

Demand under the Ban – China Ivory Consumption Research (2017)



Report Presentation – Prepared for TRAFFIC & WWF
December, 2017

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 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, 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 announced by the State Council, China’s Cabinet on 30 December 2016. TRAFFIC and WWF then commissioned GlobeScan 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 towards the ivory ban, and to assess effective messaging and mechanisms for demand reduction. The research also will serve as the foundation of TRAFFIC and WWF’s future behavior change strategies and interventions.

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TRAFFIC
the wildlife trade monitoring network



Table of Contents

1. Background, Objectives, Methodologies and Analyses	04
2. Key Findings, Conclusions and Implications	13
3. Detailed Analysis	
3.1 Consumer Segment Profiles	23
3.2 Ivory Purchase Behavior	36
3.3 Drivers and Deterrents of Ivory Purchase	50
3.4 Test of Concept Messages and Communication	62
3.5 Awareness and Perceptions of the Ivory Ban	70
4. Recommendations	85
5. Appendix [Acknowledgements, References, Methodological Details, Definitions Used, Additional Information Slides]	91

A silhouette of an elephant standing in a savanna landscape at sunset. The elephant is the central focus, facing left. The background is a warm, golden glow from the setting sun, with silhouettes of trees and tall grasses. The overall mood is serene and natural.

1. Background, Objectives, Methodologies and Analyses

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Background and Objectives

This report presents the results from an extensive and comprehensive research study conducted amongst consumers in Mainland China between June – November 2017 on the topic of reducing demand for ivory.

The report is a synthesis of a three-phased research approach (see appendix for details):

1. Desk research of relevant studies conducted earlier on this topic
2. Qualitative phase, which included 8 in-depth interviews in total with Chinese consumers in Beijing, Shanghai, Guangzhou and Chengdu, and 8 focus group discussions (total) with Chinese consumers in the same cities
3. Quantitative survey: (a) 2027 structured on-line interviews of Chinese consumers in 15 major cities (divided over 3 layers) in China, followed by (b) a post-ban quantitative survey mid-2018.

The results provide insight into the consumption of ivory. A ban on commercial processing and trade in elephant ivory was announced by the State Council, China's cabinet, on 30 December 2016¹. According to the ban, commercial processing and trade in ivory will gradually be phased out and will totally halt by the end of 2017.

Endangerment of wildlife is caused by several factors, like habitat loss, prey loss and demand for wildlife products. Reducing and eventually eradicating demand for wildlife products will strongly contribute to save a large number of species from extinction.

TRAFFIC and WWF have implemented several behavior change interventions in the past years to reduce demand for illegal wildlife products like ivory, rhino horn and tiger bones (GOSC-PRC, 2016)².

¹General Office of State Council of the People's Republic of China (GOSC-PRC; 2016). 'A Notice by the General Office of State Council on the Orderly Cessation of Commercial Processing and Sale of Ivory and Ivory Products'

² WWF/TRAFFIC (2014). 'Big Wins in the war against Wildlife Crime. WWF/TRAFFIC Wildlife Trade Campaign Report Summary 2012-2013', WWF/TRAFFIC (2017).

Background and Objectives

Consumers including antique collectors, outbound tourists, business people and traditional Chinese medicine (TCM) users have been targeted in previous behavior change interventions. 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.

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 for which we tested nine messages. The objectives of the survey can be summarized as follows:

1. Identify the key consumer/buyers segments of elephant ivory (products)
2. Identify the prevalence and frequency of purchase/use of these products plus the major motivations driving purchase/use of these products
3. 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
4. The testing of various concept messages as input for future ivory demand reduction communication and behavior change interventions

Methodology Overview: Desk and Qualitative Research

Phase 1: Desk Research

In May 2017, we conducted extensive desk research which we revisited in October on relevant information which is publicly available or conducted earlier specifically for TRAFFIC/ WWF (see appendix for overview).

Phase 2: In-Depth Interviews (IDIs)

From June 14-21 2017, we conducted eight in-depth interviews (IDI's) in total, two per city, in Guangzhou, Beijing, Shanghai and Chengdu to prepare for the upcoming eight focus group discussions (FGDs) in the same cities.

The objective was to dig deeper into the motivators and drivers of ivory consumption and understand the perception of the impending ban.

The respondents were a balanced mix of gender (50-50%), and were comprised of different buyer types: (potential) repeat buyers, (potential) lapsed buyers, rejectors, likely buyers and persuadable likely buyers.

Phase 2: Focus Group Discussions (FGDs)

From June 26th to July 12th 2017, we conducted eight focus group discussions (FGDs) in total, two per city, in Guangzhou, Beijing, Shanghai and Chengdu.

As messaging was a key objective of the survey, recruitment criteria required respondents to be ivory buyers in the past year or to be likely buyers (e.g., intend to buy ivory in the future), and to also have a fair or good level of knowledge of ivory to participate.

All focus groups were moderated by local qualitative research professionals and observed or listened to by GlobeScan and/or TRAFFIC team members, in a separate space/ viewing room.

Methodology Overview: Quantitative Research, Comparisons

Phase 3: Quantitative Research

- The quantitative survey was conducted online, from September 12 to October 16, 2017. Respondents from an online panel were invited to participate in the online survey via email, with a questionnaire length of 20 minutes on average.
- We sampled 2027 respondents from the on-line population, which represents 90% 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 working in the advertising, public relations, marketing, market research and media industries were screened out.
- This survey is based on a selected sample, with a choice of cities being considered active ivory markets and the **key metrics can't be compared 1-on-1 with other surveys** (e.g. no comparison possible with the survey conducted by GlobeScan for National Geographic in 2015, based on a nationally representative sample).
- While the data/key metrics are specific for the 15 cities, the underlying patterns on segmentation, purchase drivers and effective messages are relevant for the ivory buyers and the results are crucial input for campaigns once the ban is in place.
- Following this **pre-ban base line study**, we will conduct a follow-up survey mid-2018 using the same methodology and with that survey, relevant comparisons and trends can be observed.

Achieved Sample

- The total sample size achieved is $n=2027$ (unweighted). This robust sample size has a margin of error of 2.1% (see page 99 for a detailed overview).
- 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.
- The city layers in this report are:
 - $n=1008$ in Layer 1 cities (Beijing, Shanghai, Guangzhou, Chengdu)
 - $n= 511$ in Layer 2 cities (Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin)
 - $n=508$ in Layer 3 cities (Nanning, Chongqing, Nanjing, Jinan, Shenzhen)

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>
- During fieldwork, the detailed reviews and monitoring enabled to take actions in order to meet the quotas. For instance, for the sub-groups with slow progress (e.g. 61 years old and above), more invitations were sent to these potential respondents via different panels, fieldwork was open longer for completing these samples.
- The following quotas were used at total level:

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%

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, but all the sample sizes indicated are real / actual sample (unweighted).
- The final sample achieved was n=2027, and has been weighted down to n=2000 (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, and not to be biased by the sample size set for the layer 1 cities (e.g. n=250 in each BJ, SH, GZ and CD).

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". This technique is in line with UCT and other similar methods employed in surveys around sensitive topic areas.
- After the respondents answered the screening questions and if they qualify for this survey, the first question in the main questionnaire asks if they ever purchased a list of items or materials, in which ivory is included. This is to avoid putting too much emphasis on ivory in the beginning of the questionnaire.
- Only the next set of questions ask specifically about ivory, once the respondents qualify and have started the survey.

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%.

Coverage



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

- 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 have a view on the dynamics of ivory trade by type of markets (cities). Initially, cities in layer 1 were the most active ivory markets, cities in layer 2 were moderately active markets and cities in layer 3 were the least active markets. However, based on TRAFFIC's physical market monitoring results, the trade seemed to have moved to layer 2 and 3 cities, which is further confirmed by this survey.
- 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.

Legend:

Layer 1 cities

Layer 2 cities

Layer 3 cities

Analyses deployed

Segmentation Analysis

In order to identify homogenous groups of ivory consumers in terms of their behavior, intentions, attitudes and motives, we have developed a custom segmentation using the Decision Tree statistical algorithm. Based on this predictive modeling we have identified three distinct segments: ***Diehard Buyers, Ban Influenced Citizens and Rejectors***. This three-segment solution has resulted in delivering the highest practical value. It is more clear-cut, robust, interpretable, applicable and trackable than four or five segment solutions which we have also explored.

Ivory Purchase Index

We constructed a customized index, called the ***Ivory Purchase Index***, which can be considered a barometer or a measure of ivory buyers' persistence. This allows to customize strategies and messages for sub-groups, e.g., buyer segments, city layers, age groups, etc., and was developed by reducing all attributes that were related to past and future purchase of ivory down to three dimensions: (1) Past purchase, (2) Future purchase and (3) 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 dimensions, based on a 10-point scale, with 1 being lowest (least persistence to buy ivory) and 10 being the highest.

MaxDiff (Maximum Differentiation Scaling)

MaxDiff builds upon a long-established theory about how people make choices. It assumes that respondents' choices are rather relative/comparative than absolute. We deployed MaxDiff because it provides a better differentiation between the item importance compared to rating scales. With MaxDiff, we can measure importance, preference, performance and many other variables. MaxDiff scores, if they result from "most important" vs "least important" scales, could replace other predictive modeling, e.g., regression and path analyses, which we normally use to extract derived importance scores.

Detailed descriptions and rationale of methods and analysis used can be found in the relevant chapters throughout the report and in the appendix.



2. Key Findings, Conclusions and Implications

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Overview: Consumer Segments

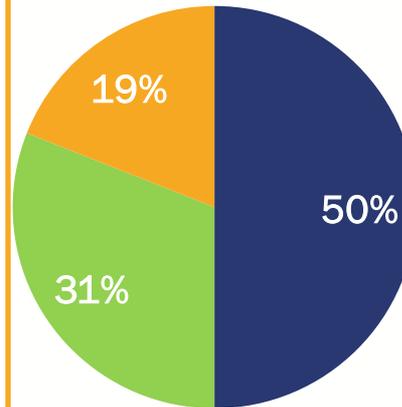
Across the 15 cities selected as active ivory markets

Diehard Buyers (19%)



Description:

- They are the most inclined to purchase elephant ivory before and after the ban is implemented, and will most drive future ivory demand (post-ban). However six in ten say that they are likely to reconsider their purchases.
- They are more driven than other buyers by traditional beliefs (e.g., “ivory brings luck and fortune”) and by the social role of ivory (e.g., “I feel respected,” “ivory enhances my social status”).
- Their leading barriers related to endangered elephants and legality are not as strong as for other buyers, instead, they are more concerned by risks related to investment or counterfeit items.



Rejectors (50%)



Description:

- They reject the idea of purchasing ivory in the future.
- Despite the fact that 24% of the Rejectors are past buyers of ivory, only a few have made repeat purchases, and none of them intends to purchase ivory in the future.
- They are the most concerned about the environmental consequences of purchasing ivory amongst all segments.
- They have a vastly different outlook and feeling toward ivory and ivory-related issues than the other segments.

Ban Influenced Citizens (31%)



Description:

- They have a different purchase behavior compared to the two other consumer segments, i.e. 7 in 10 have purchased ivory in the past, and although they demonstrate a desire to purchase ivory in the near future, none of them still intend to buy ivory after the ban is implemented.
- They are strongly influenced by any law enforcement and strong penalties for purchasing ivory.
- As a result, this segment could be significantly reduced in size after the upcoming ban on ivory is implemented.

Overview – Purchase Behavior

Note: Incidence levels based on selected sample, not comparable with other surveys covering Mainland China overall

Results of total sample* collected in the 15 selected cities:

Within the n=2027 collected samples, **913** claim to have **ever bought** ivory, while **602** claim bought ivory **recently** (in the past year).

Ivory purchase is shifting from **Layer 1** to **Layer 3** cities, due to a growing conversion of “Ever buyers” into repeat buyers in Layer 3 cities.

43% claim that they **intend** to purchase ivory in the **future**, but the percentage **drops to 18%** after hearing of the ban.

Their main purchase channels are:



Layer 1 Cities

30% claim to have bought ivory in the past year. Future purchase intention **drops from 39% to 18%** after hearing of the ban.

They buy:  on short (business) trips overseas  Online 
In retail stores & market stalls in China

Layer 2 Cities

28% claim to have bought ivory in the past year. Future purchase intention **drops from 40% to 15%** after hearing of the ban.

They buy:  on short (business) trips overseas  From street vendors 
In retail stores & market stalls in China

Layer 3 Cities

34% claim to have bought ivory in the past year. Future purchase intention **drops from 49% to 20%** after hearing of the ban.

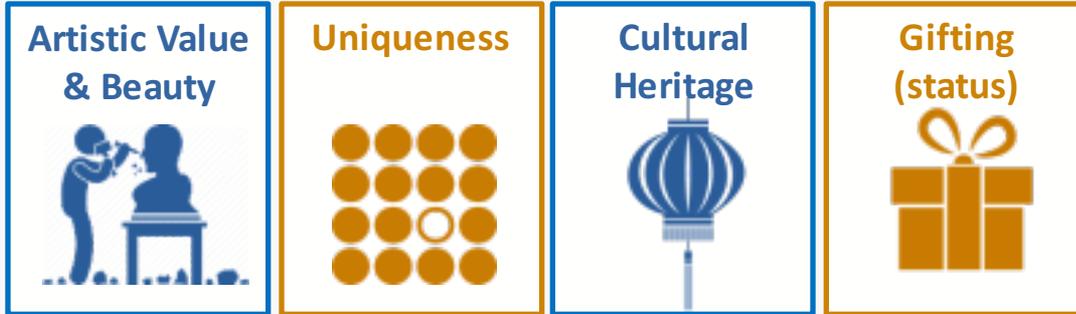
They buy:  Online 
In retail stores & market stalls in China

*These results are based on the total sample (not on consumer segments). Results were collected across 15 cities in China, selected for being active ivory markets, hence they are not representative of the purchase incidence of ivory and consumer purchase behavior in the whole of China and not comparable to other surveys (see page 8). The total sample across 15 cities is n=2027 and has been weighted in order to be representative on age, gender and education.

Please refer to chapter 3.2 for detailed information.

Overview – Drivers and Deterrents

The main **drivers** of ivory purchase are:



Per sub-groups, the strength of drivers differs:



The main **deterrents** of ivory purchase are:



Per sub-groups, the strength of deterrents differs:



Overview – Messaging and Communication

Across the total sample in 15 selected cities

1st Preferred Message*

36% find that this message affects their own intention to purchase ivory the most:

Poaching and illegal wildlife trade of elephants are driven by people's desire for ivory products. Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 of them left. And they could be functionally extinct within 10-20 years if the poaching doesn't cease. David Attenborough, the father of nature documentaries, says: "The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?"

Among sub-groups:

Layer 1 39%

Layer 2 34%

Layer 3 32%



Millennials 35%



Regular Overseas Travelers 34%



Rejectors 39%



Ban Influenced Citizens 34%



Diehard Buyers 30%

2nd Preferred Message*

27% find that this message affects their own intention to purchase ivory the most:

China is one of the countries with the most severe sentencing on wildlife crime. Chinese nationals should comply with both domestic and international laws and refuse to purchase, carry and transport any ivory products. If not, one will definitely receive confiscation, great loss of fortune and even prosecution.

Among sub-groups:

Layer 1 26%

Layer 2 28%

Layer 3 28%



Millennials 26%



Regular Overseas Travelers 30%



Rejectors 26%



Ban Influenced Citizens 29%



Diehard Buyers 26%

Preferred Communication Channels

Consumers prefer to receive information on ivory:



Online
90%



Offline
76%

Mostly from:



Official Websites from government or companies (40%)



Official Websites from NGOs (40%)



Online News Portal (39%)



Internet advertisement/Search engine ad (36%)

* Please refer the report, page 64, for the full list of tested messages (6 messages tested in total). Results based on Q20. Which one of the following 6 messages affects your intention to purchase ivory the most?

Please refer to chapter 3.4 for detailed information.

Overview – Perception of the Ivory Ban

Results of total sample collected in the 15 selected cities, representing active ivory markets in China:



19% spontaneously recall having heard of any regulations on ivory trade.

When prompted (i.e., after being asked to read the official notice, which was included in the questionnaire), **46%** say they have heard about the ivory ban.

While **43%** intended to purchase ivory before hearing of the ban, the percentage drops to **18%** after hearing of the ban.

86% of those surveyed say they would support the ban, after they learn about it.

There are noticeable underlying differences by sub-group:



Regular overseas travelers: 62% recall having heard of the ban when prompted, **25%** intend to buy ivory post-ban



Millennials: 51% recall having heard of the ban when prompted, **21%** intend to buy ivory post-ban



Consumers in Layer 3 cities: 38% recall having heard of the ban when prompted, **20%** intend to buy ivory post-ban



Ban Influenced Citizens: 41% recall having heard of the ban when prompted, **NONE** intend to buy ivory post-ban

Conclusions / Key Findings – Consumer segments

Based on results collected in the 15 cities selected



Rejectors (50%)

- **Currently non-buyers** of ivory who do not intend to buy in the future, more present in **Layer 1** cities.
- The **most concerned** about the environmental consequences of purchasing ivory.
- 7 in 10 are **willing to convince** others to purchase less or stop purchase ivory in the future



Leverage their potential role as advocates against ivory purchase (e.g., in campaigns, by encouraging them to sharing content on social media)



Ban Influenced Citizens (31%)

- **Low awareness** of the ban when asked unprompted.
- **Before hearing of the ban:** 8 in 10 claim they are likely to purchase ivory in the future.
- **After hearing of the ban:** They all reconsider and do not intend to purchase anymore.
- **Strongly influenced by regulations,** a ban or penalties for ivory buyers.



Raise their awareness of the ivory ban & potential penalties. Influence them with clear communications on the current and upcoming laws



Diehard Buyers (19%)

- The **most persistent** buyers, who still **intend to purchase ivory** after the ban is implemented
- More present in **Layer 3** cities.
- Significantly more driven by the **social dimensions** of ivory - e.g., “I feel respected” and “ivory enhances my social status” - than other segments



Show them that purchasing ivory is socially undesirable and reflects badly on them.

Conclusions / Key Findings – Ivory Purchase Behavior

Based on results collected in the 15 cities selected

Ivory past and future purchase

- The “**Ivory Purchase Index**” reflects the persistence of ivory purchase across the 15 cities:
 - Based on TRAFFIC's physical market monitoring results, the trade seemed to have moved to layer 2 and 3 cities, which is further confirmed by this survey.
 - It is high among those who are married, who work full-time, own a business and/or travel regularly – all “social” variables.
 - **Millennials have the highest index score of all age groups** and they are characterized by hyper-social connectivity (i.e. high number of online contacts and interactions).
- Those who **travel overseas** have bought significantly more ivory in the past than those who never travel.
- The purchase of ivory **has intensified in Layer 3 cities** compared to Layer 1 cities.
- **In Layer 3 cities**, the conversion of past buyers into repeat buyers has increased in the past three years.
- Ivory is mainly purchased in retail stores or in market stalls. However, **Millennials purchase ivory online significantly more** than other consumer groups. Online (by opposition to physical channels) is also a top 3 channel of purchase in **Layer 1 and Layer 3 cities**.



Communication content should be adapted to the location and the prominent behavior in these locations.

Ivory buyers should be exposed to messages both online (especially on e-commerce platforms and category websites for Millennials) and offline channels (e.g., outdoors or in airports for travelers).

Conclusions / Key Findings – Drivers and Deterrents*

Based on results collected in the 15 cities selected

Drivers of ivory purchase

- Major keydrivers of ivory purchase are its **artistic value** (which mostly refers to delicate craftsmanship), **its beauty, its uniqueness and heritage**, followed by **gifting**.
- Millennials and females are among the most likely to think that ivory is beautiful and has great artistic value while older consumers (51+) associate ivory more with status enhancement.
- In Layer 3 cities, ivory has a **stronger social role** - e.g., “enhances my status,” “makes me feel respected” - and is more linked to traditional beliefs (e.g. beliefs in good health/luck/fortune, ward off evil) than in Layer 1 cities. This is a **relatively newly identified motivation**.



Address perception that ivory is unique, has artistic value, is good for gifting and that buying ivory enhances social status.

Opportunity to understand how the status function has been removed from some groups (e.g., Millennials).

Deterrents of ivory purchase

- The most important deterrent messages to buying ivory are **animal cruelty and elephants being endangered**, followed by **illegality and penalties** for ivory buyers.
- Millennials and females have mostly **environmental** (animal cruelty and endangered elephants) and **legal barriers**.
- Respondents in Layer 3 cities differentiate from those in Layer 1 cities by being more concerned about the risks related to **investment or counterfeit items**.



Messages should address the social undesirability of ivory, by focusing on the reasons why they shouldn't buy ivory.

Consider to conduct online campaigns to influence millennials and females (major online consumers in China)

*Please refer to pages 52-53 for the detailed information on drivers and deterrents

Conclusions / Key Findings – Messaging and Ivory Ban

Based on results collected in the 15 cities selected

Preferred messages

- Among a list of various messages, messages about **endangered elephants as species and law** are ranked as the most effective.
- Clear preference for the message¹ on illegal wildlife trade and its impact on elephants among all consumer sub-groups.
- The most impactful message element is explanatory and quantified,
- Consumers expect to receive messages about ivory from the government and from NGOs.



Message content with facts & figures on the alarming situation of endangered elephants are likely to resonate best among a large audience.

NGOs can have a supporting role on government's communications on regulations, by talking more directly to the target audiences (e.g. in donation campaigns, by involving advocates and spokespersons)

Recall and impact of the ivory ban

- Before prompted, 19% of the total sample can recall current or upcoming regulations controlling the sale of ivory in China. And after prompted (i.e. reading the official notice), close to half of respondents recall having heard of the upcoming ivory ban. This is driven by Millennials, those with a high income and regular overseas travelers.
- After prompted, 86% of respondents say they would support the ivory ban. Future purchase intention drops from 43% to 18% after hearing the ban.
- Overall, the ban is likely to incite ivory buyers to reduce or stop purchasing ivory in all cities.



Need to further educate consumers and significantly increase communications on the upcoming ivory ban.

Targeted communications delivered via specific channels is needed for persistent buyers who still intend to buy ivory after the ban is implemented (e.g., travelers landing in source countries could be directly influenced by the phone messages from SFA or embassy).

¹ Full Message: Poaching and illegal wildlife trade of elephants are driven by people's desire for ivory products. Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 of them left. And they could be functionally extinct within 10-20 years if the poaching doesn't cease. David Attenborough, the father of nature documentaries, says: "The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?"



3. Detailed Analysis

3.1 Consumer Segment Profiles

Segmentation Methodology

Segmentation Analysis

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.

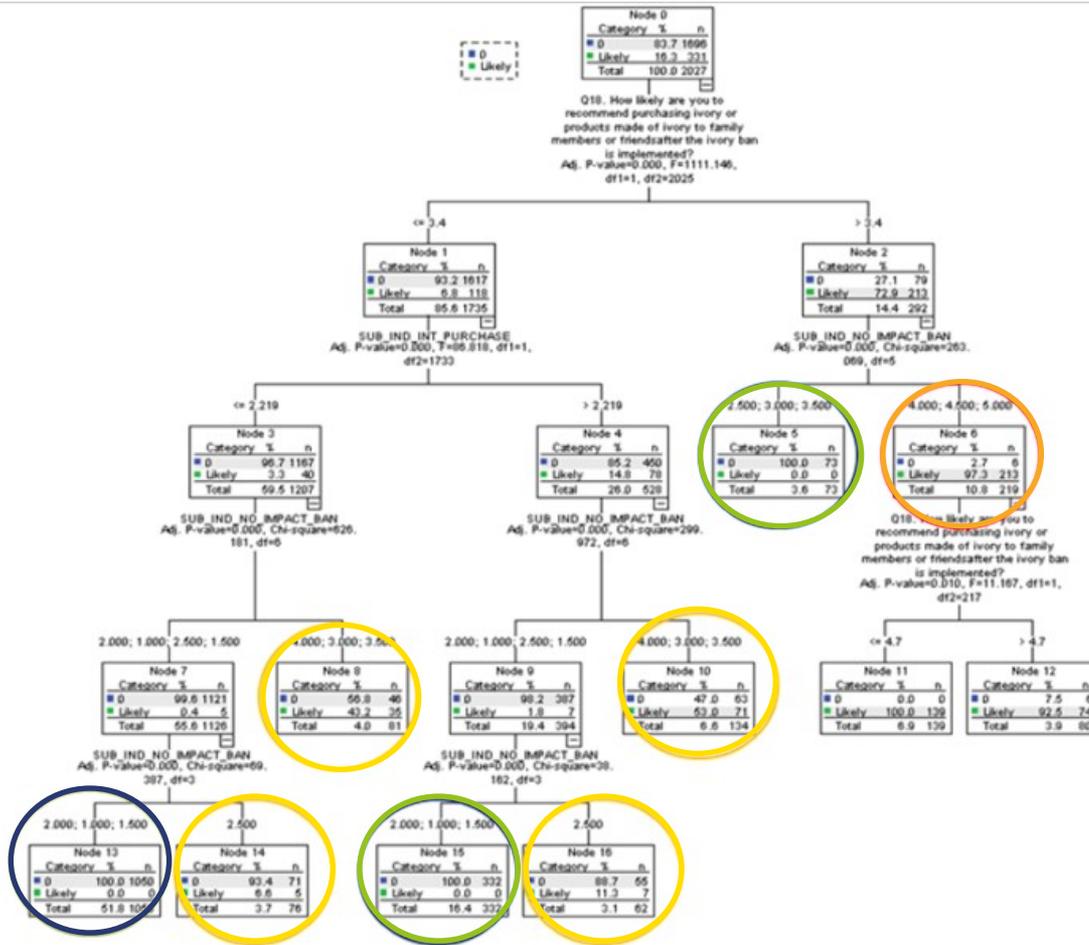
Input variables included: attitudes, motives and barriers, past and intended purchasing and agreement/disagreement with the ban. The analysis shows that key differentiators among the groups relate to behaviors rather than attitudes and psychographics.

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

The three-segment solution has been shown to deliver the highest practical value. It is more clear-cut, robust, interpretable, applicable and trackable than the four- or five-segment solutions we have also explored. The following slide describes how these segments were identified.

¹ More details and description of the Decision Tree statistical algorithm in appendix.

Segmentation Methodology



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 re-allocated the former to Diehard Buyers and the latter to Ban Influenced Citizens.

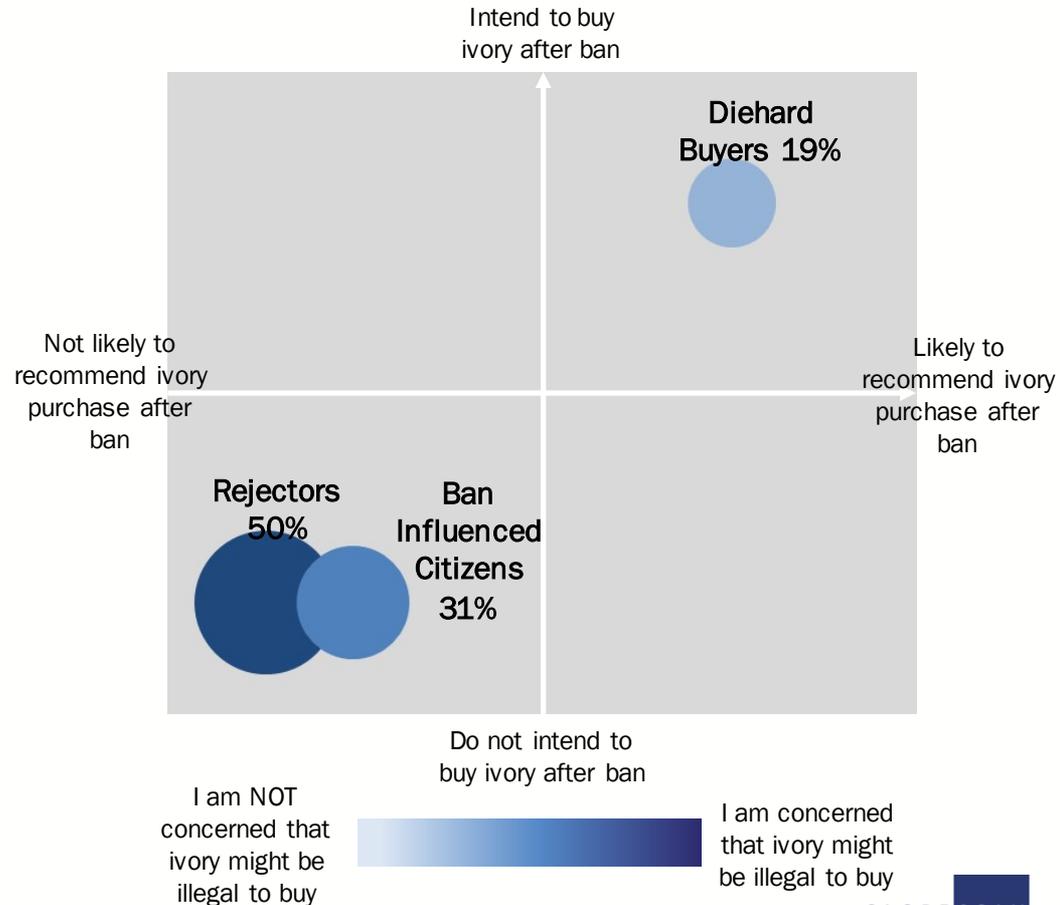
Eight segments in total (e.g., eight circles) could have been more descriptive of the population, though of much less practical value, so we opted for three segments.

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

Segmentation Map

This map shows the position of each segment group in relation to their likelihood to recommend purchasing ivory after the ban is implemented (x-axis), and their intention to purchase ivory after the ban is implemented (y-axis). The size of each segment group is proportionate to the size of the bubble on the map.

Though not a determinant component of the segmentation algorithm, the segments were plotted on a third, highly correlated, axis. The color of the bubble indicates the strength of the segment's concern that ivory might be illegal to buy, which the study has found to be among the most powerful inhibitors of purchasing ivory. The darker the blue, the more inhibited members of these segments are by the illegality of ivory.

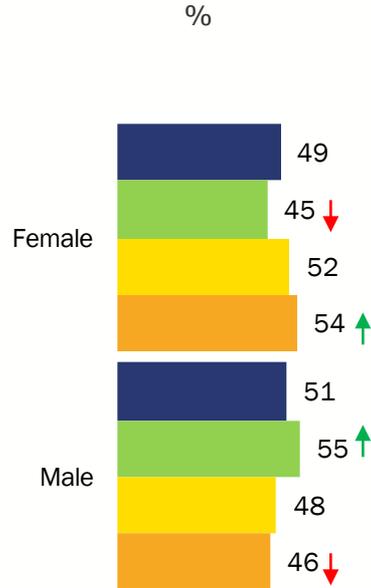


Respondents' Profile – Socio-demographic Profile (1)

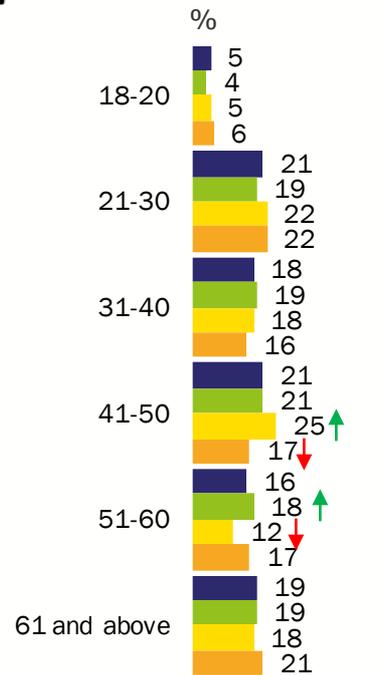
Overall, Ban Influenced Citizens have a similar demographic profile to the general population in the 15 cities surveyed. Diehard Buyers tend to be more skewed toward females and less so toward those aged 41-50, while males are significantly more represented among Rejectors.



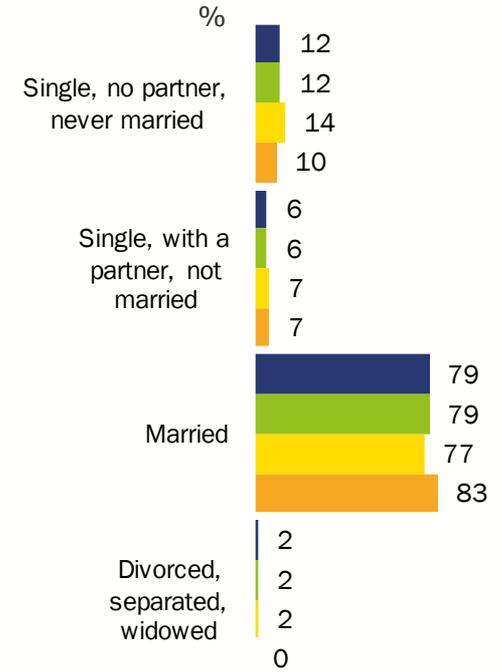
Gender



Age



Marital Status



S3. Gender, S2. Age, Q24. Marital status – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

	Total Sample (Representative of general population profile of China) - (n=2027)
	Rejectors (n=1050)
	Ban Influenced Citizens (n=640)
	Diehard Buyers (n=337)

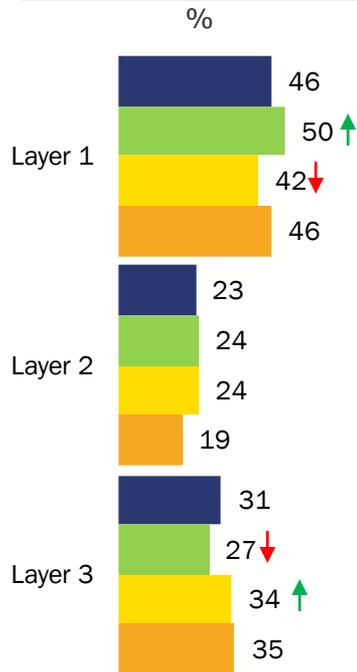


Respondents' Profile – Socio-demographic Profile (2)

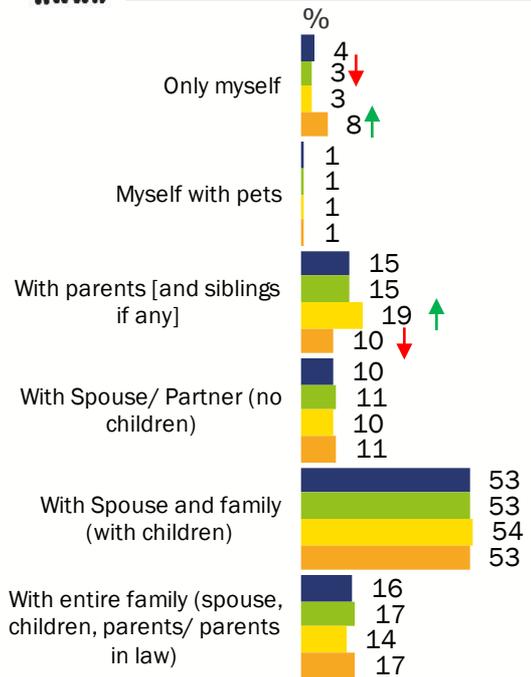
The overall city coverage is representative of 15 cities in China, grouped in city layers. Ivory Rejectors are significantly more present in the Layer 1 cities, particularly in SH. The Ban Influenced Citizens are more represented in Layer 3 vs. the total sample.



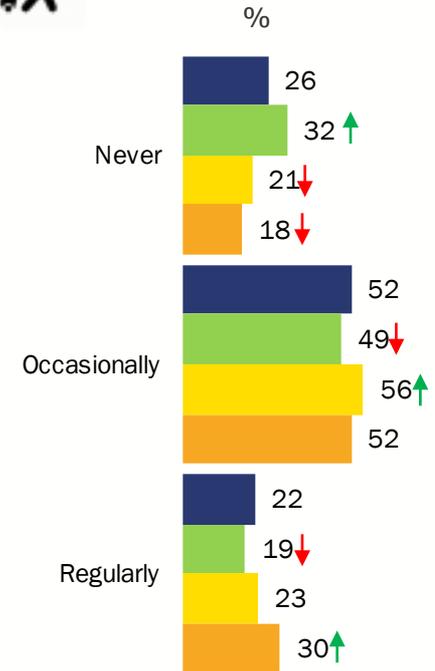
City Layers



Household Composition



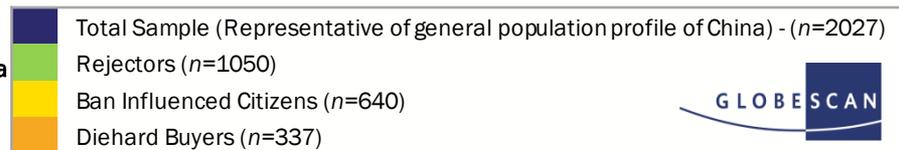
Travel overseas



S1. City of residence, Q25. Household composition, Q28. Travel behavior – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

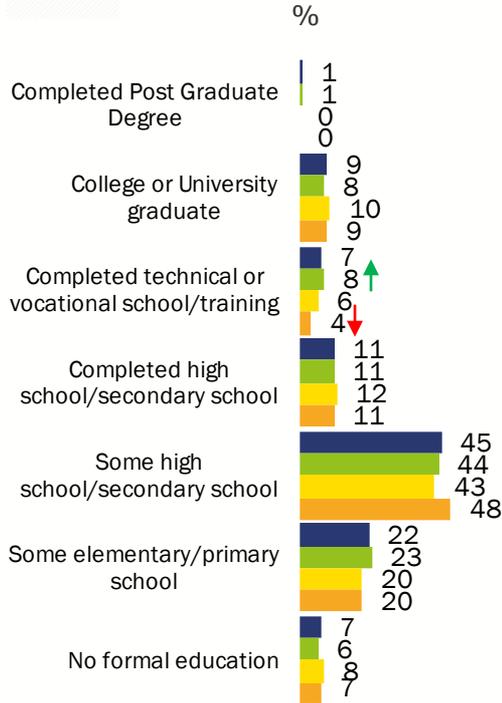
↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total



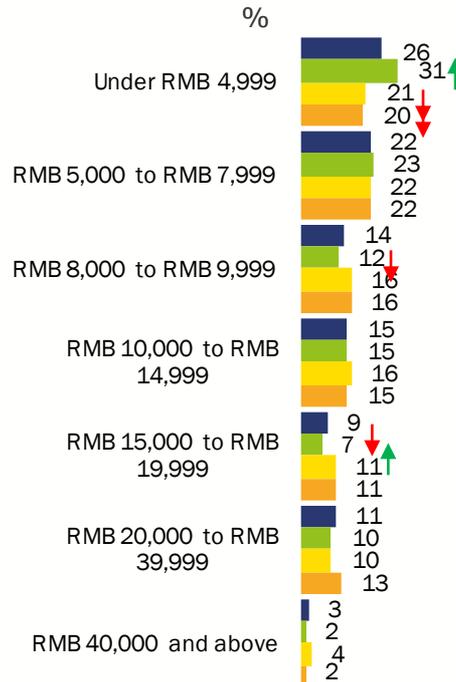
Respondents' Profile – Socio-demographic Profile (3)

Ivory Rejectors have a lower income than the general population profile in the 15 cities surveyed.

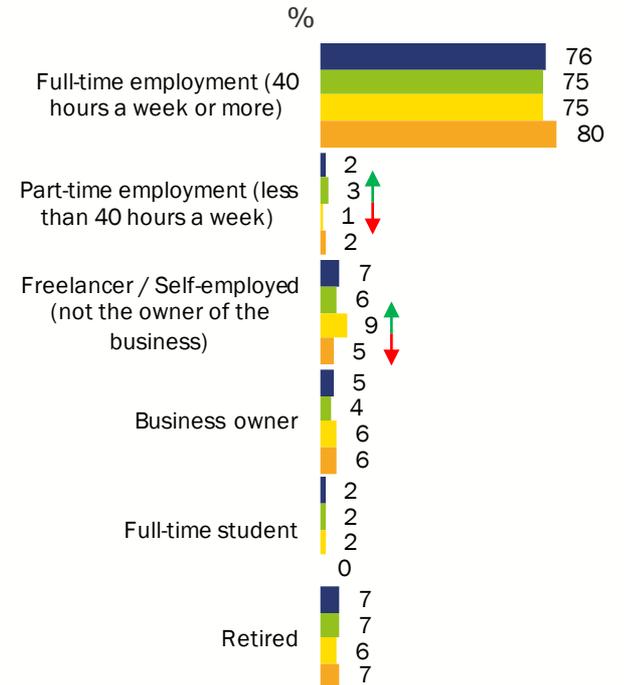
Education



Income



Employment



S5. Education, S4. Income, Q26. Employment situation – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Total Sample (Representative of general population profile of China) - (n=2027)
 Rejectors (n=1050)
 Ban Influenced Citizens (n=640)
 Diehard Buyers (n=337)

Who Are the Diehard Buyers?

Diehard Buyers

- ❖ **Segment size:** 19% of the total sample in the 15 cities
- ❖ **Purchase Index:** 7.17 (High)
- ❖ **Definition:** They have a “collector” purchase behavior. They have purchased ivory in the past, are repeat purchasers and intend to purchase in the future, even after the ban is implemented.

Profile



- Diehard Buyers are more likely to be females, live slightly more in Layer 3 cities (especially in Chongqing), are more likely to be employed full time and have slightly more medium-high income vs the general population.

Ivory purchase behavior



- Purchase incidence is high: 76% are “Ever Buyers” and 69% are “Past 12 Months Buyers”
- Future purchase intention before hearing of the ban is very high: 81% are intenders. They mostly buy in retail stores in China and when traveling overseas. They make both planned (48%) and unplanned (52%) purchase decisions.
- They are persistent buyers. Almost all of them (98%) claim they will still purchase ivory after the ban is implemented. However, six in ten say that they are likely to reconsider their purchases.

Drivers of purchase



- Although the artistic value and appearance of ivory are their main drivers of purchase, they are also more driven than other buyers by traditional beliefs (e.g., “ivory brings luck and fortune,” “brings good health”) and by the social role of ivory (e.g., “I feel respected,” “ivory enhances my social status”).

Barriers to purchase



- While their leading barriers are related to endangered elephants and legality, these are significantly lower than for other buyers. Instead, they are more concerned by the risks related to investment or counterfeit items.

Who Are the Ban Influenced Citizens?

Ban Influenced Citizens

- ❖ **Segment size:** 31% of the total sample in the 15 cities
- ❖ **Purchase Index:** 5.72 (High)
- ❖ **Definition:** The Ban Influenced Citizens are past buyers of ivory (occasional or repeat buyers) and intenders. Their future purchase intent is strongly influenced by regulations, bans or penalties for ivory buyers. They are still “Persuadable”.

Profile



- Ban Influenced Citizens are more likely to be males and live more in Layer 3 cities (especially in Chongqing and Shenzhen) vs the general population. They are more represented among the 41-50 age group and have medium income.

Ivory purchase behavior



- Purchase incidence is high: 69% are “Ever Buyers” and 54% are “Past 12 Months Buyers”.
- Future purchase intention before hearing of the ban is high: 82% are intenders.
- Among those who purchased ivory, they mostly bought in retail stores in China. Their purchase decisions are more planned than the average buyers (44%). They are strongly influenced by the ban or by the law, and none of them still intend to buy ivory after the ban is implemented.

Drivers of purchase



- Mostly driven by the artistic value, uniqueness and appearance of ivory, but also significantly more driven by traditional beliefs compared to other segments, e.g., “ivory brings luck and fortune.”

Barriers to purchase



- Their main barriers are related to endangered elephants/ cruelty and especially the legality of ivory purchase, e.g., “I am concerned that ivory might be illegal to buy.”

Who Are the Rejectors?

Rejectors

- ❖ **Segment size:** 50% of the total sample in the 15 cities
- ❖ **Purchase Index:** 1.23 (Low)
- ❖ **Definition:** The Rejectors are mostly the non-buyers of ivory and are also those who do not intend to buy in the future. They are the most concerned about the environmental consequences of purchasing ivory (e.g., endangered elephants and cruelty).

Profile



- Rejectors are more often males, live more in Layer 1 cities (especially in Beijing and Shanghai), are more represented among the 51-60 age group and have slightly lower income vs the general population.

Ivory purchase behavior



- Purchase incidence is low: 24% are “Ever Buyers” and 5% are “Past 12 Months Buyers” (e.g., recent buyers)
- Future purchase intention before hearing of the ban is very low: 4% are intenders
- Among those who purchased ivory, they mostly did so in person at market stalls in China. Their purchase decisions were highly unplanned (84%). None of them intend to buy ivory after the ban is implemented.
- The ivory ban is likely to reinforce their determination not to purchase ivory in the future.

Drivers of purchase



- Mostly driven by the artistic value and appearance of ivory. Top three drivers are: 1. “Products made of ivory have great artistic value,” 2. “Ivory is beautiful,” 3. “Ivory is a unique and irreplaceable material.”

Barriers to purchase



- They have strong barriers related to endangered elephants/ cruelty and legality of ivory purchase.

Illustrative Segment Quotes

Diehard Buyers

“ *I feel good and respected when I wear ivory. As long as I want it, I will find ways to buy it.* ”
- Guangzhou FGD

“ *Even if there is risk and may not be worth the investment, collecting ivory products for appreciation purpose is fine for me.* ”
- Shanghai FGD

“ *Most consumers who love ivory will not change their minds no matter what you said about ivory.* ”
- Beijing IDI

Ban Influenced Citizens

“ *Every time when I want to buy ivory, I was struggling between guilt and desire toward ivory.* ”
- Shanghai IDI

“ *To be honest, I plan to buy ivory as early as possible before the ban. Otherwise, it will be difficult for me to purchase in the future.* ”
- Guangzhou IDI

“ *I will feel happy if I could find stores selling ivory even when the ban is enforced, but still feel scared and worried on its legality.* ”
- Beijing FGD

Rejectors

“ *I could still recall the advertisement about elephant parents and their kids and the harm humans are doing to them.* ”
- Shanghai FGD

“ *You are killing elephants at the same time when you buy ivory products.* ”
- Chengdu FGD

“ *I was shocked and felt sick when I saw red (blood) stains on the ivory product; I gave up ivory since then.* ”
- Chengdu IDI

China's Millennials in the Context of the Large Luxury Market

CHINA'S MILLENNIALS The World's Most Important Consumer

 chinaskinny



318 million
Chinese aged 15-29

47.6%
female



52.4%
male

- Chinese Millennials are expected to spend more than **one trillion USD** on luxury goods in 2017.
- On Singles Day (11 November 2017), the e-commerce sales amounted to a total of **USD 38 billion***, among which Alibaba sales alone reached **USD 25 billion**.

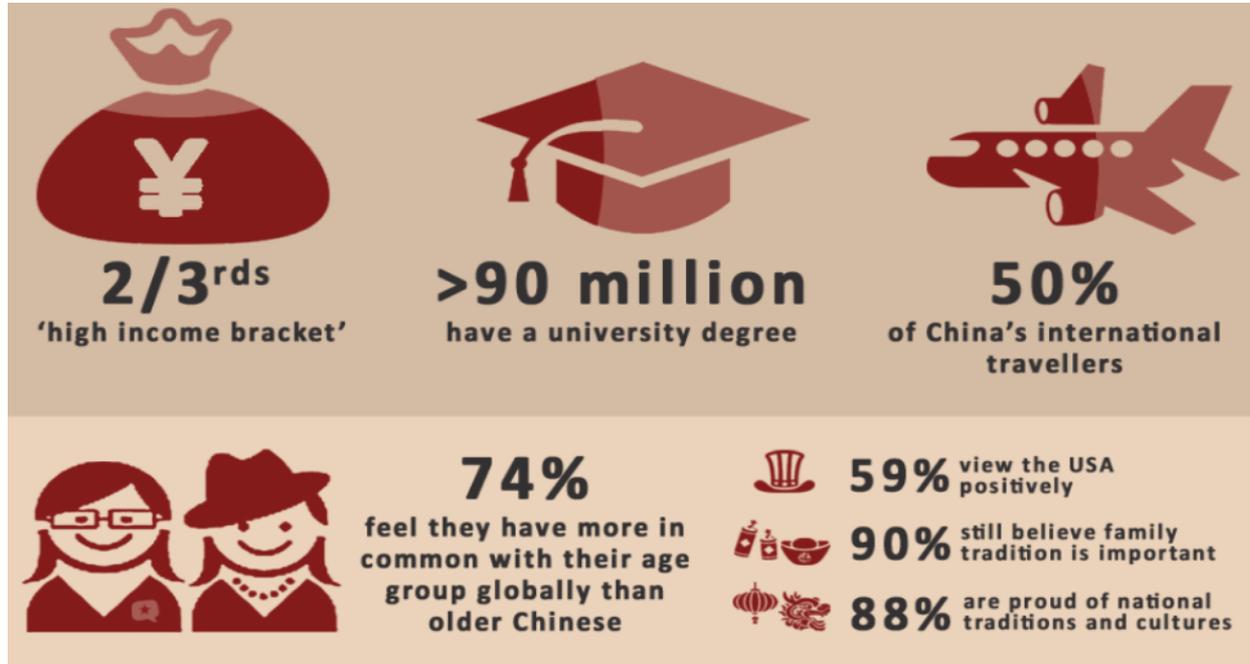
*Source: <https://www.digitalcommerce360.com/2017/11/13/chinas-singles-day-online-shopping-extravaganza-nets-38-23-billion-sales/>

expect to spend
\$4,362
on luxury goods
this year*



- Our research indicates that younger people (18-30 years of age) have the highest propensity to buy ivory, with the highest Ivory Purchase Index score among all age groups.
- China's Millennials are an important consumer group, and seem to be driving the growth of ivory demand and purchase.
- We looked more deeply into this socio-economic group and selected some statistics from China Skinny, a marketing agency.
- The following infographics demonstrate the importance of this demographic group in China, which has the same size as the total population of the USA (323 million in 2016).

China's Millennials in the Context of the Large Luxury Market



- China’s Millennials have a (relatively) high income, they are well educated and travel overseas regularly.
- They are global citizens and are nationally proud at the same time.
- Social status in combination with traditional values make them likely to be attracted to ivory, which according to our survey, is based on its beauty and a connection to their cultural heritage.
- Millennials score higher on both of these attributes than other age groups.

- 90% of Chinese Millennials own a smart phone and almost all use social media like WeChat.
- Targeted online messaging using social media should be the first advertising strategy option to consider.





3.2 Ivory Purchase Behavior

© WWF / Mike Goldwater

Ivory Purchase Index

Ivory Purchase Index: Definition

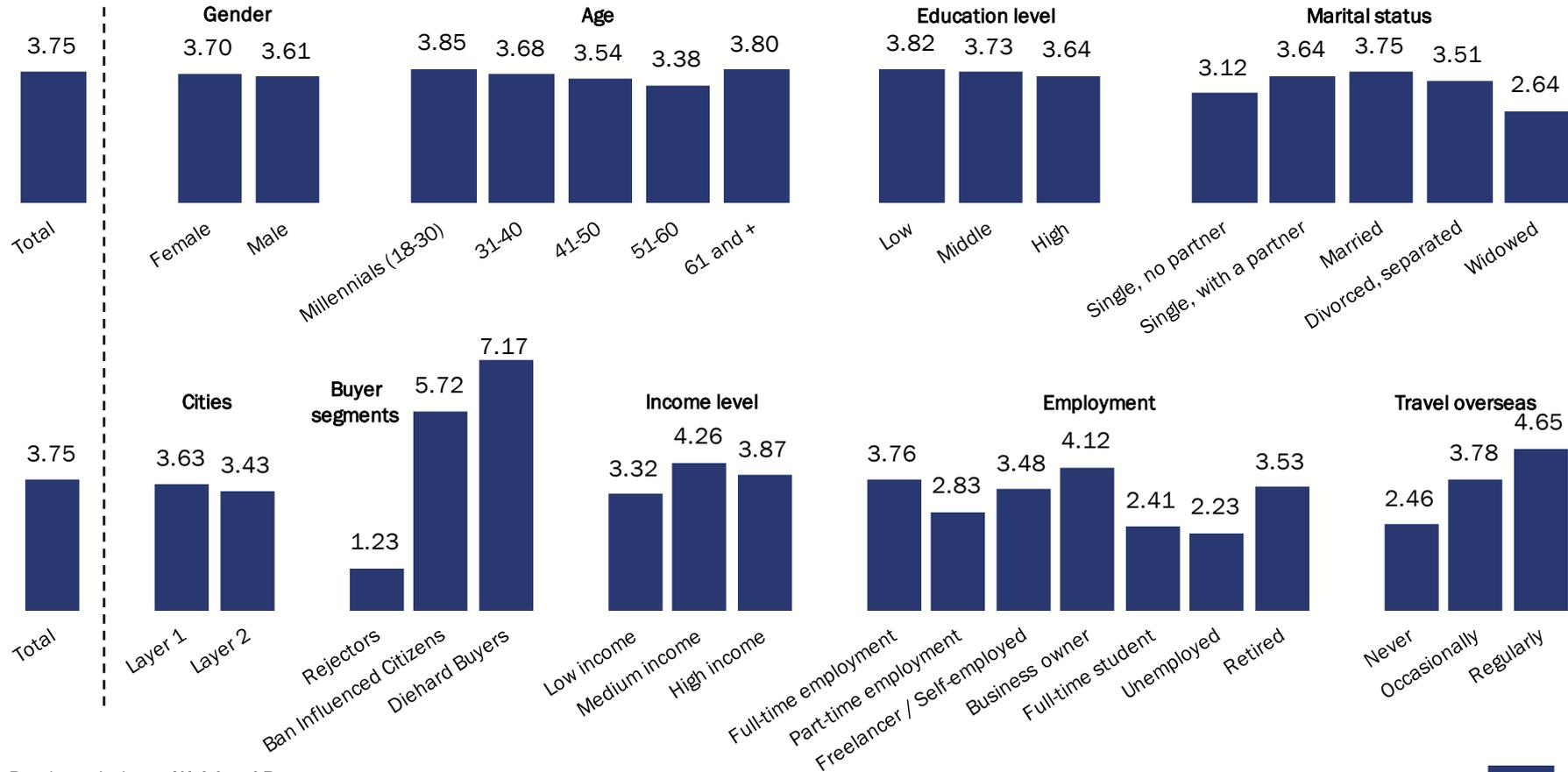
- For this survey, we constructed a customized index which we labeled the “Ivory Purchase Index”.
- The Ivory Purchase Index can be considered as a barometer or a measure of ivory buyers’ persistence.
- It allows us to customize strategies and messages for specific sub-groups, e.g., buyer segments, city 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:
 1. Past purchase
 2. Future purchase
 3. 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.

Ivory Purchase Index – by Demographics/Segments

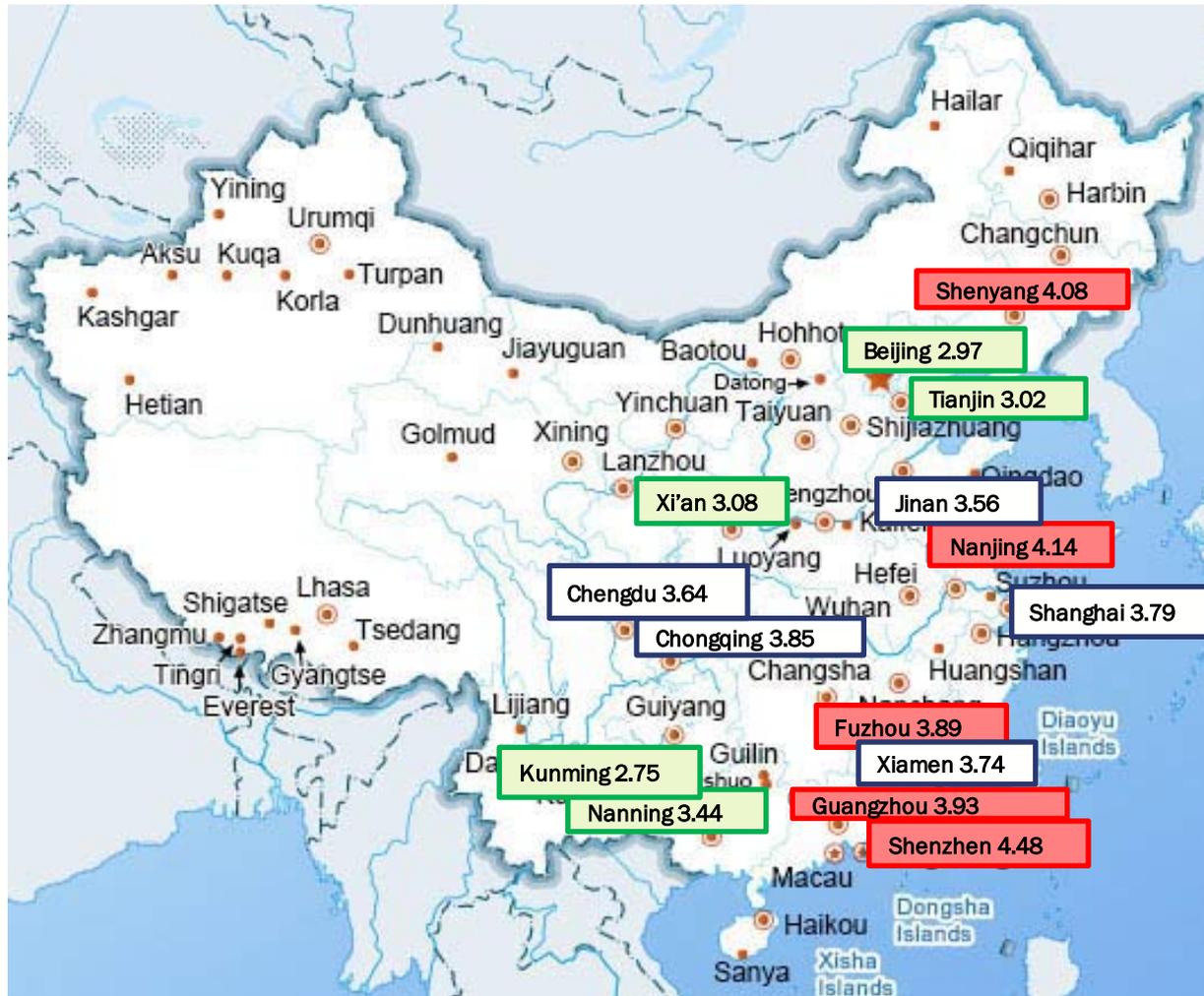
The Ivory Purchase Index reflects the social role of ivory; scores are highest among those who are married, work full time or own a business (gifting has a significant role), travel regularly and to some extent, Millennials. Regular travelers have the highest score of all demographic groups.



Purchase Index – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

Ivory Purchase Index – by City



Cities located in the southeast or near the coast, i.e., the richest regions of China, tend to have higher Ivory Purchase Index scores. Scores are particularly high in Layer 3 cities.

Ivory Purchase Index:
TOTAL: 3.75
 Layer 1 cities: **3.63**
 Layer 2 cities: **3.43**
 Layer 3 cities: **4.17**

Legend:

- Highest Index (Top 5)
- Medium Index (Rank 6 to 10)
- Lowest Index (Bottom 11 to 15)

Definitions: 15 selected cities

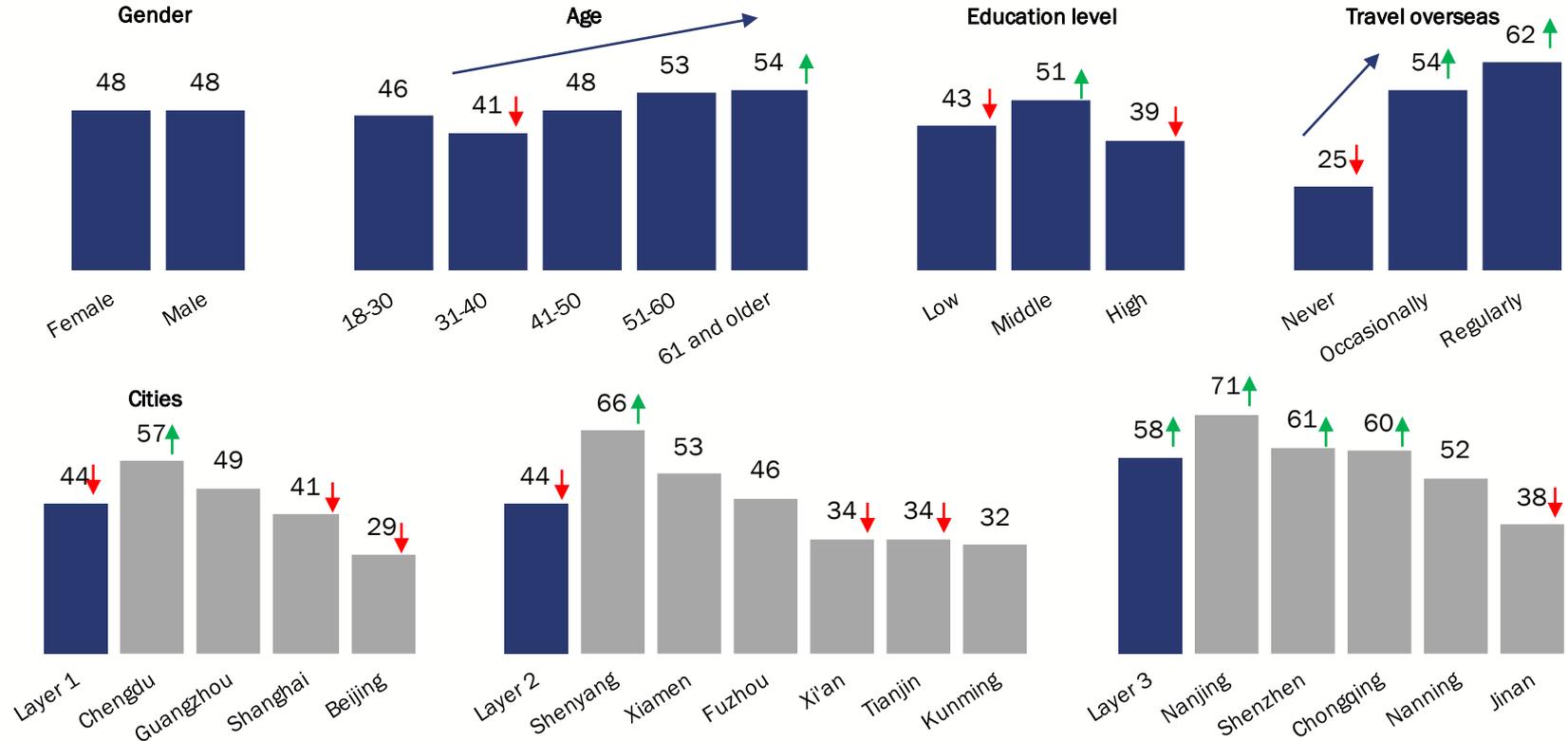
- Layer 1 cities: Beijing, Guangzhou, Shanghai, Chengdu
- Layer 2 cities: Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin
- Layer 3 cities: Nanning, Chongqing, Nanjing, Jinan, Shenzhen

“Ever” Purchase of Ivory

Based on results collected in the 15 cities selected

With the exception of Millennials, the incidence of ivory “ever” being purchased increases with age. Moreover, there is a significant difference between those who travel overseas and those who do not. At the city level, ivory has been purchased significantly more in Layer 3 cities in the past. The purchase of ivory overall is the same for women and men, from which we can conclude that sales are not gender-specific.

Ever purchase of ivory (% of respondents)



Q1.+ Q2a. Ever purchase – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities. Incidence levels not comparable with other surveys

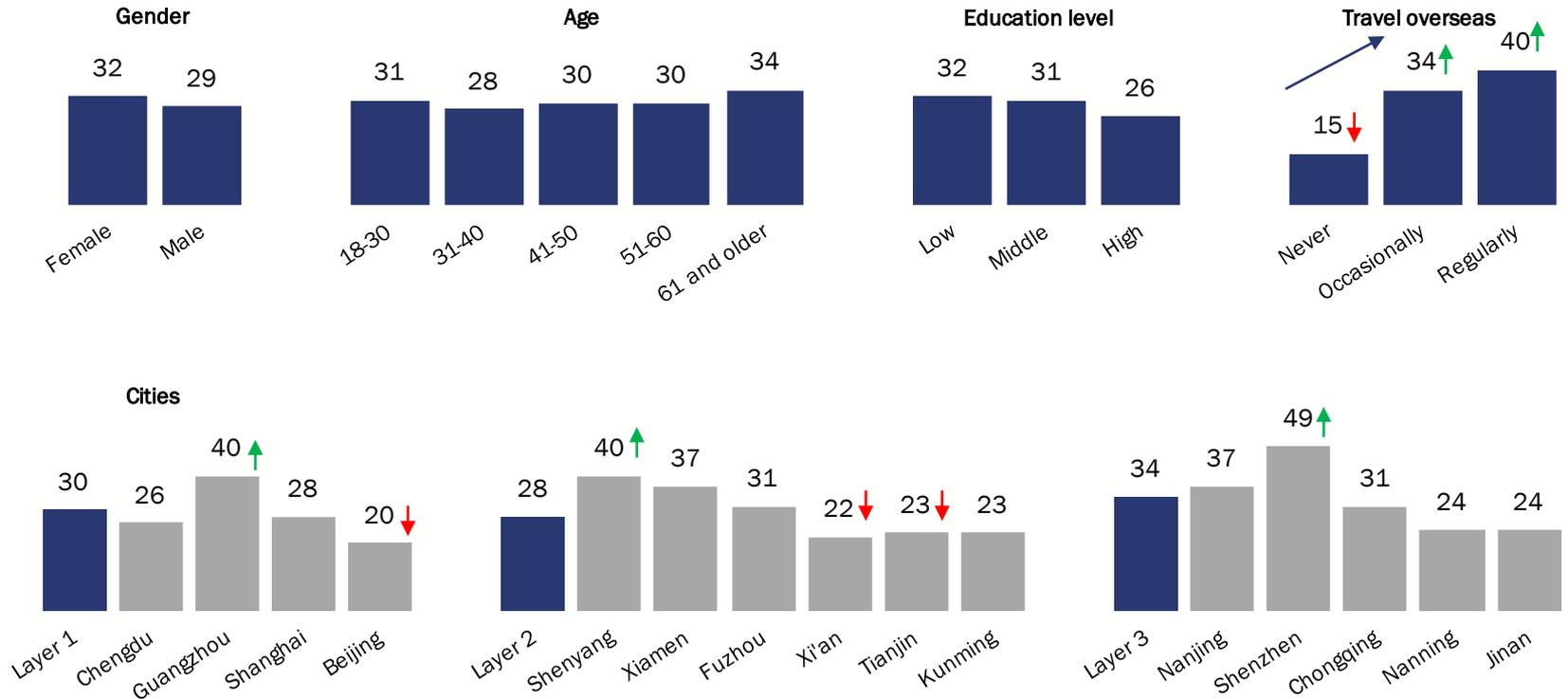
↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Purchase of Ivory in Past 12 Months

Based on results collected in the 15 cities selected

A similar pattern to “ever” purchased is observed among those who travel overseas, e.g., those who travel regularly have purchased significantly more ivory recently. Among Layer 1 cities, recent purchase is higher in Guangzhou; among Layer 2 cities, it is the highest in Shenyang and Xiamen. And in Layer 3 cities, it is highest in Shenzhen, however, “Ever” purchased is higher in Nanjing and Chongqing.

Past 12 Months purchase of ivory (% of respondents)



Q2d. Purchased ivory in the past 12 months – **Weighted Data**

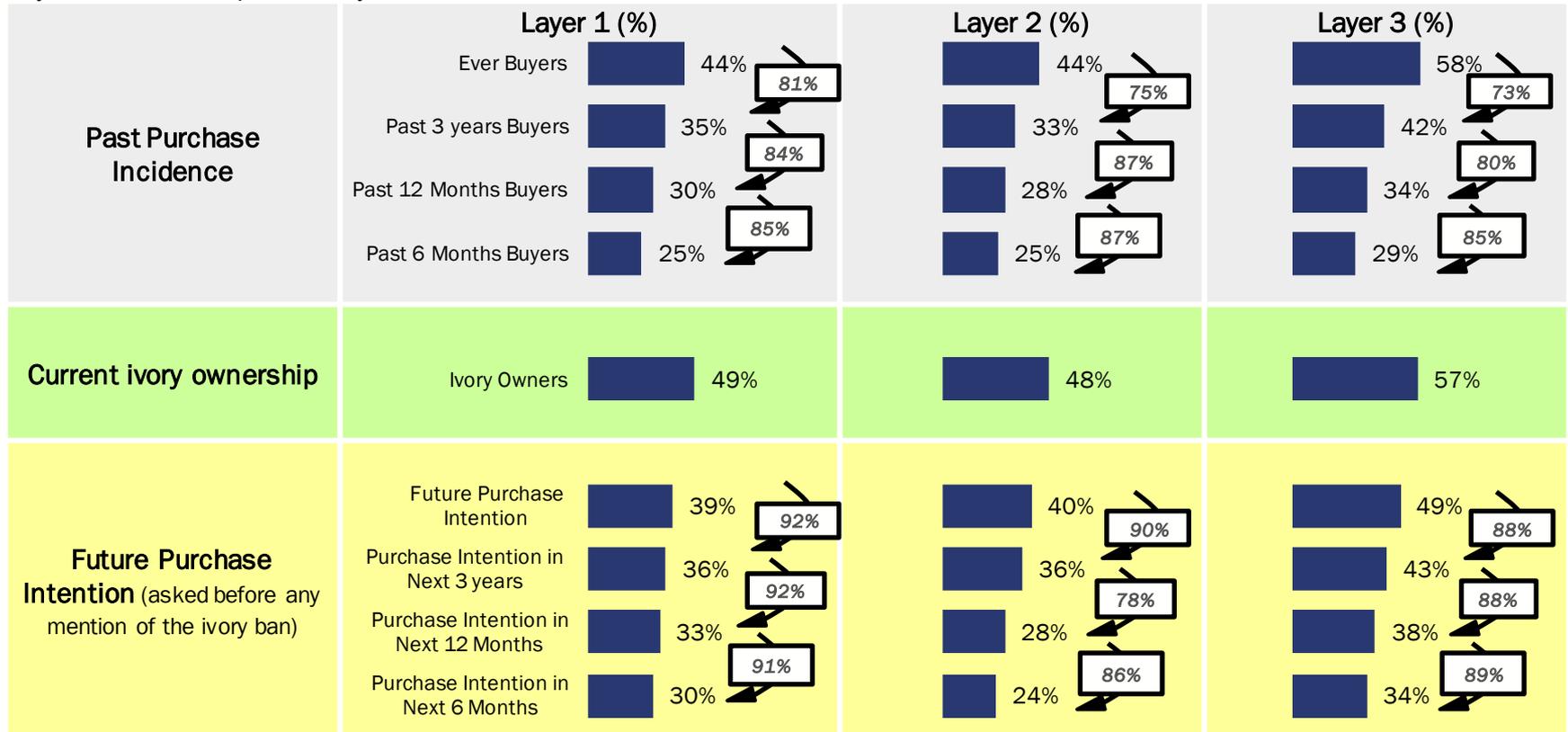
Base: Total Sample, n=2027 in 15 selected cities. Incidence levels not comparable with other surveys.

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Ivory Purchase Evolution – Past/Future Incidence

Based on results collected in the 15 cities selected

The conversion to regular buyers by past buyers and intenders has increased in recent years in Layer 3 cities, and can be expected to remain at similar levels in the future, resulting in a higher share of future intenders in Layer 3 cities. Repeat purchase has intensified in Layer 3 cities in the past three years.



Index P12M Buyers (index 100) vs Future Intenders:

133

142

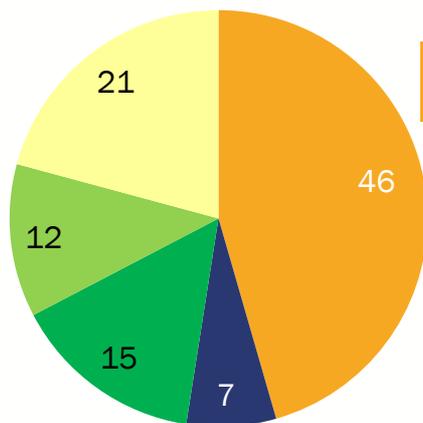
144

Note: all claimed past, current and future incidence levels mentioned on this slide have been collected and asked before any mention of the ivory ban in the questionnaire. Incidence levels not comparable with other surveys.

Decision to Stop Buying Ivory

We asked the respondents who bought ivory in the past, if they stopped doing so: more than half of past ivory buyers have decided to stop buying ivory, with a majority doing so in the past three years. This has taken place most notably in Layer 2 cities, confirming that increased ivory purchase has shifted to Layer 3 cities and highlighting the importance of future work in these Layer 3 cities.

Have you ever decided to stop buying ivory?
(% of respondents)



- No, I continue to buy ivory
- Yes, I stopped buying ivory more than 5 years ago
- Yes, I stopped buying ivory between 3 and 5 years ago
- Yes, I stopped buying ivory between 1 and 3 years ago
- Yes, I stopped buying ivory less than a year ago

No, I continue to buy ivory
(% of respondents)

Cities			Buyer Segments		
Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers
n=424	n=226	n=263	n=227	n=436	n=250
47	38 ↓	48	7 ↓	59 ↑	58 ↑

Gender		Travel Overseas		
Female	Male	Never	Occasionally	Regularly
n=436	n=477	n=114	n=532	n=267
53 ↑	39 ↓	38	46	49

Age				
18-30	31-40	41-50	51-60	61 and older
n=228	n=176	n=202	n=141	n=166
54 ↑	47	49	27 ↓	47

Q7d. You said that you purchased ivory in the past. Have you ever decided to stop buying ivory? - **Weighted Data**

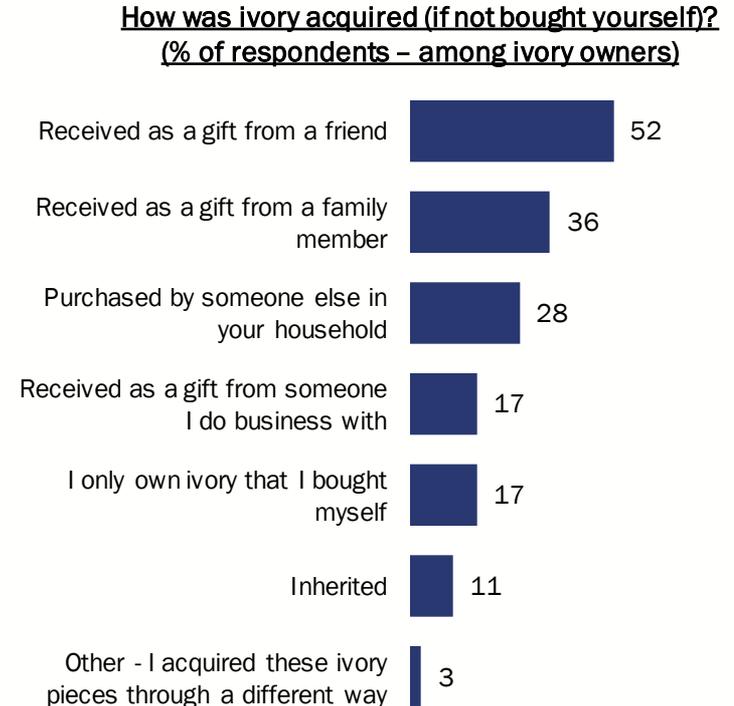
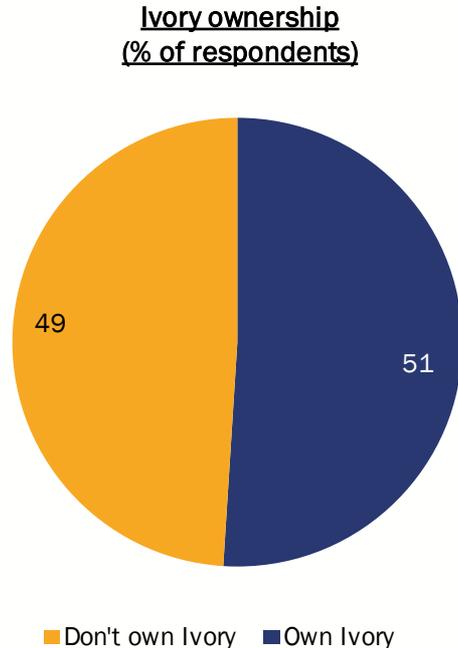
Base: Ever Buyers of Ivory, n=913 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Ivory Ownership

Based on results collected in the 15 cities selected

Over half of the consumers claim to own an item made of ivory; this includes items that they purchased themselves and items that they received from someone else. Ivory owners who did not buy their ivory themselves most often received it as a gift, while for three in ten, the ivory piece was purchased by someone else in the household.



Q2b. Do you own ivory or anything made of ivory?

Q4. Which of the following best describes how you acquired the ivory pieces you own, but that you didn't buy yourself?

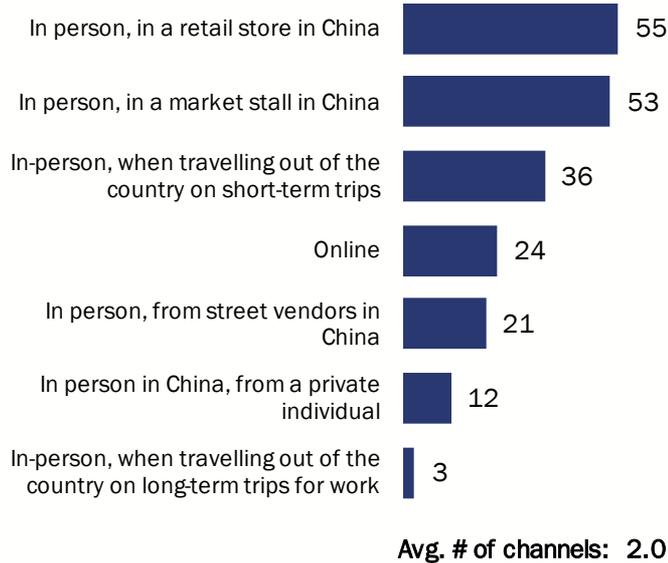
Base: Total Sample, n=2027 in 15 selected cities / Ivory Owners, n=1029 in 15 selected cities. Incidence levels not comparable with other surveys

Weighted Data (Based on gender, age and education; For more details please refer to slide 98)

Ivory Purchase Channels

Ivory is mainly purchased in retail stores or in market stalls in China. Millennials purchase ivory online significantly more often than the other consumer groups, and they also use the highest number of channels overall, highlighting the need to communicate with them both via offline and online channels.

Purchase channels of ivory (% of respondents)



By City Layers			Buyer Segments			Age	
Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers	18-30	51-60
n=424	n=226	n=263	n=227	n=436	n=250	n=228	n=141
56	53	55	31 ↓	65 ↑	59	63 ↑	46 ↓
52	57	51	51	51	56	57	61 ↑
43 ↑	34	30 ↓	23 ↓	44 ↑	37	39	21 ↓
26	17 ↓	26	16 ↓	26	27	34 ↑	19
19	20	25 ↑	21	14 ↓	32 ↑	20	25
12	9	13	10	7 ↓	21 ↑	10	17 ↑
4 ↑	1	2	2	2	4	3	6
2.1	1.9	2.0	1.6 ↓	2.1	2.4 ↑	2.3 ↑	2.0

 Main purchase channel

Q3a. Where did you purchase ivory in the past? – **Weighted Data**

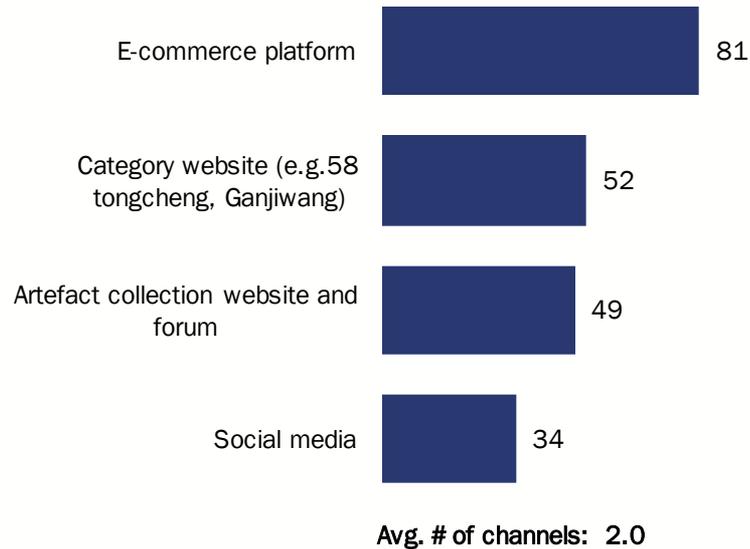
Base: Ever Buyers of Ivory, n=913 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Online Purchase Channels

Among the online channels used to purchase ivory, e-commerce platforms are by far the most popular, with eight in ten online buyers using them. Millennials use more than two different online channels, and other than the e-commerce platforms, they also regularly use category websites.

**Online purchase channels of ivory
(% of respondents)**



By City Layers			Buyer Segments			Age	
Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers	18-30	51-60
<i>n</i> =105	<i>n</i> =48	<i>n</i> =61	<i>n</i> =35	<i>n</i> =109	<i>N</i> =70	<i>n</i> =63	<i>n</i> =28
84	80	78	49 ↓	93 ↑	79	84	68 ↓
44 ↓	58	60	41	41 ↓	74 ↑	46	53
50	37	52	37	47	58 ↑	51	69 ↑
23 ↓	47	43 ↑	15 ↓	40	35	38	47
2.0	2.2	2.3 ↑	1.4 ↓	2.2	2.5 ↑	2.2	2.4

 Main online purchase channel

Q3b. Could you please indicate which online source(s) you purchased ivory from? – **Weighted Data**

Base: Buyers of Ivory Online, *n*=214 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Purchase Decision

The decision to purchase ivory is mostly unplanned, with over six in ten buyers making impulse purchases, particularly at the moment they see the specific ivory item. On the other hand, planned purchase is mostly driven by Millennials, online purchasers and buyers in Layer 1 cities.

Purchase decision (% of respondents)

I made the decision to purchase ivory...

Unplanned purchase 62

...only when I saw the specific item I then purchased. 37

...when I was in the store, online or in the location where I purchased it 26

Planned purchase 38

...entirely by myself. 33

...based on the recommendations from others. 5

	By City Layers			Buyer Segments			Age		Channels
	Layer 1 n=424	Layer 2 n=226	Layer 3 n=263	Rejectors n=227	Ban Influenced Citizens n=436	Diehard Buyers n=250	18-30 n=228	51-60 n=141	Online Buyers n=230
Unplanned purchase	58 ↓	62	67 ↑	87 ↑	56 ↓	52 ↓	50	68 ↑	48 ↓
...only when I saw the specific item I then purchased.	35	36	39	41	37	33	34	23 ↓	
...when I was in the store, online or in the location where I purchased it	23	27	28	46 ↑	19 ↓	19 ↓	16 ↓	45 ↑	
Planned purchase	42 ↑	38	33 ↓	13 ↓	44 ↑	48 ↑	50 ↑	32	52 ↑
...entirely by myself.	36	37	27 ↓	9 ↓	39 ↑	45 ↑	41 ↑	29	
...based on the recommendations from others.	6	0	6	4	6	4	9 ↓	2	

Main purchase decision

Q3c. Last time you purchased ivory or a product made of ivory, how did you make the decision to purchase? - **Weighted Data**

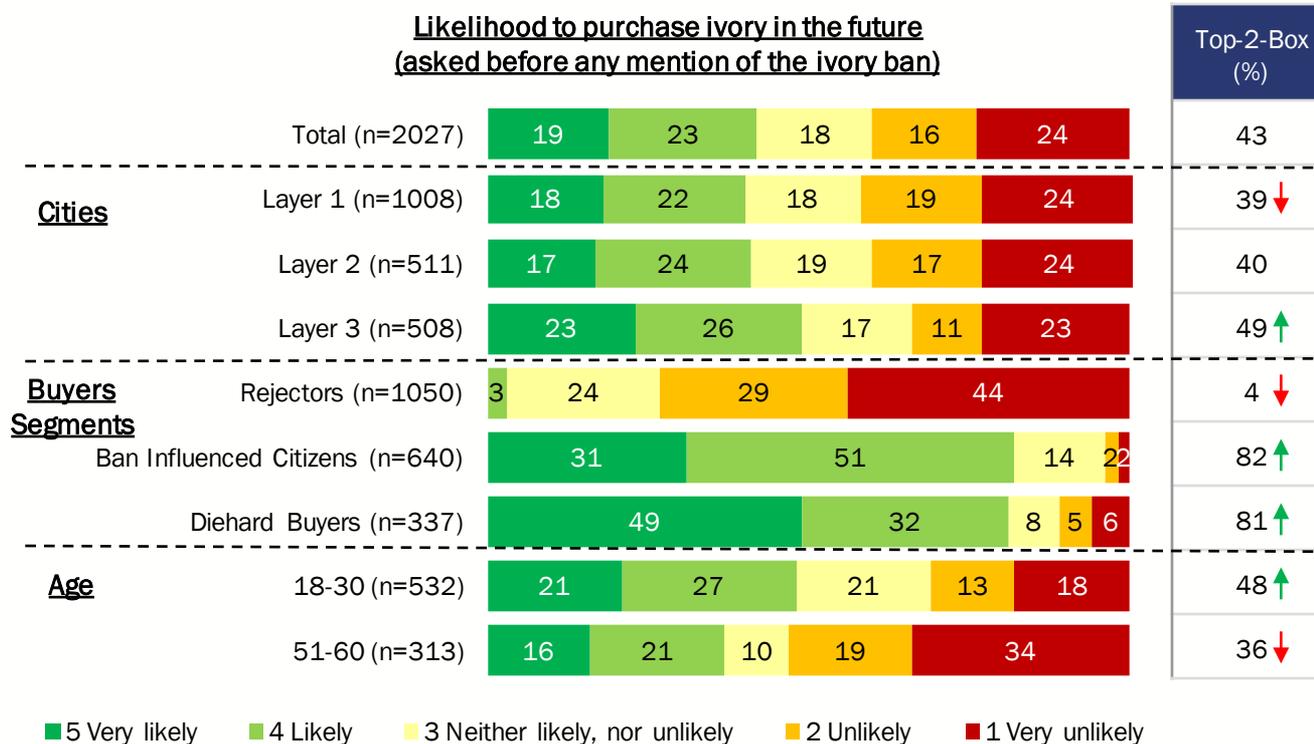
Base: Ever Buyers of Ivory, n=913 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Future Purchase Intention

(asked before mentioning the ivory ban in the questionnaire)

Over four in ten consumers intend to purchase ivory in the future. This is mostly driven by Millennials and Layer 3 cities, where half of consumers intend to buy ivory. It is worth noting that before mentioning the ban, Ban Influenced Citizens and Diehard Buyers have similar and high intention to purchase in the future.



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

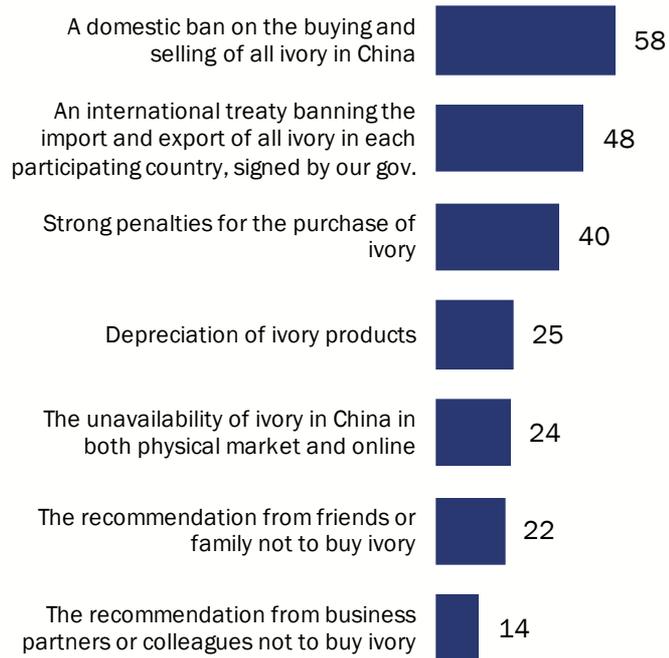
Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box)

Reasons to Change Mind (Before hearing of the ban)

The most likely reasons for intenders to reconsider their future ivory purchase are a ban on buying and selling of ivory in China, international treaties and strong penalties.

Reasons to change mind on ivory purchase
(% of respondents)



By City Layers			Buyer Segments			Age	
Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers	18-30	51-60
n=189	n=91	n=122	n=23	n=214	n=165	n=110	n=53
58	55	59	82	57	56	61	65
53	39 ↓	47	70	49	44	48	44
48	44	26 ↓	67 ↑	41	36	43	34
19 ↓	31	29	5	23	29	24	22
27	21	23	17	25	24	21	21
22	28	17	19	24	19	21	25 ↑
12	23 ↑	11	2	16	13	15	25

 Main reason

Q7c. What are the reasons likely to change your mind? – **Weighted Data**

Base: Likely to change mind on ivory purchase, n=402 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total



3.3 Drivers and Deterrents of Ivory Purchase



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Max-Diff Methodology – as Used in the Research Program

What is the Max-Diff Methodology?

Max-Diff is a research methodology which allows us to understand the strength of an attribute relative to the other attributes rated. Respondents can only select one attribute which best describes their opinion or behavior among a list of five, and one which describes their opinion the least in the same list of five. Respondents see several different screens with five attributes selected randomly by the model, and have to repeat this process for each screen ten times or more. Hence, it gives the chance for each attribute to be selected as the preferred one, and to be compared with the other ones. This method gives a much better differentiation than rating each attribute.

Questions Using Max-Diff in This Survey

The drivers (Q9) and deterrents (Q10) questions use Max-Diff. They have been asked to each respondent, in the local language.

Q9. Now we will focus on ivory and its purchase. On the following screens we will provide you lists of various statements. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least. Please select one statement from each box. We will repeat this question several times with different sets of statements to choose from.

Q10. What would motivate you to stop purchasing, or to purchase less ivory? On the following screens we will provide you lists of various statements. For each screen please select the statement which would be most effective for you to stop purchase or purchase less ivory, and the statement which would be least effective for you to stop purchase or purchase less ivory. Please select one statement from each box. We will repeat this question several times with different sets of statements to choose from.

How to Interpret the Results

The results for this question are reported based on the Max-Diff score. It is a relative score, reported as a measure of importance (Note: The Max-Diff score is not a percentage).

These attitudes can provide a baseline understanding of the drivers of ivory purchase and the public's perception of specific ivory issues, and outline the parameters of which dimensions might be communicated on through the messages/campaigns.

Comparison with Other Surveys



A Max-Diff score cannot be compared to other methodologies. For a fair comparison, it is advised to look at the ranking of the attributes and not to compare their scores.

Drivers of Ivory Purchase – All Attributes

The most important motivations for ivory purchase are its artistic value, its uniqueness and heritage, followed by gifting in general. Among the traditional beliefs, “wards off evil spirits” and “has healing power” do not come through as strong motivations, however purchasing ivory to “ensure prosperity of the family” is more important.

Most describes
people's
opinion



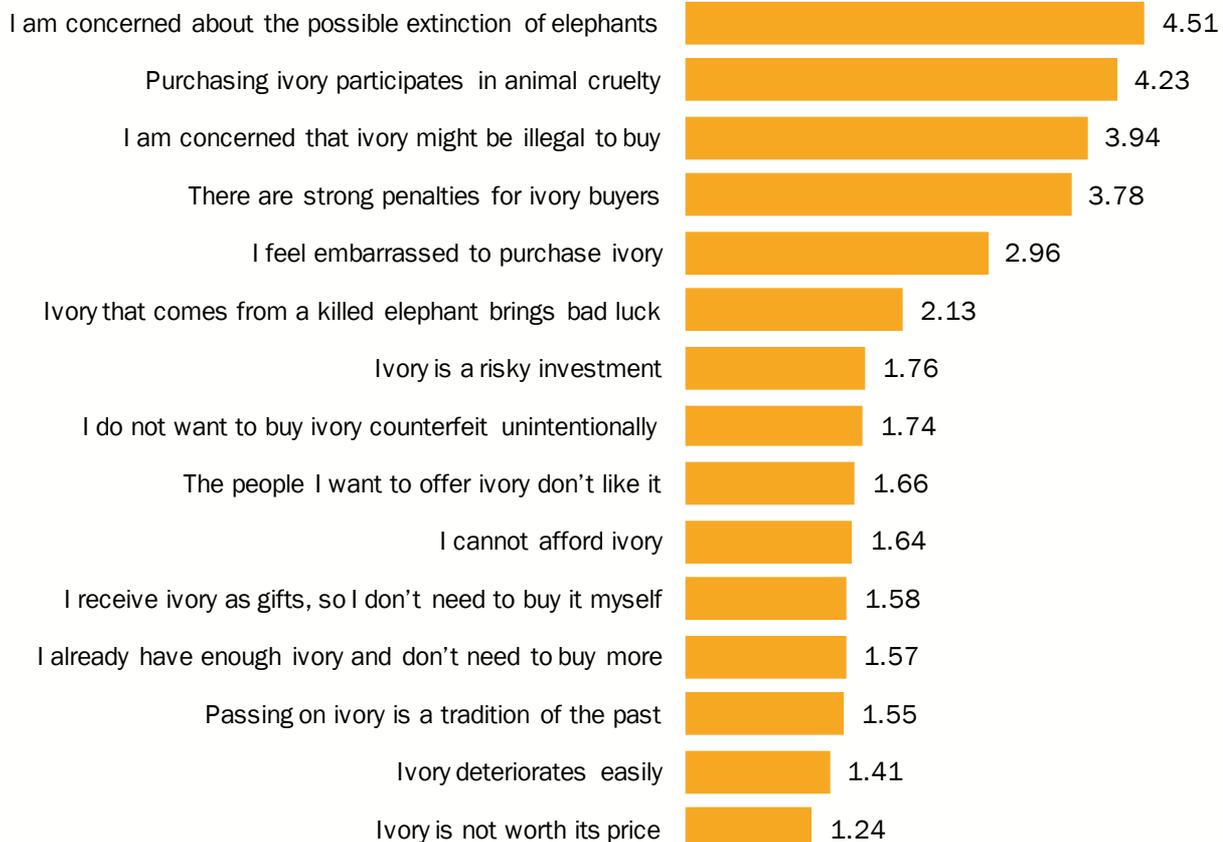
Least
describes
people's
opinion

Q9. Now we will focus on ivory and its purchase. On the following screens we will provide you lists of various statements. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least. - **Weighted Data**. Base: Total Sample, n=2027 in 15 selected cities

Ivory Purchase Deterrents

The strongest deterrents to buying ivory are animal cruelty and elephants being endangered, followed by the legal dimension, e.g., “I am concerned that ivory is illegal to buy” and “There are strong penalties for ivory buyers.” The price of ivory is not a key deterrent to purchase.

Most describes
people's
opinion



**Mean Score
out of 10**

Least
describes
people's
opinion

Q10. What would motivate you to stop purchasing, or to purchase less ivory? On the following screens we will provide you lists of various statements. For each screen please select the statement which would be most effective for you to stop purchase or purchase less ivory, and the statement which would be least effective for you to stop purchase or purchase less ivory. - **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

Drivers and Deterrents – Qualitative

Learnings and Selected Verbatims from Qualitative IDIs and FGDs in China*

Key learnings from IDIs and FGDs

Based on the qualitative research, the main drivers to buy ivory are:

1. Its beautiful appearance, rareness and ivory being a precious material
2. Its value: High investment value
3. Traditional beliefs

The key deterrents are:

1. **Regulatory/law approach, with strong penalties:** Legislation with strong penalties is considered to be the most effective way to stop people from buying ivory.
2. **Environmental issues:** Education is also considered to be important to building people's awareness of environmental and animal issues, in order to create an emotional connection between humans and nature.

Selected verbatims*

“An art piece is not only about its craftsmanship. The materials it uses also serve as an important part contributing to the beauty of the art.” (Buyer, GZ)

“There’s one time when I had to go to the hospital, I wore an ivory bracelet that day as a good luck charm for myself.” (Buyer, GZ)

“Any kinds of investments will bear a risk, I don’t think ivory’s risk is much larger than other products.” (Buyer, SH)

“I really love ivory products, but I think my feeling will be a bit mixed and contradicting – I guess I will feel happy to have found ivory even if the ban is enforced, but at the same time will feel scared and worried about the legality of the ivory piece.” (Buyer, BJ)

“I could still recall an advertisement with the elephant parents and kids.” (Likely Buyer, SH)

“You are killing elephants at the same time buying products from a killed animal.” (Buyer, CD)

*Responses have been selected to show examples of some of the most-mentioned topic areas.

Drivers (25 in Total) of Ivory Purchase – Demographics (1)

The top drivers of ivory purchase are consistent across sub-groups, i.e. the artistic value, beauty and uniqueness of ivory are their main motivations to buy (as observed in the qualitative phase). However, these drivers don't come through with the same strength across sub-groups, i.e. Millennials and females are among the most likely to think that ivory is beautiful and has great artistic value, while these attributes don't stand out strongly among older consumers.

Max-Diff Score (mean) Ranked on Total Sample (attributes ranked 1 to 12)	Total	Gender		Age		Travel overseas	
		Female	Male	18-30 Millennials	51-60	Never	Regularly
Most described opinions (Top 3)							
Least described opinions (Bottom 3)	n=2027	n=988	n=1039	n=532	n=313	n=494	n=444
Products made of ivory have great artistic value	4.74	5.02 ↑	4.47 ↓	5.11 ↑	3.78 ↓	4.71	4.61
Ivory is beautiful	4.57	4.89 ↑	4.26 ↓	4.94 ↑	3.76 ↓	4.55	4.40
Ivory is a unique and irreplaceable material	4.22	4.49 ↑	3.97 ↓	4.39	3.64 ↓	4.23	4.07
Ivory connects me to my cultural heritage	3.56	3.81 ↑	3.33 ↓	3.84 ↑	2.97 ↓	3.63	3.43
Ivory can be purchased as a piece of art	3.39	3.47	3.30	3.61 ↑	2.91 ↓	3.52	3.19 ↓
Ivory is a material for home decoration	2.97	3.07 ↑	2.87 ↓	3.12 ↑	2.57 ↓	3.13 ↑	2.75 ↓
Ivory is a souvenir to buy when I'm on holiday	2.80	2.84	2.75	2.88	2.46 ↓	3.01 ↑	2.57 ↓
Buying ivory only for making money is showing disrespect	2.59	2.57	2.61	2.63	2.60	2.59	2.74 ↑
Ivory is a gift to mark special life events	2.54	2.57	2.50	2.59	2.45	2.57	2.53
Ivory is a good gift to a friend, family, business associate	2.47	2.49	2.45	2.43	2.31 ↓	2.50	2.45
Ivory is ideal to pass on to future generations	2.45	2.49	2.41	2.55 ↑	2.31 ↓	2.41	2.48
Only a strong law will prevent me from purchasing ivory	2.39	2.27 ↓	2.50 ↑	2.24	2.47	2.36	2.72 ↑

Q9. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least.

– **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Drivers (25 in Total) of Ivory Purchase – Demographics (2)

On the other hand, Millennials and females associate ivory much less with status and do not show any ambiguous or conflicting behavior (e.g., they are conscious of the impact of ivory trade on elephants, but it does not prevent them from buying).

Max-Diff score (mean) Ranked on total sample (attributes ranked 13 to 25)	Total	Gender		Age		Travel overseas	
		Female	Male	18-30 Millennials	51-60	Never	Regularly
<i>Most described opinions (Top 3)</i>							
<i>Least described opinions (Bottom 3)</i>	n=2027	n=988	n=1039	n=532	n=313	n=494	n=444
Buying ivory is acceptable if it is only for personal enjoyment	2.21	2.21	2.20	2.22	2.17	2.39	2.15
Ivory is an investment which won't depreciate in the future	2.18	2.13	2.23	2.24	2.11	2.21	2.22
Ivory gives strength because it comes from elephants	2.12	2.21 ↑	2.04 ↓	2.14	2.18	2.07	2.13
I believe that ivory brings luck and fortune	2.00	2.02	1.98	2.00	2.09	1.98	1.90
Ivory brings luck and fortune	1.95	1.97	1.93	1.94	2.05	1.95	1.89
Ivory enhances my social status	1.72	1.66 ↓	1.77 ↑	1.62 ↓	1.84 ↑	1.75	1.85 ↑
Passing on ivory to next generation assures prosperity of family	1.65	1.64	1.66	1.64	1.76 ↑	1.66	1.72
Ivory has healing powers and brings good health	1.65	1.65	1.65	1.61	1.90 ↑	1.62	1.60
I feel respected because I own ivory	1.64	1.57 ↓	1.71 ↑	1.55 ↓	1.77 ↑	1.55 ↓	1.75 ↑
Although it is important to reduce the trade of ivory for elephant conservation, I still plan to buy ivory in the future	1.59	1.48 ↓	1.71 ↑	1.36 ↓	1.93 ↑	1.46 ↓	1.67
I believe that ivory wards off evil spirits	1.52	1.54	1.51	1.51	1.57	1.53	1.43
Using wild animals for human use is acceptable	1.49	1.39 ↓	1.59 ↑	1.40 ↓	1.65 ↑	1.57	1.54
I can't help buying ivory even if I know that it has an impact on elephant extinction	1.40	1.30 ↓	1.50 ↑	1.18 ↓	1.67 ↑	1.30 ↓	1.48

Q9. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least.

– **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Drivers (25 in Total) of Ivory Purchase–Cities/Segments (1)

Ivory is more perceived as being a gift or an occasional product (e.g., souvenir) in Layer 1 cities vs Layer 3 cities, and among Ban Influenced Citizens.

Max-Diff score (mean) Ranked on total sample (attributes ranked 1 to 12)	Total	Cities			Buyer segments		
		Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers
<i>Most described opinions (Top 3)</i>							
<i>Least described opinions (Bottom 3)</i>							
	n=2027	n=1008	n=511	n=508	n=1050	n=640	n=337
Products made of ivory have great artistic value	4.74	4.92 ↑	4.78	4.43 ↓	5.26 ↑	4.69	3.42 ↓
Ivory is beautiful	4.57	4.68	4.72	4.29 ↓	5.23 ↑	4.36 ↓	3.16 ↓
Ivory is a unique and irreplaceable material	4.22	4.32	4.17	4.11	4.82 ↑	4.00 ↓	3.00 ↓
Ivory connects me to my cultural heritage	3.56	3.65	3.65	3.37 ↓	3.88 ↑	3.40 ↓	2.99 ↓
Ivory can be purchased as a piece of art	3.39	3.54 ↑	3.36	3.16 ↓	3.53 ↑	3.49	2.82 ↓
Ivory is a material for home decoration	2.97	3.05 ↑	3.00	2.83 ↓	3.19 ↑	2.99	2.33 ↓
Ivory is a souvenir to buy when I'm on holiday	2.80	2.89 ↑	2.69	2.73	2.90 ↑	2.88	2.37 ↓
Buying ivory only for making money is showing disrespect	2.59	2.59	2.62	2.58	2.92 ↑	2.27 ↓	2.28 ↓
Ivory is a gift to mark special life events	2.54	2.61 ↑	2.45	2.49	2.49	2.66 ↑	2.45
Ivory is a good gift to a friend, family, business associate	2.47	2.52	2.39	2.45	2.37 ↓	2.68 ↑	2.39
Ivory is ideal to pass on to future generations	2.45	2.47	2.45	2.42	2.59 ↑	2.34 ↓	2.25 ↓
Only a strong law will prevent me from purchasing ivory	2.39	2.40	2.54	2.25 ↓	2.42	2.30	2.44

Q9. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least.

– **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Drivers (25 in Total) of Ivory Purchase–Cities/Segments (2)

However, in Layer 3 cities, ivory has a stronger social role (e.g., “I feel respected,” “enhances my social status”) and is more linked to traditional beliefs than in Layer 1 cities. Diehard Buyers are also more driven by the social dimension of ivory.

Max-Diff score (mean) Ranked on total sample (attributes ranked 13 to 25)	Total	Cities			Buyer segments		
		Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers
<i>Most described opinions (Top 3)</i>							
<i>Least described opinions (Bottom 3)</i>	n=2027	n=1008	n=511	n=508	n=1050	n=640	n=337
Buying ivory is acceptable if it is only for personal enjoyment	2.21	2.24	2.17	2.18	2.23	2.15	2.23
Ivory is an investment which won't depreciate in the future	2.18	2.07 ↓	2.18	2.34 ↑	2.32 ↑	2.08 ↓	1.97 ↓
Ivory gives strength because it comes from elephants	2.12	2.11	2.16	2.10	2.20 ↑	2.06	2.01
I believe that ivory brings luck and fortune	2.00	1.98	1.99	2.04	1.84 ↓	2.12 ↑	2.23 ↑
Ivory brings luck and fortune	1.95	1.90	1.97	2.01	1.79 ↓	2.07 ↑	2.17 ↑
Ivory enhances my social status	1.72	1.64 ↓	1.78	1.80 ↑	1.64 ↓	1.72	1.95 ↑
Passing on ivory to next generation assures prosperity of family	1.65	1.60 ↓	1.65	1.74 ↑	1.50 ↓	1.66	2.04 ↑
Ivory has healing powers and brings good health	1.65	1.65 ↓	1.58	1.72 ↑	1.57 ↓	1.72	1.75
I feel respected because I own ivory	1.64	1.55	1.71	1.73	1.56 ↓	1.63	1.89 ↑
Although it is important to reduce the trade of ivory for elephant conservation, I still plan to buy ivory in the future	1.59	1.60	1.50	1.65	1.27 ↓	1.69 ↑	2.29 ↑
I believe that ivory wards off evil spirits	1.52	1.47	1.54	1.59	1.46	1.53	1.68 ↑
Using wild animals for human use is acceptable	1.49	1.44	1.48	1.58 ↑	1.41 ↓	1.43	1.82 ↑
I can't help buying ivory even if I know that it has an impact on elephant extinction	1.40	1.42	1.31	1.45	1.11 ↓	1.50 ↑	2.01 ↑

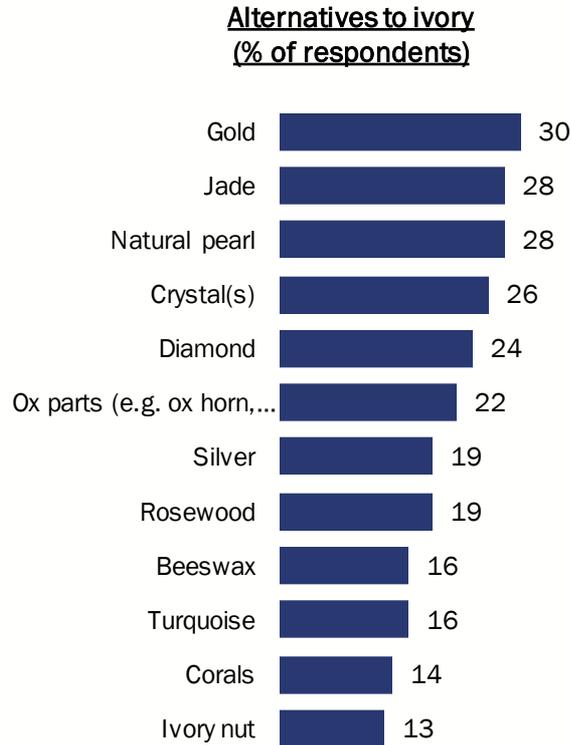
Q9. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least.

– **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Alternatives to Ivory

Although consumers perceive ivory as being unique and irreplaceable, they mainly consider precious metals (gold, silver) or stones (jade, diamond, etc.) as being the “next best thing” (i.e., items which would satisfy similar needs as ivory). Other animal parts (e.g., ox parts) are more popular among Diehard Buyers and Millennials.



	City Layers			Buyer Segments			Age	
	Layer 1 <i>n</i> =1008	Layer 2 <i>n</i> =511	Layer 3 <i>n</i> =508	Rejectors <i>n</i> =1050	Ban Influenced Citizens <i>n</i> =640	Diehard Buyers <i>n</i> =337	18-30 <i>n</i> =532	51-60 <i>n</i> =313
Gold	32	29	28	30	29	32	32	31
Jade	26	28	32↑	24↓	34↑	30	29	26
Natural pearl	27	28	28	27	33↑	21↓	25	29
Crystal(s)	23↓	29	28	26	26	26	24	21↓
Diamond	22	25	26	24	22	27	24	28
Ox parts (e.g. ox horn,...)	23	19	23	20↓	20	30↑	26↑	19
Silver	20	18	18	18	17	23↑	25↑	20
Rosewood	21↑	16	18	14↓	23↑	26↑	22↑	23
Beeswax	16	20↑	15	16	17	17	17	19
Turquoise	14↓	15	20↑	13↓	19↑	20↑	16	14
Corals	14	14	14	12↓	17↑	15	14	13
Ivory nut	11↓	11	17↑	7↓	18↑	19↑	12	13

Top 3 alternatives

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** - Base: Total Sample, *n*=2027 in 15 selected cities

↑↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Ivory Purchase Deterrents (15 in Total) – Demographics

Overall, Millennials and females react more strongly to deterrents to ivory purchase, mostly in the environmental (animal cruelty and endangered elephants) and legal dimensions.

Max-Diff score (mean) Ranked on total sample	Total	Gender		Age		Travel overseas	
		Female	Male	18-30 Millennials	51-60	Never	Regularly
<i>Most described opinions (Top 3)</i>							
<i>Least described opinions (Bottom 3)</i>	n=2027	n=988	n=1039	n=532	n=313	n=494	n=444
I am concerned about the possible extinction of elephants	4.51	4.89 ↑	4.16 ↓	4.88 ↑	3.80 ↓	4.65	4.34
Purchasing ivory participates in animal cruelty	4.23	4.60 ↑	3.88 ↓	4.52 ↑	3.54 ↓	4.30	4.08
I am concerned that ivory might be illegal to buy	3.94	4.16 ↑	3.73 ↓	4.01	3.44 ↓	4.07	3.85
There are strong penalties for ivory buyers	3.78	3.94 ↑	3.62 ↓	3.85	3.32 ↓	3.92	3.63
I feel embarrassed to purchase ivory	2.96	3.08 ↑	2.84 ↓	3.08 ↑	2.60 ↓	2.97	2.98
Ivory that comes from a killed elephant brings bad luck	2.13	2.13	2.12	2.20	2.06	2.10	2.09
Ivory is a risky investment	1.76	1.68 ↓	1.83 ↑	1.70	1.81	1.69 ↓	1.81
I do not want to buy ivory counterfeit unintentionally	1.74	1.68 ↓	1.80 ↑	1.71	1.88 ↑	1.72	1.78
The people I want to offer ivory don't like it	1.66	1.59 ↓	1.72 ↑	1.55 ↓	1.83 ↑	1.62	1.72
I cannot afford ivory	1.64	1.57 ↓	1.71 ↑	1.57	1.84 ↑	1.75 ↑	1.62
I receive ivory as gifts, so I don't need to buy it myself	1.58	1.52 ↓	1.63 ↑	1.54	1.75 ↑	1.47 ↓	1.73 ↑
I already have enough ivory and don't need to buy more	1.57	1.48 ↓	1.65 ↑	1.52	1.80 ↑	1.48 ↓	1.67 ↑
Passing on ivory is a tradition of the past	1.55	1.44 ↓	1.65 ↑	1.51	1.74 ↑	1.53	1.58
Ivory deteriorates easily	1.41	1.34 ↓	1.48 ↑	1.33 ↓	1.58 ↑	1.39	1.42
Ivory is not worth its price	1.24	1.16 ↓	1.33 ↑	1.15 ↓	1.44 ↑	1.26	1.24

Q10. What would motivate you to stop purchasing, or to purchase less ivory? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Ivory Purchase Deterrents (15 in Total) – Cities/Segments

Respondents in Layer 3 cities differ from those in Layer 1 cities by being more concerned about the risks related to investment or counterfeit items. Diehard Buyers have a typical “collector” profile.

Max-Diff score (mean) Ranked on total sample	Total	Cities			Buyer segments		
		Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers
<i>Most described opinions (Top 3)</i>							
<i>Least described opinions (Bottom 3)</i>							
	n=2027	n=1008	n=511	n=508	n=1050	n=640	n=337
I am concerned about the possible extinction of elephants	4.51	4.67 ↑	4.57	4.24 ↓	5.08 ↑	4.33 ↓	3.30 ↓
Purchasing ivory participates in animal cruelty	4.23	4.41 ↑	4.34	3.88 ↓	4.77 ↑	4.08	3.04 ↓
I am concerned that ivory might be illegal to buy	3.94	4.11 ↑	3.96 ↑	3.67 ↓	4.29 ↑	3.93	3.02 ↓
There are strong penalties for ivory buyers	3.78	3.91 ↑	3.85	3.52 ↓	4.24 ↑	3.59 ↓	2.85 ↓
I feel embarrassed to purchase ivory	2.96	3.00	2.96	2.90	3.23 ↑	2.82 ↓	2.47 ↓
Ivory that comes from a killed elephant brings bad luck	2.13	2.03 ↓	2.21	2.21 ↑	2.12	2.10	2.20
Ivory is a risky investment	1.76	1.75	1.67 ↓	1.83 ↑	1.64 ↓	1.84	1.94 ↑
I do not want to buy ivory counterfeit unintentionally	1.74	1.71	1.71	1.80 ↑	1.58 ↓	1.87 ↑	1.95 ↑
The people I want to offer ivory don't like it	1.66	1.64	1.62	1.71	1.53 ↓	1.69	1.95 ↑
I cannot afford ivory	1.64	1.61	1.73 ↑	1.62	1.62	1.61	1.76 ↑
I receive ivory as gifts, so I don't need to buy it myself	1.58	1.55	1.51 ↓	1.66	1.40 ↓	1.65 ↑	1.93 ↑
I already have enough ivory and don't need to buy more	1.57	1.51 ↓	1.54	1.66 ↑	1.37 ↓	1.62	1.99 ↑
Passing on ivory is a tradition of the past	1.55	1.57	1.45 ↓	1.59	1.43 ↓	1.55	1.86 ↑
Ivory deteriorates easily	1.41	1.37 ↓	1.38	1.50 ↑	1.30 ↓	1.44	1.67 ↑
Ivory is not worth its price	1.24	1.17 ↓	1.24	1.35 ↑	1.14 ↓	1.25	1.52 ↑

Q10. What would motivate you to stop purchasing, or to purchase less ivory? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total



3.4 Test of Concept Messages and Communication

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Introduction to Message Testing

The messages were tested in two phases during the research: first in the focus group discussions, and then the top six messages from the qualitative survey were improved (when needed) and tested in the quantitative research.

Message testing in the qualitative research

Respondents rated messages both spontaneously (based on the message they created) and prompted, based on a list of nine messages.

1. Respondents first had to create their own message to incite people to reduce or stop purchasing ivory. This message was then classified in one of the four categories in the quadrant graphic used in the psychosocial approach (see illustration on the right), by Renee Lertzman, PhD, with Karen Baragona, Conservation Advisor, delivered to WWF in 2016. These four categories are Culture, Desire, Behavioral Economics and Regulatory.

This exercise revealed that respondents spontaneously think first about messages which fit in the Culture quadrant (environmental protection, emotional attachment), and less so about messages that would be classified in the Desire quadrant.

2. Respondents then reviewed nine different concept messages, ranked each of them and then gave their opinion. This revealed that messages on law enforcement and penalties, when prompted, are strongly influential.

Message testing in the quantitative research

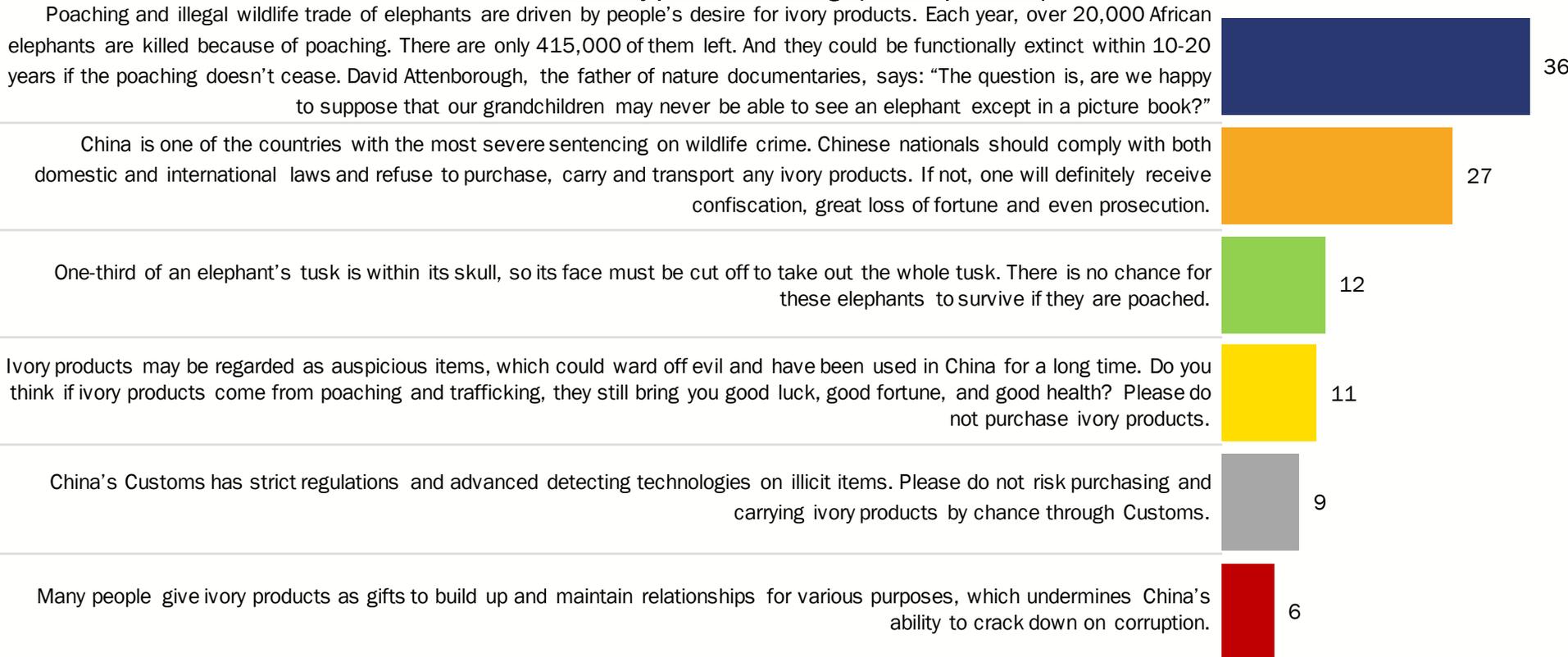
The top six preferred messages from the qualitative survey were improved and revised, and the quantitative survey measured their preferences. To obtain these measures, respondents had to rank these messages by order of preference, and indicate which element is the most impactful in the preferred message.



Ranking of Preferred Messages

Messages on the topics of endangered elephants and law are the preferred messages, with a significant gap to the other messages.

Ranked by preferred message (in % respondents)



Q20. Which one of the following 6 messages affects your intention to purchase ivory the most? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

Preferred Message – by Sub-groups

There is a clear preference for the message on illegal wildlife trade and its impact on endangered elephants among all consumer sub-groups. The more ‘informative’ message, although preferred by all segments, resonates significantly less among the diehards. Instead, the message on gifting/corruption gets significantly higher ratings by diehards, who are more driven by motivations like relationships building, status, etc.

Ranked by preferred message (in % respondents)

	City Layers			Buyer Segments			Age	
	Layer 1	Layer 2	Layer 3	Rejectors	Ban Influenced Citizens	Diehard Buyers	18-30	51-60
	n=1008	n=511	n=508	n=1050	n=640	n=337	n=532	n=313
Poaching and illegal wildlife trade of elephants are driven by people’s desire for ivory products. Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 of them left. And they could be functionally extinct within 10-20 years if the poaching does not cease...	39	34	32	39 ↑	34	30 ↓	35	32
China is one of the countries with the most severe sentencing on wildlife crime. Chinese nationals should comply with both domestic and international laws and refuse to purchase, carry and transport any ivory products.	26	28	28	26	29	26	26	25
One-third of an elephant’s tusk is within its skull, so its face must be cut off to take out the whole tusk. There is no chance for these elephants to survive if they are poached.	12	11	12	12	10	13	14	10
Ivory products may be regarded as auspicious items, which could ward off evil and have been used in China for a long time. Do you think if ivory products come from poaching and trafficking, they still bring you good luck, good fortune, and good health? Please do not purchase ivory products.	9	11	14	10	12	11	11	13
China’s Customs has strict regulations and advanced detecting technologies on illicit items. Please do not risk purchasing and carrying ivory products by chance through Customs.	8	11	8	8	9	9	8	9
Many people give ivory products as gifts to build up and maintain relationships for various purposes, which undermines China’s ability to crack down on corruption.	6	5	5	4 ↓	5	10 ↑	8 ↑	10 ↑

Q20. Which one of the following 6 messages affects your intention to purchase ivory the most? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities



Preferred message



Preferred Message Elements (Top 10)

The most impactful message element is explanatory and quantified, e.g., it educates consumers on the impact of poaching. Legal elements are the other preferred topics among the messages tested.

Elements ranked #1 to #5 (in % respondents)



Cont'd (elements ranked #6 to #10)



Q21. Please select the specific parts of the message which affect your intention to purchase ivory the most in the future – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

Preferred Message – Qualitative Findings

Preferred Test Messages

Respondents said that they did not know about the cruelty and the shocking facts behind ivory trade. The use of a few numerical data, and the quote about future generations also made them feel hopeless and responsible for future generations. They ranked the following messages with emotional attachment/connection as the most effective:

- Poaching and illegal wildlife trade of elephants are driven by people's extravagant demand on ivory products. Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 of them left. And they could be functionally extinct within 10-20 years if the poaching doesn't cease. David Attenborough, the father of nature documentaries, says: "The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?"
- One-third of an elephant's tusk is within its skull, so its face must be cut off to take out the whole tusk. There is no chance for these elephants to survive if they are poached.

"This message should be spread to let us see how ugly and evil humans are, and to let us reflect on what if the roles of humans and animals were swapped, how will they feel right now?"

Respondents also perceived the following message about strict sentences and penalties in China to be effective, as it explicitly states the regulations which, if violated, could result in great personal loss:

- China is one of the countries with the most severe sentencing on wildlife crime. Chinese nationals should comply with both domestic and international laws and refuse to purchase, carry and transport any ivory products. If not, one will definitely receive confiscation, great loss of fortune and even prosecution.

"If everyone is aware of the serious consequences, say, 20 years in jail, then I don't think anyone will dare to buy/sell ivory."

Preferred Information Channels

Consumers prefer to receive messages about ivory both via offline and online media channels. Social media and apps have a stronger role in Layer 1 cities. This highlights the need to consider a multi-channel approach when communicating about ivory.

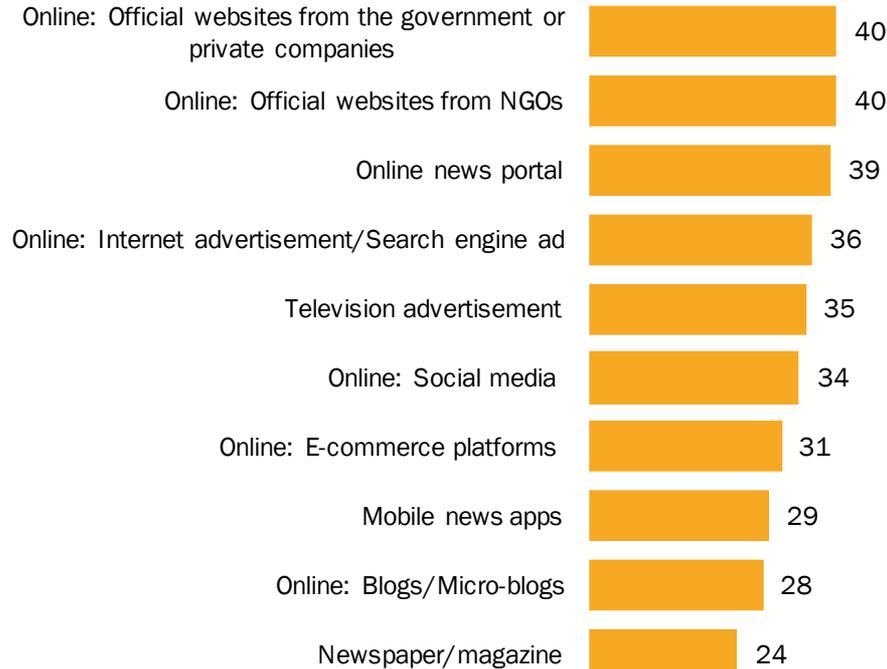


Online
90%



Offline
76%

Top 10 preferred information channels (% of respondents – excluding CCTV)



By City Layers		
Layer 1	Layer 2	Layer 3
n=1008	n=511	n=508
40	48 ↑	33 ↓
42	42	34 ↓
41	40	36
34	28 ↓	45 ↑
34	39	34
36	29 ↓	34
36 ↑	21 ↓	32
32 ↑	26	27
31 ↑	26	25 ↓
25	23	22

Preferred Channel

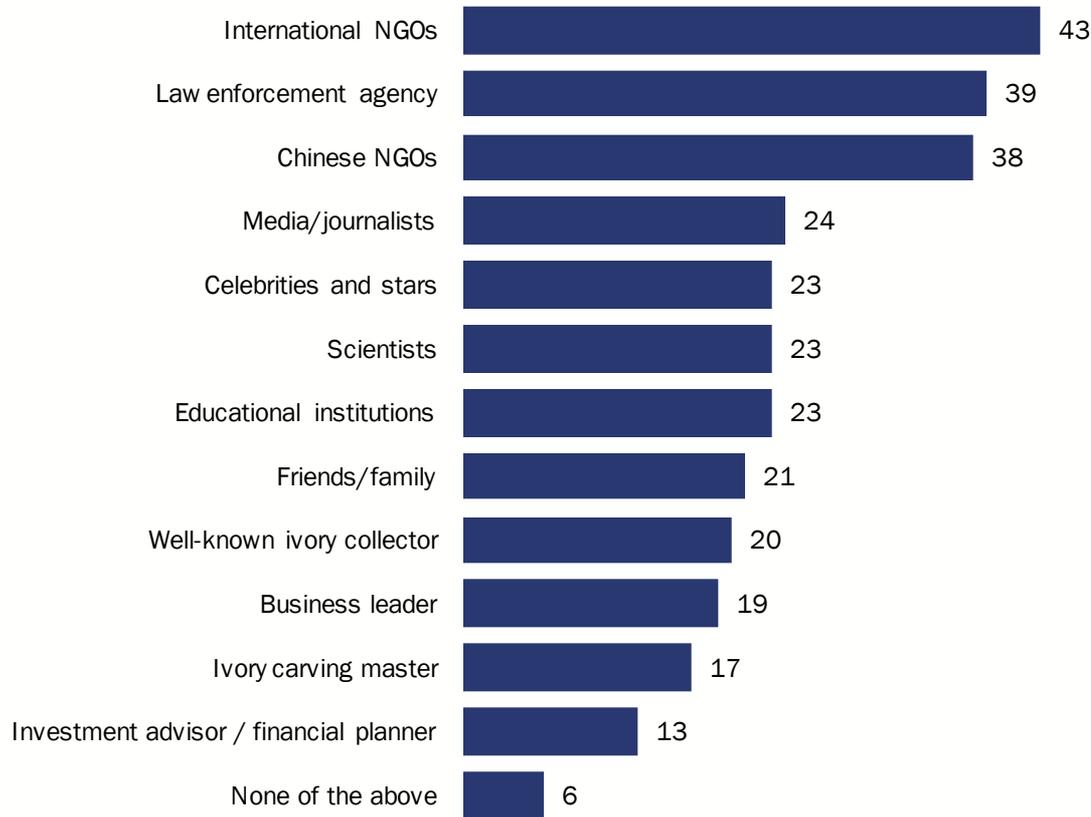
Q22. Which of the following channels, if any, would you prefer to receive this information/messages about ivory from? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)

Preferred [Most Effective] Messengers

Organizations such as international NGOs, law enforcement agencies and Chinese NGOs are perceived to be the most influential messengers to deliver messages on ivory.



Q23. Below is a list of some people or organizations who might be potential messengers of these messages about ivory. Which of the following do you think would most influence your ideas about ivory purchasing? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

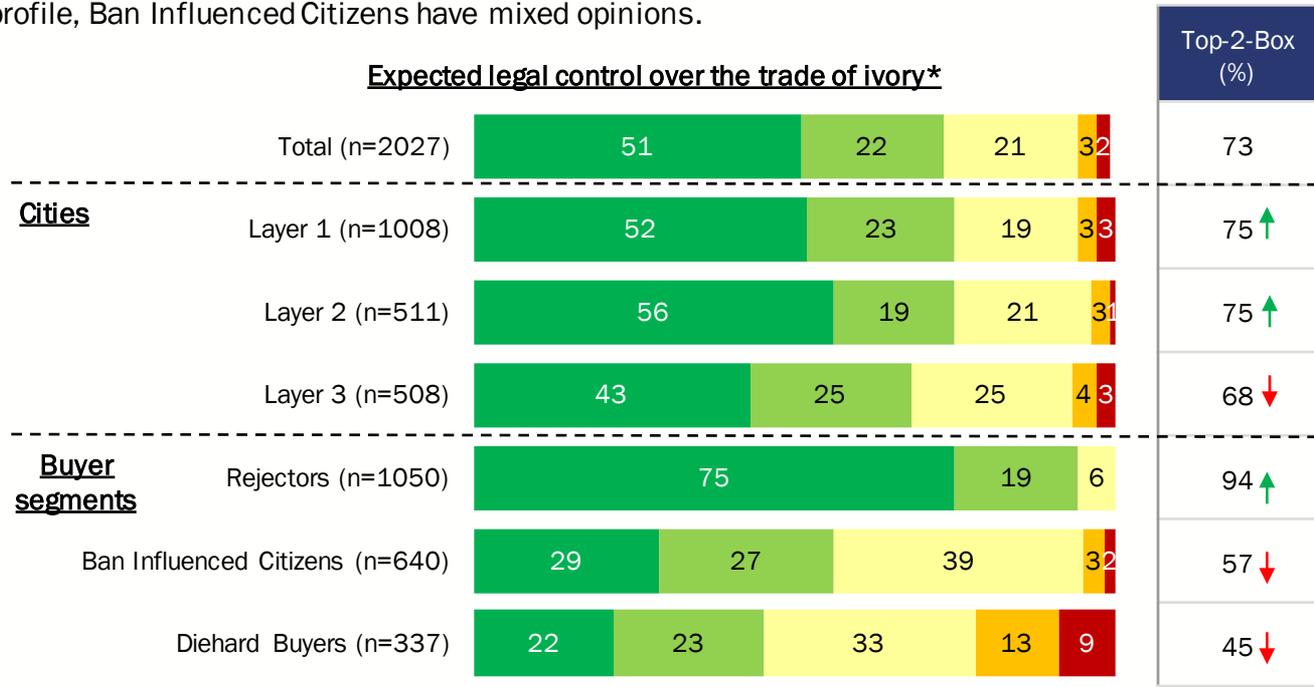


3.5 Awareness and Perceptions of the Ivory Ban

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Necessity of Legal Control over the Trade of Ivory

A majority of consumers think that legal control on ivory trade is necessary. This is particularly driven by Layer 1 and 2 cities and, as expected, by Rejectors (e.g., non-buyers). However, Layer 3 cities show less expectation on legal control. Despite their profile, Ban Influenced Citizens have mixed opinions.



■ 5 I would support a total ban on all buying, selling, importing and exporting of ivory.
■ 4
■ 3 Neutral
■ 2
■ 1 I don't think there should be any control over the trade of ivory

**Note: These results reflect the opinion of consumers before they were asked to read the ivory ban Notice (see question Q14)*

Q12. Please tell us how much legal control over the trade of ivory you think is necessary? - **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

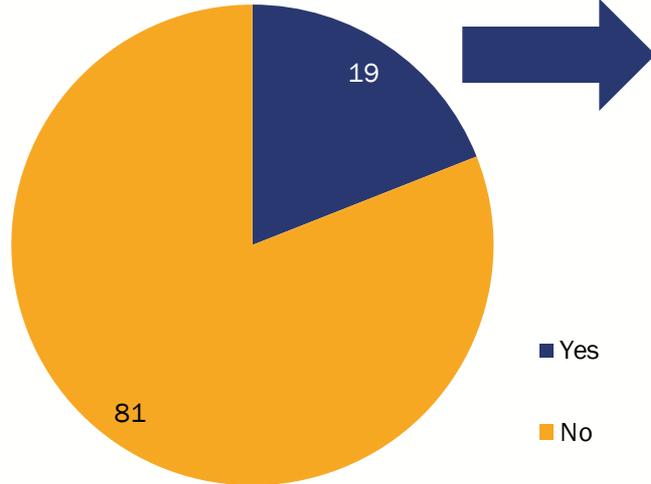
↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)



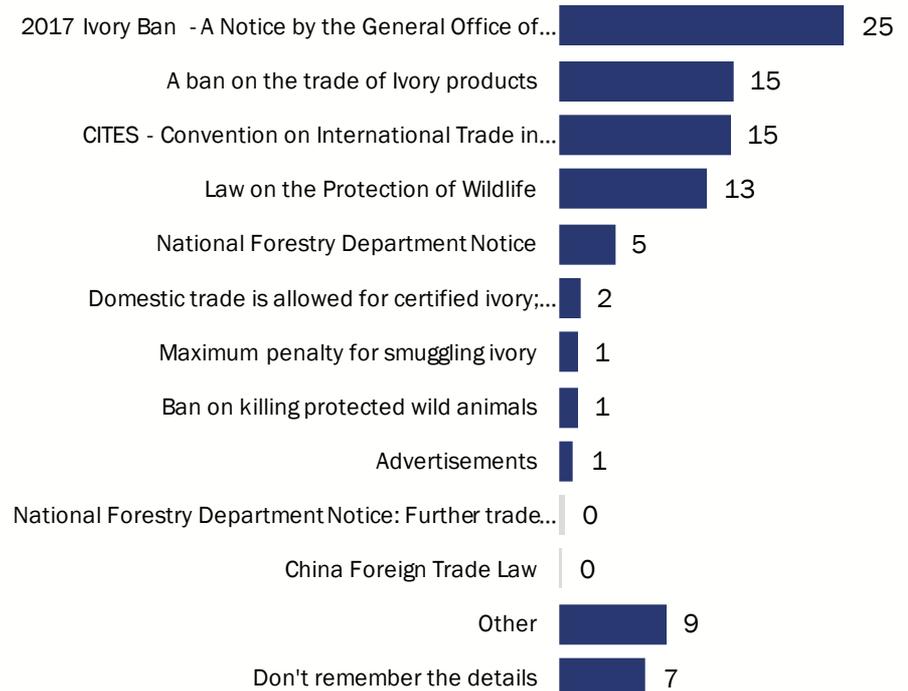
Awareness of Regulations (Spontaneous Answers)

19% of the consumers surveyed can recall agreements or regulations controlling the sale of ivory in China. The most impactful regulation is the impending ban on the sale of ivory. CITES is also recalled by a few.

Awareness of current/upcoming regulations
(% of respondents)



Regulations/agreements aware of – Open Ended Answers
(% among those aware)



Q13. Are you aware of any current/upcoming agreements or regulations controlling the sale of ivory in China? – **Open Ended Question - Weighted Data**

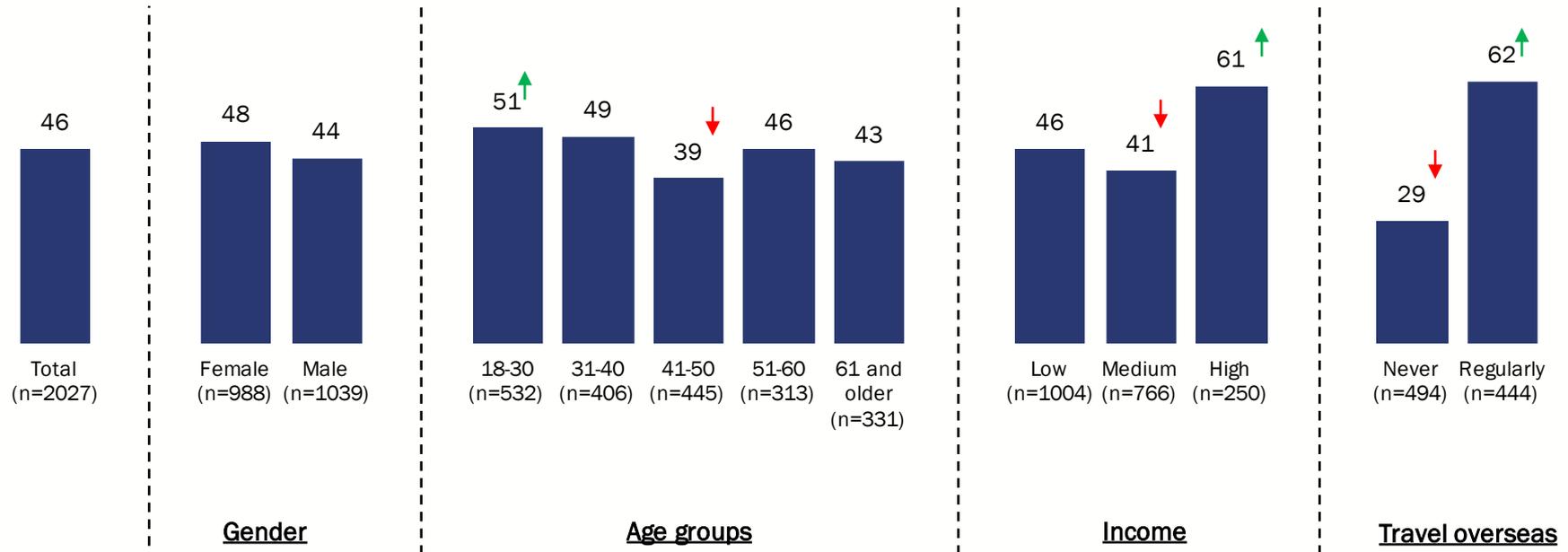
Note: this question was asked in the course of the questionnaire, so some respondents may think they might have been aware.

Base: Total Sample, n=2027 in 15 selected cities / Aware of any current/upcoming regulations, n=403 in 15 selected cities

Awareness of the Ivory Ban (Prompted)

When prompted (i.e., after reading the official Notice – see appendix), close to half of respondents claim having heard of the ivory ban. Awareness is driven by Millennials (aged 18-30), those with high income and those who travel overseas regularly, indicating the opportunities to reach these consumer groups with messages on ivory trade.

Prompted awareness of the ivory ban (% Yes) – by demographics



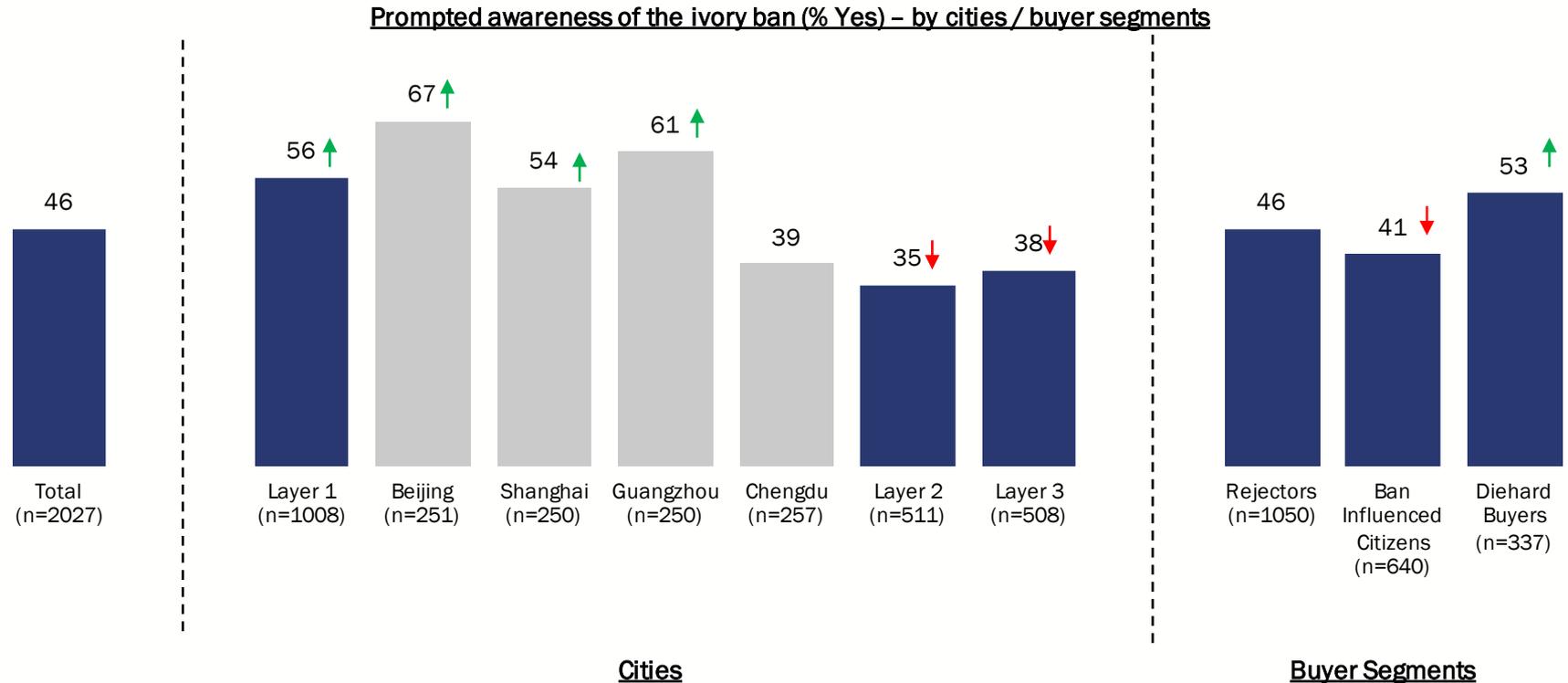
Q14. Have you ever heard about this ban on ivory trade? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Awareness of the Ivory Ban (Prompted)

Those who are more involved in the purchase of ivory or who are more exposed to any communication (e.g., Layer 1 cities, particularly BJ and GZ, or Diehard Buyers) are driving up the levels of awareness.



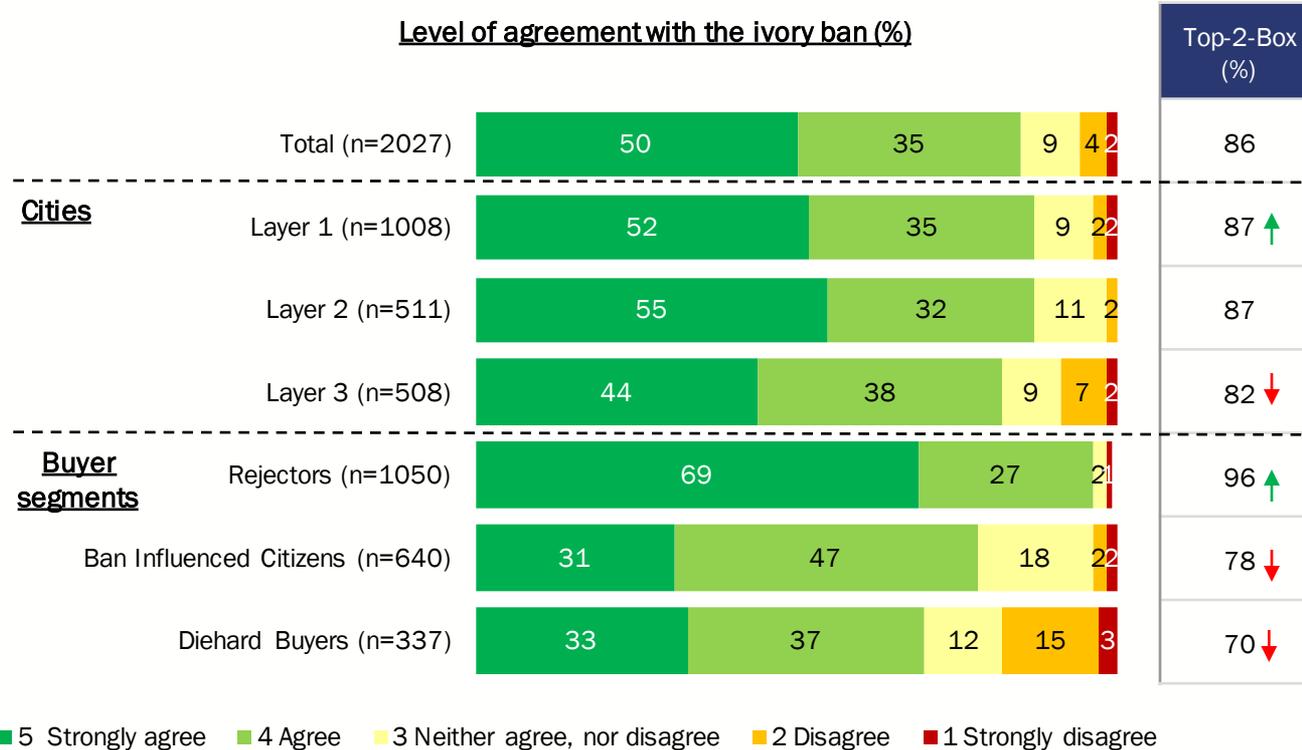
Q14. Have you ever heard about this ban on ivory trade? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Level of Agreement & Support to the Ban

The upcoming ban on ivory trade receives a strong level of support overall, more significantly in Layer 1 and Layer 2 cities, and among Rejectors.



Q15. How much do you agree with this ban on ivory trade? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)

Perception of the Ban

The ban appears likely to have a strong impact on the intention to reduce or stop purchasing ivory. However, there are underlying differences at the city level, with consumers in Layer 3 cities being more likely to look for alternative ways to purchase ivory, particularly by purchasing ivory before the ban is implemented or by purchasing ivory online.

% Top-3 Box, 5+6+7 Ranked on total sample		Total n=2027	Cities			Buyer segments		
			Layer 1 n=1008	Layer 2 n=511	Layer 3 n=508	Rejectors n=1050	Ban Influenced Citizens n=640	Diehard Buyers n=337
The ivory ban will...								
Reduce or stop to purchase ivory	Make me completely stop buying ivory	74	74	76	74	81↑	69↓	65↓
	Make me avoid buying any wildlife products	71	68↓	73	74	76↑	67↓	65↓
	Make me buy less ivory	68	68	65	70	66	68	72↑
Alternative ways to purchase ivory	Make me buy other materials (non-wildlife products) instead	57	52↓	62↑	59	51↓	60↑	65↑
	Make me buy more ivory before the end of 2017	38	33↓	35	46↑	24↓	41↑	67↑
	Make me buy ivory only overseas (not in China)	36	35	34	40↑	22↓	41↑	66↑
	Make me buy other types of wildlife product instead	34	29↓	34	42↑	20↓	39↑	63↑
	Encourage people to buy more ivory via illegal channels	33	29↓	34	39↑	22↓	32	65↑
	Make me buy ivory only online instead of in shops	33	28↓	29	42↑	19↓	38↑	62↑

Color-coding based on % of answers for codes 5+6+7 (where 1 means "Strongly disagree" and 7 means "Strongly agree"):

<50%

50%-75%

>75%

Q16. Please indicate to what extent you agree or disagree with each of the following statements on the ivory ban. - **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Attitude Toward the Ban

Learnings and Selected Verbatims from Qualitative IDIs and FGDs in China*

Key Learnings from IDIs and FGDs

The ivory ban is regarded as likely to be impactful

- **Perceived to greatly influence purchase/consumption:** Spontaneous awareness of the ivory ban is 19%. When prompted on the ban, respondents believe that consumption will drop by at least half.
- **Raises questions on ownership:** Concerns about owning ivory after the ban is implemented have been raised.

But respondents have several concerns:

- **Low awareness:** More communication on the existence of the ban is expected by respondents.
- **Alternative purchase channels:** Among the 8 focus groups, a majority of respondents believed that as long as ivory supply is available, there will be channels, legally or illegally, for Chinese people to buy.
- **Ambiguity in the ban:** Some grey areas remain and respondents believe that the text is not strong enough, e.g., will it be illegal to bring ivory products from other countries? What is a legal ivory product?
- **Focus on suppliers:** Respondents think that the most effective way is to put a focus on suppliers (business owners, factories) to cut their supplies.
- **Penalties or taxes:** In order for the ban to be impactful, respondents strongly believe that heavy penalties or taxes are necessary to make the ban effective.

Selected Verbatims*

“After the ban is in place, I would feel a little ashamed to buy and wear ivory.”
(Buyer, GZ)

“They should print it (ivory ban) and spread it to each and every household!”
(Likely Buyer, SH)

“Nobody knows about the ban; and if there’s a will to get ivory, there must be a way for people to buy ivory products.”
(Buyer, GZ)

“Most of us use official channels to buy ivory products and don’t know much about the private/black market. Therefore once the ban is in effect, I think it will be effective.”
(Buyer, BJ)

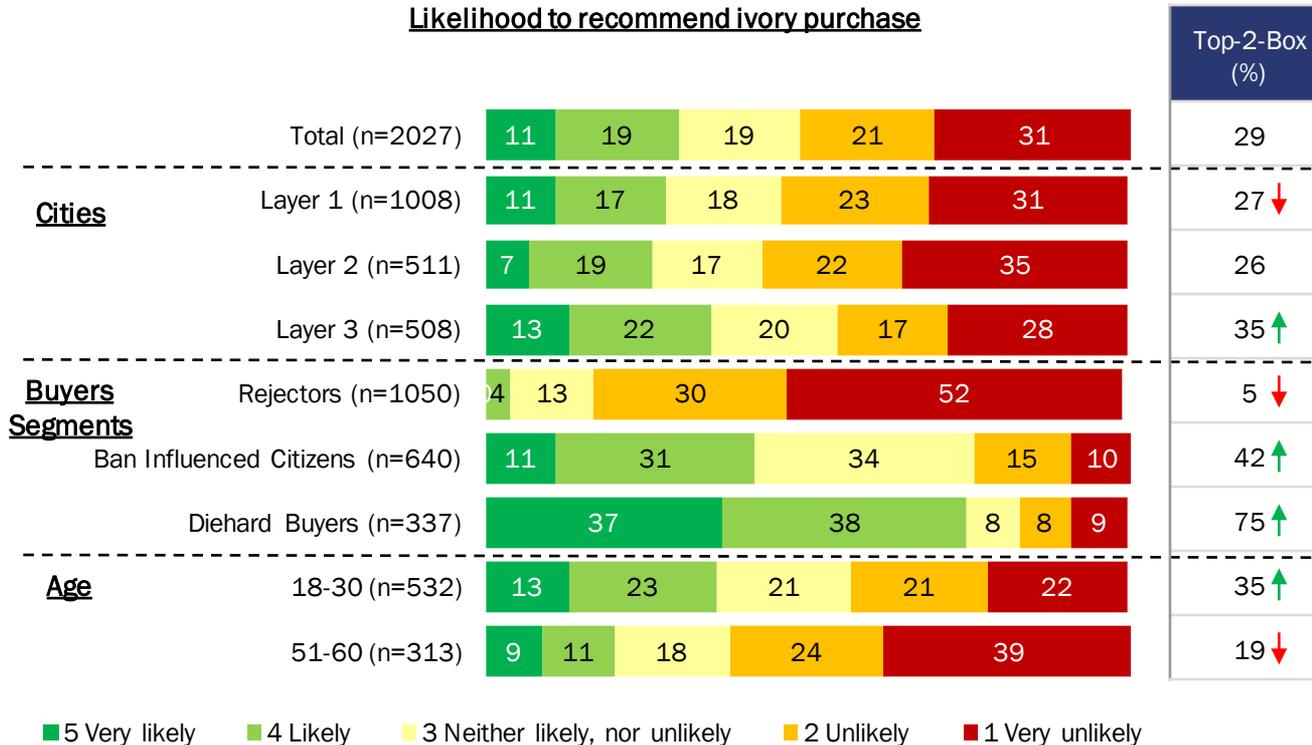
“It seems to be focusing more on traders and craftsmen instead of individual customers, and there isn’t any serious consequences to individuals if we keep buying it.” (Buyer, SH)

*Responses have been selected to show examples of some of the most mentioned topic areas.

Likelihood to Recommend Ivory Purchase

(Before hearing of the ban) Based on results collected in the 15 cities selected

Advocacy of ivory purchase is significantly higher in Layer 3 cities and among Millennials, highlighting the importance of word of mouth in the purchase of ivory among these cities and consumer groups.



Q11. From all of your experiences with ivory, how likely are you to recommend purchasing ivory or products made of ivory to family members, friends or colleagues/business associates? - **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

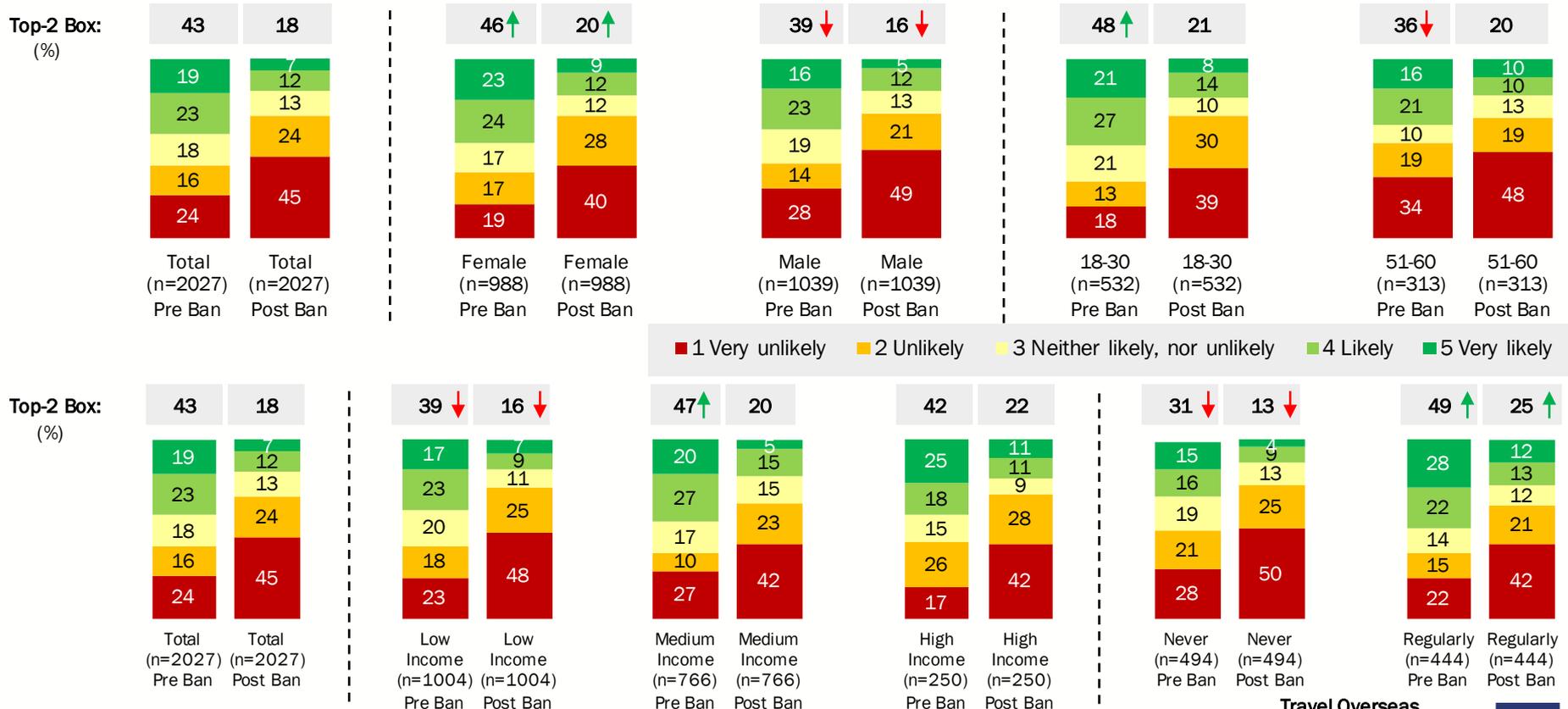
↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

Intenders Pre- vs Post-Ban – by Demographics

Based on results collected in the 15 cities selected

Although the ban is likely to incite all consumer groups to reduce or stop purchasing ivory, those who travel regularly continue to have a significantly higher intention to purchase post-ban vs the overall sample.

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

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box)

Travel Overseas

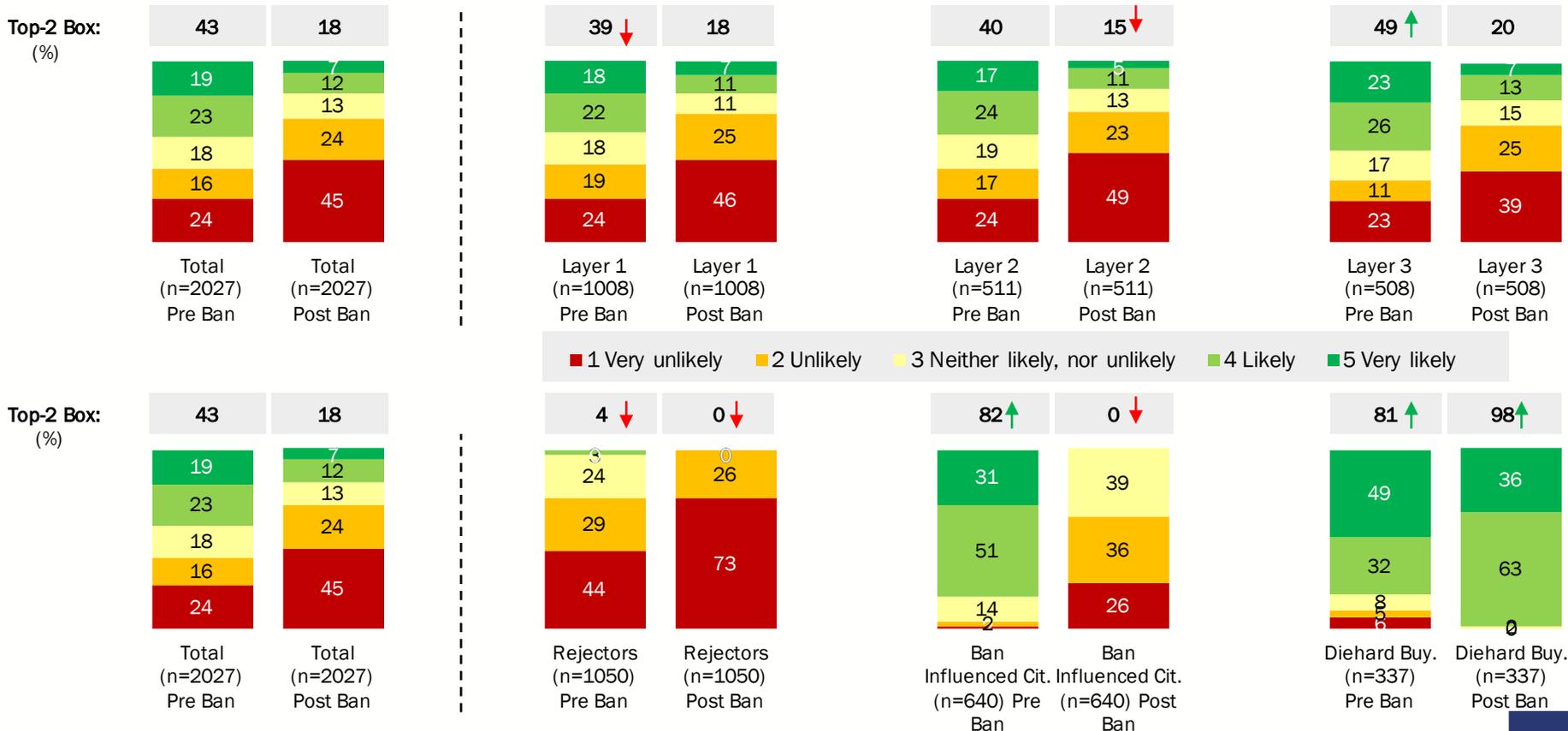


Intenders Pre- vs Post-Ban – by Cities/Segments

Based on results collected in the 15 cities selected

The ban has a clear impact on intention to buy ivory in all cities. Among the buyer segments, the Ban Influenced Citizens are the most likely to be influenced by the ban. 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 in the questionnaire.

Likelihood to purchase ivory in the future

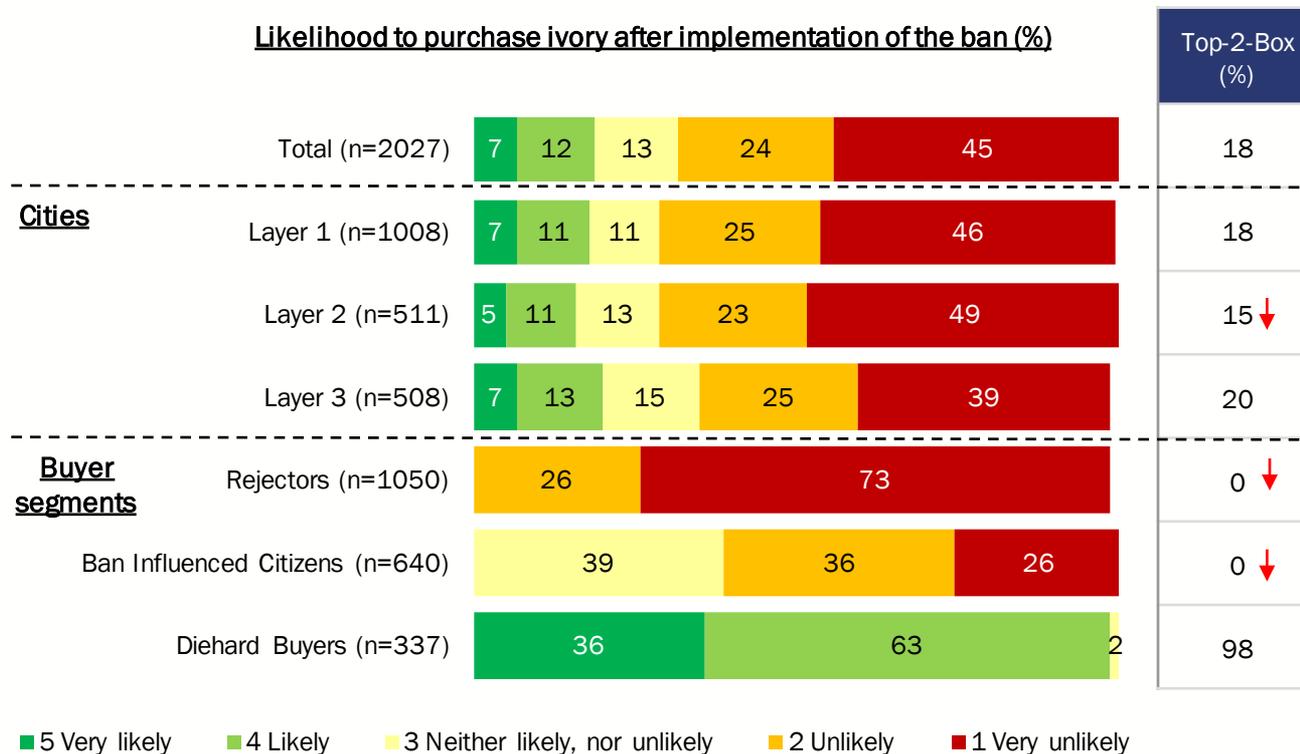


Q5a. How likely will you be to purchase ivory and/or anything made of ivory in the future?, Q17a. How likely will you be to purchase ivory and/or anything made of ivory after the ivory ban is implemented? – **Weighted Data**

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box)

Likelihood to Purchase Ivory After the Ban

The ban has an impact on intention to purchase ivory after its implementation, resulting in similar purchase intent at city level compared to before the ban. It's worth noting that, the Ban Influenced Citizens claim not to have the intention to purchase after the ban.



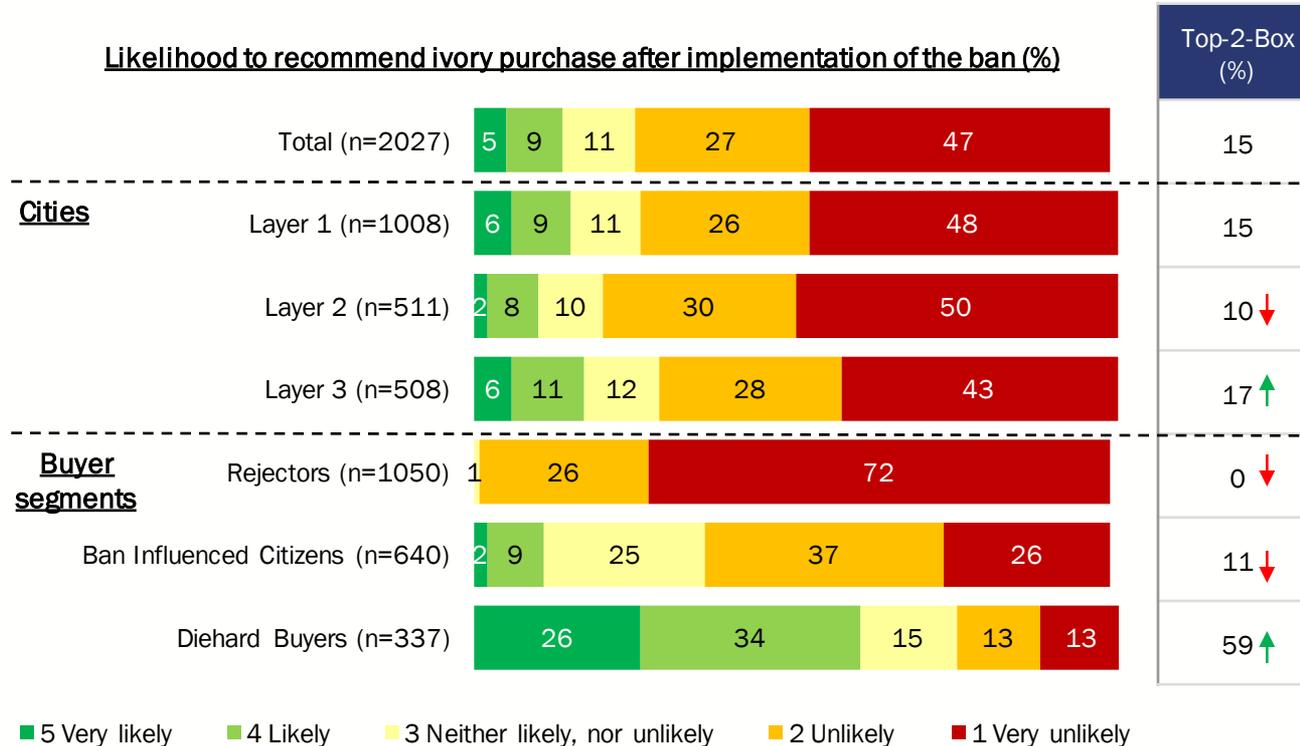
Q17a. How likely will you be to purchase ivory and/or anything made of ivory after the ivory ban is implemented? – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)

Likelihood to Recommend Ivory Purchase Post-Ban

As for the intention to purchase ivory, the ban is likely to have a strong impact on ivory purchase advocacy once it is implemented in all cities. Most Diehard Buyers will continue to recommend purchasing ivory, while one in three Ban Influenced Citizens are still likely to recommend it or are neutral about recommending it, suggesting the need to reinforce the legal message for this segment.

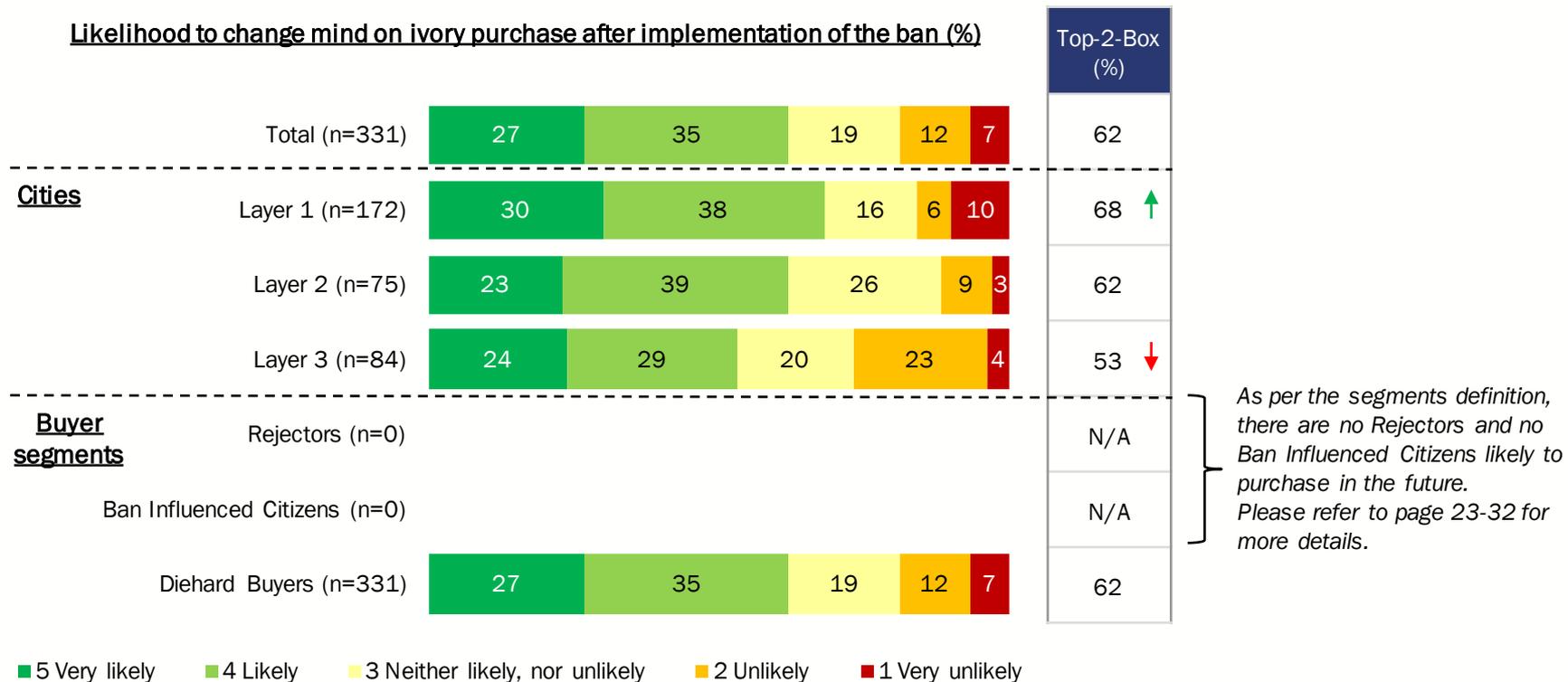


Q18. How likely are you to recommend purchasing ivory or products made of ivory to family members or friends after the ivory ban is implemented? – **Weighted Data** - Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)

Likelihood to Change Mind on Post-Ban Purchase

While consumers in Layer 1 cities are the most in favor of a ban, those who still intend to purchase ivory in these cities are also those who are the most persuadable not to do so, as opposed to consumers in Layer 3 cities who have a more persistent intention to purchase. It is noteworthy that six in ten Diehard Buyers are ready to reconsider their future purchase.



As per the segments definition, there are no Rejectors and no Ban Influenced Citizens likely to purchase in the future. Please refer to page 23-32 for more details.

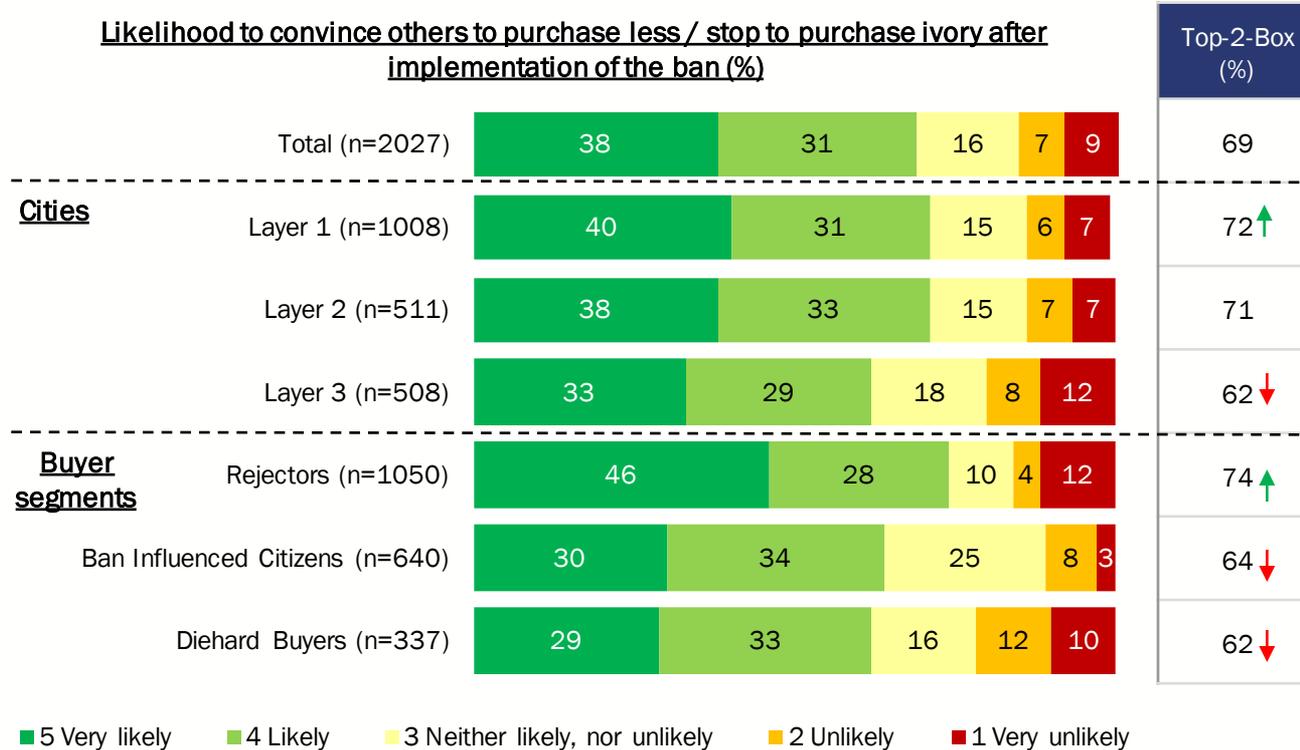
Q17d. You said that you may purchase ivory after the ban is implemented. How likely are you to change your mind? – **Weighted Data**

Base: Those likely or very likely to purchase ivory after the ban is implemented, n=331 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)

Likelihood to Convince to Purchase Less Post-Ban

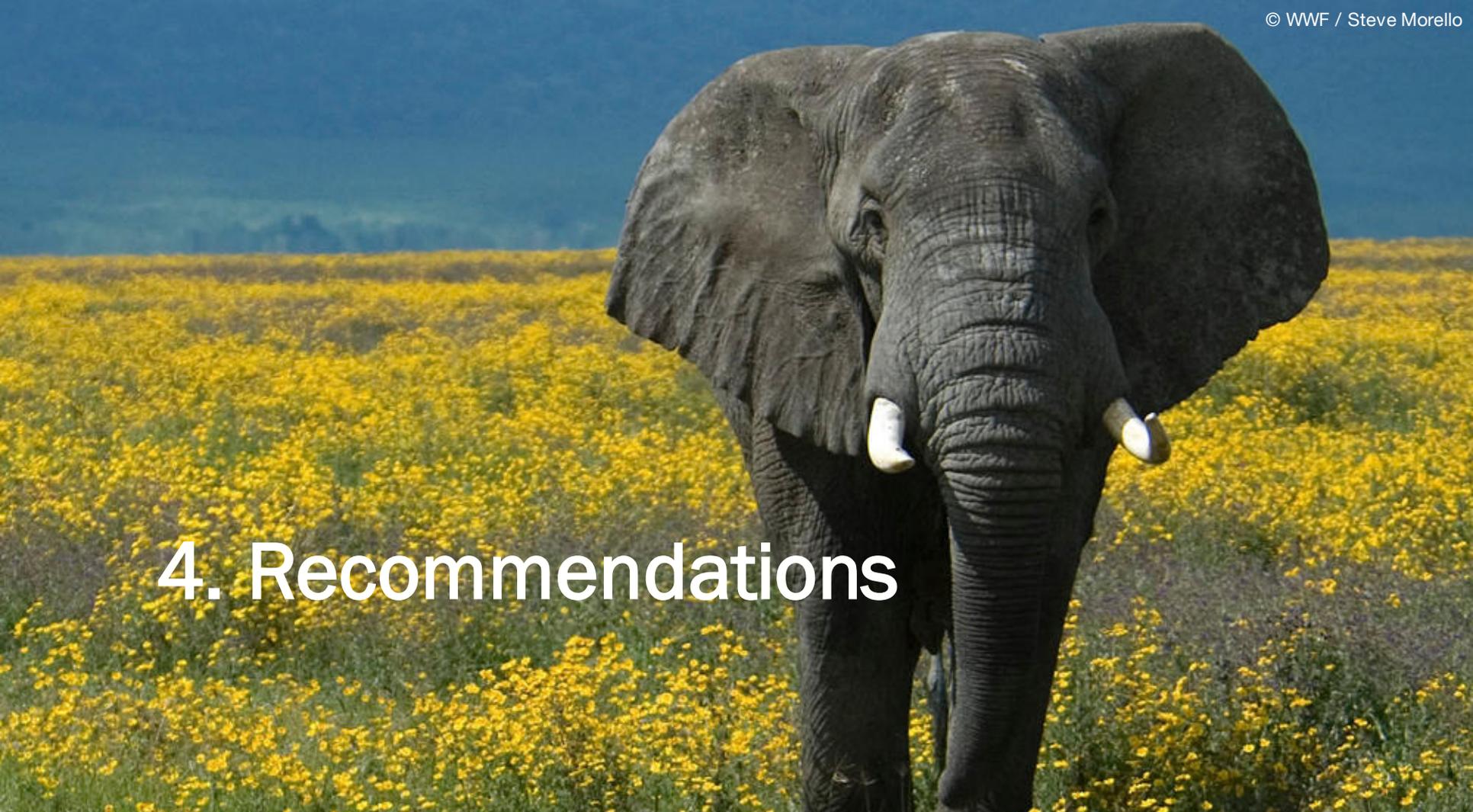
Although most Diehard Buyers will recommend purchasing ivory after the ban is implemented, a majority is willing, or likely to convince others to reduce or stop purchasing ivory.



Q19. How likely are you to convince others to purchase less ivory, or stop to purchase ivory, after the ban is implemented? - **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total (applied only on Top-2-Box and Mean)



4. Recommendations

Summary of Target Audiences, Ranked on IPI* Score (1)

What We Have Learned: Segments which have become more affluent most recently and more quickly are the main new buyers.

Target Audience (Size: % of total sample)	Key characteristics	Levers / vulnerabilities	Effective message points	Suggested actions for impact	Priority for action**
Diehard Buyers (19% of the total sample IPI score: 7.17) NOTE: GROUPS ARE NOT ALL MUTUALLY EXCLUSIVE.	<ul style="list-style-type: none"> “Heavy” buyers and repeat buyers (“collectors”) Look for status enhancement, buy ivory based on some beliefs and for investment Difficult to persuade, but will drive future demand of ivory Use various purchase channels (online channels include e-commerce platforms, category websites and antique collection websites) 	<ul style="list-style-type: none"> More concerned by the risks related to investment or counterfeit items rather than animal cruelty 	<ul style="list-style-type: none"> Show how ivory purchase is impacting their self-image Change perception that ivory enhances status and brings respect Ivory value will drop as it is an undesirable item for most consumers Emphasize penalties in communication 	<ul style="list-style-type: none"> Multi-channel approach Talk about them: put them in the center of the communication Address the needs fulfilled by ivory (e.g., their self-image, collection) Connect them with Rejectors and advocates 	HIGH
Ban Influenced Citizens (31% of the total sample, IPI score: 5.72)	<ul style="list-style-type: none"> Future purchase is strongly influenced by regulations, bans or penalties for ivory buyers They are still “Persuadable.” Driven by the artistic value, uniqueness and appearance of ivory, but also by traditional beliefs Low awareness of the ban 	<ul style="list-style-type: none"> Main deterrents related to endangered elephants/ cruelty and especially the illegality of ivory purchase 	<ul style="list-style-type: none"> Current and upcoming laws Raise their awareness of the ivory ban 	<ul style="list-style-type: none"> Use both online and offline channels to explain to them the law, ban and penalties associated with breaking the law 	MEDIUM
Regular overseas travelers (22% of the total sample, IPI score: 4.65)	<ul style="list-style-type: none"> Travel for leisure and business (e.g., buy ivory for gifting, image/status) Significant purchase of ivory overseas High exposure to messages and high awareness of the ban 	<ul style="list-style-type: none"> High exposure to penalties due to regular travel 	<ul style="list-style-type: none"> Address their desire to buy ivory for gifting (e.g., business context) or for it status function Explain the penalties for bringing ivory back to China from overseas 	<ul style="list-style-type: none"> Targeted communications, e.g., in airports or via text message when landing in China after a trip 	HIGH

*Ivory Purchase Index, see page 37 for details. The higher the score, the higher the persistence and propensity to buy.

Summary of Target Audiences, Ranked on IPI Score (2)

Target Audience (Size: % of total sample)	Key characteristics	Levers / vulnerabilities	Effective message points	Suggested actions for impact	Priority for action**
Citizens of Layer 3 cities (31% of the total sample, IPI score: 4.17)	<ul style="list-style-type: none"> • More “traditional” consumers • Buy ivory based on some beliefs and value family traditions • Lower exposure to campaigns and lowest awareness of the ban 	<ul style="list-style-type: none"> • Lack of knowledge on issues and consequences related to ivory trade 	<ul style="list-style-type: none"> • “Educative” communications on illegality and penalties • Show that the beliefs associated with ivory purchase are a thing of the past 	<ul style="list-style-type: none"> • Official communications from the government • Offline campaigns (e.g., on TV, outdoors) 	HIGH
Business people (5% of the total sample, IPI score: 4.12)	<ul style="list-style-type: none"> • Offer ivory in a business context (e.g., to seal a deal) 	<ul style="list-style-type: none"> • High exposure to penalties 	<ul style="list-style-type: none"> • Focus on their perceived role of ivory (e.g., to maintain or enhance their status in business) 	<ul style="list-style-type: none"> • Targeted communications, e.g., online, in professional magazines, partner with leading businesses 	MEDIUM
Millennials (25% of the total sample, IPI score: 3.85)	<ul style="list-style-type: none"> • Aware and conscious of the issues related to ivory trade • Buy ivory mostly for its beauty and uniqueness • Become increasingly more affluent 	<ul style="list-style-type: none"> • Sensitive to messages on animal cruelty and elephants being endangered 	<ul style="list-style-type: none"> • Clear facts and figures on why elephants are endangered • Explain how illegality of buying ivory will harm them and reflect a negative image to others 	<ul style="list-style-type: none"> • Online is a key channel to reach them: e.g., via e-commerce and search engines 	MEDIUM
Married people (79% of the total sample, IPI score: 3.75)	<ul style="list-style-type: none"> • Family-oriented • Ivory has a gifting/social role 	<ul style="list-style-type: none"> • A large group reflecting the overall consumers • Mostly sensitive to animal cruelty and illegality of ivory purchase 	<ul style="list-style-type: none"> • Focus on their perceived role of ivory (e.g., to look good in the eyes of family, ivory has a social meaning) 	<ul style="list-style-type: none"> • Multi-channel 	LOW

**Priority for action: high means that these groups have strong impact in ivory demand and can be reached with effective communication.

Recommendations to TRAFFIC & WWF

- **Prioritize communications explaining the ivory ban**
 - Communicate the laws and regulations and to mention it in campaigns
 - Most resources should be dedicated to supporting the authorities to actually communicate how the ban is being enforced and how the ban impacts everyone at a personal level
 - “Promoting” the ban becomes a Government Affairs exercise and needs support of NGOs
 - NGOs could have a positive role to play by supporting and influencing the authorities

- **Educate consumers on animal cruelty and why elephants are endangered via factual and impactful messages**
 - The rational may be more effective than the emotional. But when the emotional lever is being pulled, we believe that harsh facts will have the most immediate effect – depending on segment
 - Deliver message content that resonates among a majority of consumers, i.e., including facts and figures about the alarming situation of endangered elephants helps to raise consciousness

- **To get the attention from the more persistent buyer audience (e.g., Diehard Buyers), address the needs which drive their desire to enhance their own status through association with ivory**
 - Put them at the center of the communications, deconstruct the needs that lead to the desire to buy ivory in order to be respected and have a higher social status
 - Showcase how the investment value of ivory will plummet by raising the consequences of its illegality and showing how consumers reject ivory (connect them with Rejectors)

Recommendations to TRAFFIC & WWF

- **Engage with Rejectors and give them an active role in sharing communication content online**
 - Encourage them to speak in their name and to ask their connections to rally against elephant cruelty. Those who buy ivory in their circle of friends will feel excluded as light is shed on their behavior by their peers
 - Involve the rejectors who bought in the past (i.e. 1 in 4 rejectors) in campaigns to share their experiences shifting from former buyer into rejectors
 - This would especially be appealing to Millennials and consumers in layer 1 cities who expect to receive information on ivory online (and more precisely via blogs, mobile apps, etc.)

- **Change the way that ivory is perceived, from a “luxury” and unique product to an outdated and socially irresponsible item**
 - Look at similarities with the luxury market in China, target groups, strategies; learn from brands, digital strategies
 - A broad, extensive digital strategy is key: further enhance and leverage the internet alliance established on 22 Nov 2017 on combating wildlife cybercrime (BAT* coalition) which TRAFFIC China has forged, use this for further collaboration with other NGOs, corporations and the authorities to re-direct desire for ivory to more responsible goods
 - Similarly to other markets, searching is vital: shopping online for ivory also involves finding out more about it, comparing prices, products, etc. Be present at this stage of the purchase process

Recommendations to TRAFFIC & WWF

- **Develop an audience-specific strategy to reach a wide audience and different buyers' profiles**
Communicate through different online and offline channels, to reach:
 - Millennials (i.e., online)
 - Overseas travelers (i.e., in airports)
 - “Traditional” buyers (i.e., outdoor ads, target layer 3 cities)
 - Use the message inputs as tested in this survey to brief advertising agencies and plan a pro-bono competition for agencies to design a campaign similar to the WWF/TRAFFIC China's campaign "Green Collection“ (to raise awareness on endangered species and environmental issues) or the “Stop Wildlife Crime” Series by WWF which aim more at changing the perception on ivory and raise awareness on where it comes from

- **Use the summary target audiences as a starting point and translate the profiles into archetypes**
 - Conduct workshops with several stakeholders and experts, and construct archetypes
 - Humanize these archetypes using images from the internet
 - Arrive at a strategy/campaign for different archetypes



5. Appendix

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

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Acknowledgements

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 - After an in-depth review, this approach (e.g., the Quadrant) has been used as a framework for the message testing part of the qualitative focus groups.

Uncovering Drivers and Deterrents of Purchase Using the MaxDiff Technique

MaxDiff Description

- MaxDiff (Maximum Differentiation Scaling) builds upon a long-established theory about how people make choices. It assumes that respondents' choices are rather relative/comparative than absolute.
- MaxDiff is an approach for capturing relative scores (e.g., importance, preference, agreement, attitude) for a set of items.
- With MaxDiff, respondents are shown a set of items and are asked to indicate the item that best describes their opinion, and the item that least describes their opinion, for example:

▶ Please consider how important different features are when selecting a fast food restaurant.

Considering only the features below, which is the Most Important and which is the Least Important?

Most Important		Least Important
<input type="radio"/>	Reasonable prices	<input type="radio"/>
<input type="radio"/>	Healthy food choices	<input type="radio"/>
<input type="radio"/>	Has a play area	<input type="radio"/>
<input type="radio"/>	Clean bathrooms	<input type="radio"/>

- The items are grouped using MaxDiff algorithm, in order to ensure that each item and each pair of items is shown an equal number of times. Usually respondents see each pair of items at least two or three times. A list of 20-21 attributes typically requires from 10 to 16 sets/screens.
- Item scores are then estimated on a respondent level using a Hierarchical Bayes (HB) method, and transformed to a numeric scale, e.g., 5- or 10-point scale. The larger the score, the higher the importance of the item for this particular respondent.

Rationale for Using MaxDiff in this Survey

Reasons for Using MaxDiff in this Research

Using MaxDiff provides a better differentiation between the item importance compared to rating scales, mainly because:

- With rating scales, there can be many straight-line answers, such as giving ratings of 3 to all 20 items on a 5-point scale.
- Cultural biases in the use of the scale. For example, respondents in China tend to use the top portion of the scale, while respondents in Germany tend to use the middle or bottom portions of the scale.
- Research has shown that importance scores obtained with MaxDiff range from 0 to 10 compared to the range from 5 to 8 obtained with stated importance ratings (e.g., everything is important).

What Can we Do with MaxDiff Scores?

MaxDiff scores could be reported in a similar way to reporting rating scales (e.g., averages, percentages, crosstabs, bar charts). With MaxDiff, we can measure importance, preference, performance and many other variables.

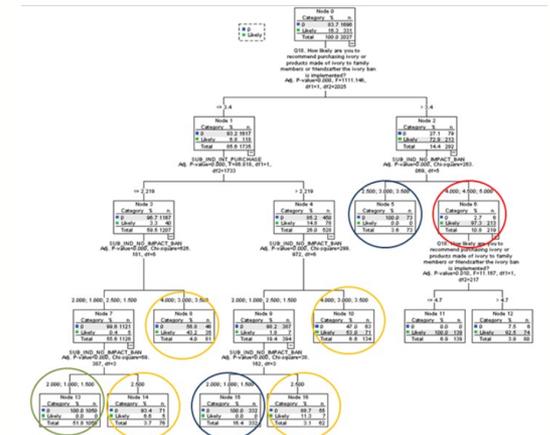
MaxDiff scores, if they result from “most important” vs “least important” scales, could replace other predictive modeling, e.g., regression and path analyses which we normally use to extract derived importance scores. This is due to the fact that this method, in this particular case, already indicates importance in driving the desired outcome. MaxDiff scores allow any for kind of statistical analysis we could consider doing with responses obtained using rating scales.

Methodology: Decision Tree

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.



Reported Data and Sample Sizes

Reported Data

- The data is not weighted based on ivory purchase or ownership, as these incidence numbers are outputs of the survey and should be based on a representative sample.
- For questions with answers on a 5-point scale, the top-2 box is reported. The top-2 box is the sum of the scores for code 4 and code 5, e.g., a sum of all the positive responses.
- Several sub-groups have been analyzed in the survey sample. More precisely, the data has been analyzed at total level, and more specifically by demographic groups, city layers and consumer segments. In case there are significant differences, results per sub-groups are reported.

Rounding

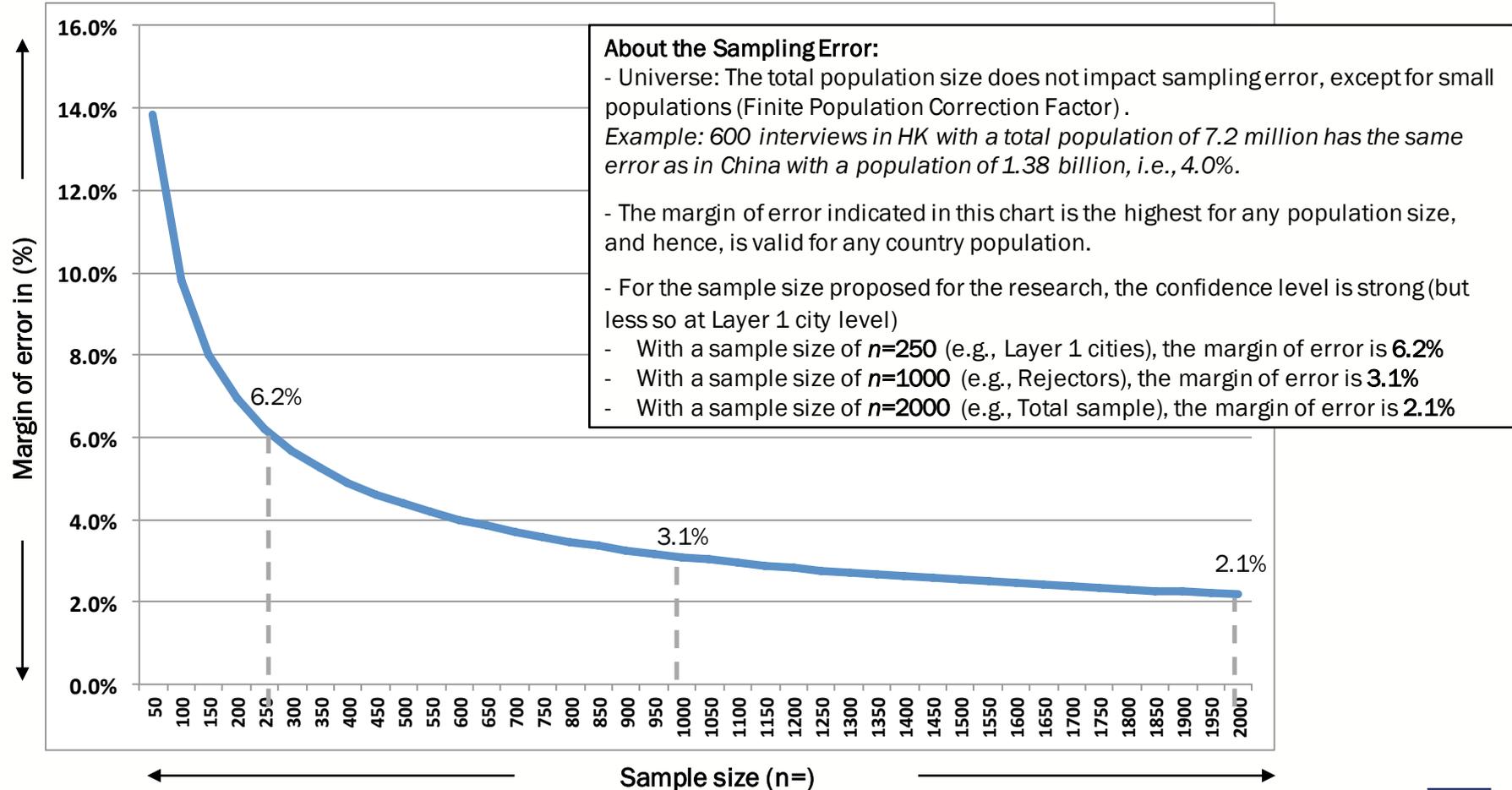
- Numbers and percentages shown at first decimal in tables and graphs in this report are the result of rounding. Rounding to the nearest integer has been applied and may add up to more or less than 100%.

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



What Does it Mean for the Sample Sizes in this Report?

1. Above $n=1000$, the reduction in the margin of error is rather limited: increasing from $n=1200$ to $n=2000$ reduces the maximum margin of error from 3.1% to 2.1%.
2. However, when we look at margins of error per city (or other sub-groups), then the differences are larger: a sample size of $n=250$ has a maximum margin of error of 6.2 %, while for $n=150$, it is 8.0%
3. This also accounts if we want to look at other, smaller sub-segments, such as certain age groups or sub-groups among ever buyers with a low incidence level.
4. As a whole, the sub-groups presented in this report have all a robust sample size that allow to draw conclusions.

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 RMB8,000
- Medium income: Monthly personal income between RMB8,000 and RMB20,000
- High income: Monthly personal income above RMB20,000

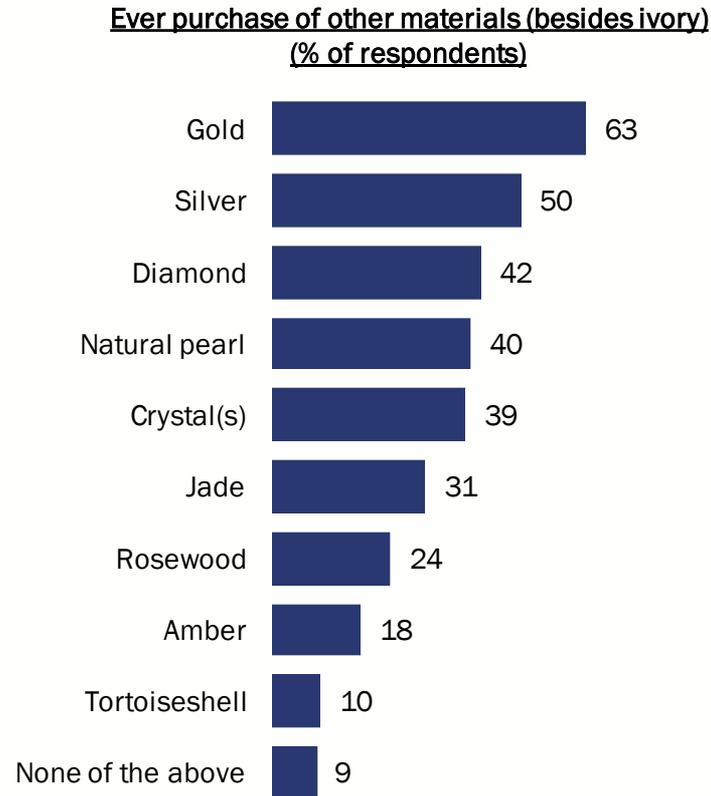
- Education:

- 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 RMB8,000 per month, Source: China Daily article, 23 June 2017, http://www.chinadaily.com.cn/bizchina/2017top10/2017-06/23/content_29853826.htm)

Other Materials Purchased (besides Ivory)

Precious materials such as gold and silver are popular among consumers. More than half say they have already purchased these materials in the past.

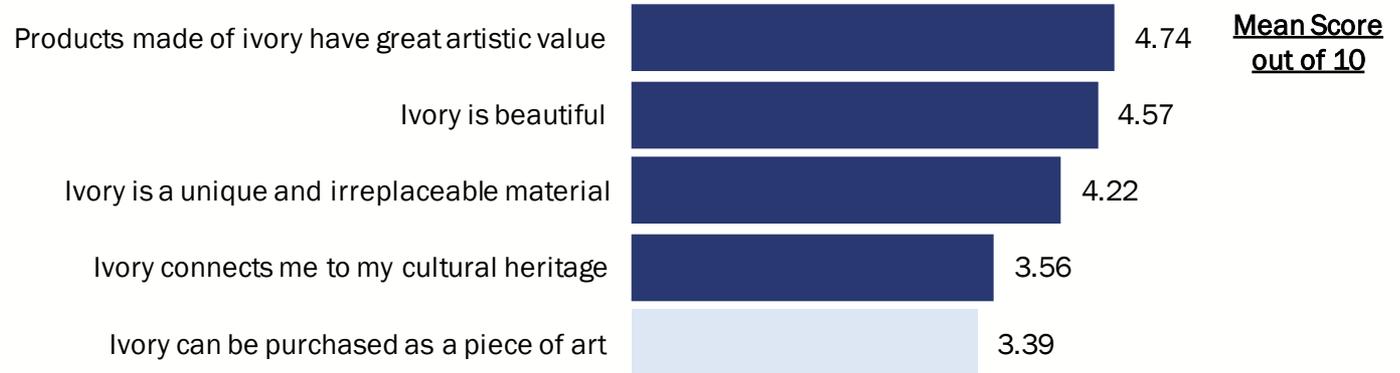


Q1. The following is a list of different materials that can be used to make a variety of products. For each one, please indicate if you have ever bought this material or anything made from this material? – **Weighted Data** - Base: Total Sample, $n=2027$

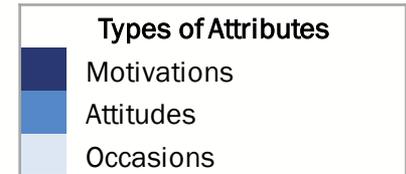
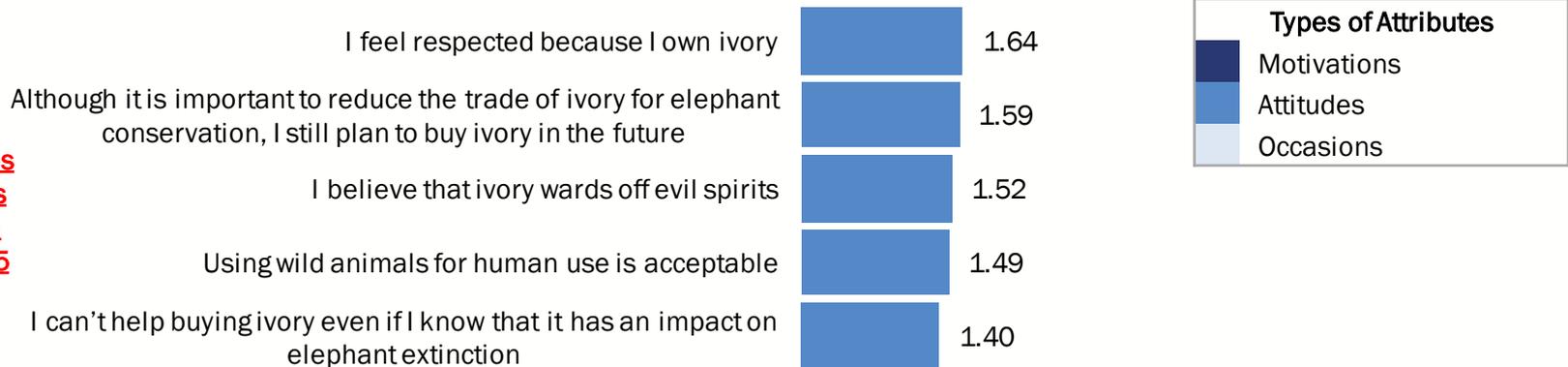
Drivers of Ivory Purchase – Key Attributes

Ivory purchase is mostly driven by its appearance, but also by its uniqueness. On the other hand, respondents do not recognize their own “conflicting behaviors” (e.g., cannot help buying ivory even if aware of the impact), suggesting that it is possible to change their behavior.

Most describes
people's
opinion
Top 5



Least
describes
people's
opinion
Bottom 5



Q9. Now we will focus on ivory and its purchase. On the following screens we will provide you lists of various statements. For each screen please select the statement which describes your opinion the most, and the statement which describes your opinion the least. – **Weighted Data**. Base: Total Sample, n=2027 in 15 selected cities

Message Evaluation – Preferred Message

Theme: Environmental Issue / Endangered Elephants



Poaching and illegal wildlife trade of elephants are driven by people’s desire for ivory products. **Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 of them left. And they could be functionally extinct within 10-20 years if the poaching does not cease.** David Attenborough, the father of nature documentaries, says: “The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?”

Preference ranking

Preferred message:	36%
Ranked as 2 nd message:	24%
Ranked as 3 rd message:	18%
Ranked as 4 th message:	11%
Ranked as 5 th message:	6%
Ranked as 6 th message:	5%

Preferred message elements

1. Each year, over 20,000 African elephants are killed because of poaching. There are only 415,000 African elephants left. Elephants could be functionally extinct within 10-20 years if the poaching does not cease: **24%**
2. David Attenborough, the father of nature documentaries, says: “The question is, are we happy to suppose that our grandchildren may never be able to see an elephant except in a picture book?”: **7%**
3. Poaching and illegal wildlife trade of elephants are driven by people’s desire for ivory products: **5%**

Highest/Lowest scores

By cities:

Preferred in **12** cities /15

- **Highest “Preferred” scores:** Xiamen 53%, Guangzhou 45%

- **Lowest “Preferred” scores:** Nanjing 24%, Kunming 25%

“Preferred” score by buyer segment:

- Rejectors: **39%**

- Ban Influenced Citizens: **34%**

- Diehard Buyers: **30%**

Q20. Which one of the following 6 messages affects your intention to purchase ivory the most? – **Weighted Data**

Q21. Please select the specific parts of the message which affect your intention to purchase ivory the most in the future – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

Message Evaluation – 2nd Preferred Message

Theme: Law



China is one of the countries with the most severe sentencing on wildlife crime. Chinese nationals should comply with both domestic and international laws and refuse to purchase, carry and transport any ivory products. If not, one will definitely receive confiscation, great loss of fortune and even prosecution.

Preference ranking

Preferred message:	27%
Ranked as 2 nd message:	22%
Ranked as 3 rd message:	22%
Ranked as 4 th message:	14%
Ranked as 5 th message:	11%
Ranked as 6 th message:	4%

Preferred message elements

1. China is one of the countries with the most severe sentencing on wildlife crime. **11%**
2. Chinese nationals should comply with both domestic and international laws and refuse to purchase, carry and transport any ivory products. **11%**
3. If Chinese nationals don't comply with laws, one will definitely receive confiscation, great loss of fortune and even prosecution. **5%**

Highest/Lowest scores

By cities:

Preferred in **3** cities / 15

- **Highest "Preferred" scores:** Tianjin 34%, Fuzhou 33%

- **Lowest "Preferred" scores:** Chengdu 21%, Xiamen 11%

"Preferred" score by buyer segment:

- Rejectors: **26%**

- Ban Influenced Citizens: **29%**

- Diehard Buyers: **26%**

Q20. Which one of the following 6 messages affects your intention to purchase ivory the most? – **Weighted Data**

Q21. Please select the specific parts of the message which affect your intention to purchase ivory the most in the future – **Weighted Data**

Base: Total Sample, $n=2027$ in 15 selected cities

Message Evaluation – 3rd Preferred Message

Theme: Environmental Issue / Animal Cruelty



One-third of an elephant's tusk is within its skull, so its face must be cut off to take out the whole tusk. There is no chance for these elephants to survive if they are poached.

Preference ranking

Preferred message:	12%
Ranked as 2 nd message:	17%
Ranked as 3 rd message:	17%
Ranked as 4 th message:	22%
Ranked as 5 th message:	16%
Ranked as 6 th message:	15%

Preferred message elements

1. One-third of an elephant's tusk is within its skull, so its face must be cut off to take out the whole tusk. **8%**
2. There is no chance for these elephants to survive if they are poached. **5%**

Highest/Lowest scores

By cities:

Preferred in 0 cities / 15

- **Highest "Preferred" scores:** Jinan 18%, Xi'an 17%

- **Lowest "Preferred" scores:** Nanning 8%, Shenzhen 8%

"Preferred" score by buyer segment:

- Rejectors: **12%**

- Ban Influenced Citizens: **10%**

- Diehard Buyers: **13%**

Q20. Which one of the following 6 messages affects your intention to purchase ivory the most? – **Weighted Data**

Q21. Please select the specific parts of the message which affect your intention to purchase ivory the most in the future – **Weighted Data**

Base: Total Sample, n=2027 in 15 selected cities

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/articleId/9578/China-Announcement-of-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
标题: 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
发文字号: 国办发〔2016〕103号 发布日期: 2016年12月30日
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，并向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。

各省、自治区、直辖市人民政府和有关部门要高度重视，加强组织领导，明确责任分工，确保停止商业性加工销售象牙及制品活动顺利进行，并妥善做好相关单位和人员安置、转产转型等工作，切实维护好社会和谐稳定。

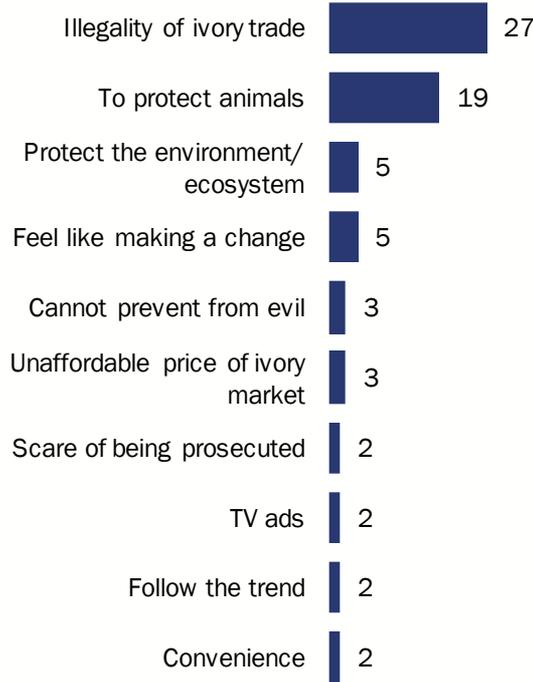
国务院办公厅
2016年12月29日

(此件公开发布)

Reasons to Change Their Mind on Post-Ban Purchase

After the ban is implemented, the illegality of ivory trade is most likely to influence those who still intend to purchase ivory (especially in Layer 1 and 3 cities). In Layer 2 cities, greater awareness of the need to protect animals is most likely to influence persistent buyers.

Reasons likely to make intenders change their mind on ivory purchase after the ban is implemented (% of respondents)



By City Layers		
Layer 1	Layer 2	Layer 3
n=111	n=45	n=44
27	17	31
23	27	6
1	1	15↑
8	0	3
0	0	10↑
1	2	6
2	0	3
3	0	0
3	2	0
3	0	0

 Main reason

Q17e. What is likely to make you change your mind? – **Weighted Data**

Base: Likely to change mind on ivory purchase after the ban is implemented, n=200 in 15 selected cities

↑ ↓ Statistically significant difference: higher / lower at 95% confidence level vs. Total

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evidence and ideas. applied.

TRAFFIC, the wildlife trade monitoring network, is the leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. TRAFFIC is a strategic alliance of WWF and IUCN.

www.traffic.org

WWF is one of the world's largest and most respected independent conservation organizations, with over 5 million supporters and a global network active in over 100 countries. WWF's mission is to stop the degradation of the Earth's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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