

Foreword by TRAFFIC and WWF

The large-scale consumption of wildlife parts, products, and derivatives is one of the key extinction drivers for endangered species worldwide. With Mainland China (further being referred in this report as 'China') being a key destination for many of these products, conservation professionals have been exploring the potential for targeted advocacy, social marketing, and multi-media campaigns to deliver real and rapid impact in reducing this demand. TRAFFIC and WWF have implemented several behavior change interventions in recent years to reduce demand for illegal wildlife products like ivory, rhino horn, and tiger bones. Consumers including antique collectors, outbound tourists, businessmen, millennials and traditional Chinese medicine users have been targeted in those behavior change interventions.

Within this context, a "game-changing" ban on commercial processing and trade in elephant ivory was implemented by the State Council, China's Cabinet on 31 December 2017. TRAFFIC and WWF commissioned GlobeScan before the ban became effective in 2017 to conduct this largest-ever ivory consumer research in China. This research seeks to discover the nature of ivory consumption in 15 surveyed cities in China, to understand consumers' perception toward the ivory ban, and to assess effective messaging and mechanisms for demand reduction based on a pre- and a post-ban survey, conducted in September – October 2017 and in May–June 2018, respectively. The research also will serve as the foundation of TRAFFIC and WWF's future behavior change strategies and interventions.

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Background and Objectives

Consumers including antique collectors, outbound tourists and business people have been targeted in previous behavior change interventions on ivory consumption. These consumers can be users, buyers, owners, gifters or intenders to buy. TRAFFIC and WWF commissioned GlobeScan to conduct research in order to build upon previous consumer analysis and to generate up-to-date insights about ivory consumption and consumer perceptions toward the ivory ban, both before and after its implementation (Dec 31, 2017).

This research identifies those target consumer groups, products, and drivers of consumption that need to be addressed as a priority and provides data for designing, developing, and delivering interventions.

The objectives of this survey – both the Pre- and Post-ban Surveys – can be summarized as follows:

- 1. Understand to what extent the implementation of the ban has impacted ivory purchase. Measure the awareness of the ban and its perception, and how it influenced the behavior/attitudes of buyers and/or potential buyers.
- 2. Identify the key consumer/buyer segments of elephant ivory (products) before the implementation of the ban, and assess how their perception, awareness, and purchase behavior has changed after the ban became effective.
- 3. Identify the prevalence and frequency of purchase/use of these products plus the major motivations driving purchase/use of these products
- 4. Analyze psychosocial and socio-demographic characteristics, attitudinal dimensions, and other aspects of each consumer segment, in order to gain insight into:
 - The specific triggers, motivations, and drivers for the use or purchase of each of these products
 - Examine the underlying desire to purchase or own ivory and the barriers which will deter (potential) buyers from purchasing ivory
 - Their awareness of and attitudes toward legislative provisions, penalties, and other deterrents restricting or prohibiting the use of these products
- 5. Test various concept messages (in the Pre-ban Survey) and campaigns (in the Post-ban Survey) as input for future ivory demand reduction communication and behavior change interventions

Methodology Overview: Post-ban Quantitative Survey

Methodology and Sample: Post-ban Quantitative Survey

- The Post-ban Survey was conducted online, from May 23 to July 4, 2018. Respondents from an online panel were invited to participate in the online survey via email, with a questionnaire length of 15 minutes on average.
- The total sample size achieved is n=2,161 (unweighted), which we weighted towards n=2,000, for easy comparison with the pre-ban survey, which also had a weighted total of n=2,000. This robust unweighted sample size of n=2,161 has a margin of error of 2 percent (after rounding see appendix for a detailed overview).
- These 2,161 respondents were sampled from the online population. The online population represents 90 percent of those aged 18 years and older in urban centers of China (see: https://www.chinainternetwatch.com/tag/internet-penetration-rate/).
- Any respondents under 18 years of age and those working in the advertising, public relations, marketing, market research, and media industries were screened out.
- The survey covers 15 cities with a total metropolitan population of 227 million inhabitants, according to the latest update (25 April 2017) from www.worldatlas.com. For this survey, the cities have been reclassified into layers (not related to China city tiers) as per TRAFFIC's definition, in order to reflect the trade of ivory in China adequately.

Comparison with Other Surveys

- This survey is based on a selected sample, with a choice of cities being considered active ivory markets and the **key metrics** cannot be compared 1-on-1 with other surveys (except for the Pre-ban Survey 2017).
- This Post-ban Survey follows the Pre-ban baseline survey conducted in September October 2017. Relevant comparisons and
 trends can be observed as the Post-ban Survey is comparable with the Pre-ban Survey (for the questions asked in both
 stages) since it is based on the same methodology and the same sampling plan.

GLOBES

• While the data/key metrics are specific for the 15 cities, the underlying patterns on segmentation, purchase behavior, and communications are relevant for the ivory buyers, and the results are crucial input for campaigns.

Coverage



Source: https://www.travelchinaguide.com/map/

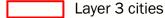
Definition: City Layers

- Layer 1, 2, and 3 are per TRAFFIC's definition to reflect the ivory trade and consumption in major cities in China.
- The reason for grouping cities by layers is to obtain a view on the dynamics of ivory trade by type of markets (cities).
- TRAFFIC nominated these cities as being strategic and active centers of the ivory trade in China, rather than being representative of China as a whole. This is different from a geographical spread as used in past surveys on ivory.
- Hence, the data in the report is centered on these selected cities rather than on a balanced national representative sample.

Coverage by City

- The (unweighted) sample achieved by Layer in the Post-ban Survey is the following:
 - n=1,016 in Layer 1 cities (Beijing, Shanghai, Guangzhou, Chengdu)
 - n=620 in Layer 2 cities (Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin)
 - n=525 in Layer 3 cities (Nanning, Chongging, Nanjing, Jinan, Shenzhen)

Layer 2 cities





Methodology Overview: Fieldwork and Sampling

Quantitative Research: Fieldwork Monitoring and Sampling Plan

- The fieldwork has been monitored on a daily basis and detailed checks of interim data have been performed during fieldwork (at 10%, 40%, 55% and 80% of sample completion) to ensure data quality and consistency.
- In order for the sample to be representative by gender, age, and education, quotas were set from the start of fieldwork and were monitored regularly during the fieldwork.
- The census data from the China National Bureau of Statistics was used to set these quotas (see link below): http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm
- The following quotas were used at total level, for both the Pre-ban Survey and in the Post-ban Survey:

Quotas on Gender (in %)	Source: China Census (2015)
Male	51.2%
Female	48.8%

Quotas on Age (in %)	Source: China Census (out of 18+) (2015)					
18-20	4.5%					
21-30	20.8%					
31-40	18.3%					
41-50	21.7%					
51-60	16.0%					
61 and older	18.7%					

Quotas on Education (in %)	Source: China Census				
High	9.5%				
Middle	62.3%				
Low	28.2%				



Analyses Deployed: Segmentation

Segmentation Analysis - Pre-ban Survey

In order to identify homogenous groups of customers in terms of their behavior, intentions, attitudes, and motives, we have developed a custom segmentation using the Decision Tree statistical algorithm¹.

The model was used to predict the likelihood of buying ivory after the ban is imposed, and to identify segments of respondents sharing similar patterns of responses to the question on past purchases, intention to purchase, and advocacy for ivory consumption.

Input variables included: attitudes, motives and barriers, past and future intended purchasing, and agreement/disagreement with the ban.

Based on this predictive modeling, we have identified three distinct segments: **Diehard Buyers, Ban Influenced Citizens and Rejectors.**

This segmentation is a different indicator as the Ivory Purchase Index (IPI) (see explanation in the next slide). While both indicators use different methodologies to be compiled, they share common input variables. Both indicators include past and future purchase, measured before and after the respondents read the Notice of the ban in the survey. However, the segmentation also includes attitudes, motives and barriers, unlike the IPI.

Segmentation Analysis – Post-ban Survey

In order to recreate the segments (e.g. **Diehard Buyers, Ban Influenced Citizens and Rejectors)** identified in the Pre-ban poll, we used statistical algorithm extracted using **Discriminant Function Analysis**.

The segments characteristics are identical to the original though the size is different.



¹ More details and description of the Decision Tree statistical algorithm used in the Pre-ban Survey in appendix.

Analyses Deployed: Ivory Purchase Index

Ivory Purchase Index: Definition

- For this survey, we have recreated the "Ivory Purchase Index" developed in the Pre-ban Survey.
- The Ivory Purchase Index can be considered as a barometer or a measure of purchase intention or attractiveness.
- It allows us to customize strategies and messages for specific sub-groups, e.g., buyer segments, city layers, age groups, etc.
- The Ivory Purchase Index helps to see the overall picture, i.e. who are the most persistent ivory buyers.

How Is it Compiled?

- The Index is an aggregate measure that distills many indicators down to a single number enabling quick comparisons across buyer segments, city layers, age groups, etc.
- The Ivory Purchase Index was developed by reducing all attributes that were related to past and future purchase of ivory down to three dimensions:
 - Past purchase
 - Future purchase
 - Impact of the ivory ban (i.e. future purchase of ivory after implementation of the ban and recommendation to purchase ivory after implementation of the ban).
- It is a sum of these three dimensions/sub-indices, based on a 10-point scale, with 1 being lowest (least persistent in buying ivory) to 10 being the highest.





Overview: Consumer Segments

Across the 15 cities selected as active ivory markets, the segment repartition has changed substantially after the ban became effective: After the implementation of the ivory ban, a significant proportion of Ban Influenced Citizens have shifted into Rejectors (and strongly contributed to the growth of the Rejectors segment), while Diehard Buyers are more willing to purchase in the future and the size of their segment only declined slightly.

Segments' Representation and Key Purchase Metrics

Rejectors

Profile: Average age: 44.2 y.o.
Respondents aged 51+, with Low/middle education, Non-travelers, from Layer 3 cities, are significantly more represented among Rejectors than in other segments.

Ivory Purchase Index:

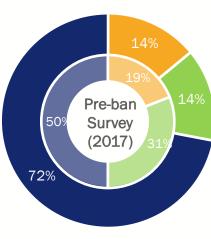
1.08 (vs **1.23** in Pre-ban 2017)

Past 6 Months¹ Ivory Buyers:

1% (vs 3% in Pre-ban 2017)

Future Purchase Intenders:

5% unprompted, 0% prompted



Post-ban Survey (2018)

Diehard Buyers



Profile: Average age: 41.5 y.o.

Respondents aged 41-50, Males, with Medium income, High education, Regular travelers, from Layer 2 cities are significantly more represented among Diehard buyers than in other segments.

Ivory Purchase Index: 6.03 (vs 7.17 in Pre-ban 2017)

Past 6 Months¹ Ivory Buyers: 46% (vs 54% in Pre-ban 2017)

Future Purchase Intenders: 70% unprompted; 100% prompted

Ban Influenced Citizens



Profile: Average age: 35.7 y.o.

Respondents aged 18-40, with Low income, High education, Occasional/ regular travelers, from Layer 1 cities are significantly more represented among Ban Influenced Citizens than in other segments.

Ivory Purchase Index: 5.23 (vs 5.72 in Pre-ban 2017)

Past 6 Months¹ Ivory Buyers: 38% (vs 47% in Pre-ban 2017)

Future Purchase Intenders: 86% unprompted, 0% prompted



¹ Past 6 months in Pre-ban Survey: May – October 2017; Past 6 months in Post-ban Survey: January – June 2018 Base: Total Sample in 15 selected cities, Pre-ban Survey: *n*=2,000 / Post-ban Survey: *n*=2,000 – **Weighted data**

Overview: Purchase Behavior



Past Purchase*

Since the ban was implemented, the claimed purchase of ivory has declined significantly:

Ivory Buyers in the past 12 months

14% (**J** vs **31%** in Pre-ban 2017)

Ivory Buyers in the past 6 months (i.e., in Jan – Jun 2018, ban implementation period)

12% (vs **26%** in Pre-ban 2017)



Future Purchase

Likewise, the future intention to purchase ivory has declined by half in Post-ban vs Pre-ban:

Intention to buy ivory in the future in post-ban 2018

Before hearing of the ban in the survey: **26%** (vs **43%** in Pre-ban 2017)

After reading the Notice of the ban in the survey:

14% (vs **18%** in Pre-ban 2017)

Post-ban 2018: Ivory Purchase by City Layers*

The claimed past 6 months purchase (i.e. in Jan – Jun 2018) of ivory decreased significantly in each Layer. The pattern observed in the Preban Survey, where the purchase of ivory appeared to be shifting from Layer 1 to Layer 3 cities, has stopped.

Layer 1 cities

Ivory Buyers in Post-ban 2018: 18% (vs 25% in Pre-ban 2017) Purchase channels:



Short-term trips overseas 45%



Layer 2 cities

Ivory Buyers in Post-ban 2018: 9% (vs 25% in Pre-ban 2017)

Purchase channels:







Market stall

Retail store

Street vendors

Layer 3 cities

Ivory Buyers in Post-ban 2018: 6% (vs 29% in Pre-ban 2017)

Purchase channels:



Retail store

Market stall



^{*}All past purchase incidence and purchase behavior data (i.e. purchase channels) is measured before mentioning the ban in the survey Base: Total Sample in 15 selected cities, Pre-ban Survey: n=2,000 / Post-ban Survey: n=2,000 - Weighted data

Overview: Attitude and Awareness of the Ban Pre-ban Survey VS Post-ban Survey

Awareness of the Ban (Post-ban 2018)

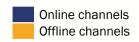
8% (**1**4% pts vs Pre-ban 2017)

Spontaneously recall having heard of the ivory ban (Unprompted Awareness)



Say they have heard about the ivory ban when prompted (i.e. after reading the ban Notice) There is a significant increase of the spontaneous mentions of the ivory ban in the Post-ban Survey, driven by Layer 1 cities (indicating higher exposure to communications in these cities) and Rejectors.

Top 5 Sources of Awareness (% of those aware of the ban after reading the Notice, prompted)













News Portal 40%

Social Media 32%

Mobile News Apps 31%

TV/ Screen 28%

Search Engine/ Internet Ad 25% The main sources of awareness of the ivory ban are **online channels**, with news portals being the most popular.



Overview: Impact and Perception of the Ban

Perception of the Ban

The ban is perceived as a **powerful game changer** in the trade of ivory: **9 in 10** respondents among the total sample believe that it will **offer hope for elephants** and that **buying ivory is shameful** since it is banned.

% Agreement with Statements (Top-3-Box, 5+6+7)*



The ivory ban offers hope for elephants

87%



Buying ivory is shameful as it is banned

85%



There should be strong penalties for ivory buyers

82%



Buying ivory after the ban is risky as there are penalties

77%

Impact of the Ban

8 in **10** agreed that the ban will make them **completely stop buying ivory** and this opinion gained ground after the ban was implemented (from 74% to 83%, among the total sample), suggesting that the ban has a significant impact on the reported purchase intention.

% Agreement with Statements (Top-3-Box, 5+6+7)



Make me completely stop buying ivory

83%

(vs 74% in Pre-ban)



Make me avoid buying any wildlife products

74%

(vs 71% in Pre-ban)



Make me buy other materials (non-wildlife products) instead

63%

(vs 57% in Pre-ban)



Make me buy less ivory

61%

(vs 68% in Pre-ban)



^{*} No comparison with Pre-ban survey available

Overview: Campaign Awareness and Effectiveness

Campaign Spontaneous Recall



Regular travelers & Millennials

are the groups with highest ivory campaign recall



"When the buying stops, the killing can too."

Is the most memorable element (recalled by 12% spontaneously)



Yao Ming and Li Bingbing

Are the most memorable spokesperson (recalled by respectively 17% and 13% of the respondents when unprompted)



TV/Screen

Is the most common source of campaign awareness

Campaign with Li Bingbing

35% Recalled

Recalled the campaign



Most recalled visual (seen by 27%)

Campaign with Yao Ming

40%

Recalled the campaign



Most recalled visual (seen by 30%)



Summary of Findings

Ivory Purchase Index and Claimed Ivory Purchase

- The past 12 month purchase incidence of ivory has declined significantly, and this decline is mostly driven by Layer 3 cities after the ban has been implemented. This indicates that the pattern observed in the Pre-ban Survey, where the purchase of ivory appeared to be shifting from Layer 1 to Layer 3 cities, is not visible any longer. The purchase incidence is now lower in Layer 3 cities vs the other Layer cities. A similar pattern is observed for future purchase intention.
- The Ivory Purchase Index scores have also declined overall and especially in Layer 3 cities, suggesting that the implementation of the ban has had some effect on the willingness and appeal to purchase ivory in these cities (as reflected in the large shift of Ban Influenced Citizens into Rejectors in Layer 3 cities).
- Regular Overseas Travelers are the most persistent buyers, with a similar purchase behavior in the Pre-ban Survey and Post-ban Survey, and an comparable Ivory Purchase Index score.

Buyers Segments

- Among the Buyers Segments, the Rejectors have gained ground (from 50% to 72% of the total sample) mostly because a significant portion of Ban Influenced Citizens became Rejectors. The Ban Influenced Citizens segment has shrunk by more than half in Post-ban 2018 vs Pre-ban 2017.
- Diehard Buyers are less represented, but as per their definition, this segment is the most persistent and still represents 14 percent of the general population.
- With the shift to Rejectors, the intention to purchase ivory in the future among the smaller proportion of Ban Influenced Citizens and Diehard Buyers has now slightly intensified, most likely because the most persistent respondents remain.



Summary of Findings

Purchase Channels

- Among those who claim to have purchased ivory in 2018, they mostly bought in a physical retail store in China. This purchase channel saw an increase in 2018.
- Overseas purchases during short-term trips and purchase from a single individual are the other channels that have increased in 2018. On the other hand, online was used less as a purchase channel for ivory since the beginning of 2018.
- The growing purchase in other countries/ territories is mostly driven by regular travelers, who claim to have purchased ivory when travelling outside of Mainland China on short business or leisure trips. The top destination reported for ivory purchase overseas is Thailand (which is also one of the top courtiers visited in general). Regular travelers who claim to have purchased ivory outside Mainland China have increased from less than half in Pre-ban 2017 to two-thirds in Postban 2018.

Awareness of the Ban

- The <u>spontaneous/unprompted</u> awareness of general regulations remains low in 2018 (i.e., 12% can mention any regulation spontaneously). However, among this sub-sample of respondents who claim to be aware of regulations, the spontaneous awareness of the ivory ban has increased substantially.
- After all respondents read the official notice of the ban, the <u>prompted</u> awareness of the ban remains at a comparable level in 2018 vs right before its implementation in September – October 2017, with no significant differences among the key sub-groups.

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Summary of Findings

Impact and Perception of the Ban

- The ban is seen as a powerful game changer, i.e., the main perception of the ban after having seen the notice is that it will "offer hope for elephants" and that "buying ivory is shameful" since it is banned. These opinions are shared by three-quarters of the respondents.
- When it comes to the impact of the ban, respondents agree that it will "make them completely stop buying ivory," and more generally, that it will "make them avoid buying any wildlife products." While this opinion is comparable across city layers and age groups, regular travelers have a different opinion, with only half of them agreeing that the ban will make them completely stop buying.

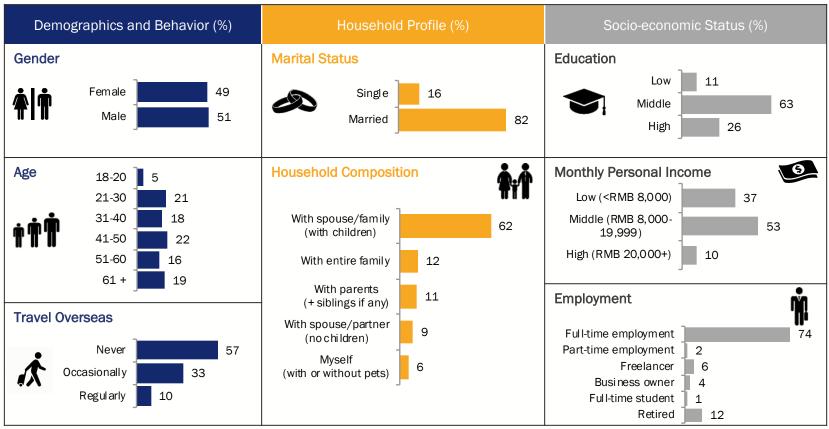




Total Sample Profile - Post-ban Survey

Based on Mainland China General Population Sample (Same Quotas on Age, Gender, Cities, and Soft Quotas on Education in Pre-ban Survey and Post-ban Survey, comparable split for the other indicators)

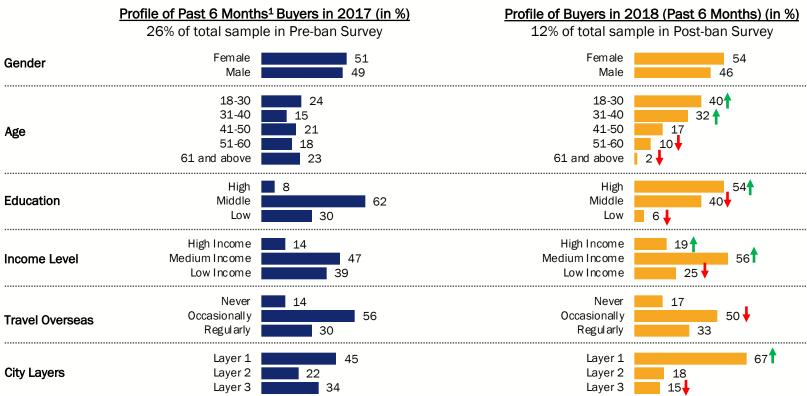
The demographic profile of the respondents in the 15 cities surveyed is representative of the general population in Mainland China. The majority of respondents have middle income, are married, are employed full time, and live with their family.



Past 6 Months / 2018 Ivory Buyers' Profile

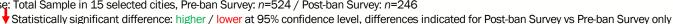
Comparison of Post-ban Survey vs Pre-ban Survey

The main differences in the profiles of recent buyers in Post-ban 2018 vs Pre-ban 2017 are their age (i.e., they are younger than in 2017) and their monthly personal income (i.e., more middle/high). The recent buyers are also more represented in Layer 1 cities, and less so in Layer 3 cities.



¹ Past 6 moths in pre-ban: May - October 2017; in post-ban: January - June 2018

Base: Total Sample in 15 selected cities, Pre-ban Survey: n=524 / Post-ban Survey: n=246

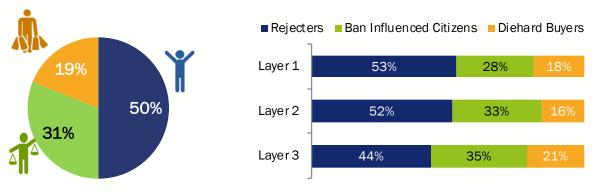




S1. City of residence, S2. Gender, S3. Age, S4. Monthly Personal Income, S5 Education, O28. Travel Behavior - Weighted data

Buyers Segments Repartition – Post- vs Pre-ban Survey

Pre-ban Survey (2017) - Buyer Segments Repartition among General Population and City Layers



Post-ban Survey (2018) - Buyer Segments Repartition among General Population and City Layers



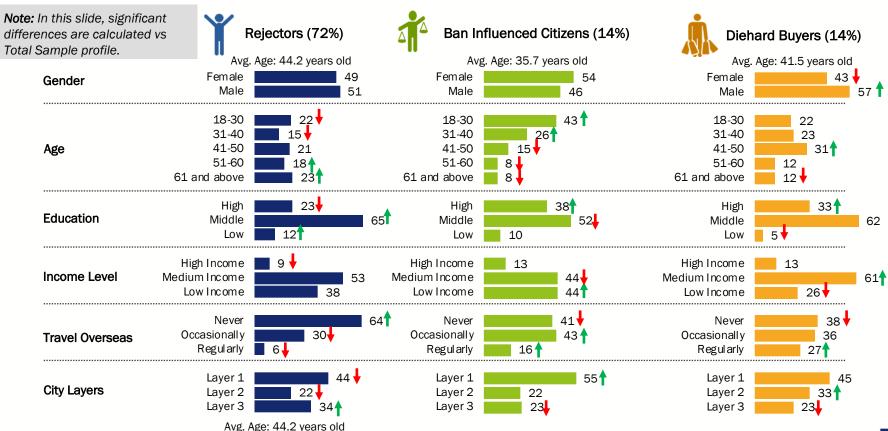
The segment repartition has changed substantially after the ban became effective:

- The main decrease is among Ban Influenced Citizens, whose segment size decreased by more than half in Post-ban 2018 vs Pre-ban 2017.
- This drop was mainly driven by the Ban Influenced Citizens shifting to Rejectors (esp. in Layer 3 cities where they are down from 35% to 11%, or a drop by 70% of this segment size after the ban became effective in Layer 3).
- Diehard Buyers are less represented, but as per their definition, this segment is more persistent and still represents 14% of the general population.
- After the implementation of the ivory ban, more than seven in ten are Rejectors among the general population.
- The main shift took place in Layer 3, with a majority of Ban Influenced Citizens who became Rejectors.



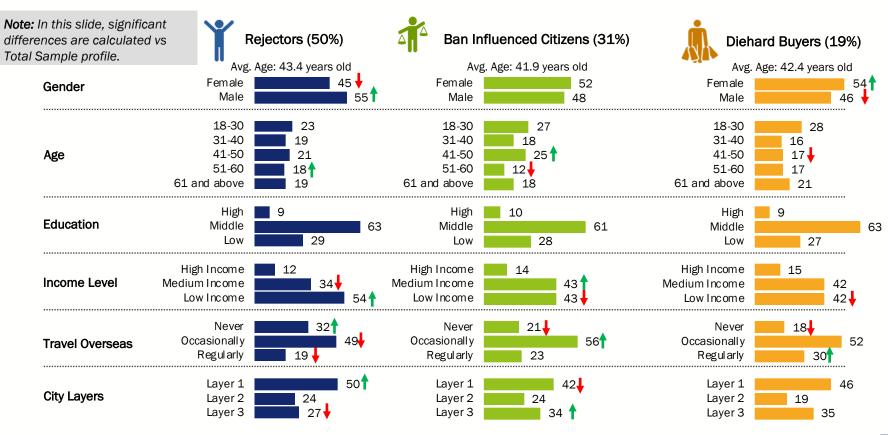
Buyer Segments Profile - Post-ban Survey (2018)

After the ban was implemented, Rejectors are more skewed towards the 41+ age groups, and Layer 3 respondents are significantly more represented among the Rejectors than among the other segments. Diehard Buyers are more skewed toward male and middle income.





Buyer Segments Profile – Pre-ban Survey (2017) (For comparison with previous slide)

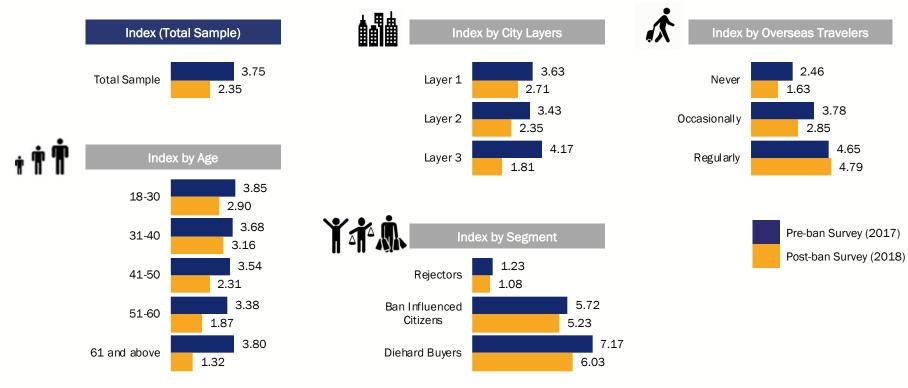






Ivory Purchase Index - Post- vs Pre-ban Survey

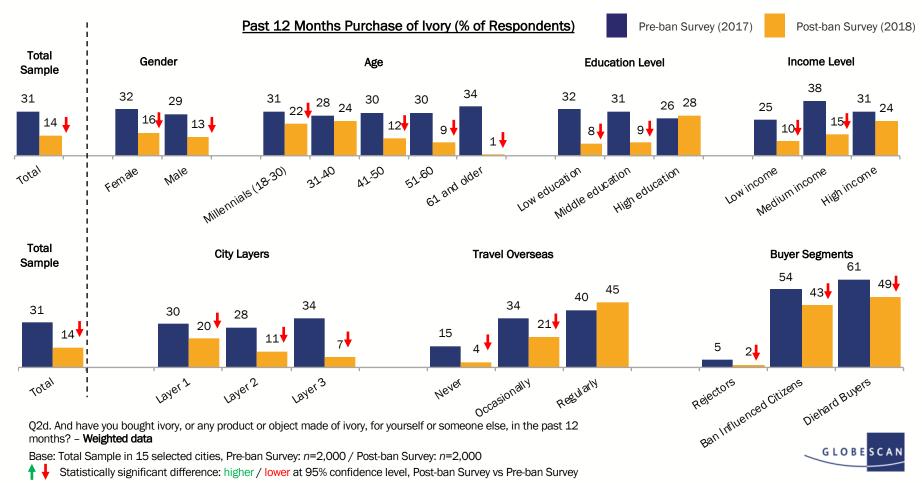
Overall, ivory has become less attractive to respondents in Post-ban 2018 vs Pre-ban 2017. The attractiveness of ivory has mostly declined in Layer 3 cities and particularly among those aged 51+. However, the regular overseas travelers is the only group among which the index remains comparable to the Pre-ban Survey and indicates that they are the most persistent buyers (and they are also the group with the highest ivory campaign recall, see chapter 3.4).





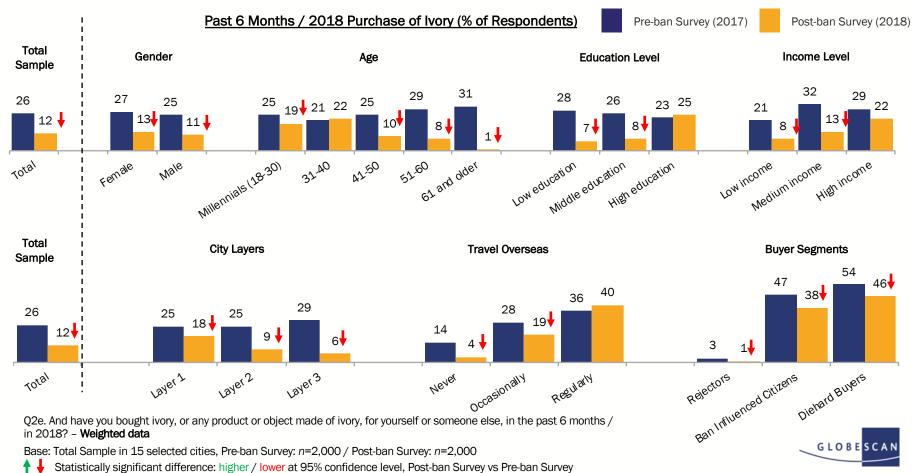
Purchase of Ivory in Past 12 Months

Overall, the past 12 months incidence of ivory purchase has declined more than half in Post-ban Survey (2018) vs Pre-ban Survey (2017). This drop is particularly driven by the Layer 3 buyers and by the older age groups (esp. the 51+). While the past 12 months purchase of ivory by Millennials has only slightly decreased, it is worth noting that the incidence of ivory purchase among regular travelers remains very high compared to the other buyer segments.



Purchase of Ivory in Past 6 Months / in 2018

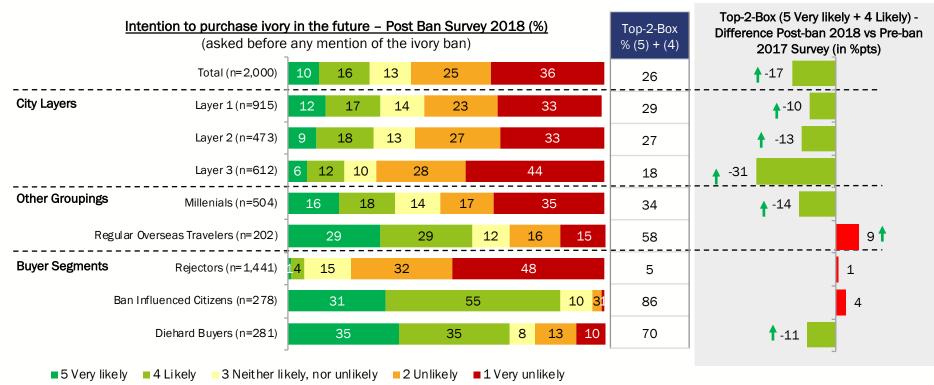
The recent purchase of ivory (i.e., in the past 6 months) has decreased significantly in Jan-June 2018, comparing the Past 6 Month in Pre-ban Survey, which is May-Oct 2017. Only the regular overseas travelers, high income, and diehard buyers continue to purchase ivory in 2018 with the same incidence as before.



Intention to Purchase Ivory in the Future

Post-ban Survey vs Pre-ban Survey (Asked Before Mentioning the Ivory Ban)

The significant decline of those intending to buy ivory in Post-ban Survey 2018 is particularly driven by respondents in Layer 3 cities. On the other hand, Regular Overseas Travelers' intention to buy has strengthened. It is worth noting that one in three Millennials still intend to buy ivory in the future.



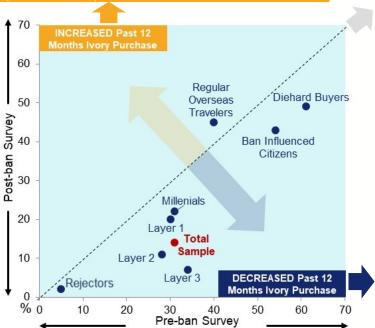


Q5a. How likely will you be to purchase ivory and/or anything made of ivory in the future? – **Weighted data** Base: Total Sample in 15 selected cities, Pre-ban Survey: n=2,000 / Post-ban Survey: n=2,000

Scatterplot Analysis [How to read it chart] Pre-ban Survey vs Post-ban Survey – by Key Sub-groups

Sub-groups located above the diagonal axis have increased their purchase of ivory in Postban 2018 vs Pre-ban 2017, after the ban was implemented.

= Most persistent groups of buyers. Necessity to uncover the reasons why they continue to purchase despite the ban and address these



The diagonal axis indicates the same % in the Pre-ban Survey (x-axis) and in the Post-ban Survey (y-axis). The closer sub-groups are to this diagonal, the least changes in their purchase in 2018 vs 2017.

Sub-groups located below the diagonal axis have decreased their purchase of ivory in Post-ban 2018 vs Pre-ban 2017, after the ban was implemented. = Potential impact of the ban on purchase behavior among these sub-groups.

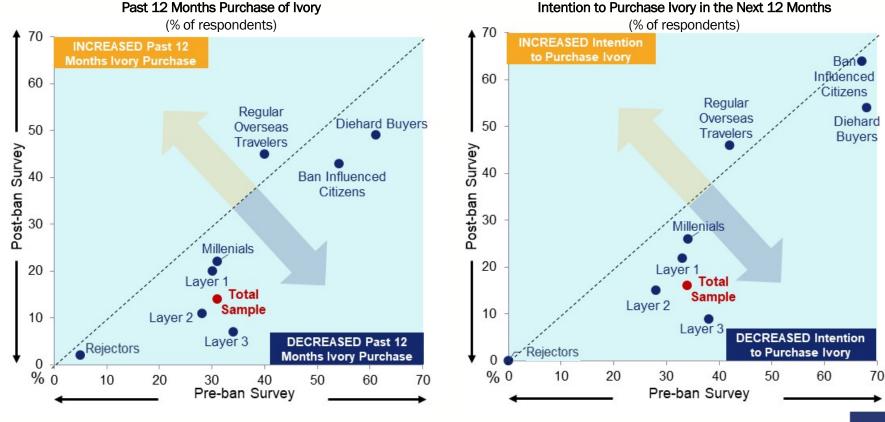
- This scatterplot analysis is based on "stated" response: the percentage of respondents who claim to have purchased ivory in the past 12 months for each subgroup (% "Bought in Past 12 Months") in the Pre-ban Survey (x-axis) and in the Postban Survey (y-axis) is reported.
- This analysis provides a clear picture of the ivory purchase evolution in Post-ban 2018 vs Pre-ban 2017: Useful for a broad overview, it shows the evolution of ivory purchase for different sub-groups before (2017) and after the ban was implemented (2018).
- This chart is useful to identify which subgroups have been most influenced by the ban (i.e., those further away from the diagonal axis in the bottom right corner) and those who are the most persistent and for whom messages or actions are required as a priority.



Past and Future Purchase – Trend for Key Sub-groups

A similar pattern is observed for the past 12 months purchase and next 12 months intention to purchase ivory:

- The past 12 months purchase and next 12 months intention to buy ivory decreased the most in Layer 3, after the ban was effective.
- Regular overseas travelers are the most persistent buyers, with similar purchase behavior in the Pre-ban and Post-ban Surveys.
- A decrease of past purchase and intention to purchase is observed among Diehard Buyers after the ban implementation.



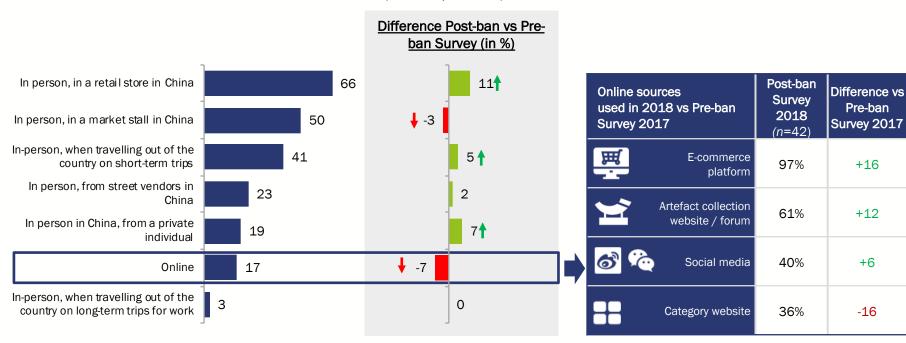
Ivory Purchase Channels

Post-ban Survey vs Pre-ban Survey

Among those who claim to have purchased ivory in 2018, two-thirds say that they mostly bought this ivory in a retail store in China (e.g. jewelry section in a mall). This purchase channel saw an increase in 2018, as well as overseas purchase during short-term trips. On the other hand, online was less used as a purchase channel for ivory since the beginning of 2018.

Purchase Channels of Ivory - Post-ban Survey 2018

(% of Respondents)



Pre-ban Survey: Q3a. Where did you purchase ivory **in the past / Post-ban Survey:** Q3a. Where did you purchase ivory **in 2018**? Q3b. Could you please indicate which online source(s) you purchased ivory from? – **Weighted data**

Base: Ever Buyers in 15 selected cities, Pre-ban Survey: n=958 / Post-ban Survey: n=451







Ivory Purchase Channels in 2018

By Key Sub-groups – Post-ban Survey

The purchase of ivory in retail stores in 2018 after the implementation of the ban was mostly driven by the buyers in Layer 1 cities and by Millennials. On the other hand, buyers in Layer 2 cities mostly bought in market stalls in China, while Regular Overseas Travelers mostly bought ivory while being on a short trip outside Mainland China. Regular Overseas Travelers also used online purchase channels the most.

<u>Purchase Channels of Ivory – Post-ban Survey 2018</u>

(% of Respondents)

	Total	Layer 1	Layer 2	Layer 3	Millennials (18-30)	Regular Overseas Travelers	Rejectors	Ban Influenced Citizens	Diehard Buyers
In %	n=246	n=164	n=45	n=38	n=97	n=80	n=12*	n=106	n=128
In person, in a retail store in China (e.g. jewelry section in a mall)	66	70	59	59	71	61	49	69	65
In person, in a market stall in China	50	45↓	73	46	54	49	63	45	52
In-person, when travelling out of the country on short-term trips	41	45	31	39	41	68 †	49	40	41
In person, from street vendors in China	23	19 ₹	39 ↑	23	24	11↓	21	15₹	29
In person in China, from a private individual	19	19	25	9	15	20	24	13₹	23
Online	17	18	15	17	20	26	24	23	12₹
In-person, when travelling out of the country on long-term trips for work	3	4	1	0	4	5	11	4	2

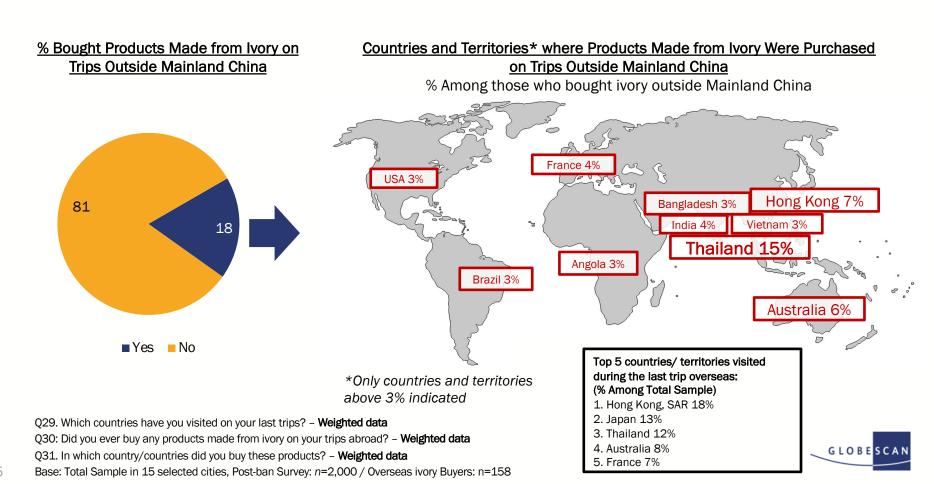
Top purchase channel

Pre-ban Survey: Q3a. Where did you purchase ivory **in the past? – Weighted data Post-ban Survey:** Q3a. Where did you purchase ivory **in 2018? – Weighted data**



Ivory Purchase Outside Mainland China

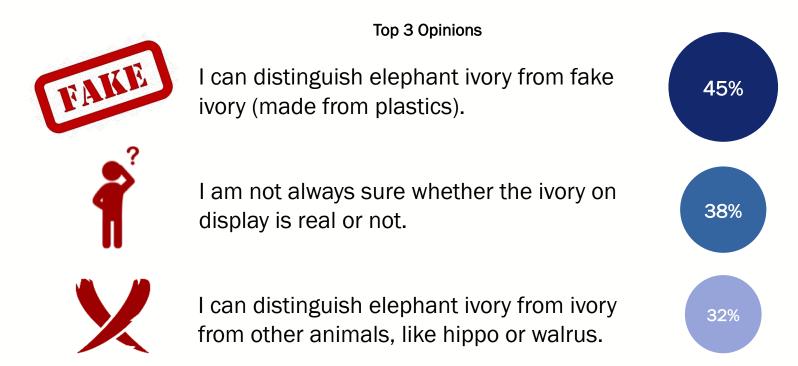
Thailand is the top destination for the purchase of ivory outside Mainland China. However, Chinese buyers also claim to have purchased ivory in nearby markets in the past, such as in Hong Kong or Vietnam.



Knowledge of Ivory Purchased – Post-ban Survey

Based on Ivory Buyers (Ever)

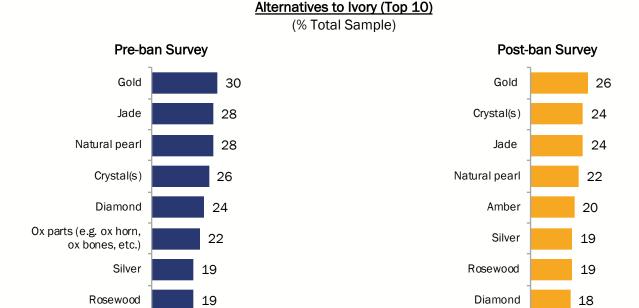
Ivory buyers have mixed knowledge of the authenticity of the ivory they buy. While half believe that they can distinguish real elephant ivory from fake ivory, four in ten are unsure of the authenticity of the ivory on display.





Alternatives to Ivory

Precious metals or precious stones such as gold, crystals, or jade remain the preferred alternatives to ivory.



Q8. Now please imagine that elephant ivory is no longer available for purchase, what do you think would be the next best thing to replace elephant ivory? - Weighted data

Corals

etc.)

Nothing

Ox parts (e.g. Ox horn, Ox bones,

15

15

12



Base: Total Sample in 15 selected cities, Pre-ban Survey: n=2,000 / Post-ban Survey: n=2,000

16

16

10

37

Beeswax

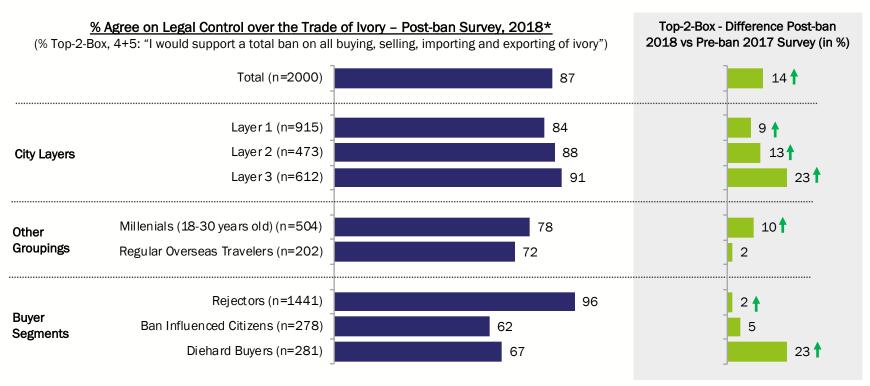
Turquoise

Nothing



Necessity of Legal Control over the Trade of Ivory

The opinion that legal control over the trade of ivory is necessary is strongly positive, and has significantly increased after the ban was implemented. This is observed particularly in Layer 3 cities and among Diehard Buyers. However, no change was observed among regular overseas travelers compared to the Pre-ban Survey, with three in ten still not sharing this opinion.



^{*}Note: These results reflect the opinion of consumers before they were asked to read the ivory ban notice (see question Q14a)

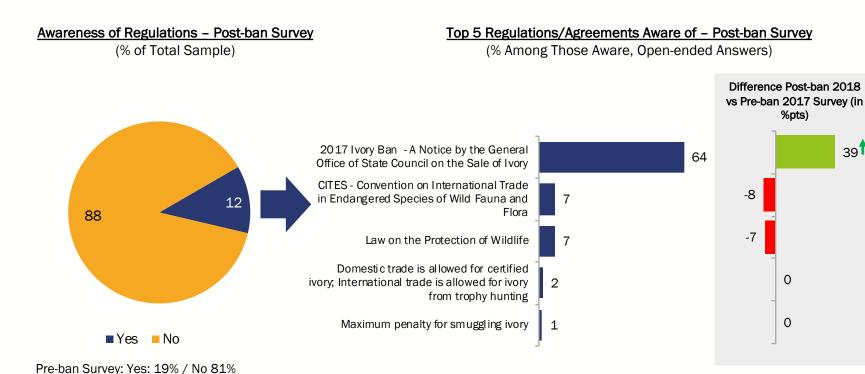
Statistically significant difference: higher / lower at 95% confidence level, Post-ban Survey vs Pre-ban Survey

Q12. Using a scale from 1 to 5, where 1 means "I don't think there should be any control over the trade of ivory," and 5 means "I would support a total ban on all buying, selling, importing and exporting of ivory," please tell us how much legal control over the trade of ivory you think is necessary. – **Weighted data**Base: Total Sample Post-ban Survey, *n*=2,000 in 15 selected cities



Awareness of Regulations (Spontaneous Answers)

The unprompted (spontaneous) awareness of general regulations remains low in 2018 (i.e., only one in ten can mention any regulation spontaneously). However, among this sub-sample of respondents who claim to be aware of regulations, the spontaneous awareness of the ivory ban has increased substantially.





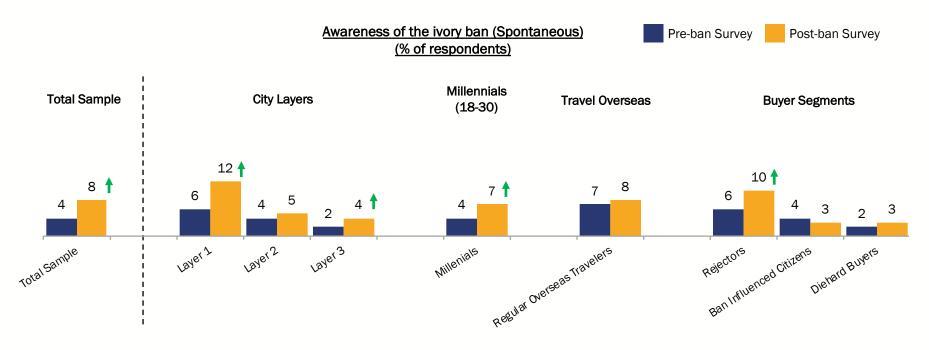
391

Awareness of the Ivory Ban (Spontaneous)

Post-ban Survey vs Pre-ban Survey

There is a substantial increase of the spontaneous mentions of the ivory ban in the Post-ban Survey, driven by Layer 1 cities (indicating higher exposure to communications in these cities) and Rejectors.

While a majority of the Ban Influenced Citizens have become Rejectors, the unprompted awareness of those who continue to be in this segment remains flat.



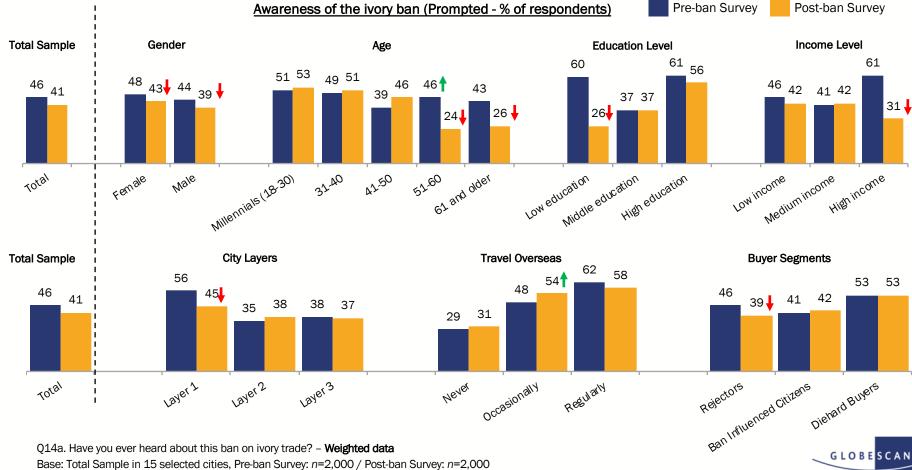


Awareness of the Ivory Ban (Prompted)

Statistically significant difference: higher / lower at 95% confidence level, Post-ban Survey vs Pre-ban Survey

Post-ban Survey vs Pre-ban Survey

After all respondents read the official notice of the ban, the prompted awareness of the ban remains at a comparable level in Post-ban Survey 2018 vs Pre-ban Survey 2017.

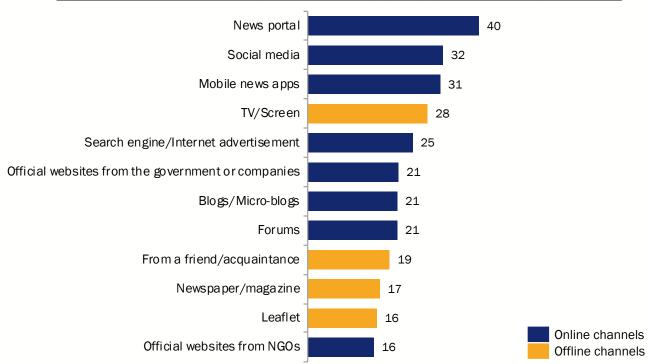


Sources of Awareness of the Ban

Post-ban Survey Only

The main sources of awareness of the ivory ban are online channels, with news portals being the most used. Among offline channels, TV/Screen is the main source of awareness.

Top 12 Sources of Awareness (%) – Post-ban Survey (2018): pre-coded list in questionnaire





Sources of Awareness of the Ban by Sub-groups

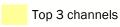
Post-ban Survey Only

There are underlying differences by sub-group: While news portals are the leading source of awareness of the ban in Layer 1 cities, mobile news apps are the main channel among Millennials and Layer 3 cities. The official websites of NGOs have the most impact among Layer 3 respondents and Regular Overseas Travelers. Social media is the leading channel among overseas travelers (51% heard about the ban via social media).

Sources of Awareness of the Ban by Key Sub-groups (%) – Post-ban Survey (2018)

In %	Online channels Offline channels	Total	Layer 1	Layer 2	Layer 3	Millennials (18-30)	Regular Overseas Travelers	Rejectors	Ban Influenced Citizens	Diehard Buyers
	- Offilite Charmers	n=822	n=414	n=178	n=229	n=264	n=116	n=556	n=116	n=149
	40	45 🕇	35	37	38	35	44 🕇	30 🖊	34	
Social media		32	34	31	29	32	51	32	30	35
Mobile news apps		31	29	25	41	38	33	31	34	31
TV/Screen		28	32	29	21♥	31	29	29	31	25
Search engine / internet advertisement		25	27	24	22	31	29	24	31	23
Official webs	ites from government/companies	21	21	21	23	25	30 🕇	21	26	20
	Blogs/micro-blogs	21	21	21	21	24	19	21	18	23
	Online forums	21	20	22	23	25	20	22	17	21
	From a friend/acquaintance	19	21	16	18	11	19	22 🕇	12 🖊	16
	Newspaper/magazine	17	16	18	18	14	27 🕇	17	19	16
	Leaflet	16	16	16	18	19	20	15	23	17
	Official websites from NGOs	16	14	15	20	18	28 🕇	13 🖊	20	21
	E-commerce websites	14	13	11	20	14	10	13	17	18
	From a family member		15	11	13	7 🖊	10	14	14	11
	From colleagues	12	12	11	13	10	5 ♦	12	10	16
	Billboards at transportation knots		9	13	12	11	15	11	7	12
	Billboards in the airport	10	8	11	13	7	12	9	8	14

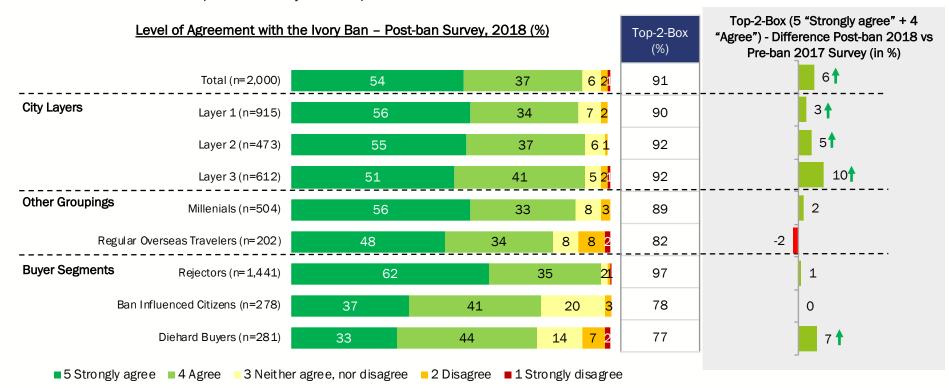
Q14b. You said that you heard about the ban on ivory trade. Where did you hear about this ban? - **Weighted data** Base: Aware of the ban (prompted), *n*=822 in 15 selected cities





Level of Agreement & Support to the Ban

Overall, agreement with the ban has strengthened after the ban implementation. This is particularly driven by Layer 3 respondents who now have a similar level of agreement as respondents who live in the other city layers. It is worth noting that Diehard Buyers agree significantly more with the ban in the post-ban survey 2018 vs pre-ban 2017.



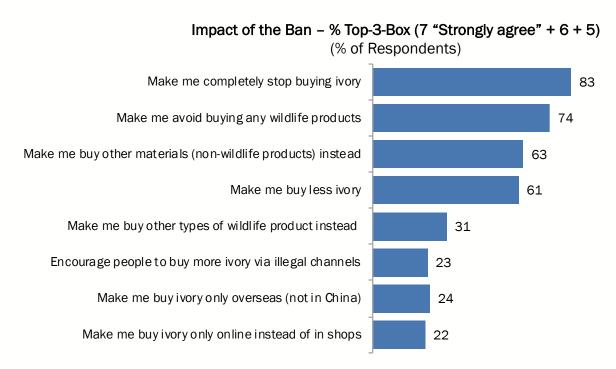


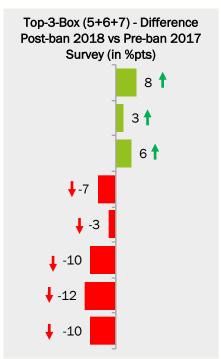
🛧 🖶 Statistically significant difference: higher / lower at 95% confidence level, Post-ban Survey vs Pre-ban Survey (applied only on Top-2-Box)

Impact of the Ban - Post-ban Survey vs Pre-ban Survey

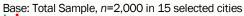
Asked after Reading the Notice of the Ban

The ban has a strong impact on the (claimed) purchase behavior of respondents. A vast majority agree that the ban will make them completely stop buying ivory or any wildlife products, and these opinions have strengthened after the ban was implemented. The ban also has an effect on the intention to buy ivory online or overseas, which declines significantly.





Q16a. Please indicate to what extent you agree or disagree with each of the following statements. Please use a scale of 1 to 7 where 1 means that you "strongly disagree" and 7 means that you "strongly agree" with the statement. – **Weighted data**

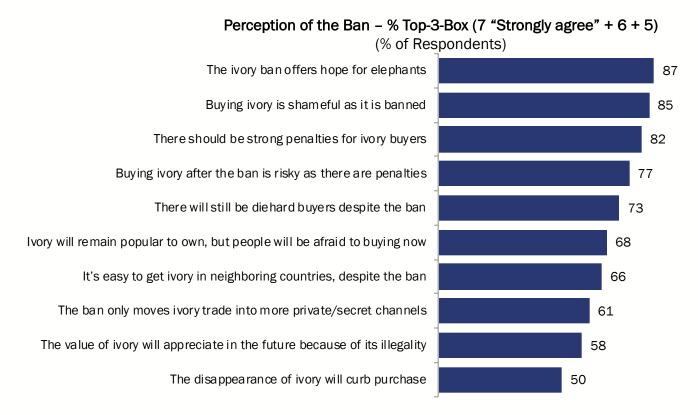




Perception of the Ban - Post-ban Survey Only

Asked after Reading the Notice of the Ban

The ban is perceived as a powerful game changer in the trade of ivory: respondents mostly believe that it will offer hope for elephants, that buying ivory is shameful since it is banned, and that there should be strong penalties for ivory buyers.





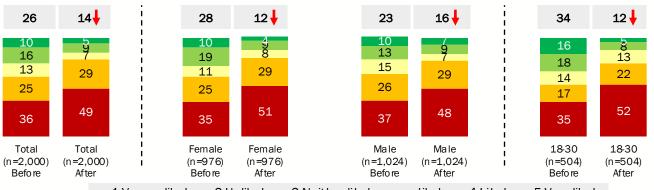
Intention to Purchase Ivory – 2018 Post-ban Survey results

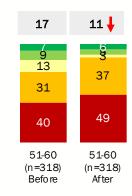
Comparison of Purchase Intention Scores (Asked Before vs After Mentioning the Ban)

Although the ban was actually implemented, there is still a significant decline in the intention to purchase before the ban is mentioned in the survey vs after it is mentioned across the key demographics. This suggests that further communication is needed to explain the content of the ban.

Likelihood to purchase ivory in the future

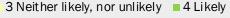








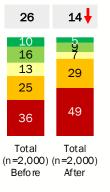


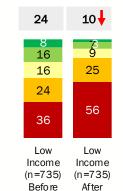




Travel Overseas





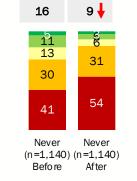


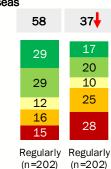




Befo re

Befo re





Before

Q5a. How likely will you be to purchase ivory and/or anything made of ivory in the future? - Weighted Data



After

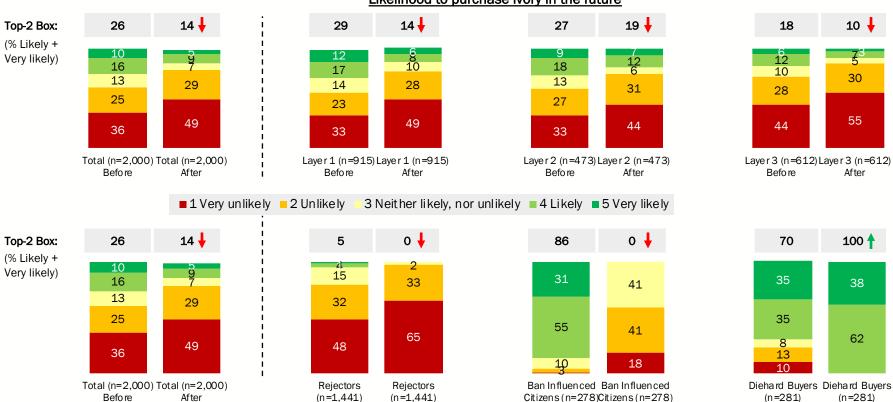
Q17a. How likely will you be to purchase ivory and/or anything made of ivory after the ivory ban is implemented? - Weighted Data

Intention to Purchase Ivory - 2018 Post-ban Survey results

Comparison of Purchase Intention Scores (Asked Before vs After Mentioning the Ban)

The ban has a clear impact on intention to buy ivory in all cities. Among the buyer segments, the remaining Ban Influenced Citizens are likely to be influenced by the ban after seeing the content of the ban, suggesting that more education is necessary among this segment. Diehard Buyers, by definition, are the most persistent buyers who are the least influenced by the ban, i.e. they intend to buy before and after hearing of the ivory ban.

Likelihood to purchase ivory in the future



Q5a. How likely will you be to purchase ivory and/or anything made of ivory in the future? – **Weighted Data**O17a. How likely will you be to purchase ivory and/or anything made of ivory after the ivory ban is implemented? – **Weighted Data**

Before

After

Befo re

After

Before

After

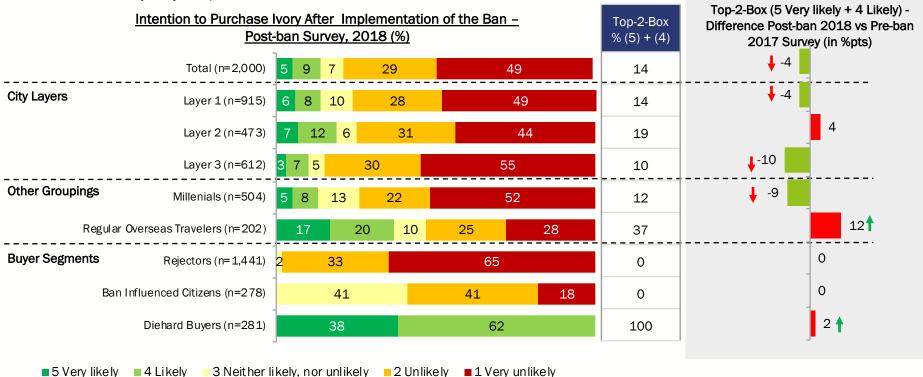
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Statistically significant difference: higher / lower at 95% confidence level Before vs. After mentioning the ban (applied only on Top-2-Box After only)

Intention to Purchase Ivory after the Ban Implementation

Post-ban Survey vs Pre-ban Survey (Asked After Mentioning the Ivory Ban)

A majority of respondents claim to be unlikely to purchase ivory since the ban has been implemented. This is mostly driven by respondents in Layer 3 cities, for whom the proportion of intenders has declined. Diehard Buyers and Regular Overseas Travelers are the most persistent in their intention buy ivory, despite the ban.

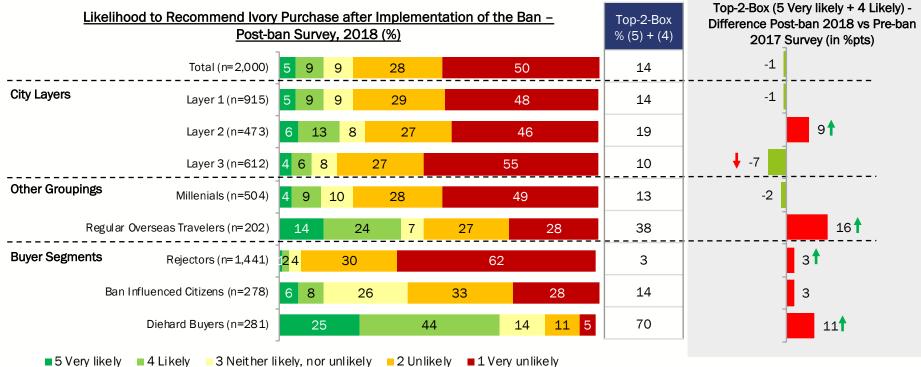




Likelihood to Recommend Ivory Purchase Post-ban

Post-ban Survey vs Pre-ban Survey (Asked After Mentioning the Ivory Ban)

The ban is likely to have had an impact on ivory purchase recommendation likelihood among specific groups, i.e., Layer 3 respondents are significantly less likely to recommend ivory purchase. On the other hand, Layer 2 respondents, Regular Overseas Travelers, and Diehard Buyers' recommendation likelihood has strengthened.

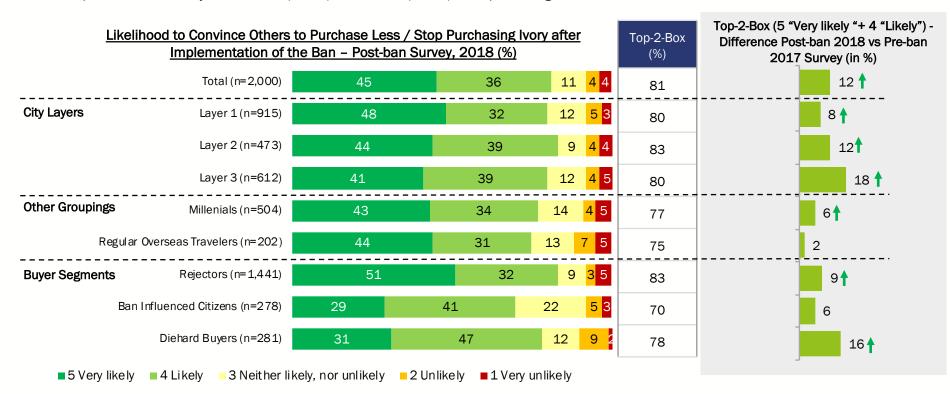


Q18. How likely are you to recommend purchasing ivory or products made of ivory to family members or friends after the ivory ban is implemented? – **Weighted data**



Likelihood to Convince to Stop Purchasing / Purchase Less Post-ban

In line with the declining ivory purchase incidence, respondents are also significantly more willing to convince others to stop purchasing or to purchase less ivory in Post-ban (2018) vs Pre-ban (2017), except for Regular Overseas Travelers.







3.4 Ad Recall Campaign Awareness and Effectiveness

(Tested in Post-ban Survey Only)



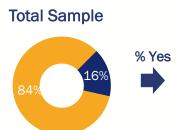




Ivory Trade / Elephant Protection Campaigns - Post-ban Survey

Millennials, Regular Overseas Travelers and respondents of Layer 1 Cities are the groups with highest ivory campaign recall. Yao Ming, Li Bingbing and the slogan "When the buying stops, the killing can too" is the most memorable elements recalled spontaneously.

Have you ever seen and/or heard any campaigns or advertisements against ivory trade and/or about elephant protection?



Layer 1	Layer 2	Layer 3	Millennials (18-30)	Regular Overseas Travelers	Rejectors	Ban Influenced Citizens	Diehard Buyers	
n=915	n=473	n=612	n=504	n=202	n=1,441	n=278	n=281	
23% 🕇	11% ₹	9%₹	25%	28%	16%	19%	13%	

Campaigns and/or elements of campaigns elements recalled spontaneously (% among those who recall campaigns, n=325, openended)



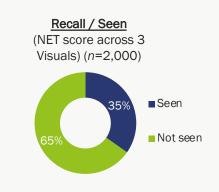
Q31N. Have you ever seen and/or heard any campaigns or advertisements against ivory trade and/or about elephant protection? - Weighted data Q32N. What comes up to your mind when you think about the campaigns that you've seen/heard about? [Open-Ended Answers] - Weighted data Base: Total Sample, n=2,000 in 15 selected cities / Those who recall campaigns, n=325

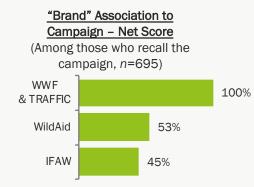


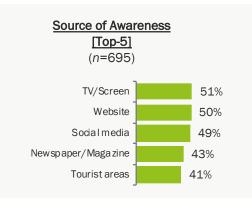
Campaign Recall (Net Score, Three Visuals per Campaign)

While the campaigns with Li Bingbing and Yao Ming were noticed by four in ten respondents overall, the organization who produced the campaign is well recalled by these respondents. Among respondents who have seen at least one of the three visuals for the campaign with Li Bingbing, all of them associate WWF and TRAFFIC with at least one of the three visuals they saw.

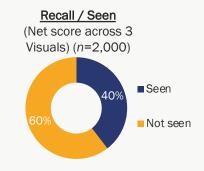
Campaign with Li Bingbing

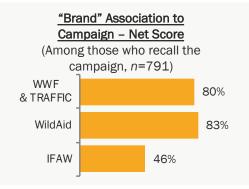


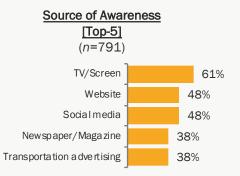




Campaign with Yao Ming







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(Transportation advertising includes airport/subway/bus stop/bus advertising)

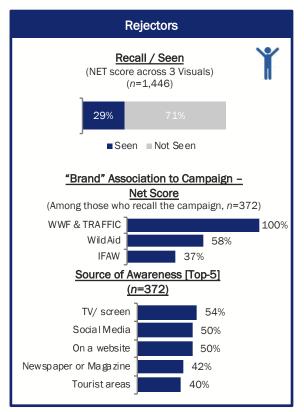
Q34aN/Q38aN: Which of the following posters/visuals you have seen? – Weighted data Q34bN/Q38bN: Do you know which organization produced this campaign? – Weighted data

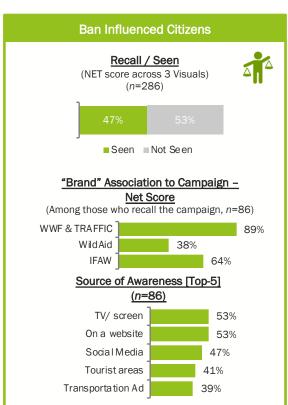
Q35N/Q39N: Where did you see this campaign? - Weighted data

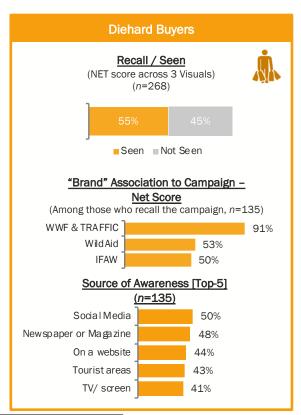
Base: Total Sample, n=2,000 in 15 selected cities / Aware of Campaign with Li Bingbing, n=695 / Aware of Campaign with Yao Ming, n=791

Campaign Recall (Li Bingbing's Campaign - Net scores by Segment)

The campaign with Li Bingbing was noticed by 6 in 10 of the (remaining) Diehard Buyers and half of the (remaining) Ban Influenced Citizens in the Post-ban Survey. All segments associate this campaign to WWF & TRAFFIC at most. Online (social media) is the leading source of awareness among Diehard Buyers, while Rejectors and Ban Influenced Citizens mostly saw this campaign on TV/ screen.







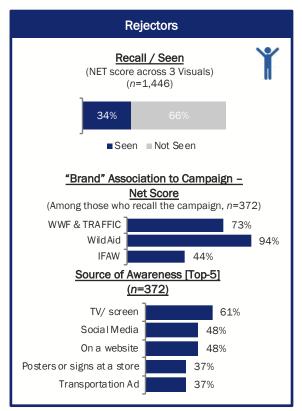
Q34aN: Which of the following posters/visuals you have seen? – **Weighted data** Q34bN: Do you know which organization produced this campaign? – **Weighted data** Q35N: Where did you see this campaign? – **Weighted data**

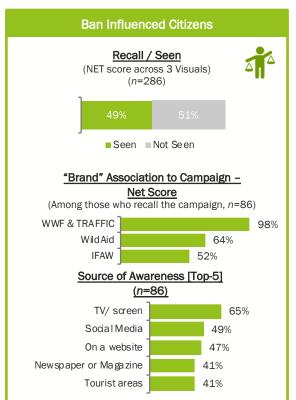
(Transportation ad includes airport/subway/bus stop/bus advertising)

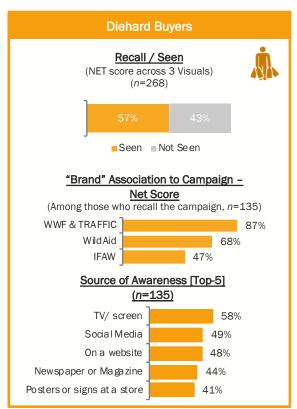


Campaign Recall (Yao Ming's Campaign - Net Scores by Segment)

The campaign with Yao Ming was noticed by 6 in 10 of the (remaining) Diehard Buyers and half of the (remaining) Ban Influenced Citizens in the Post-ban Survey. Both segments associate this campaign to WWF & TRAFFIC the most while Rejectors associate it most to WildAid. TV/ screen is the leading source of awareness for all segments.







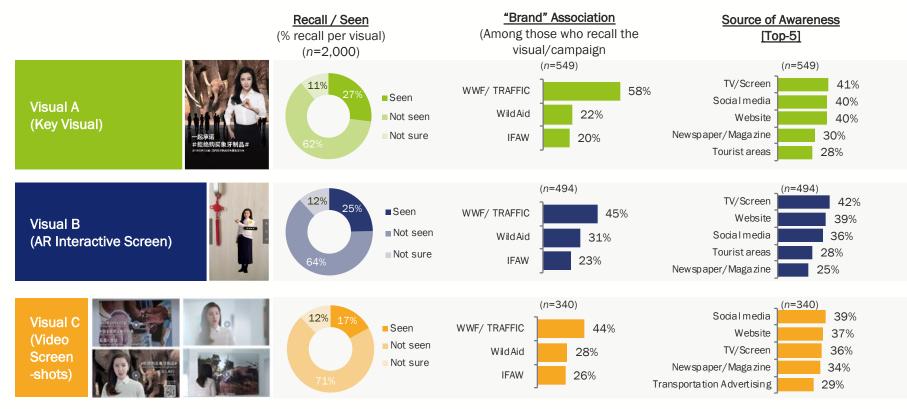
Q38aN: Which of the following posters/visuals you have seen? – **Weighted data** Q38bN: Do you know which organization produced this campaign? – **Weighted data** Q39N: Where did you see this campaign? – **Weighted data**

(Transportation ad includes airport/subway/bus stop/bus advertising)



Campaign Recall (Campaign with Li Bingbing – by Visual)

Among the three different visuals tested for the campaign with Li Bingbing, Visual A is the most impactful. Overall, respondents recall seeing this campaign mostly on TV/Screen and on social media.



Q34aN: Which of the following posters/visuals you have seen? – Weighted data Q34bN: Do you know which organization produced this campaign? – Weighted data

Q35N: Where did you see this campaign?

58

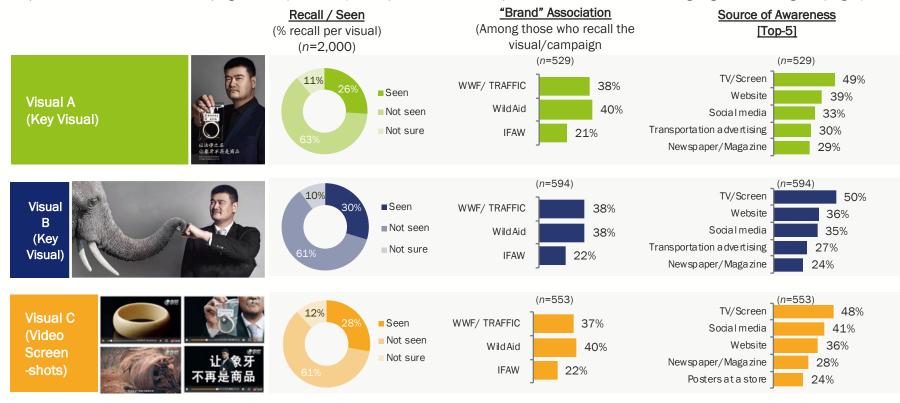
Base: Total Sample, n=2,000 in 15 selected cities / Aware of Visual A, n=549 / Visual B, n=494 / Visual C, n=340

(Transportation advertising includes airport/subway/bus stop/bus advertising)

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Campaign Recall (Campaign with Yao Ming - by Visual)

Among the three different visuals tested for the campaign with Yao Ming, Visual B is the most impactful, but Visuals C and A follow closely, suggesting that these visuals are effective vectors of this campaign message. While WildAid is correctly associated with this campaign by four in ten, a similar portion of respondents also attribute this campaign to WWF/TRAFFIC (since Apr, WildAid and WWF/TRAFFIC co-branded both Li Bingbing and Yao Ming campaigns).



Q38aN: Which of the following posters/visuals you have seen? – **Weighted data**Q38bN: Do you know which organization produced this campaign? – **Weighted data**

Q39N: Where did you see this campaign?

Base: Total Sample, n=2,000 in 15 selected cities / Aware of Visual A, n=529 / Visual B, n=594 / Visual C, n=553

(Transportation advertising includes airport/subway/bus stop/bus

advertising)

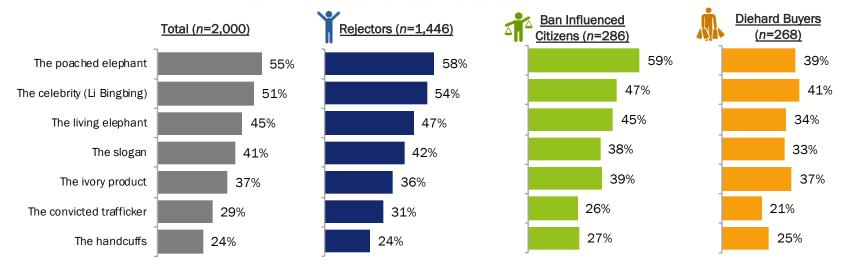
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Elements of Campaigns

In the campaign with Li Bingbing, the poached elephant is reported as the element that 'impressed' the respondents the most, followed by the spokesperson. This is also observed for Rejectors and Ban Influenced Citizens. The spokesperson, the poached elephant and the ivory product are the leading elements that stood out for Diehard Buyers.

Most Impressive Elements Campaign with Li Bingbing





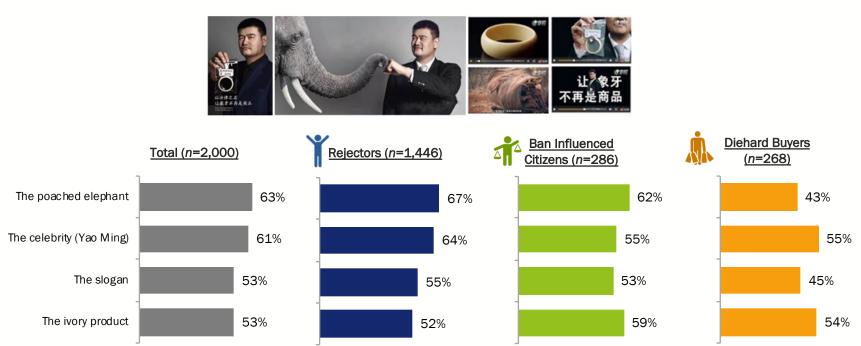


Elements of Campaigns

In both campaigns tested, the poached elephant is reported as the element that 'impressed' the respondents the most, followed by the spokesperson among the total sample. However, the elements that stood out for Diehard Buyers are first the spokesperson, followed by the ivory product.

Most Impressive Elements Campaign with Yao Ming

% Respondents, (n=2,000)





Impact of Campaigns on Purchase

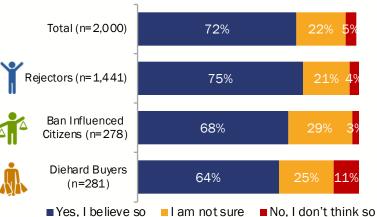
Three quarter of the respondents believe that both campaigns with Li Bingbing and Yao Ming are likely to have a strong impact on people's decision to buy ivory, and incite them to stop. No other celebrity was significantly mentioned as a better spokesperson. Diehard Buyers are the least likely to think that the campaigns will convince people to stop buying ivory.

Who would have been a better spokesperson?

- Law Enforcement officer: 51%
- Elephants: 42%
- Jackie Chan: 1%
- Other Celebrities (<1% each): 5%

Will the Campaign with Li Bingbing be able to convince people to stop buying ivory? % Respondents, (n=2,000)





Will the Campaign with Yao Ming be able to convince people to stop buying ivory?

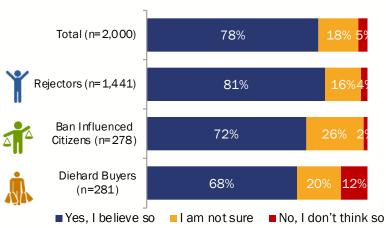
% Respondents, (n=2,000)

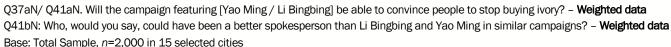
















Key Findings: starting points for the recommendations

The Post-ban Survey indicates that the ivory ban has a significant impact on the buyers' purchase of ivory.

The first effects observed are:

- Unprompted awareness of the ban is rising, but remains low at total population level.
- As predicted in the pre-ban survey: the Ban Influenced Citizens would be most impacted by the ban and this has proven to be true, with a remarkable impact on the purchase numbers.
- The base of Rejectors is widening substantially, mostly due to the shift of Ban Influenced Citizens into Rejectors after the ban was implemented.
- The most persistent buyers of ivory are the Regular Overseas Travelers. They intend to continue purchasing ivory despite the ban, mostly overseas (e.g., Thailand is the main destination).
- Millennials' purchases of ivory have not declined in the same proportions as for the other age groups, and a third of them still intend to purchase ivory in the future.



Recommendations to TRAFFIC & WWF - Post-ban Survey

Based on these findings, GlobeScan recommends the following:

- Continue to build awareness of the ban by prioritizing communications explaining the ivory ban
 - In order of priority: target travelers and Millennials. Layer 1 cities remain priority too, as intention to buy remains relatively high, also as many consumers are sufficient affluent to purchase ivory.
 - Communicate the laws and regulations and mention them in campaigns to raise the public's direct awareness of the ban (this is particularly useful in layer 3 cities, where knowledge of the law content needs to be reinforced).
 - Increasing the frequency and intensity of campaigns, and in particular, refining the message delivered by target group would help to improve content recall.
 - Considerable resources should be dedicated in key channels online and offline to support the authorities to supporting the authorities in communicating more clearly how the ban is being enforced and how the ban impacts everyone at a personal level.
 - The results also highlight social media and TV/Screen are major channels for message delivery to influence ivory buyers: while TV/Screen is in general much more expensive, it is worth considering reviewing this channel as an option.
- Engage with Rejectors and give them an active role in sharing communication content online
 - With the growing portion of Rejectors, it is key to turn them into advocates, and encourage them to speak out about the ivory trade.
 - Involve the Rejectors who bought ivory in the past and have decided to stop buying ivory after the ban was implemented in order to share their experiences of shifting from former buyers into Rejectors.



Recommendations to TRAFFIC & WWF - Post-ban Survey

- Target Millennials in the campaigns in order to initiate a genuine shift in their mindset
 - There is a significant share of Millennials who claim to have purchased ivory recently (i.e., one in five bought ivory after the ban was implemented on 31st December 2017) and who intend to purchase ivory in the future despite the ban (one in three), which further highlights the importance of targeting this group.
 - Conduct online campaigns targeting millennials through channels like social media and news app as they
 are the main sources of ban awareness for this group.
 - Have interactive elements online (i.e., apps and communication content ready to share for the most "connected" buyers such as Millennials) and prepare press briefings with the results of the research, supported by facts and figures on the threat that the ivory trade poses to wild elephant populations.
- It is paramount to get the attention of the more persistent buyer audience, i.e., the Regular Overseas Travelers.
 - Put them at the center of the communications, and deconstruct the needs that lead to the desire to buy ivory. Redirect their attitude: buying ivory is not socially acceptable anymore.
 - Expand the communication efforts to Chinese overseas travelers in key destinations (e.g. countries in Southeast Asia and Africa) by engaging with travel industry and online service providers.
 - Continue to target high-traffic places, such as public transportation hubs, airport connections, and major commercial areas for the placement of educational campaign materials/events.

GLOBE

 Partner with airlines and airports in order to target them directly from where they are the most likely to make a purchase, e.g., on Thailand and Hong Kong routes.

5. Appendix

- Acknowledgements
- References
- Methodological Details
- Definitions Used
- Additional Information Slides







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Methodology Overview: Weighting

Weighting

- After fieldwork was closed and the final data quality checks were performed (e.g., removal of bad records with incomplete answers), a weighting by age, gender and education has been applied on the total sample in order to fully match the quotas and correct (small) deviations in the sample completion compared to the quota set.
- This report presents only weighted results / data, and all the sample sizes indicated are weighted samples.
- The final sample achieved in the Post-ban Survey was n=2,161, and has been weighted down to n=2,000 (target sample).
- The reason for weighting the data after fieldwork even if the quotas have been well monitored is to fully align the demographic sub-groups with the quotas, in order for the total sample to be representative of the target population by age, by gender and education. Income has been monitored in order to align with the China average income, but was not used as a hard quota.
- As agreed with TRAFFIC-WWF during the research briefing phase, the respondents were recruited in 15 selected active ivory
 markets (only). These selected markets did not provide a geographic spread. Given the different sizes (in terms of population) of
 the 15 cities included in the survey, an additional level of weighting has been applied by city population, in order for the total
 sample collected across these 15 cities to reflect the reality in terms of population.

Questionnaire and respondents' quality

- For the respondents to answer honestly and be "neutral" when they are qualified for the survey, it is important that the survey topic is not mentioned in the invitation.
- The email received by the potential respondents only mentions the general topic of "lifestyle and shopping practices."

Rounding

- Numbers and percentages shown at first decimal in tables and graphs in this report are the result of rounding.
- Rounding to the nearest integer has been applied and may add up to more or less than 100%.

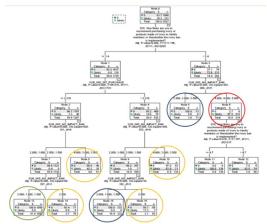


Methodology: Decision Tree (in General)

The Decision Tree methodology is a commonly used data mining method for establishing classification systems based on multiple covariates or for developing prediction algorithms for a target variable. This method classifies a population into branch-like segments. It follows the same approach as humans generally follow while making decisions. It is a map of the possible outcomes of a series of related choices. Interpretation of a complex Decision Tree model can be simplified by its visualizations (see example below).

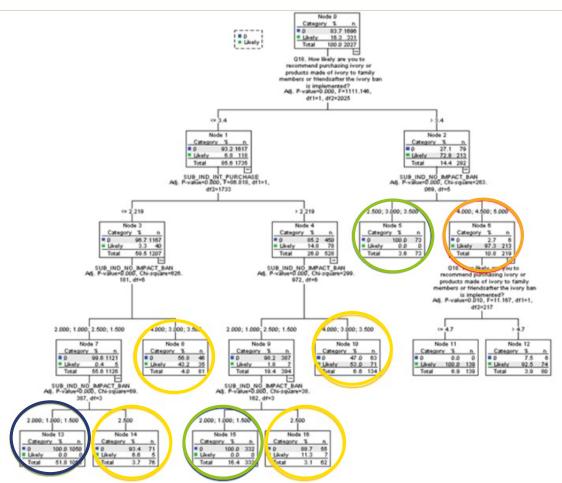
A decision tree depicts rules for dividing data into groups. The first rule splits the entire data set into some number of pieces, and then another rule may be applied to a piece, different rules to different pieces, forming a second generation of pieces. In general, a piece may be either split or left alone to form a final group. The leaves of the tree are the final groups, the unsplit nodes (i.e. the circles in the tree below).

For a tree to be useful, the data in a leaf must be similar / homogeneous with respect to some target measure, so that the tree represents the segregation of a mixture of data into purified (or homogeneous) groups, as obtained in our segmentation, where the end groups are the 3 consumer segments Diehard Buyers, Ban Influenced Citizens and Rejectors. Each of these segments have a very distinct profile and behavior.





Segmentation Methodology in the Pre-ban Survey: Decision Tree



Diehard Buyers (orange circle): 97.3% are likely to buy ivory in spite the ban and are very likely to recommend purchasing ivory.

Ban Influenced Citizens (two green circles): 100% of them will stop buying ivory after the ban is imposed. The difference between the two is in the likelihood to recommend ivory to family members or friends.

Rejectors (blue circle): Not buying and not intending to buy ivory independently of whether the ban is imposed or not.

The four yellow circles are heterogeneous and include both intended buyers and those who would stop purchasing. Therefore, we reallocated the former to Diehard Buyers and the latter to Ban Influenced Citizens.

Eight segments in total (e.g., eight circles) could have been more descriptive of the population, though of much less practical value, so we opted for three segments.

The Decision Tree explains 94% of the purchasing intent after the ban is imposed.



Segmentation Methodology in the Post-ban Survey: Discriminant Function Analysis

Discriminant Function Analysis

- In order to recreate the segments (e.g. **Diehard Buyers, Ban Influenced Citizens and Rejectors**) identified in the Pre-ban poll, we used statistical algorithm extracted using **Discriminant Function Analysis**.
- Discriminant analysis is a statistical method that is used to understand the relationship between a "dependent variable" and one or more "independent variables." A dependent variable is the variable that a researcher is trying to explain or predict from the values of the independent variables.
- For detailed information, please check out: https://en.wikipedia.org/wiki/Linear_discriminant_analysis



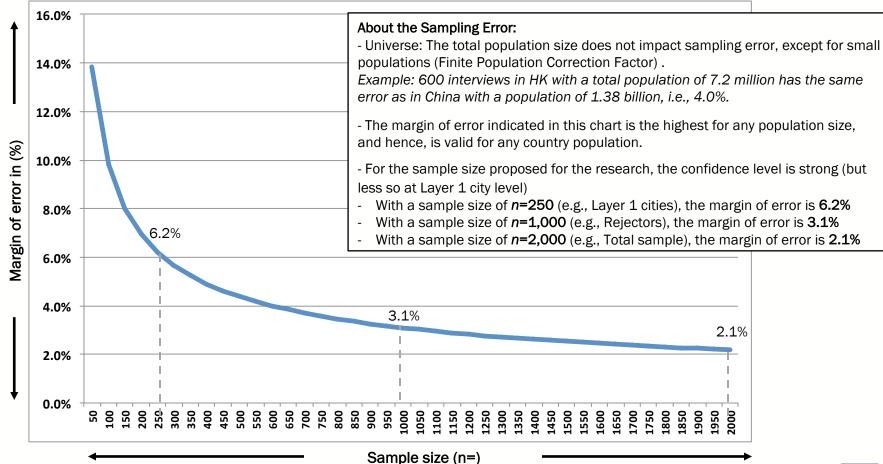
Margin of Error

Margin of Error: Definition

- In reports on public opinion polls, a "margin of error" is often stated. The margin of error estimates the accuracy of the sample compared with the entire population. A margin of error of plus or minus 3% at a 95% confidence interval would mean that if we examined 100 truly random samples of a particular size, in 95 of such samples the figures would be within three percentage points of the "true" answer that would result from interviewing the entire population. Generally speaking, the larger the sample, the lower the margin of error (see illustration in the next slide).
- However, calculated margin of error is valid only upon the assumption that the sample is truly random, with every member
 of the population having an equal chance of being included in the survey. This assumption is not met in the majority of
 contemporary opinion polls, because the samples are drawn using complex systems of stratification and quotas or are
 obtained from panels of volunteers, as in the case of this study.
- The survey samples for the current study are not strictly random and, therefore, no estimates of sampling error can be
 calculated. Even though margin of error is not applicable to nonrandom samples, it can be used as a rough tool to assess
 patterns in the collected data. For example, a five percentage point difference between males and females in a sample of
 1,000 respondents may indicate a pattern, while a 10-point difference in opinion between smaller demographic groups
 may not.
- The sampling methodology for this study was tailored to the overall objective of understanding the drivers of demand for ivory and how to reduce that demand. Industry standards and best practices suited to geographic realities have been applied throughout.



Margin of Error in Surveys





Definitions

- City Layers:

- · Layer 1: Beijing, Shanghai, Guangzhou, Chengdu
- Layer 2: Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin
- Layer 3: Nanning, Chongqing, Nanjing, Jinan, Shenzhen

- Income*:

- Low income: Monthly personal income under CNY8,000 (approx. USD1,200)
- Medium income: Monthly personal income between CNY8,000 and CNY20,000 (USD1,200 3,000)
- High income: Monthly personal income above CNY20,000 (>USD3,000)

- Education:

- Low education: No formal education / some elementary/primary school
- Middle education: Some high school or secondary school / completed high school or secondary school / completed technical or vocational school/training
- High education: College or university graduate / completed post-graduate degree

^{*}Income brackets were set based on the average salary of the internet population in the 15 cities surveyed, i.e., higher than the China average salary (estimated to be approximately CNY8,000 per month, Source: China Daily article, 23 June 2017, http://www.chinadaily.com.cn/bizchina/2017top10/2017-06/23/content_29853826.htm)



Ivory Ban as Seen by Respondents in the Link on Screen

Link:

- Official text in Chinese (seen by respondents): http://www.gov.cn/zhengce/content/2016-12/30/content_5155017.htm

English non-official translation:

https://newsroom.wcs.org/News-Releases/articleType/ArticleView/art icleId/9578/China-Announcementof-Domestic-Ivory-Ban-in-2017--English-Translation.aspx 索引号:000014349/2016-00266 主题分类:市场监管、安全生产监管\其他

发文机关:国务院办公厅 成文日期:2016年12月29日

京 题:国务院办公厅关于有序停止商业性加工销售象牙及制品活动的通知

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主题词:

国务院办公厅关于有序停止商业性 加工销售象牙及制品活动的通知

国办发[2016]103号

各省、自治区、直辖市人民政府,国务院各部委、各直属机构: 为加强对象的保护,打击象牙非法贸易,经国务院同意,现就有序停止商业性加工销售 象牙及制品活动的有关事项通知如下:

一、分期分批停止商业性加工销售象牙及制品活动。2017年3月31日前先行停止一批象牙定点加工单位和定点销售场所的加工销售象牙及制品活动,2017年12月31日前全面停止。国家林业局要确定具体单位名录并及时发布公告。相关单位应在规定期限内停止加工销售象牙及制品活动,并到工商行政管理部门申请办理变更、注销登记手续。工商行政管理部门不再受理经营范围涉及商业性加工销售象牙及制品的企业设立或变更登记。二、积极引导象牙雕刻技艺转型。停止商业性加工销售象牙及制品活动后,文化部门要引导象牙雕刻技艺传承人和相关从业者转型。对象牙雕刻国家级、省级非物质文化遗产项目代表性传承人开展抢救性记录,留下其完整的工艺流程和核心技艺等详细资料;对象牙雕刻技艺名师,鼓励其到博物馆等机构从事相关艺术品修复工作;对象牙雕刻技艺传承人,引导其用替代材料发展其他牙雕、骨雕等技艺。非营利性社会文化团体、行业协会可整合现有资源组建象牙雕刻工作室,从事象牙雕刻技艺研究及传承工作,但不得开展相关商业性活动。

三、严格管理合法收藏的象牙及制品。禁止在市场摆卖或通过网络等渠道交易象牙及制品。对来源合法的象牙及制品,可依法加载专用标识后在博物馆、美术馆等非销售性场所开展陈列、展览等活动,也可依法运输、赠与或继承;对来源合法、经专业鉴定机构确认的象牙文物,依法定程序获得行政许可后,可在严格监管下拍卖,发挥其文化价值四、加强执法监管和宣传教育。公安、海关、工商、林业等部门要按照职责分工,加强执法监管,继续加大对违法加工销售、运输、走私象牙及制品等行为的打击力度,重点查缉、摧毁非法加工窝点,阻断市场、网络等非法交易渠道。要广泛开展保护宣传和公众教育,大力倡导生态文明理念,引导公众自觉抵制象牙及制品非法交易行为,营造有利于保护象等野生动植物的良好社会环境。

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国务院办公厅 2016年12月29日



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