for classification	Description of category
Main theme	
Is the burn discussed as a positive action for elephant conservation?	Burning ivory is described as contributing to the conservation of elephants
Is the burn discussed as a negative action for elephant conservation?	Burning ivory is described as having detrimental impact on elephants
Does the article talk about the burn reducing demand?	Burning described as an action that will reduce consumer demand for elephant ivory products
Does the article talk about the burn reducing supply?	Burning described as an action that will reduce availability of ivory products
Does the article talk about the burn sending a message to poachers?	Article or someone within, states that burning ivory will send a message to poachers
Does the article talk about the burn sending a message to consumers?	Article or someone within, states that burning ivory will send a message to consumers
Does the article talk about facts regarding elephant populations?	Article quotes figures on elephant numbers in the wild and associated declines over time
Framing of Ivory Trade	
Is trade proposed as a possible legitimate activity that could be regulated?	Article discusses regulated legal trade as a as a legitimate activity
Is enforcement of trade bans and anti-poaching presented as a solution?	Article presents ivory trade ban and anti-poaching as solutions to elephant decline
Stakeholders Interviewed	
Are people involved in illegal trade interviewed?	People such as illegal ivory dealers and poachers
Are people involved in legal trade interviewed (e.g. legal ivory dealers in China)?	Dealers engaging in regulated, certified legal trade in ivory
Are people involved in a conservation/animal charity interviewed?	Conservation NGO's such as WCS, WWF etc.
Are people involved with universities interviewed?	Individual interviewed from a recognized tertiary institution
Are people involved with a government body interviewed?	Representative of any recognized government body linked to a state government e.g. Kenya Wildlife Service
Someone else interviewed	Another source e.g. journalist, consultant or economist

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Table 2. Percent of online news articles coded into our 16 elephant ivory burn article categories from our countries of interest.

Category for classification	UK % articles (*n*=44)	USA % articles (*n*=49)	Mainland China % articles (*n*=21)	Hong Kong % articles (*n*=7)	Taiwan % articles (*n*=19)
Main theme					
Is the burn discussed as a positive action for elephant conservation?	86	92	97	92	97
Is the burn discussed as a negative action for elephant conservation?	16	9	4	50	31
Does the article talk about the burn reducing demand?	8	6	11	7	2
Does the article talk about the burn reducing supply?	15	11	2	0	3
Does the article talk about the burn sending a message to poachers?	30	37	42	50	47
Does the article talk about the burn sending a message to consumers?	11	24	23	35	21
Does the article talk about facts regarding elephant population size?	33	35	28	71	68
Framing of Ivory Trade					
Is trade proposed as a possible legitimate activity that could be regulated?	5	5	9	7	3
Is enforcement of trade bans and anti-poaching presented as a solution?	62	55	76	100	92
Does the article discuss potential **negative** consequences (for elephants) of burning ivory?	36	23	7	50	32
Stakeholders Interviewed					
Are people involved in **illegal** trade interviewed (e.g. poachers/ivory dealers)?	0	0	0	0	0
Are people involved in **legal** trade interviewed (e.g. legal ivory dealers in China)?	0	0	4	0	0
Are people involved in conservation charity interviewed?	20	12	14	21	3
Are people involved with universities interviewed?	5	2	0	7	0
Are people involved with a government body interviewed?	59	75	76	57	68
Someone else interviewed? (If so, discuss in notes)	22	21	7	21	0

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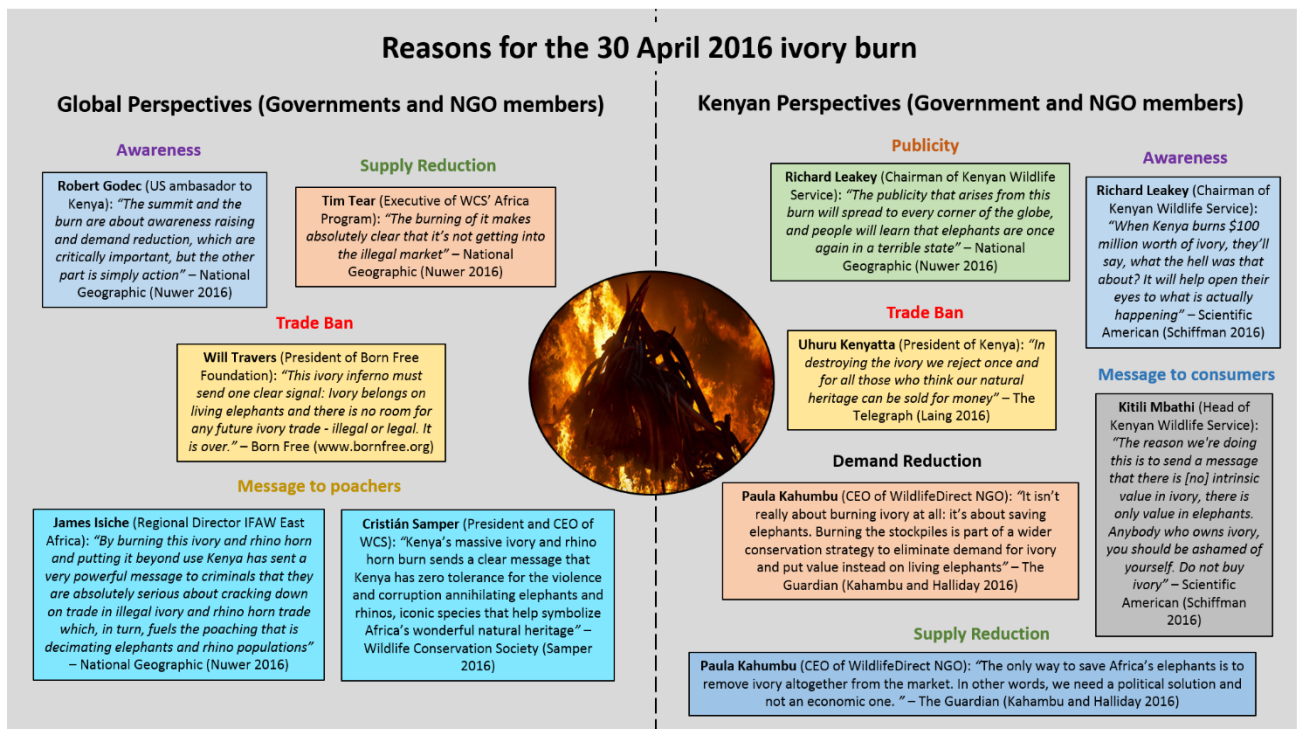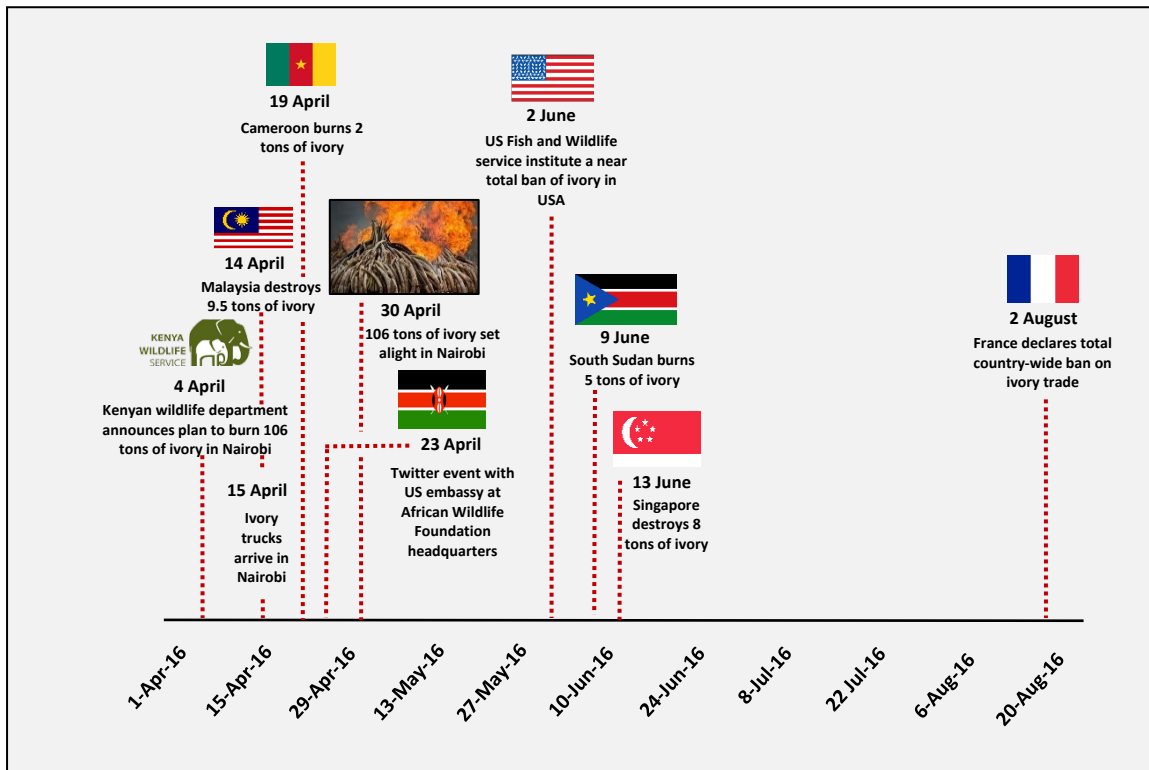
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Figures

Figure 1. Motivations for burning ivory from both Kenyan stakeholders directly involved in the 30 April 2016 ivory burn, and also international government and NGO members that extended support for the burn event.
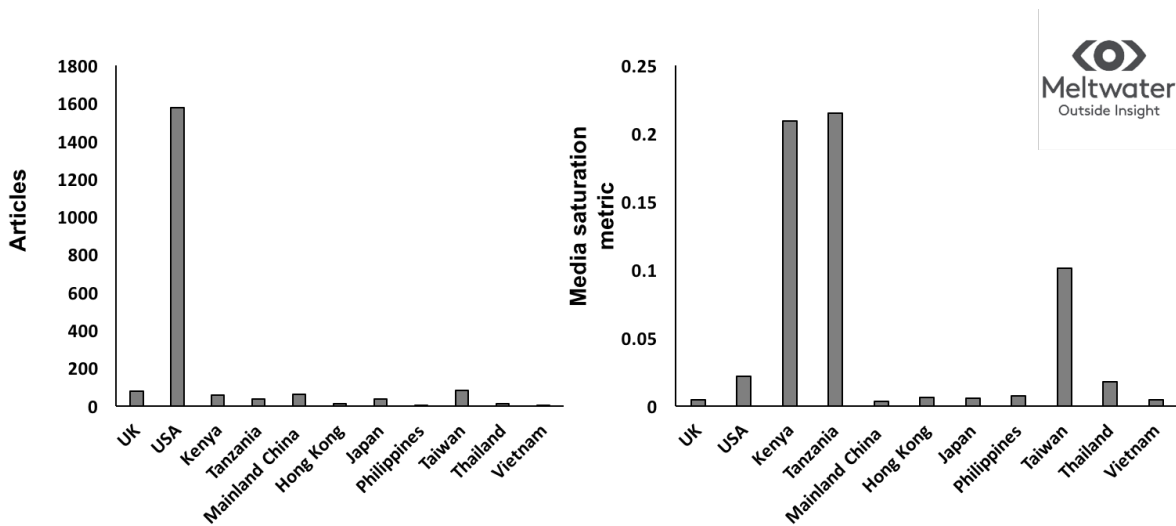
Supporting Information

Figure S1. A timeline of key media and policy events beginning April 1st and culminating on the 2nd of August with
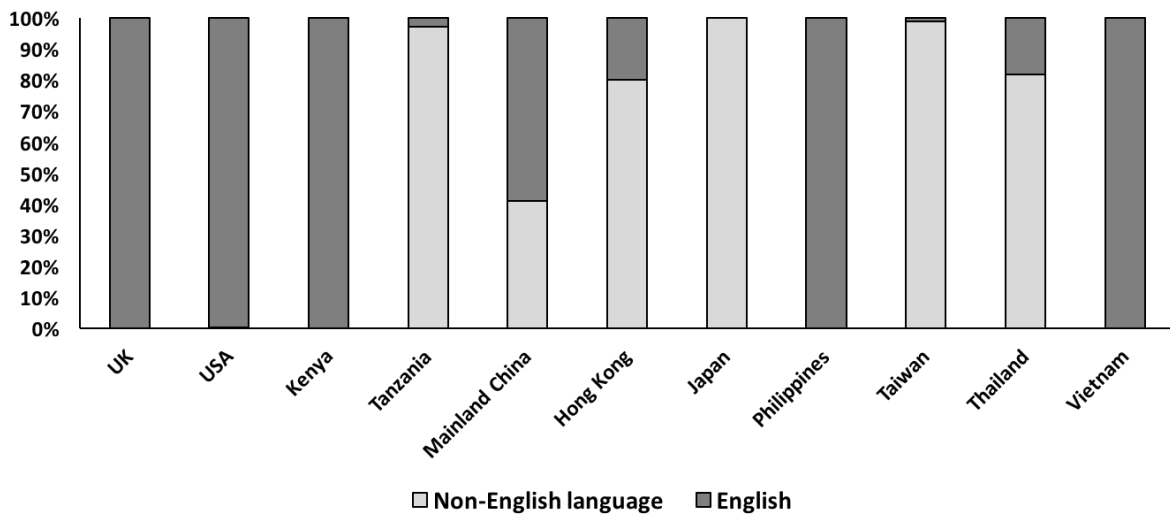France's declaration of a country-wide total ivory trade ban.

Figure S2. Total number of online articles recovered from Meltwater sources and also the corresponding media saturation
(total articles/total number of sources) metrics for our states of interest.

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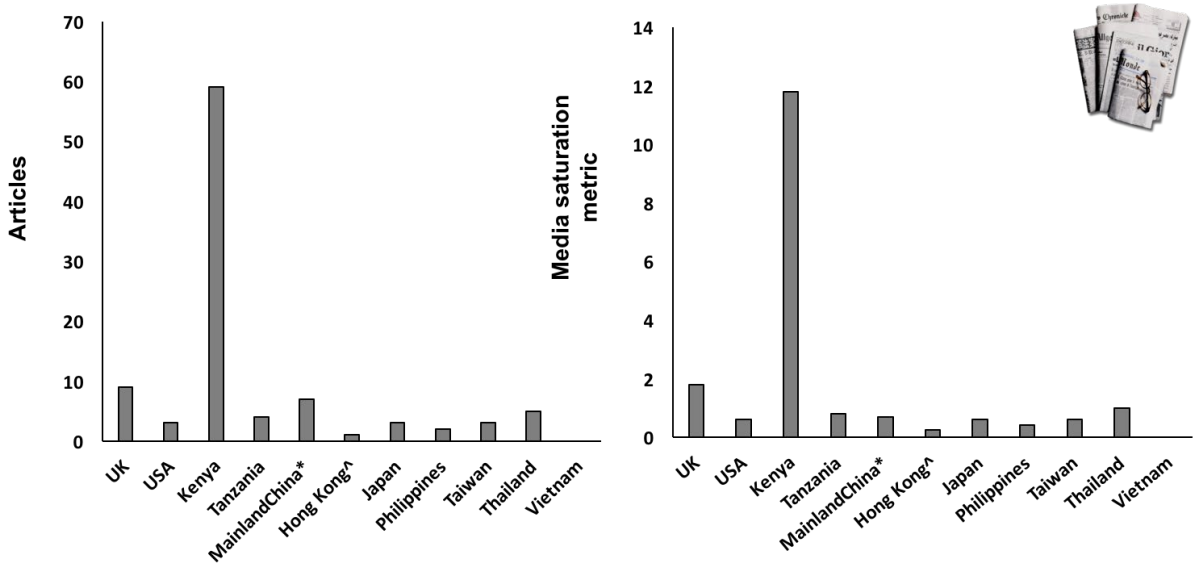**Figure S3.** Percentage occurrence of articles published in local or non-English languages vs. those printed in English for our sample of 1944 articles.

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Figure S4. Total number of ivory burn articles and media saturation figures for the 5 largest print (by circulation) newspapers in each of our countries of interest. *We searched ten print newspapers in three regions of China (5 largest papers across China nationwide, 5 largest in Beijing and 4 largest in Hong Kong).

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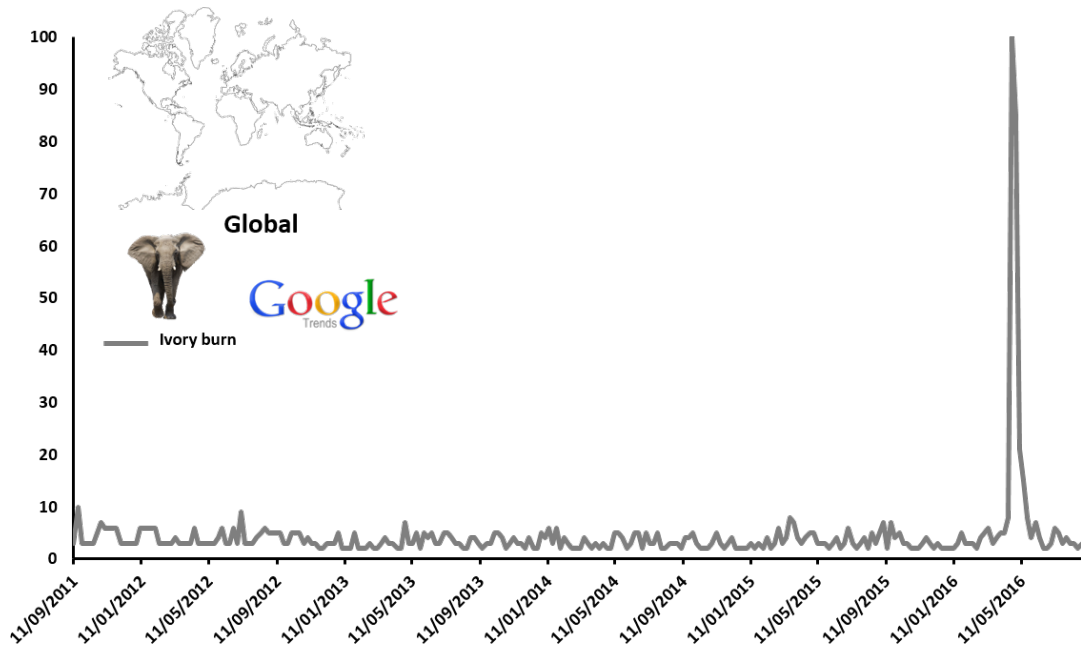582
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Figure S5. Five years of relative search interest data obtained from Google Trends for 198 countries with Google domain access. The term "ivory burn" was used in our search.