

Demand Under the Ban

China Ivory Consumption Research 2021

A report from GlobeScan Incorporated

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Project: 3856



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1. Background and Objectives



WWF



Foreword by WWF

The large-scale consumption of wildlife parts, products, and derivatives across the globe is increasingly being recognized as a driving factor toward substantial declines in populations for many species. Mainland China (hereafter referred to as “China” in this report) is thought to be one of the largest markets, leading conservation professionals to explore the potential for targeted advocacy, social marketing, and behavior change campaigns to deliver real and rapid impact in reducing this demand. WWF has implemented several behavior change interventions in recent years to reduce demand for illegal wildlife products like ivory, pangolin scales, rhino horn, and tiger bones. Consumers including outbound tourists, collectors, businessmen, and traditional medicine users have been targeted in those behavior change interventions.

Within this context, a “game-changing” ban on commercial processing and trade in elephant ivory was implemented by the State Council, China’s Cabinet on 31 December 2017. TRAFFIC and WWF commissioned GlobeScan before the ban became effective in 2017 to conduct the largest-ever ivory consumer research in China. This research has been conducted annually using the same methodology and surveying consumers in the same 15 cities. We believe this to be the most in-depth, longest-running research project into consumer demand for ivory to date.

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Research Objectives – Context

In mid 2021, WWF commissioned GlobeScan to conduct research to build upon previous consumer analysis and to generate up-to-date insights about ivory consumption and consumer perceptions toward the ivory ban after its implementation (December 31, 2017). This study follows previous research conducted by GlobeScan in 2017, 2018, 2019, and 2020 on both the pre- and post-domestic ivory ban in Mainland China. We identify target consumer groups, products, and drivers of



consumption that need to be addressed as a priority and provide data for designing, developing, and delivering interventions. By continuing to monitor the perceptions and actions of Chinese consumers, WWF can incorporate changes in consumer behavior into their latest demand reduction campaigns and thereby increase the effectiveness of these campaigns.



Research Objectives

The objectives of these studies – the Pre-ban survey (2017) and Post-ban surveys (2018, 2019, 2020, and 2021) – have remained consistent and can be summarized as follows:

- Understand to what extent the implementation of the ban and other factors have impacted ivory purchase and if observed trends are continuing over time.
- Measure the awareness and perceptions of the ban and its influence on the decision-making processes of buyers and/or potential buyers.
- Identify the key consumer/buyer segments of elephant ivory (products) before the implementation of the ban, and track if their perceptions, awareness, and purchase behavior is changing after the ban.
- Track the size of these segments to see whether the strength of the influence of the ban changes over time.
- Identify the prevalence of ivory purchase in the 15 selected target cities and the changes over time.
- Identify the major motivations driving these purchases and the deterrents that buyers perceive.

- Analyze psychosocial and socio-demographic characteristics, attitudinal dimensions, and other aspects of each consumer segment in order to gain insight into:
 - A. The specific triggers, motivations, and drivers for each segment's use or purchase of each of these products;
 - B. The underlying desire to purchase or own ivory and the barriers which will deter (potential) buyers from future purchase;
 - C. The awareness and attitudes of each consumer segment toward legislative provisions, penalties, and other deterrents restricting or prohibiting the use of these products.
- Test various concept messages (in the Pre-ban Survey) and campaign awareness/effectiveness (in the Post-ban Surveys) as input for future ivory demand reduction communication and behavior change interventions.

Note on COVID-19 in 2020 and 2021 surveys: While COVID-19 undoubtedly affected the actions, perceptions, and opinions of the people surveyed in this study, in order to keep the questions comparable with previous years, we did not specifically address the pandemic in our questionnaire.

Research Design

Survey Design

This study uses quantitative data collection to answer the research questions. Quantitative data collection provides robust, comparable results that allow for analysis of trends and preferences across a large geographic area. These data can be used to spot trends in ivory consumption, beliefs, knowledge, and attitudes. This five-year study is the first long-term, comparable study of the purchase behaviors and attitudes toward ivory products among Chinese respondents from a consumer perspective.

Consumer Sampling

According to China Internet Watch, the national internet penetration rate in China is over 70 percent, but in urban centers it is estimated to be 77 percent, with different genders, ages, and education levels well represented online. This has led China to be one of the most Internet-driven economies in the world. As with the 2017, 2018, 2019, and 2020 surveys, the 2021 survey utilized the ability of online research to gain insights from a wide variety of respondents. Respondents could answer the survey either on their smartphones or on their computers, at their convenience.

The 2021 survey was conducted between the 16th of July and the 20th of August. Respondents from an online panel were invited to participate in the online survey via email. The survey had a questionnaire with a median length of 14 minutes.

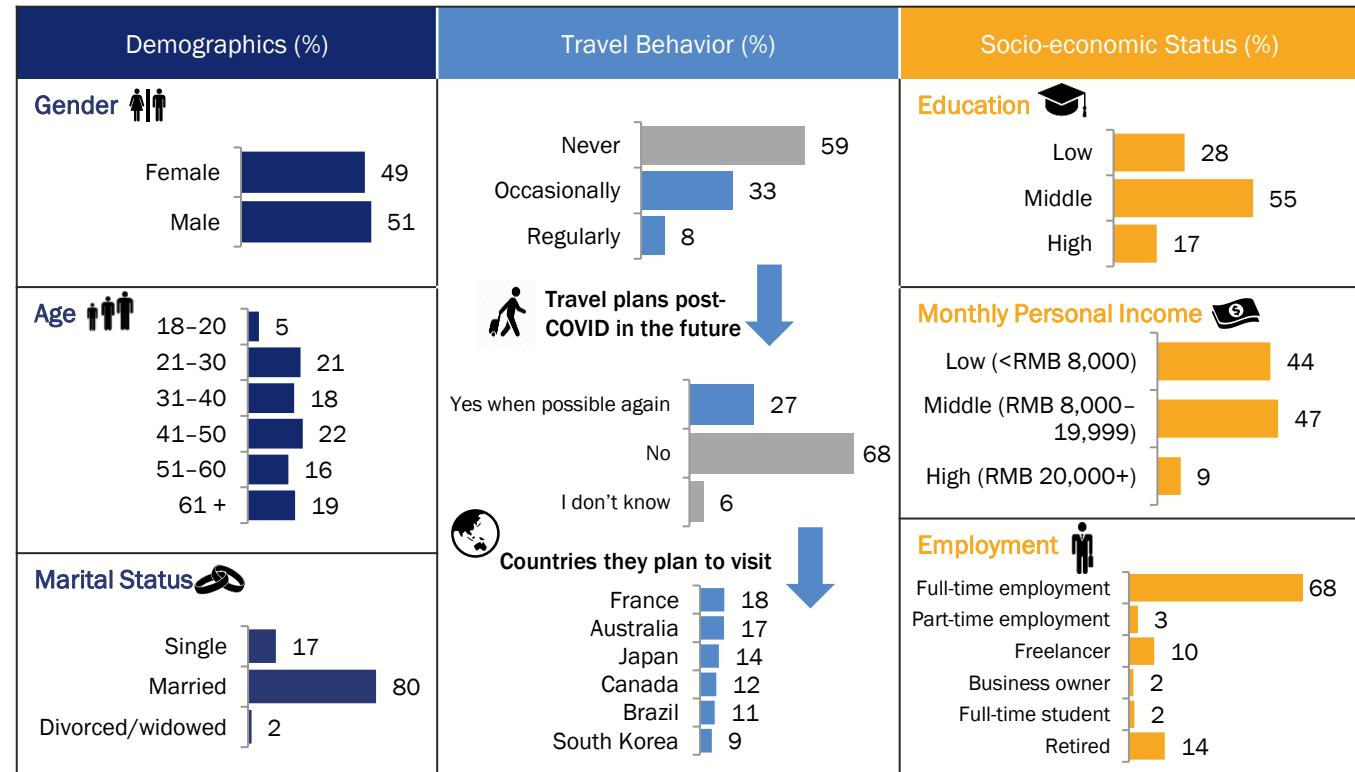
Survey respondents could indicate the city in which they live from a list of 15 cities – Beijing, Shanghai, Guangzhou, Chengdu, Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin, Nanning, Chongqing, Nanjing, Jinan, and Shenzhen. This allowed for a broad geographic range of respondents while still focusing on the key areas known to be of importance in the ivory trade. For this survey, the cities have been reclassified into layers (not related to China city tiers) as per TRAFFIC's definition in 2017, in order to adequately reflect the trade of ivory in China (see Slide 10). Any respondents under 18 years of age and those not living in one of the 16 selected cities were screened out and were not allowed to participate in the survey.

Total Sample Profile – Post-ban Survey 2021

Quotas were placed on age, gender, and city, and “soft quotas” were placed on education as per previous surveys. These quotas are based on the Mainland China general population sample and were updated in 2021 to reflect current population changes according to China’s 2021 census. As a result of these demographic changes in China, the 2021 sample has more respondents who are highly educated and have a high income (see slide 75).

As with the demographic profiles from previous years, the respondents of the 2021 survey were selected to be representative of the national population of Mainland China and the demographics after weighting deviate less than 1 percentage point from the nationally representative demographics (See Slide 75).

The majority of respondents have received a mid-level of education, are married, are employed full time, and earn between RMB 8,000 and RMB 19,999 monthly. Eight percent of respondents are regular travelers (see note on travel), and those who will have travel plans will primarily go to France, Australia, and Japan.



Note on travel. Travel was greatly disrupted in 2021 but Regular Overseas Travelers are defined by their general travel habits, not their recent travel frequency, i.e., this category does not refer to people who traveled regularly in 2021 or 2020.

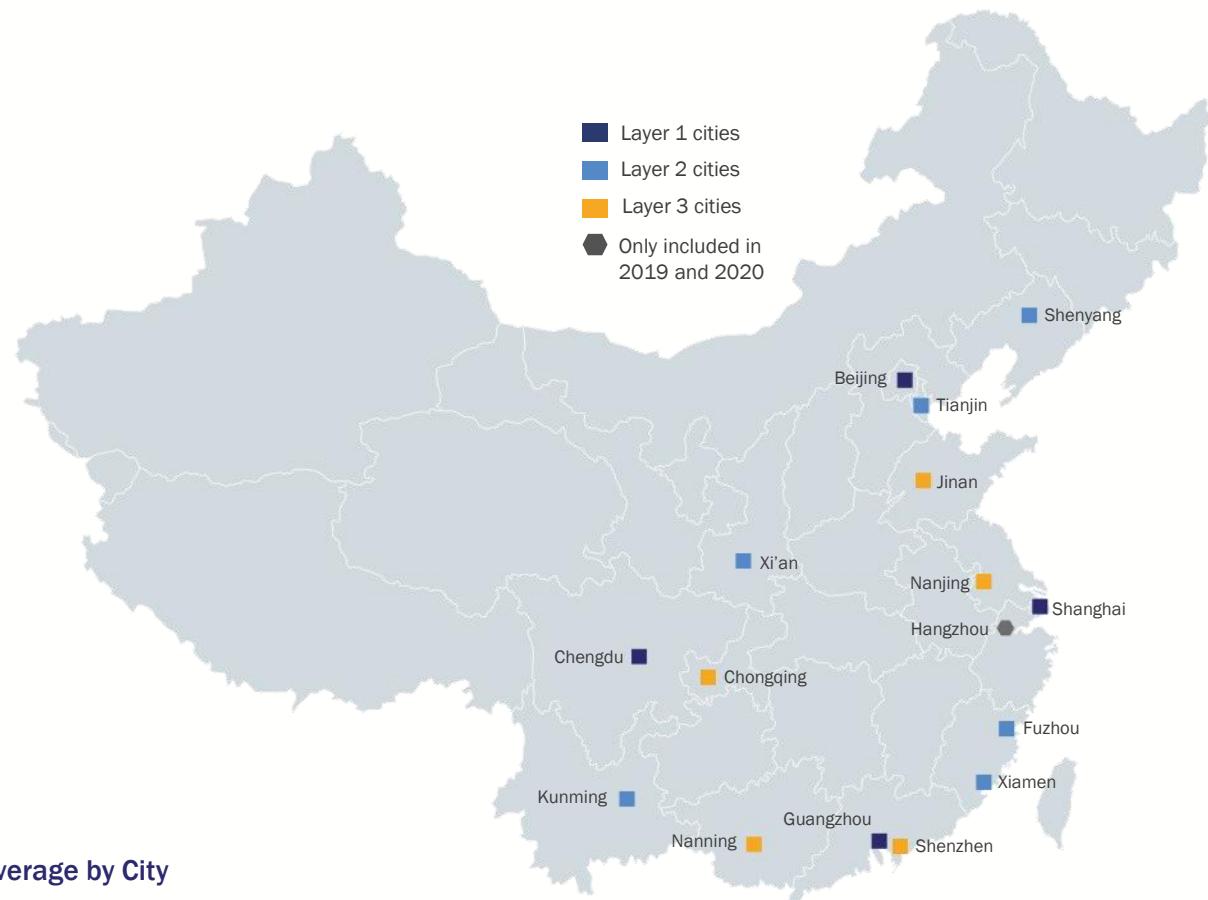
Geographic Scope

Definition: City Layers

Cities were divided into Layers 1, 2, and 3 per WWF/TRAFFIC's definition (from 2017; these have been kept the same for comparability) to reflect the ivory trade and consumption in major cities in China. Grouping cities by layers allows for comparisons on the dynamics of ivory trade to be made between types of markets (cities).

WWF/TRAFFIC nominated these cities as being strategic and active centers of the ivory trade in China in 2017, **rather than being representative of China as a whole**. This is different from a geographical spread as used in other surveys of wildlife purchase. Hence, the data in the report are centered on these selected cities rather than being representative of the whole country.

Hangzhou was reported to be a possible important market for ivory trade in 2019 and was added to the survey with $n=200$ respondents in 2019 and 2020 but was not included in the 2021 survey.



Coverage by City

The (weighted) sample achieved by Layer in the 2021 Post-ban Survey is as follows:

- $n=1000$ in **Layer 1** cities (Beijing, Shanghai, Guangzhou, Chengdu)
- $n=500$ in **Layer 2** cities (Xiamen, Kunming, Fuzhou, Xi'an, Shenyang, Tianjin)
- $n=500$ in **Layer 3** cities (Nanning, Chongqing, Nanjing, Jinan, Shenzhen)
- Hangzhou was included in 2019 and 2020 but not in 2021.

Analysis Deployed: Market Segmentation

Market segmentation is a statistical process that divides a broad target market into a subset of smaller segments, or groups, based on natural points of differentiation between consumers in that market. 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 algorithm (see slides 79–80).

Why Perform a Market Segmentation?

A market segmentation provides organizations with targeted intelligence on discrete groups of consumers, providing evidence to support positioning and communication strategies for target consumer segments. This allows us to identify swing groups for strategic communications. We can also track these segments over time and see how public perception shifts between years.

Segmentation Analysis: Methodology Used

The model developed in 2017 was also used in subsequent years 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 include: attitudes, motives, and barriers to purchase; past/future intention to purchase; and agreement/disagreement with the ban.

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

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

Respondents are not re-interviewed between years to assess their personal shifts between segments. Rather, the segments and the shifts between them are indicative of general trends, not individual changes.

Segmentation Analysis – Post-ban Surveys

In order to recreate the segments (e.g., Diehard Buyers, Ban-influenced Citizens, and Rejectors) identified in the Pre-ban poll, statistical algorithms were used and extracted using Discriminant Function Analysis (see slide 81).

Analysis Deployed: Ivory Purchase Index

Ivory Purchase Index: Definition

For this survey, we have recreated the Ivory Purchase Index developed in the Pre-ban Survey.

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

How Is it Compiled?

- The Index is an aggregate measure that distils many indicators down to a single number enabling quick comparisons across buyer segments, city layers, age groups, etc.

- The Ivory Purchase Index was developed by reducing all attributes that were related to past and future purchase of ivory down to three dimensions:
 - Past purchase
 - Future purchase
 - Impact of the ivory ban (i.e., future purchase of ivory after implementation of the ban and recommendation to purchase ivory after implementation of the ban).
- It is a sum of these three dimensions/sub-indices, based on a 10-point scale, with 1 being lowest (least persistent in buying ivory) to 10 being the highest.



2. Key Findings



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Overall Stated Ivory Purchase Behavior

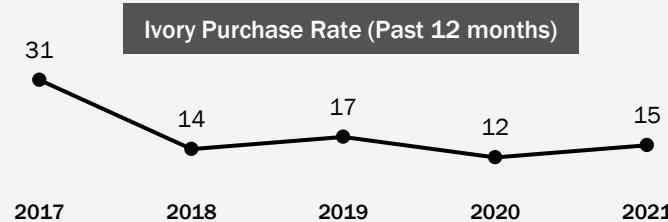
Self-reported purchase of ivory in the past 12 months has increased from 2020 levels (12%) to 15 percent in 2021 but remains lower than 2019 levels (17%).

- The order of the top three ivory purchase channels has changed, with market stalls climbing and overseas purchase dropping. Retail stores have also become significantly less popular but remain the most-used channel.
- Among those who have bought ivory in the past, almost half are occasional or “one-time” buyers, but similar to 2020, nearly 30 percent claim to buy ivory once every one to two years or even more frequently.
- Over half of respondents who had bought ivory in the past 12 months had bought it as a gift for a friend, family member, or business contact, but more people bought it for themselves than in 2020 (33% in 2020 vs 43% in 2021; data not shown).
- Intention to purchase ivory in the future has increased slightly but remains lower than any year except 2020.

15%

Bought ivory in the past 12 months

Past Purchase Incidence Trend (%)



Ivory Purchase Frequency (%)



56%

Bought ivory as a gift for friend /
family / business contact

Top Ivory Purchase Channels:



Retail store in China (56%)

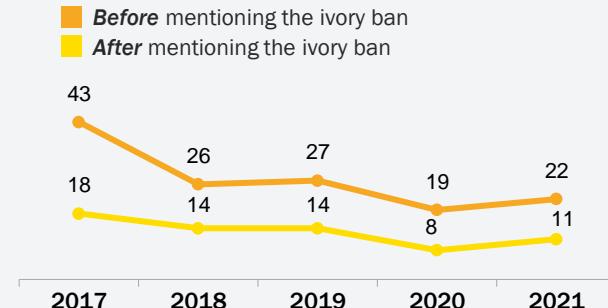


Market stall in China (52%)



Short-term trips overseas (37%)

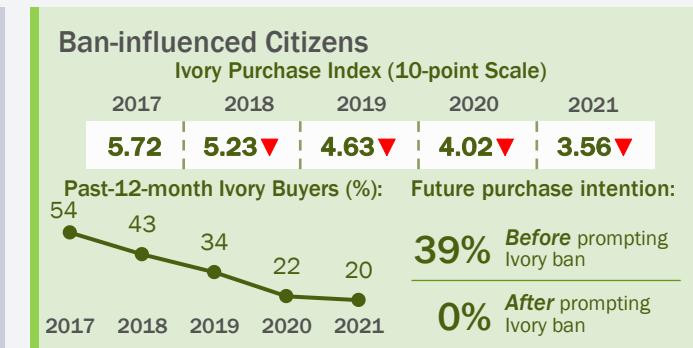
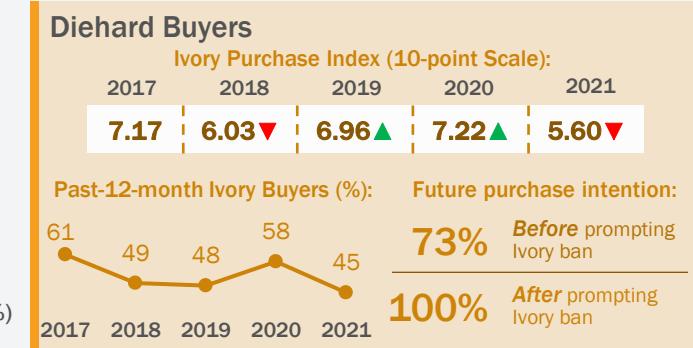
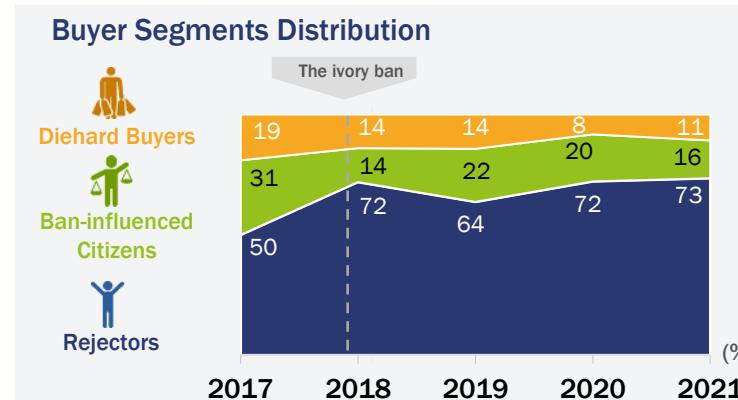
Future Purchase Intention (Total %)



Buyer Segments: Purchase Behaviors

Among the buyer segments, the proportion of Ban-influenced Citizens has become smaller, while Diehard Buyers and Rejectors have grown slightly.

- The proportion of Ban-influenced Citizens continues to decrease slowly as it has for the last two years.
- Although the proportion of Diehard Buyers has increased, their Ivory Purchase Index score has declined dramatically. This decline can be attributed more to their lower past-12-month purchase rates than their intention to purchase in the future.
- Ban-influenced Citizens have decreased in their past purchase rates and future intention to purchase, resulting in a steadily declining Ivory Purchase Index score.
- Rejectors are increasing in their past purchase rates and future purchase intention (6% in 2020 to 11% in 2021).

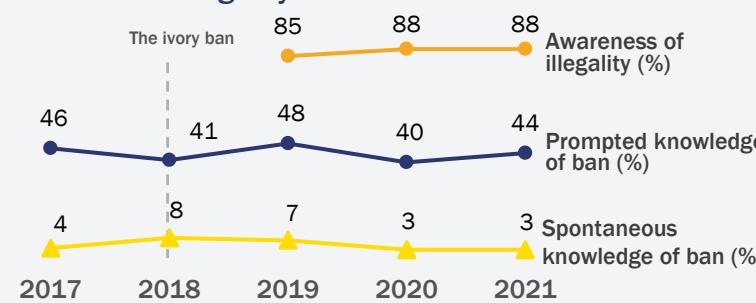


Awareness of and Attitude toward the Ivory Ban

Spontaneous mention of the ivory ban has remained steady at 3 percent. The prompted recognition of the ivory ban has increased from 40 percent to 44 percent since 2020.

- In 2021, as in 2020, 88 percent of respondents believe that the buying and trading of ivory in China is illegal (data not shown). Although respondents are aware that ivory sale is illegal, spontaneous identification of the 2017 ivory ban specifically has declined since 2018 (8% to 3%) and prompted awareness of the ban has fluctuated.
- Online channels are the dominant sources of awareness about the ivory trade ban, as they were in previous years, though TV/screen has increased since 2020.
- Respondents strongly believe that the effects of the ban will be positive and believe it will make them avoid ivory or all wildlife products. An increasing number of people, however, believe that there is no suitable alternative to ivory that can take its place on the market (17% in 2020 to 21% in 2021).

Awareness of illegality and the Ban



Top Sources of Awareness

- Offline channel
- Online channel



Impact of the Ivory Ban



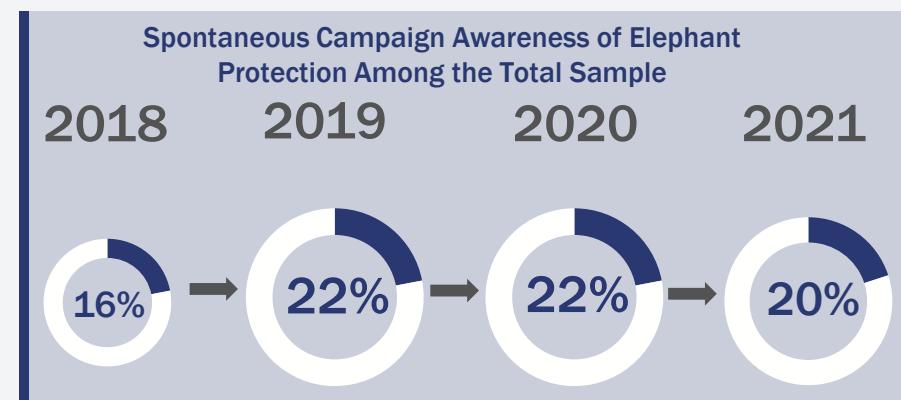
Top alternatives to ivory:
Gold (34%) and silver (26%)

21% say there is no suitable substitute for ivory

Awareness of and Attitude toward Campaigns

Spontaneous campaign awareness has remained relatively steady in 2021 and is highest among the target group of Regular Overseas Travelers.

- When prompted, 15 percent of respondents say they have seen the Ma Weidu Campaign (see note on slide 61), up from 11 percent in 2020. The groups with the highest campaign recall are Diehard Buyers (27%), past-12-month ivory buyers (29%), and Regular Overseas Travelers (34%).
- Sixty-seven percent of Diehard Buyers report that they found the video to be persuasive, though this is higher among Rejectors (84%) and Ban-influenced Citizens (72%) (data not shown). Positive attitudes toward the video are lower than they were in 2020 by an average of 8 percentage points. Opinion/behavior change, however, remains steady (data not shown).
- Thirty-six percent of Diehard Buyers report that they learned something useful from the video and 32 percent say that the campaign will make them convince others not to buy ivory.



15% recall seeing the Ma Weidu Campaign video when prompted

↳ **80%** think that it is **persuasive**

↳ **78%** think that it is **memorable**

66% of respondents who planned to buy ivory changed their mind after learning about the laws and seeing the Ma Weidu Campaign

Most Impressive Element of the Video

The Poached Elephants



Top Three Reactions to the Ma Weidu Campaign:



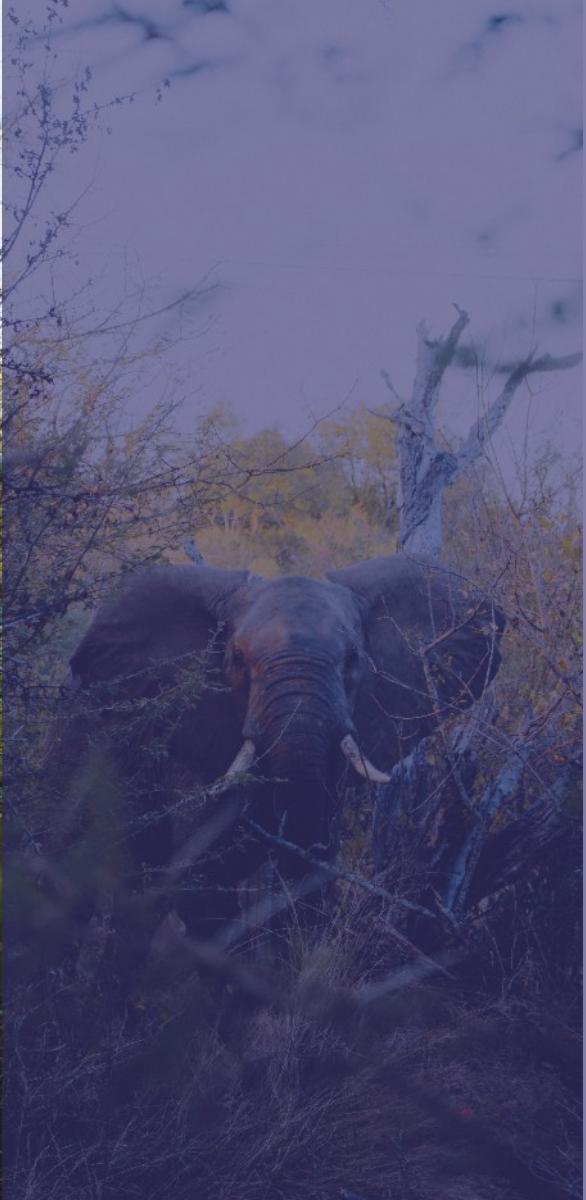
I made a commitment to protect elephants and avoid ivory purchase (43%)



I will convince others not to buy ivory (42%)



I will share information about animal protection (42%)



3. Analysis

3.1 Segmentation of the Market

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Segmenting the Market

Segments are derived using predictive modeling that takes ivory purchase, intention to purchase, attitudes, motives, and barriers toward ivory into account (see slides 79 - 81). Segments tend to have broadly similar characteristics each year. Below are the characteristics for the 2021 segments:

Rejectors



- Rejectors are those who are least likely to purchase ivory. They are closely aligned with the general population in demographics, and the proportion of higher educated, higher income Rejectors has increased since previous surveys. A small number of Rejectors bought ivory in 2021 (9%) or intend to buy it in the future (11%), though this number has grown. One-quarter of Rejectors say they want to buy ivory a lot less than they did three years ago. This group of Rejectors are more likely to be from Layer 1 cities and have a higher income and education than the rest of the Rejectors.
- Rejectors strongly agree on the necessity for legal control over the ivory trade. They are also the most likely to convince others not to buy ivory.
- Almost half of Rejectors know about the ivory ban once prompted. This awareness is acquired mostly through social media, news apps, or TV/screens. They strongly believe that the ban is important.
- Fifteen percent of Rejectors have seen the Ma Weidu Campaign and it resonates strongly among the segment once they have seen it.

Ban-influenced Citizens



- Ban-influenced Citizens are those for whom the ivory trade ban in China plays a strong role in their decision making. They have lower ivory purchase rates than Diehard Buyers and their past-12-month purchase had been decreasing significantly over the last five years.
- Compared with Rejectors, Ban-influenced Citizens are less likely to see the control of ivory trade as necessary and have the lowest support rate for the ban. Before being prompted about the ivory ban, 39 percent of this segment said they are likely to purchase ivory in the future. After being prompted about the ban, this percentage dropped to 0.
- They are unlikely to recommend others to purchase ivory.
- Ban Influenced Citizens have the lowest rate of having seen the Ma Weidu Campaign. However when prompted, it resonates strongly among them.

Diehard Buyers



- Diehard buyers are those who are least likely to be swayed from purchasing ivory. They have a higher income than the other segments, have a medium-high education, and travel more regularly compared to the general population. Their past-12-month ivory purchase rate decreased significantly in 2021, though their intention to purchase ivory in the future remains significant, despite the ivory ban.
- Forty-eight percent say they have heard of the ivory trade ban when prompted, a significant drop since 2020. They have the lowest rates of knowledge that ivory is illegal to transport internationally.
- They have the highest rates of prompted Campaign recognition of all segments tested. However, the Ma Weidu Campaign does not resonate among them as much as for the other two groups.

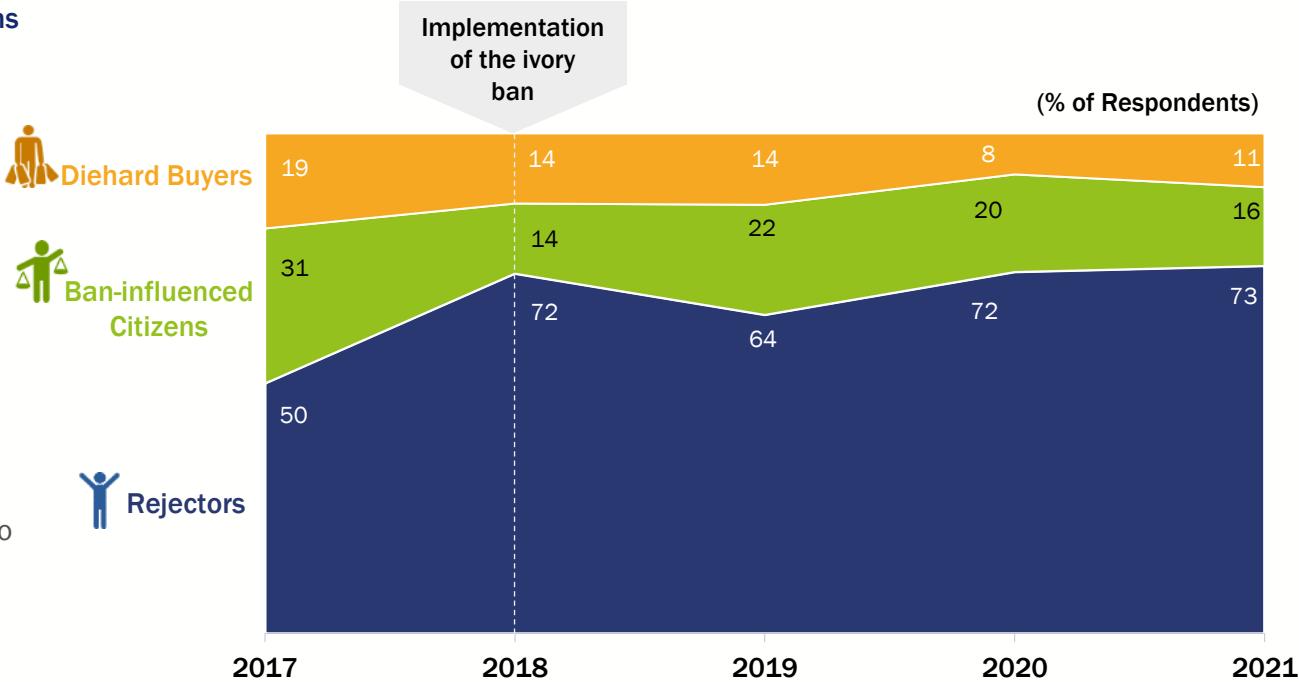
Buyer Segments Distribution – Five-year Comparison

The segment size of Diehard Buyers in 2021 remains lower than 2017, 2018, and 2019, but has increased in size significantly since 2020.

With the 2021 census, the proportion of the population (and therefore the respondents in this survey) that are higher-educated and more affluent has increased (slide 22). These updated demographics, combined with a greater ability for people to purchase ivory in 2021 compared to 2020 since national easing of lockdown measures, may contribute to the overall increase in this segment size.

Rejectors remain the largest proportion of the population, with a non-significant increase from 72 to 73 percent.

Ban-influenced citizens have decreased significantly in segment size (20% in 2020 to 16% in 2021).

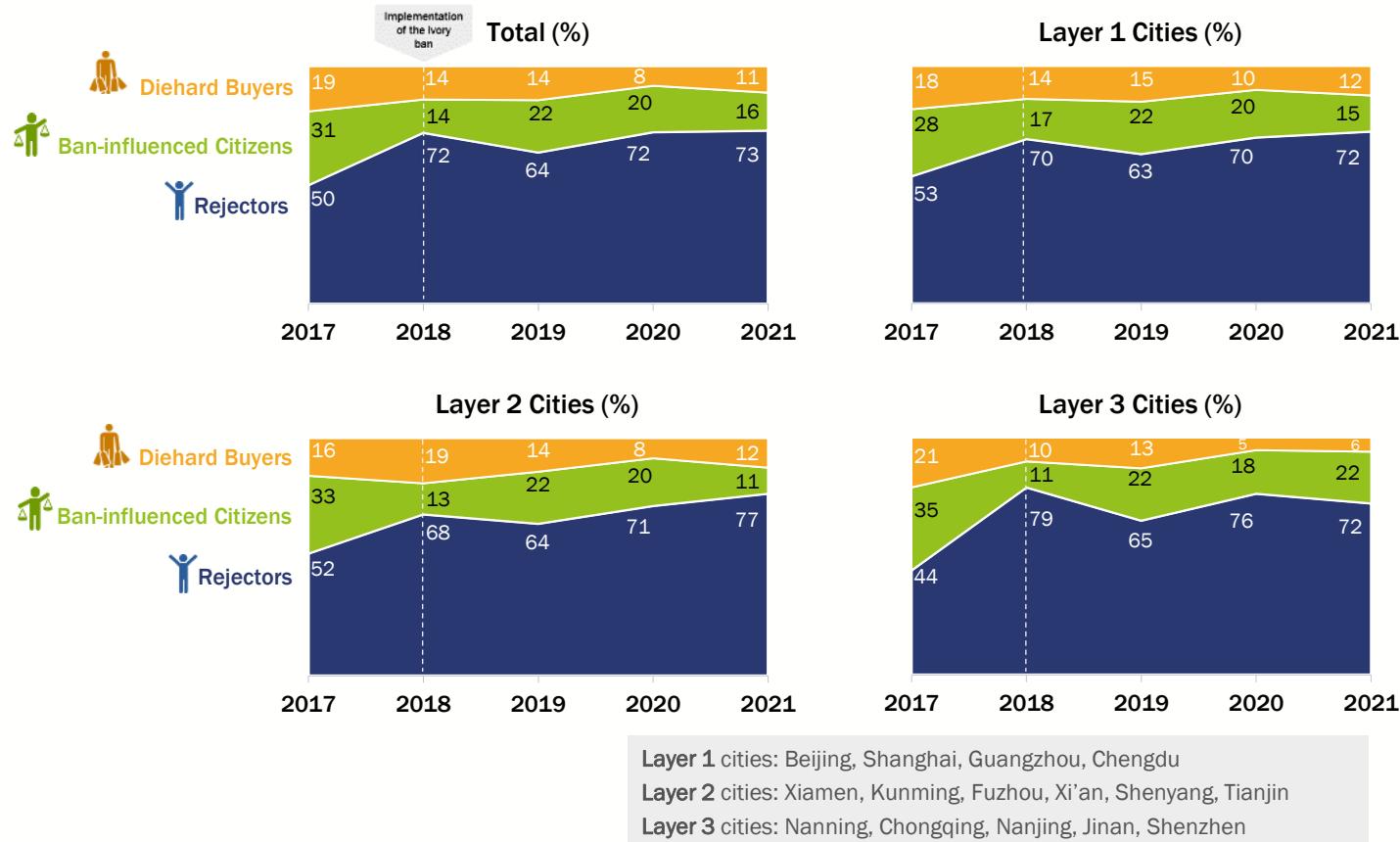


Buyer Segments Distribution by City Layer

Similar patterns are observed in Layer 1, and Layer 2; the Diehard Buyers segment is increasing slightly (statistically significantly in Layer 2 cities, but not in Layer 1 cities), while Ban-influenced Citizens are decreasing in number significantly in both groups. In Layer 3 cities, no statistically significant changes are observed between 2020 and 2021.

The Rejectors segment in Layer 1 (72%) and Layer 2 (77%) cities has reached its largest-ever size.

Layer 3 cities have maintained the smallest segment of Diehard Buyers consistently since 2018.



Base: Total sample in 15 selected cities, 2017 Survey / 2018 Survey / 2019 Survey / 2020 Survey / 2021 Survey : n=2,000 (Weighted data)

Buyer Segments Profile – Rejectors

As the education level and income of the population of China increase, Rejectors have higher proportions of respondents with a high education and a high income in 2021 compared to 2020.

The proportion of Rejectors that live in Layer 1 cities has increased significantly since 2020, as has the proportion of Rejectors with middle or high incomes and those with high education.

Compared to the total sample (which mirrors a nationally representative sample of the whole of China), Rejectors in 2021 are closely aligned overall with the general population of the cities surveyed, as they were in 2020. Only in occupation are significant differences observed, where significantly more Rejectors report that they are retired (16%) than Ban-influenced Citizens (10%) or Diehard Buyers (8%) (data not shown).



Gender		2017	2018	2019	2020	2021	Total Sample n=2,000
		n=1,000	n=1,446	n=1,274	n=1,446	n=1,470	
Age	Female	45	49	48	47	49	49
	Male	55	51	52	53	51	51
Education	18-30	23	22	24	24	25	26
	31-40	19	15	19	18	18	18
Income Level	41-50	21	21	23	24	22	22
	51-60	18	18	16	15	17	16
Travel Overseas	61 and above	19	23	18	19	19	19
	High	9	23	7	9	18	17
City Layers	Middle	63	65	64	64	54	55
	Low	29	12	29	28	28	28
Occupation	High income	12	9	4	6	9	9
	Medium income	34	53	32	35	47	47
Travel Behavior	Low income	54	38	64	59	45	44
	Never	32	64	64	55	60	59
Education	Occasionally	49	30	29	39	32	33
	Regularly	19	6	7	6	8	8
Gender	Layer 1	50	44	46	45	49	50
	Layer 2	24	22	23	23	26	25
Age	Layer 3	27	34	31	33	25	25

S1. City of residence, S2. Age, S3. Gender, S4. Monthly Personal Income. S5. Education. Q39. Travel behavior – Weighted data
Base: Rejectors in 15 selected cities for 2017/2018/2019/2020/2021, n=1000/n=1446/n=1274/n=1446/n=1470

*See slide 9 for note on travel

Buyer Segments Profile – Ban-influenced Citizens

The demographic profile of Ban-influenced Citizens has remained consistent with 2020, with no major statistically significant increases or decreases. As with Rejectors, education and income level have risen, but for Ban-influenced Citizens, these increases are not significant.

Ban-influenced Citizens are less likely to report that they travel regularly abroad (pre-COVID) compared to 2020 (7% in 2021 vs 12% in 2020).

Compared to the total sample (which mirrors a nationally representative sample of the whole of China), Ban-influenced Citizens are the least likely to say they want to travel abroad in the future – 19 percent say they have travel plans abroad after COVID-19 compared with 25 percent for Rejectors and 49 percent for Diehard Buyers (data not shown). They are the most likely to live in Layer 1 cities and are more likely to report lower income and education.



Gender		2017	2018	2019	2020	2021	Total Sample n=2,000
	n=628	n=286	n=441	n=391	n=315		
Female	52	54	56	51	46		49
Male	48	46	44	49	54		51
Age							
18-30	27	43	28	29	23		26
31-40	18	26	18	14	18		18
41-50	25	15	20	15	24		22
51-60	12	8	16	20	17		16
61 and above	18	8	19	21	17		19
Education							
High	10	38	13	9	13		17
Middle	61	52	61	56	57		55
Low	28	10	27	36	31		28
Income Level							
High income	14	13	5	4	7		9
Medium income	43	44	45	34	37		47
Low income	43	44	49	62	56		44
Travel Overseas							
Never	21	41	41	55	66		59
Occasionally	56	43	40	33	27		33
Regularly	23	16	19	12	7		8
City Layers							
Layer 1	42	55	46	47	48		50
Layer 2	24	22	23	24	17		25
Layer 3	34	23	31	29	35		25

S1. City of residence, S2. Age, S3. Gender, S4. Monthly Personal Income. S5. Education. Q39. Travel behavior – Weighted data
Base: Ban Influenced Citizens in 15 selected cities for 2017/2018/2019/2020/2021, n=628/n=286/n=441/n=391/n=315

Buyer Segments Profile – Diehard Buyers

Compared with 2020, Diehard Buyers in 2021 are significantly more likely to have low education, though this segment also maintains the highest levels of highly educated respondents.

The proportion of Diehard Buyers in the low-income bracket has decreased significantly since 2020, while those with middle incomes have increased significantly.

Compared to the total sample (which mirrors a nationally representative sample of the whole of China), Diehard Buyers are more likely to reside in Layer 1 cities, have a higher income, and a higher education.

Diehard Buyers travel more regularly than other segments although the proportion of Diehard Buyers who describe themselves as Regular Overseas Travelers (pre-COVID) has decreased significantly since 2020. Diehard Buyers are the most likely segment to say they will travel in the future – 49 percent say they have travel plans abroad after COVID-19 compared with 25 percent for Rejectors and 19 percent for Ban-influenced Citizens (data not shown).

Gender		2017	2018	2019	2020	2021	Total Sample n=2,000
		n=372	n=268	n=285	n=164	n=216	
Age	Female	54	43	43	59	55	49
	Male	46	57	57	41	45	51
Education	18-30	28	22	29	25	29	26
	31-40	16	23	18	23	23	18
Income Level	41-50	17	31	20	19	18	22
	51-60	17	12	14	17	10	16
Travel Overseas	61 and above	21	12	19	16	19	19
	High	9	33	15	18	20	17
City Layers	Middle	63	62	56	73	59	55
	Low	27	5	29	10	21	28
Travel Overseas	Low income	15	13	8	13	14	9
	Medium income	42	61	42	45	62	47
City Layers	Never	18	38	36	20	38	59
	Occasionally	52	36	41	51	45	33
Travel Overseas	Regularly	30	27	23	29	14	8
	Layer 1	46	45	50	56	57	50
City Layers	Layer 2	19	33	22	24	29	25
	Layer 3	35	23	28	20	17	25

S1. City of residence, S2. Age, S3. Gender, S4. Monthly Personal Income. S5. Education. Q39. Travel behavior – Weighted data
Base: Diehard Buyers in 15 selected cities for 2017/2018/2019/2020/2021, n=372/n=268/n=285/n=164/n=216



3.2 Ivory Purchase Behavior



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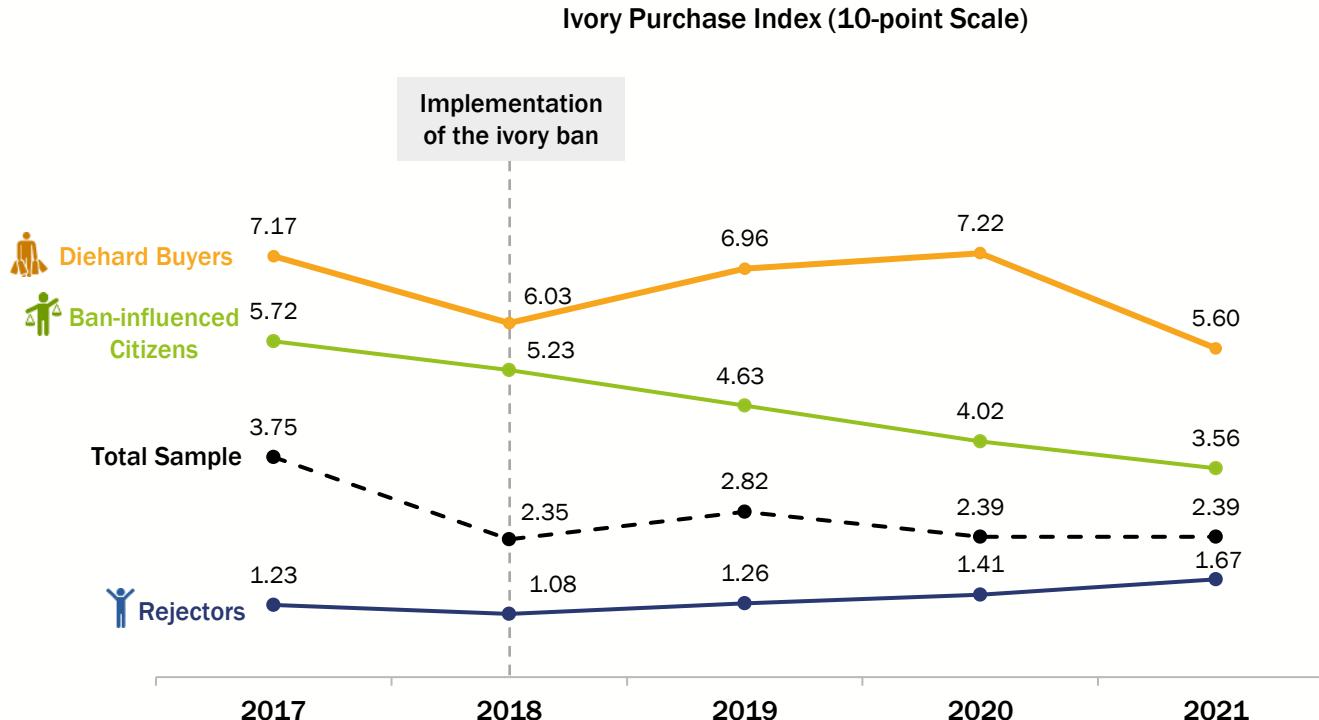
Ivory Purchase Index – Five-year Comparison (Total and Segments)

Decreases are being seen in the Ivory Purchase Index scores of Diehard Buyers and Ban-influenced Citizens.

The Diehard Buyers segment has seen a large decrease in their Ivory Purchase Index (IPI) score. While this is likely attributable to a combination of factors, the increase in size of the Diehard Buyer segment, with the decrease in Regular Overseas Travelers (a group previously identified as having a higher-than-average IPI score), likely has an impact.

Rejectors, by contrast, have seen an increasing proportion of people in the segment living in Layer 1 cities with higher education and income since 2020 – all factors that contribute to a higher IPI score.

Ban Influenced Citizens have continued to see decreases in their IPI score in almost linear fashion. This group has seen no major changes to its demographics (slide 23) and the reduction in size of this group (slide 20) is consistent with their continued decrease in IPI score.



Ivory Purchase Index – Other Sub-groups

Ivory has maintained a lower attractiveness to younger respondents than was observed in 2020 and has decreased for Regular Overseas Travelers.

The overall Ivory Purchase Index has remained steady, despite a greater number of higher education / higher income respondents in the 2021 survey compared with previous surveys (to align with China's most recent census).

The Ivory Purchase Index has reached its lowest levels among the young respondents, particularly those aged 18–30 and 30–40 since the measurement started, meaning it is less attractive to this age group.

***Note:** In 2018, we had relatively few respondents aged 61 and above in our sample. In other years, we were able to interview a larger number of this elderly category and therefore the specific +61 category for 2018 should be reviewed with caution.

Ivory Purchase Index (10-point Scale)

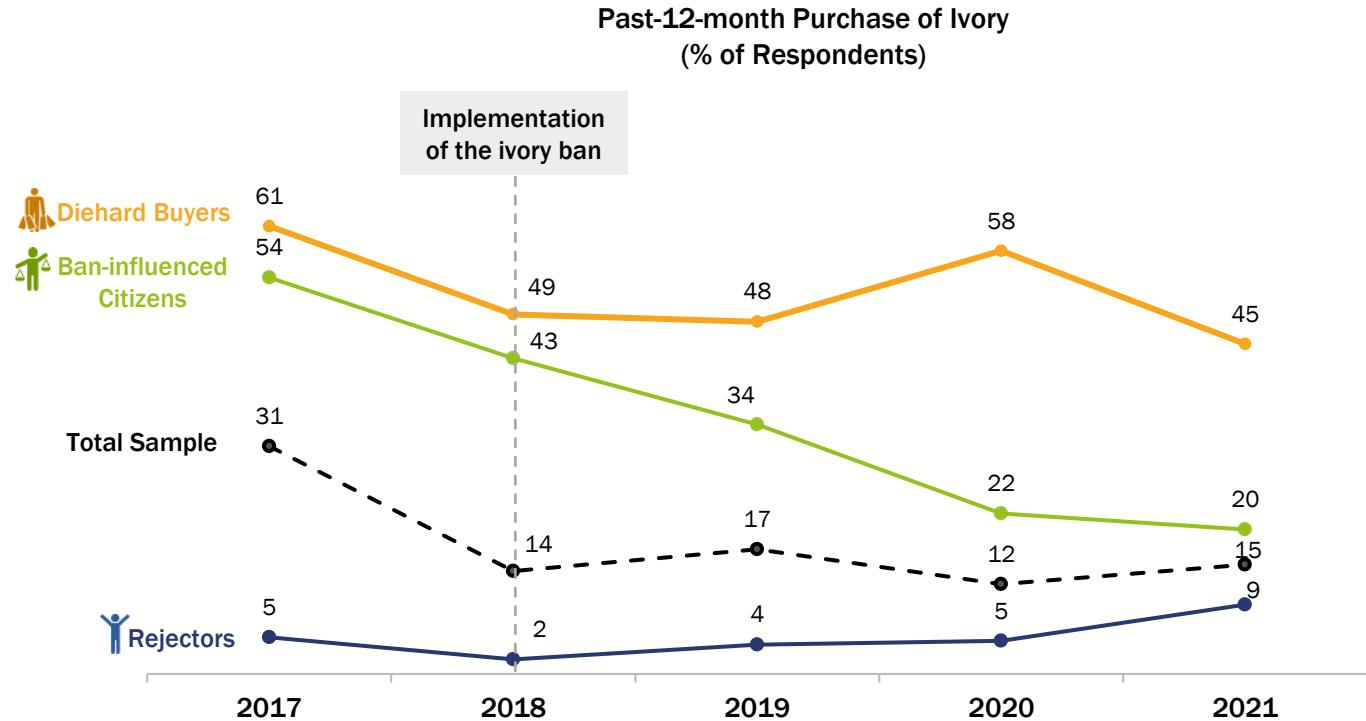
		2017	2018	2019	2020	2021
	Total Sample	3.75	2.35	2.58	2.39	2.39
Age	18-30	3.85	2.90	3.05	2.38	2.33
	31-40	3.68	3.16	3.01	2.74	2.58
	41-50	3.54	2.31	2.55	2.35	2.13
	51-60	3.38	1.87	2.42	2.48	2.51
	61 and above	3.80	1.32*	2.95	2.06	2.50
Travel Overseas	Never	2.46	1.63	1.94	1.56	1.87
	Occasionally	3.78	2.85	3.46	2.93	2.95
	Regularly	4.65	4.79	5.06	4.88	3.86
City Layers	Layer 1	3.63	2.71	2.99	2.51	2.62
	Layer 2	3.43	2.35	2.75	2.37	2.21
	Layer 3	4.17	1.81	2.61	2.24	2.13

Purchase of Ivory in Past 12 Months – Five-year Comparison (Total and Segments)

The total purchase of ivory in the past 12 months has rebounded statistically significantly from 12 percent in 2020 to 15 percent in 2021, though remains lower than in 2019 (17%).

As with the Ivory Purchase Index (previous two slides), the Diehard Buyers segment has seen a large decrease in their past-12-month purchase rates of ivory. While this is likely attributable to a combination of factors, the increase in size of the Diehard Buyer segment and the relative lack of travel are likely to be factors.

As with the Ivory Purchase Index, the increase in purchase rates among Rejectors may partially be attributable to the increasing number of wealthier, more highly educated respondents in this group. The Rejectors who would otherwise be categorized as Ban Influenced Citizens are in that group because of their lower likelihood to recommend ivory purchase.



Q2e. Have you bought ivory, or any product or object made of ivory, for yourself or someone else, in the past 12 months? – Weighted data

Base: 2017/2018/2019/2020/2021 Total Sample, n=2,000; Rejectors, n=1,000/n=1,446/n=1,274/n=1,446/n=1,470; Ban Influenced Citizens, n=628/n=286/n=441/n=391/n=315; Diehard Buyers, n=372/n=268/n=285/n=164/n=216

Purchase of Ivory in Past 12 Months – Other Sub-groups

The increase in past-12-month purchase of ivory was mostly driven by males, who in 2021 equal females in their purchase rates as well as older respondents and low-education respondents.

The data from 2020 more closely resemble the breakdowns from 2019, indicating that an initial reaction to the COVID-19 lockdown measures in China may have impacted ivory purchase rates and the subsequent easing of restrictions has led to a return to the trend that was taking place pre-COVID, i.e., a more gradual decline of ivory purchase.

Regular Overseas Travelers have seen another decrease in their past-12-month purchasing habits, possibly indicating that the lack of travel with the associated ivory purchase is having an effect on this group.

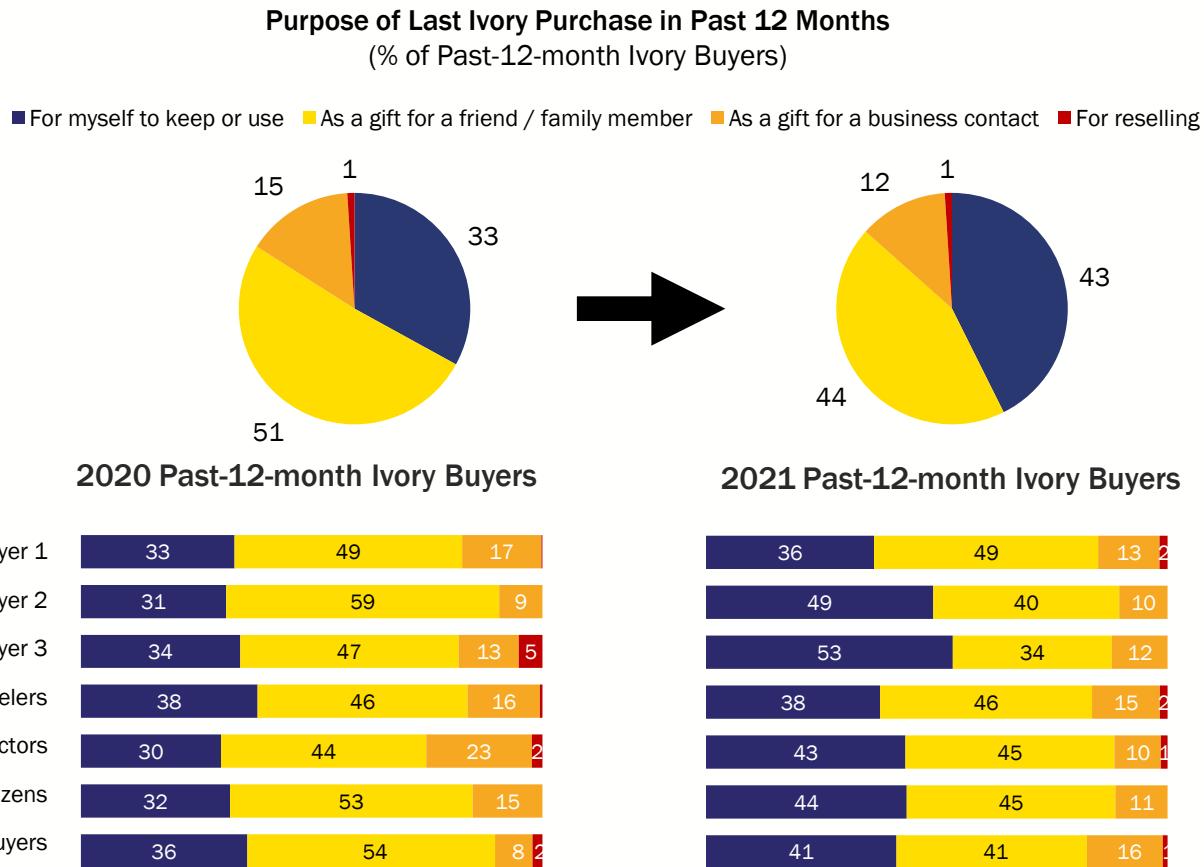
Past-12-month Purchase of Ivory
(% of Respondents)

		2017	2018	2019	2020	2021
	Total Sample	31	14	17	12	15
Gender	Female	32	16	17	16	15
	Male	29	13	17	9	15
Age	18-30	31	22	19	13	14
	31-40	28	24	20	18	18
Education	41-50	30	12	13	12	9
	51-60	30	9	10	11	18
Income Level	61 and above	34	1	22	7	17
	High	26	28	26	26	24
Travel Overseas	Middle	31	9	16	14	14
	Low	32	8	16	3	11
City Layers	High income	31	24	29	25	31
	Medium income	38	15	22	20	17
	Low income	25	10	13	6	9
City Layers	Never	15	4	6	2	7
	Occasionally	34	21	23	18	24
	Regularly	40	45	48	44	36
City Layers	Layer 1	30	20	20	14	17
	Layer 2	28	11	16	11	13
	Layer 3	34	7	14	10	12

Purpose of Last Ivory Purchase *in Past 12 Months*

Compared to 2020 past-12-month ivory buyers, a statistically significantly greater proportion of those who bought ivory in 2021 bought it for themselves to keep (43% in 2021 vs 33% in 2020), compared to those who bought it as a gift (56% in 2021 vs 66% in 2020).

The increase in respondents buying ivory for themselves comes primarily from Layer 2 and Layer 3 cities and sees an increase among all three segments.



Q2h. Thinking of the last time you bought ivory, what purpose did you buy it for? – Weighted data

Base: 2021 Past 12 months Ivory Buyers, n=298; City layer 1/layer 2/layer 3, n=173/67/58; Regular Overseas Travelers, n=61; Rejectors/Ban-influenced Citizens/Diehard Buyers , n=139/62/97

2020 Past-12-month Ivory Buyers, n=245; City layer 1/layer 2/layer 3, n=131/51/63; Regular Overseas Travelers, n=80; Rejectors/Ban-influenced Citizens/Diehard Buyers , n=65/85/94

Ivory Purchase Frequency

The overall purchase frequency of ivory in 2021 closely resembles purchase frequency in 2020, though the differences between city Layers in 2020 are not apparent in 2021.

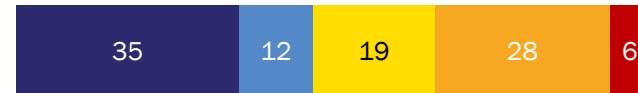
As in 2020, Regular Overseas Travelers and Diehard Buyers buy ivory more frequently than other groups in 2021.

Ivory purchase frequency is not as different between city Layers as it was in 2020.

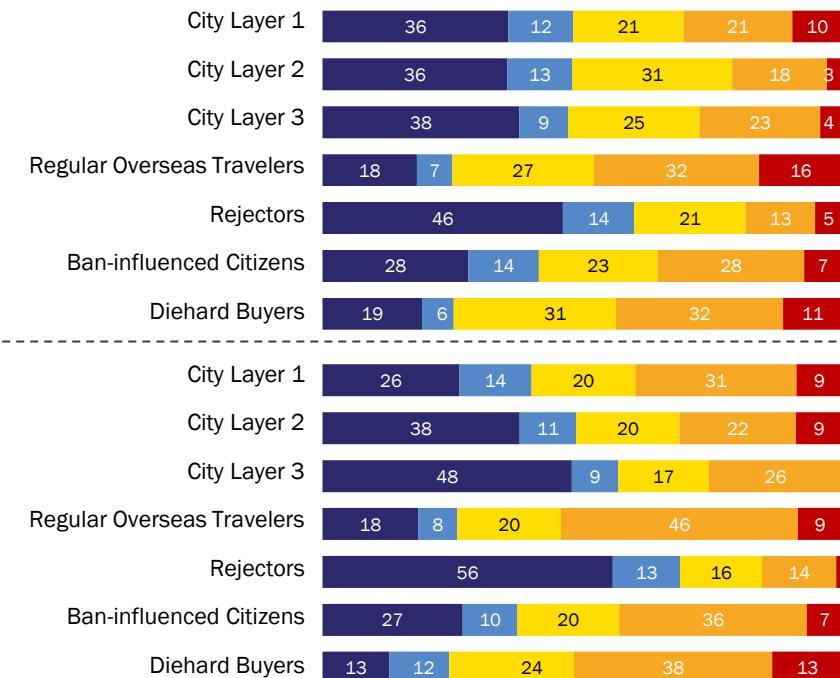
■ Only one time ■ Every 6–10 years or less frequently ■ Every 3–5 years ■ Every 1–2 years ■ More than once per year



2020 Ever Ivory Buyers



Ivory Purchase Frequency
(% of Ever-purchased Ivory Buyers)



Q2g. How frequently do you buy ivory? – Weighted data

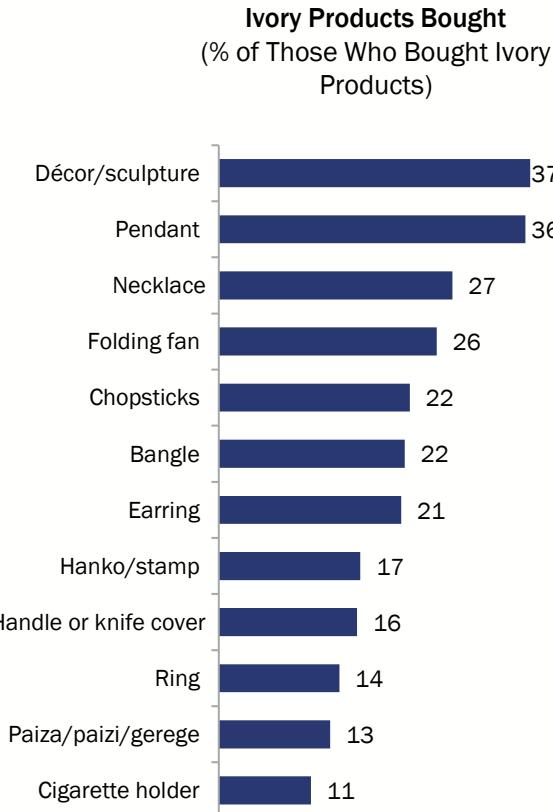
Base: 2021 Ever bought ivory, n=481; City layer 1/layer 2/layer 3, n=282/104/95; Regular Overseas Travelers, n=88; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=270/96/115
2020 Ever bought ivory, n=387; City layer 1/layer 2/layer 3, n=193/82/112; Regular Overseas Travelers, n=102; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=160/121/106

Ivory Products Bought and Change in Desire for Ivory

The most popular ivory items bought are décor/sculptures and pendants. The majority of people have not changed in their desire to own ivory over the past three years.

For most groups, the majority of people have not changed in their views about buying or owning ivory in the past three years. More people are likely to say that their desire for ivory has gone down rather than up in this time period. However, Diehard Buyers are more than three times as likely to say their desire for ivory has increased in the past three years (47% say their desire has increased) than they are to say it has decreased (15% say their desire decreased). More than half (56%) of past-12-month buyers have increased in their desire to buy ivory in the past three years.

Note: Change in desire to own ivory does not consider the base level of desire, i.e., a respondent who has never wanted ivory and a collector who has always wanted ivory may both say there has been “no change” in their desire over the past three years.

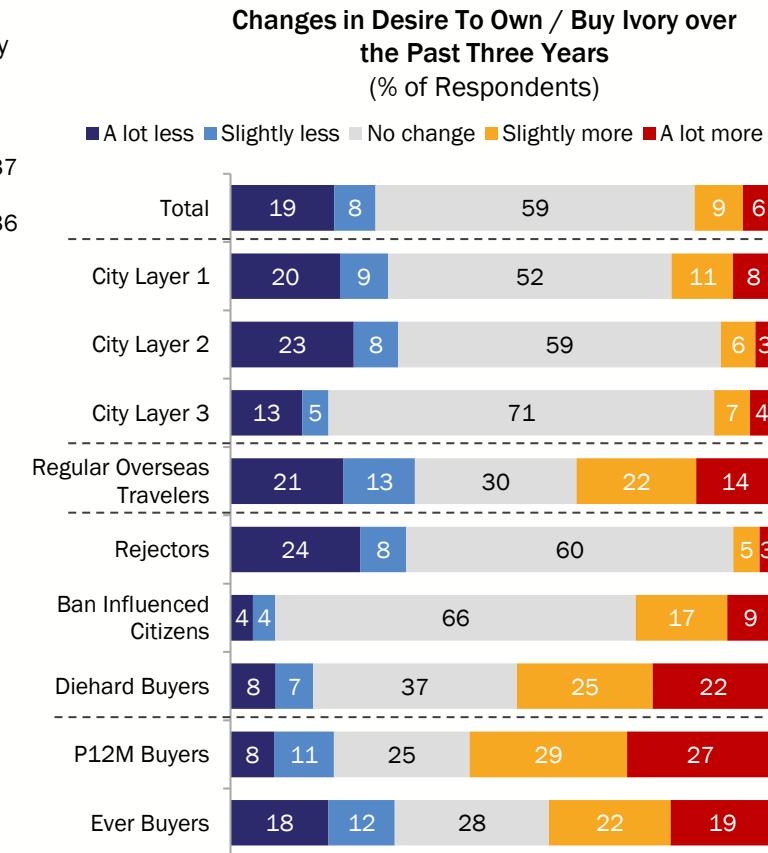


Q2F. [2021 New Question] What ivory products did you buy? – Weighted Data

Base: Ever bought ivory, n=481

Q5D. [2021 New Question] Has your desire to buy/own ivory changed over the past 3 years? – Weighted Data

Total Sample, n=2,000

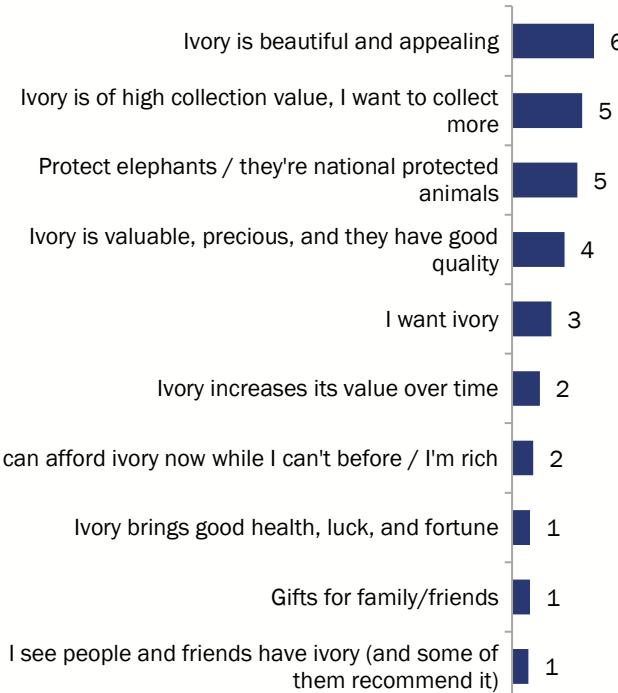


Reasons Why Respondents Changed Their Desire to Buy Ivory

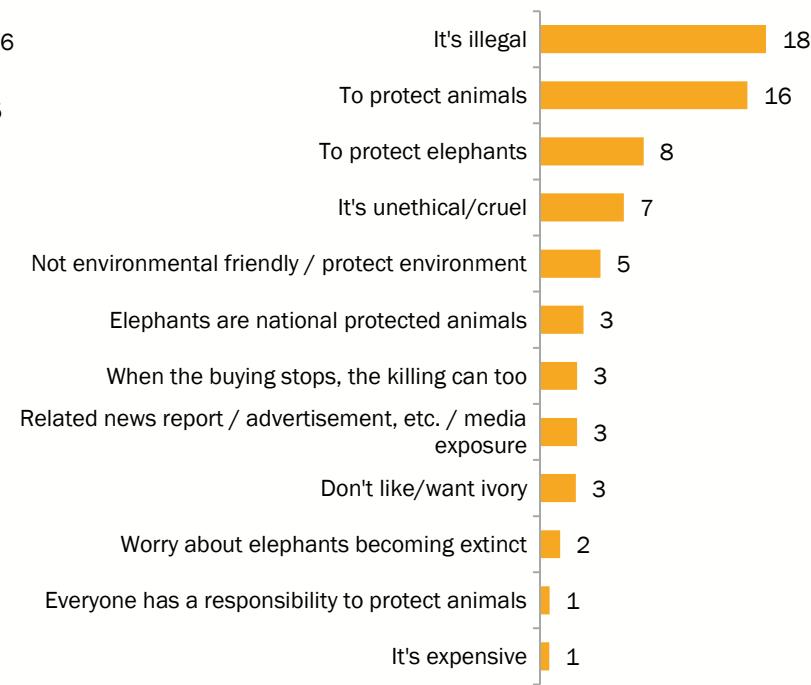
Ivory's beauty and collectability are the top-stated reasons for respondents having a greater desire for ivory than they had three years ago. Respondents also cited the protection of elephants as a reason for wanting ivory as they seemingly believe the purchase of ivory is linked to elephant conservation. The illegality and protection of animals are the stated reasons why people became less attracted to ivory in the same time period.

Among Rejectors whose desire to buy ivory increased, the collection value, monetary value, and the beauty rank most highly among the reasons (data not shown).

**Self-reported Reasons Why Ivory Became More Appealing in the Past Three Years (%) among Those Whose Desire Increased)
– (Open-ended Answers)**



**Self-reported Reasons Why Ivory Became Less Appealing in the Past Three Years (%) among Those Whose Desire Decreased)
– (Open-ended Answers)**



Q6b [2021 New Question] What changed your intention to buy ivory in the future? [Open-ended answers]

Base: Those who have changed in their desire to own ivory over the past 3 years n = 826

Ivory Purchase Channels – Five-year Trend

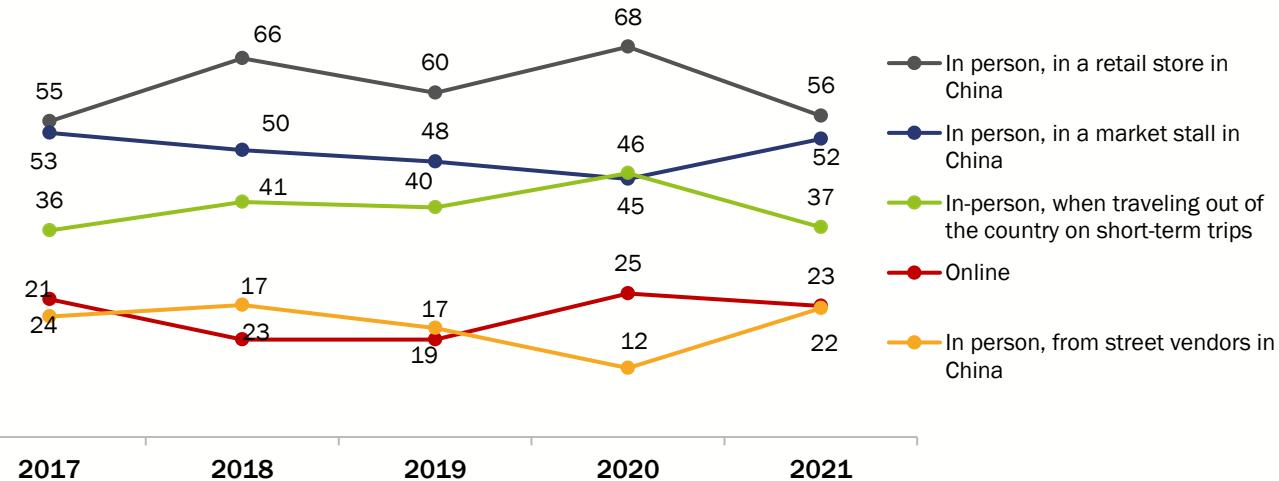
Among the channels used to purchase ivory in the past 12 months, retail stores remain the leading channel, though use of this purchase channel has declined since 2020.

Retail stores and travel have seen statistically significant drops in 2021 compared with 2020, while purchases made from street vendors have seen a significant increase.

No significant differences are observed between the online channels used in 2020 and those used in 2021.

Live broadcast platforms, a channels first asked about in 2021, are the fourth most regularly-chosen answer after second-hand trade apps.

Top Five Ivory Purchase Channels* – among Ivory Purchasers (%)



Online Channels for Ivory purchase
Among online buyers (%)



	2017	2018	2019	2020	2021
e-commerce platform	81	97	92	75	69
Artefact collection website, app, and forum	49	61	62	73	65
Second-hand trade apps	/	/	23	38	37
Live broadcast platform	/	/	/	/	34
Category website (equivalent to Craigslist)	52	36	33	25	28
Social media	34	40	26	21	25
Short video apps	/	/	21	30	24
Forum (e.g., Baidu forum)	/	/	23	26	22

*Note: Top channels were selected based on the 2021 data. Not all channels were asked in previous years.

Q3a. Where did you purchase ivory in the past 12 months?; Q3b. Could you please indicate which online source(s) you purchased ivory from? – Weighted data

(Please note that time frame of question has changed over time to reflect the desired information to be gathered in each study.)

Base: 2021 Past-12-month Ivory Buyers, n=298; 2020 Past-12-month Ivory Buyers, n=245; 2019 Past-12-month Ivory Buyers, n=338; 2018 Ivory Buyers since 2018, n=246; 2017 Ever Ivory Buyers, n=958; Online ivory buyers, 2021: n=68 / 2020: n=61 / 2019: n=59 / 2018: n=42 / 2017: n=230

Ivory Purchase Channels – Other Sub-groups

The purchase of ivory in person from retail stores in Mainland China occurs less in Layer 2 cities (37%) than in Layer 1 (62%) or Layer 3 (59%) cities.

Online purchase of ivory is lowest in Layer 3 cities (14%).

Ivory Purchase Channels – 2021 (% of Past-12-month Ivory Buyers*)	Total	Layer 1	Layer 2	Layer 3	Regular Overseas Travelers	Rejectors	Ban- influenced Citizens	Diehard Buyers
	(n=298)	(n=173)	(n=67)	(n=58)	(n=61)	(n=139)	(n=62)	(n=97)
1 In person, in a retail store in China	56	62	37	59	61	48	69	59
2 In person, in a market stall in China	52	47	58	59	54	52	50	54
3 In-person, when traveling out of the country on short-term leisure/business trips	37	43	25	29	51	38	27	40
4 Online	23		25	25	14	28	21	23
5 In person, from street vendors in China	22	24	15	28	16	23	19	24
6 In-person, at an auction	16		18	13	12	20	16	16
7 In person in China, from a private individual	16	14	21	15	15	14	16	19
8 In-person, when traveling out of the country on long-term trips for work	9	12	7	3	11	6	10	12

Q3a. Where did you purchase ivory in the past 12 months? – Weighted data

*Time frame of question has changed over time to reflect the desired information to be gathered in each study.

Base: 2021 ivory buyers, n=298; City layer 1/layer 2/layer 3, n=173/67/58; Regular Overseas Travelers, n=61; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=139/62/97

Alternatives to Ivory

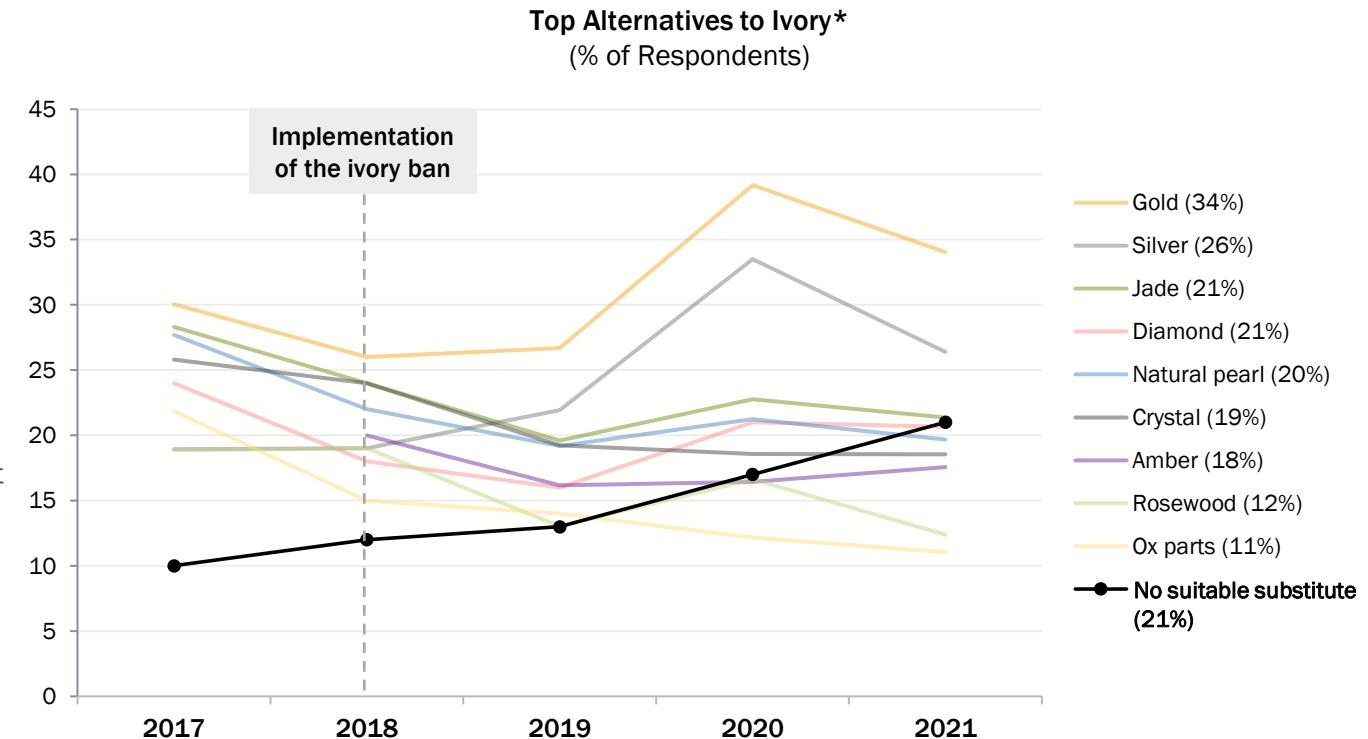
The number of people who say that there is no suitable alternative to ivory has increased year-on-year to 21 percent.

After reaching a peak in 2020, gold (34%) and silver (26%) have declined statistically significantly, while diamond has levelled out. The price of gold and silver rose from 2019 to a 5-year high in late 2020 and declined in 2021, potentially contributing to the pattern seen here.

The popularity of rosewood has seen a significant decline since 2020 (17% to 12%).

Other products from animals such as mammoth ivory (5%), walrus ivory (5%), narwhal ivory (4%), and teeth from other animals (3%) remain low in popularity as perceived alternatives to ivory (data not shown).

At 9 percent, synthetic ivory is not in the top 10 alternatives but is more likely to be chosen by past-12-month buyers.



*Note: Top alternatives were selected based on the 2021 data, only showing those >10% (see legend)

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=2,000

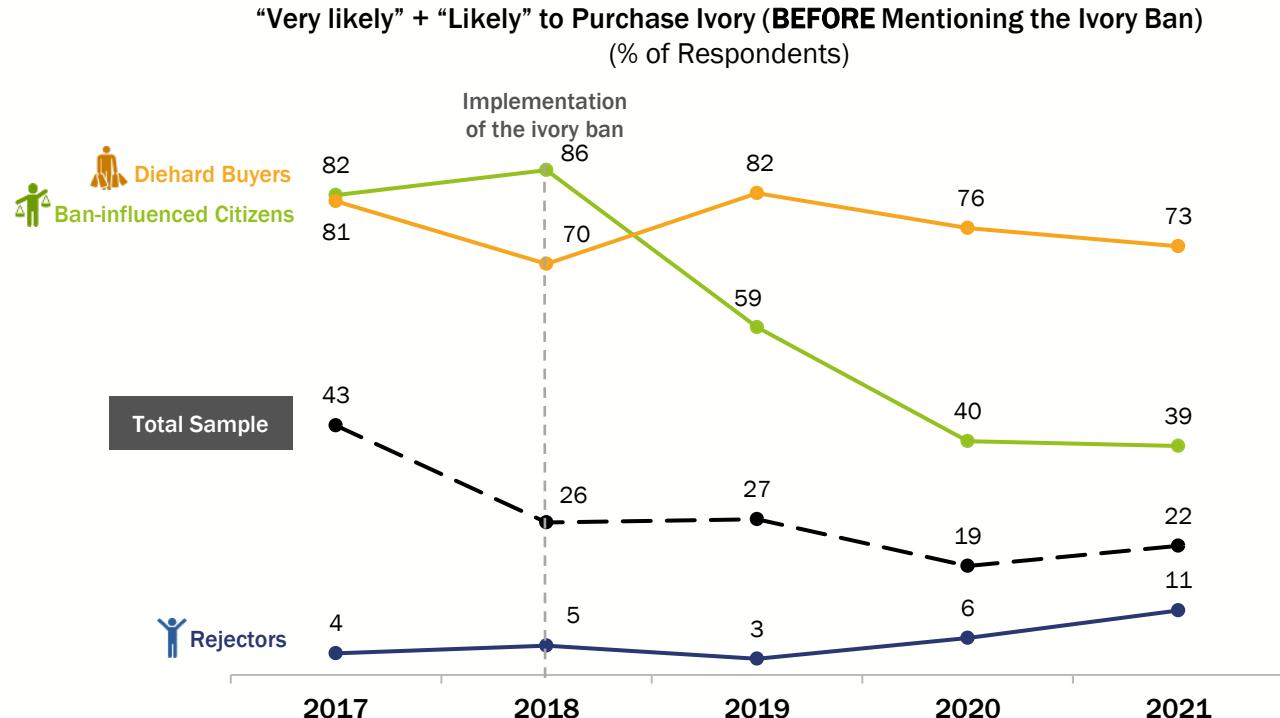
Intention to Purchase Ivory Ever in the Future

Asked **before** Mentioning the Ivory Ban, with 2017–2021 Comparison

As with past-12-month purchase behavior, the increase in future purchase intention of ivory (19% in 2020 to 22% in 2021) is driven by an increasing number of Rejectors who intend to purchase ivory in the future.

Although the Rejectors currently find ivory unacceptable to purchase, 11 percent see a situation in the future in which they expect circumstances to be different enough that they intend to purchase ivory.

The number of Ban-influenced Citizens who intend to buy ivory in the future has levelled out at 39 percent, while Diehard Buyers have dropped a non-statistically significant amount to 73 percent.



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

Base: 2017/2018/2019/2020/2021 Total Sample, n=2,000;

Rejectors, n=1,000/n=1,446/n=1,274/n=1,446/1,470; Ban-influenced Citizens, n=628/n=286/n=441/n=391/315; Diehard Buyers, n=372/n=268/n=285/n=164/216

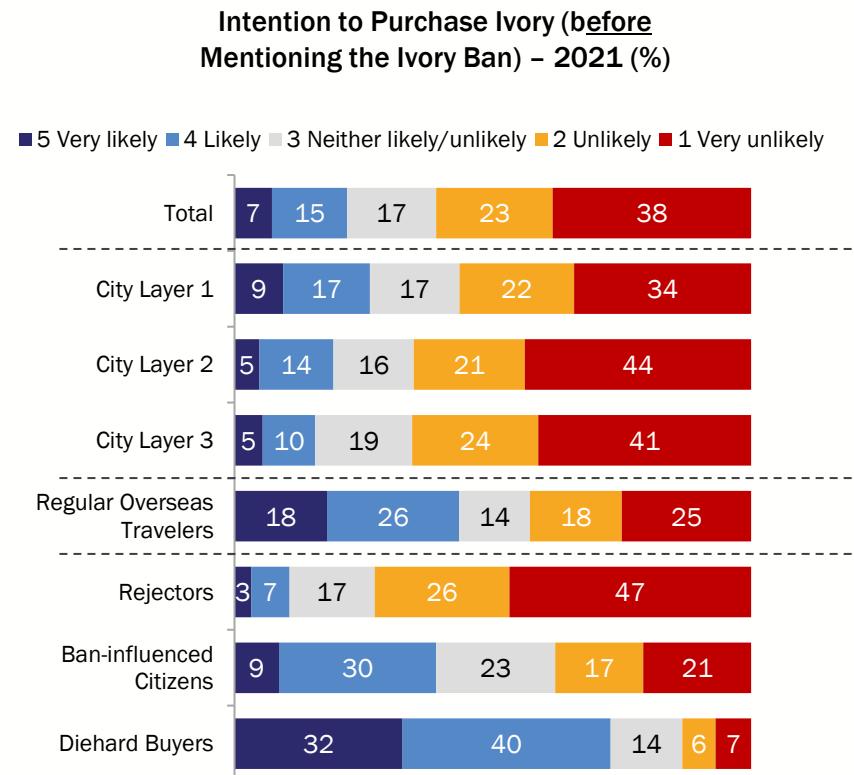
Intention to Purchase Ivory Ever in the Future

Asked **before** Mentioning the Ivory Ban, with 2017–2021 Comparison – Other Sub-groups

For several sub-groups, intention to buy ivory has remained at or near the lowest level since measurements began. Other sub-groups have seen a significant increase in their intention to buy ivory.

Consumers in City Layers 2 and 3 have seen little change in their intention to buy ivory in the past year, while those in City Layer 1 have seen a significant increase in ivory purchase intention since 2020.

Ban-influenced Citizens have remained stable in their purchase intention, while Diehard Buyers and Regular Overseas Travelers are less likely to buy in the future. However, Rejectors have increased in their intention to buy ivory in the future.



“Very likely” + “Likely” to Purchase Ivory before Mentioning the Ivory Ban (%)

	2017	2018	2019	2020	2021
43	26	27	19	22	
39	29	27	19	26	
40	27	25	20	19	
49	18	26	16	16*	
49	58	53	48	43*	
4	5	3	6	11*	
82	86	59	39	39	
81	70	82	76	73*	

Note: Green indicates the lowest point at which the most “preferable” result is observed

* Figure is higher/lower than the numbers that appear in the chart to the left due to rounding

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

Base: 2017/2018/2019/2020/2021 Total Sample, n=2,000;

Rejectors, n=1,000/n=1,446/n=1,274/n=1,446/1,470; Ban Influenced Citizens, n=628/n=286/n=441/n=391/315; Diehard Buyers, n=372/n=268/n=285/n=164/216

Scatterplot Analysis

Breakdown by Key Sub-groups

This scatterplot analysis is based on “stated” response: the percentage of respondents who claim to have bought ivory in the past 12 months for each sub-group (% “bought in past 12 months”) and the percentage of respondents who claim they are likely to purchase ivory in the next 12 months.

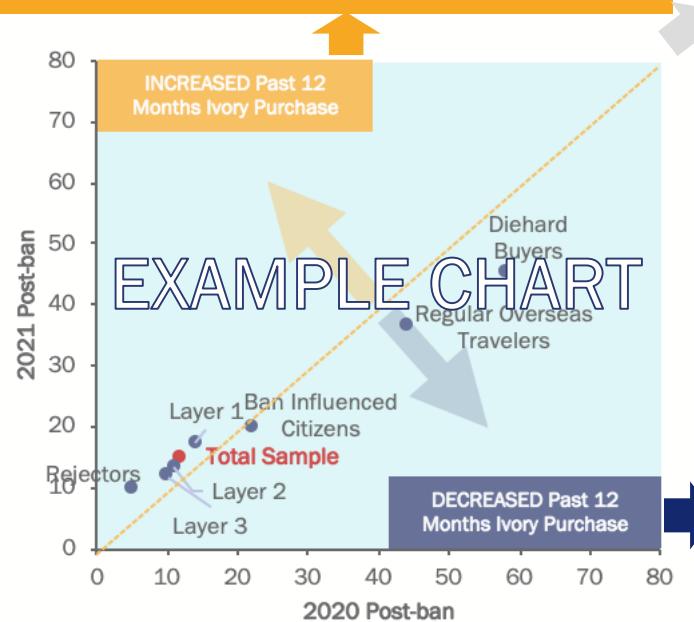
This analysis provides a picture of the ivory purchase evolution in 2021 vs 2020 (past year) as well as 2021 vs 2017 (pre-ban).

This chart is useful to identify which sub-groups have been most influenced by the ban and other factors (i.e., those furthest below the diagonal axis) and those who are the most persistent and for whom messages or actions are required as a priority (i.e., those who are furthest above the diagonal axis).

Groups close to the line may be experiencing minor fluctuations; groups farther from the line are exhibiting a larger change in their behavior or intentions.

- Sub-groups located significantly above the diagonal axis have increased their purchases or intend to purchase ivory in the stated time period.
- These groups may require further initiatives to alter their ivory purchases or intent.

The diagonal axis indicates the same percentage as the previous measured year (2020 or 2017). The closer sub-groups are to this diagonal, the less their purchases or their intent to purchase has changed.



- Sub-groups located significantly below the diagonal axis have decreased their purchases or intent to purchase ivory in the stated time period.
- This may indicate the effect of the ban or behavior change initiatives.

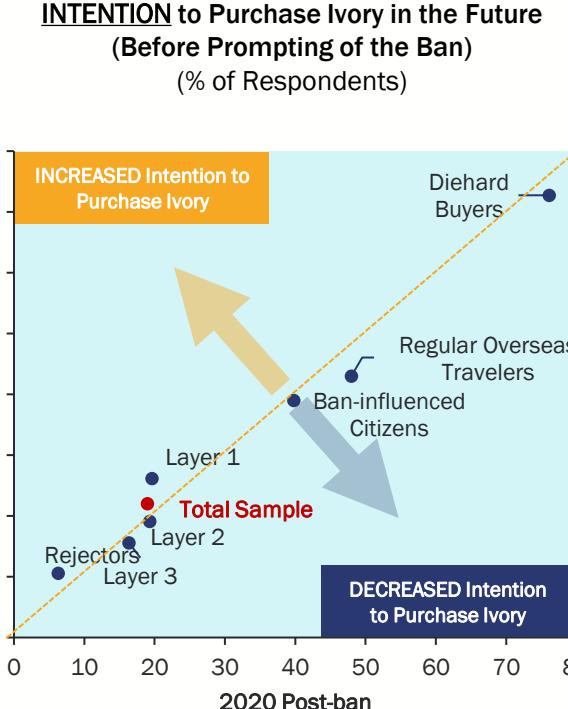
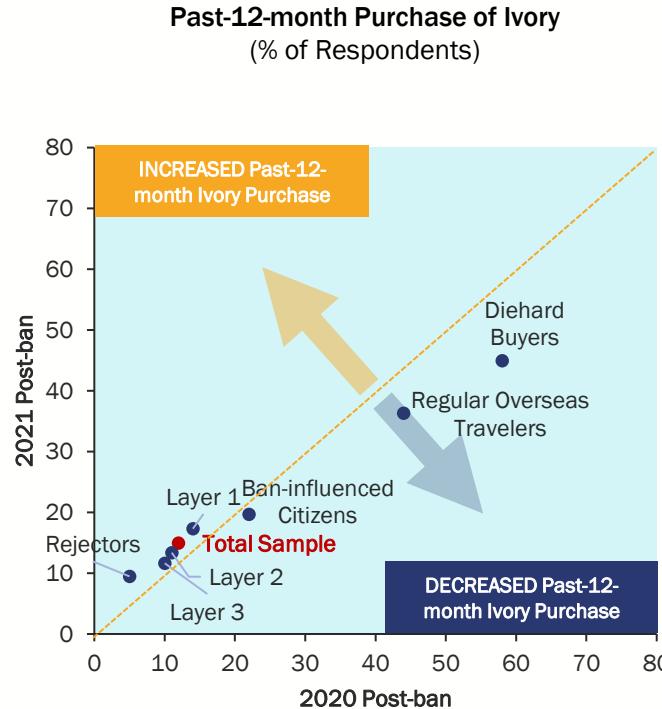
Past and Future Purchase – Trends for Key Sub-groups, 2021 vs 2020

Rejectors and respondents in Layer 1 cities bought more ivory in 2021 than they did in 2020 and have a higher intention to purchase than they did last year.

Diehard Buyers and Regular Overseas Travelers bought less ivory than in 2020 and have a lower intention to buy ivory in the future. Intention to purchase ivory among Diehard Buyers did not decrease as much as their past purchase rates, retaining similar levels in 2021 as in 2020.

Regular Overseas Travelers saw a large decrease in their past purchase of ivory and, to a lesser extent, their future purchase intention, potentially due in part to the curtailing of international travel.

Rejectors and all three city layers saw an increase in their past purchase rates since 2020. Rejectors and Layer 1 respondents see an increase in their intention to purchase ivory at any point in the future.

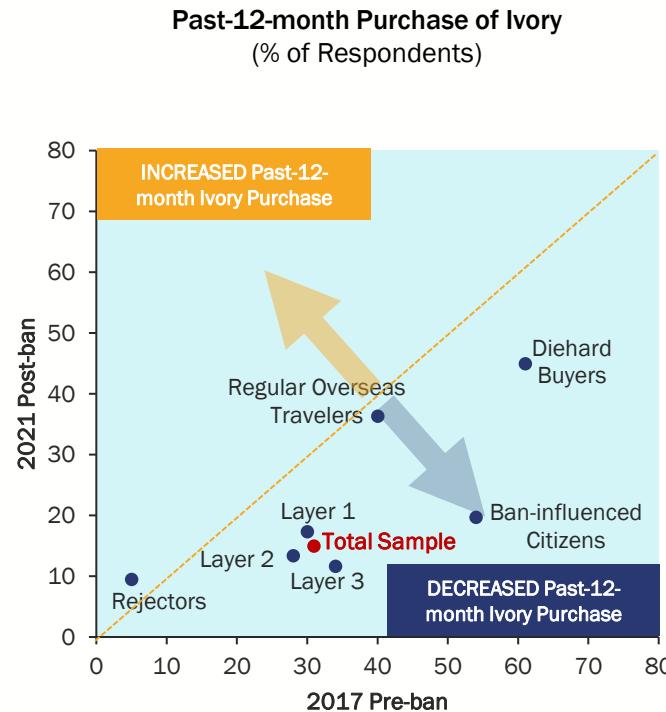


Past and Future Purchase – Trends for Key Sub-groups, 2021 vs 2017

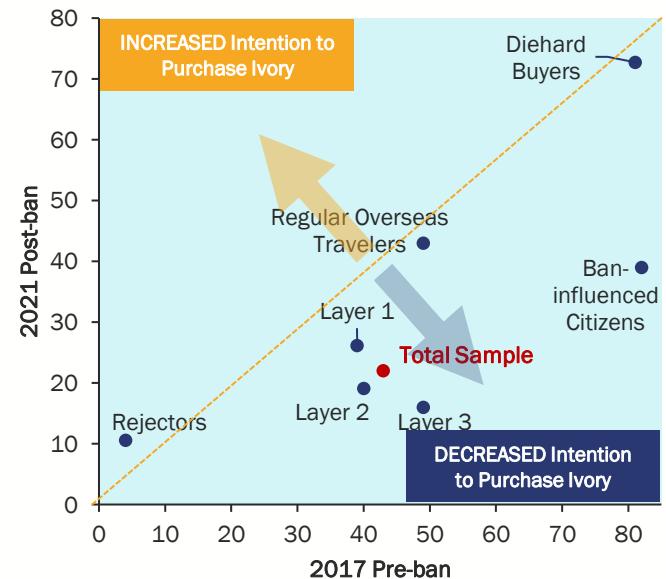
Compared to 2017, only Rejectors show an increase in their past purchase rates and future intention to purchase, though they remain the sub-group with the lowest rates for both metrics.

Ban-influenced Citizens have seen the biggest drop in both past purchase rates and future purchase intention.

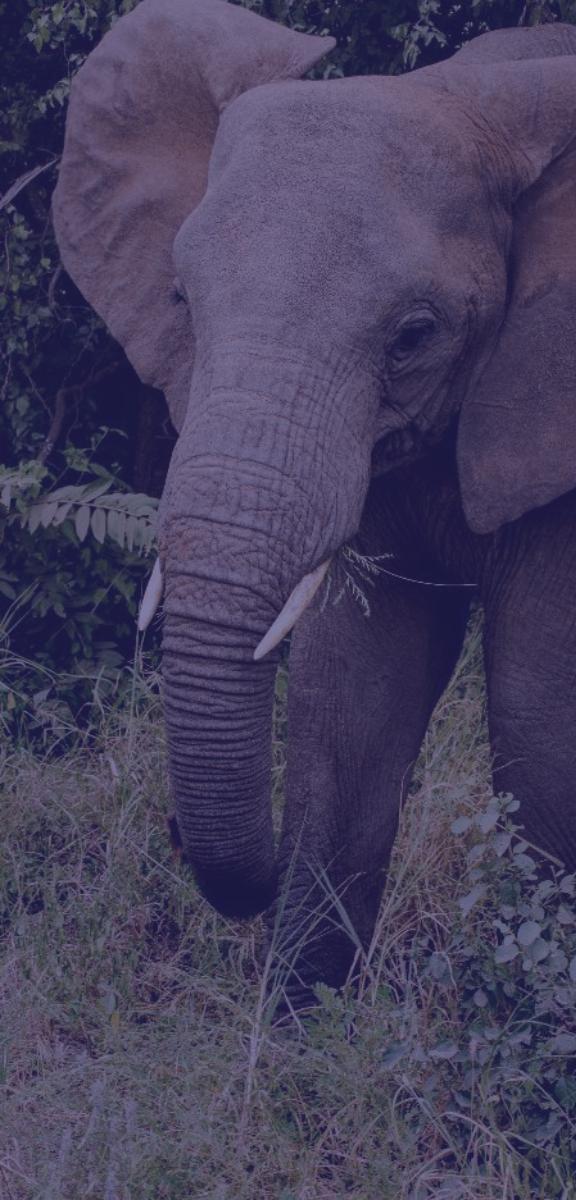
Diehard Buyers see a significant decrease in their past-12-month purchase behavior, though their intention to buy in the future is similar to 2017.



INTENTION to Purchase Ivory in the Future
(before Prompting of the Ban)
(% of Respondents)



Note: Intention to purchase ivory in the future is separate to the Ivory Purchase Index, which combines a number of factors to reflect a group's overall ivory purchase persistence.



3.3 Awareness of and Attitudes toward the Ivory Ban



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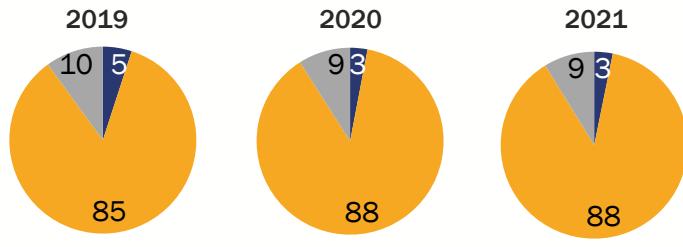
Knowledge of Legality and Agreement with a Total Ban

Knowledge about the illegality of ivory trade in China has remained consistently high at 88 percent. Agreement with the ivory ban has also remained high at 86 percent.

Since 2020, agreement with the ivory ban has increased for Regular Overseas Travelers (69% to 76%) and Diehard Buyers (50% to 65%) and has dropped for Ban-influenced Citizens (76% to 69%).

Rejectors who have bought or intend to buy ivory are significantly less likely to know that it is illegal to buy (data not shown).

Do You Know Whether Buying/Trading Ivory within China Is Legal or Not?



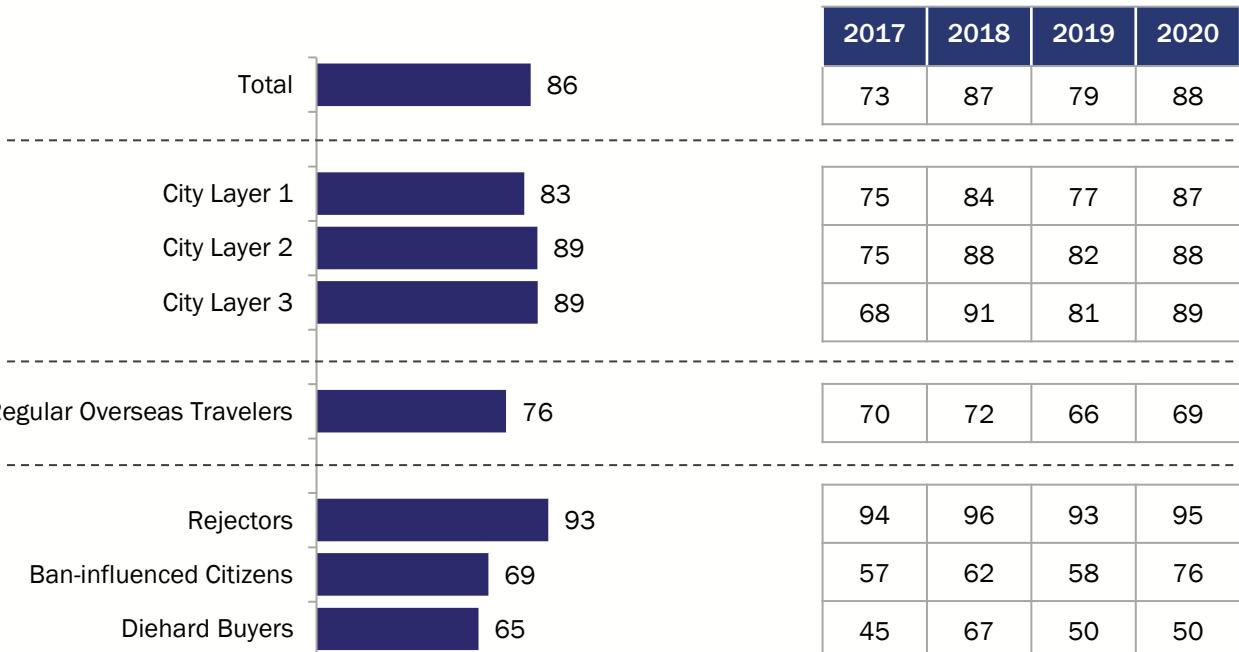
■ It is legal ■ It is illegal ■ Don't know

Q12a. Using a scale from 1 to 5, where 1 means no control, and 5 means total ban, please tell us how much legal control over the trade of ivory you think is necessary.

Q12b. [2019 new question] Do you know whether buying/trading ivory within China is legal or not? – Weighted data

Base: Total sample, n=2,000; City layer 1/layer 2/layer 3, n=1,000/500/500; Regular travelers, n=168; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=1,470/315/216

Agree on Legal Control over the Trade of Ivory – 2021*
(% Top-2-Box, 4+5: "I Would Support a Total Ban on All Buying, Selling, Importing, and Exporting of Ivory")



*Note: These results reflect the opinion of consumers before they were asked to read the ivory ban notice

Awareness of Regulations (Unprompted Answers)

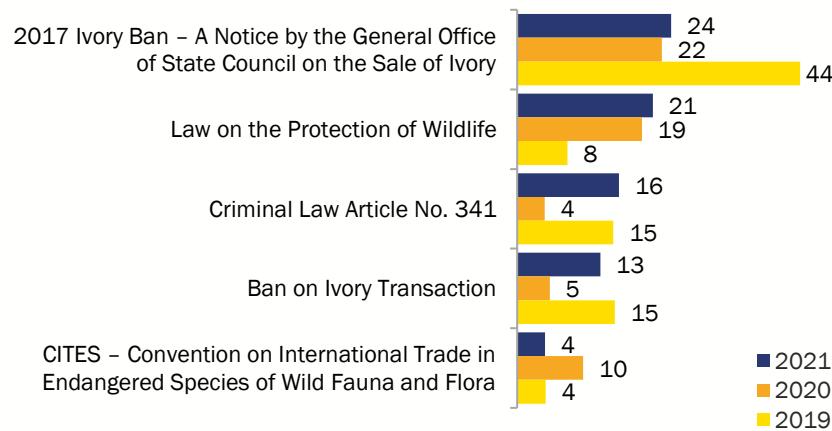
As in previous years, the number of people who say they are aware of specific agreements or regulations controlling the sale of ivory is lower than the number of people who know that it is illegal to buy or sell ivory (11% vs 88%).

The number of people aware of ivory agreements or regulations has not greatly changed since 2020 and the regulations they identify have also remained similar. Twenty-four percent of respondents who claim to have knowledge of the agreements or regulations on ivory trade identify the 2017 ivory ban in China and 21 percent refer to the Law on the Protection of Wildlife.

The percentage of people referring to Criminal Law Article No. 341 has increased in 2021, while those referring to CITES has dropped.



Top Regulations/Agreements Respondents Are Aware of
(% Among Those Aware, Open-ended Answers)

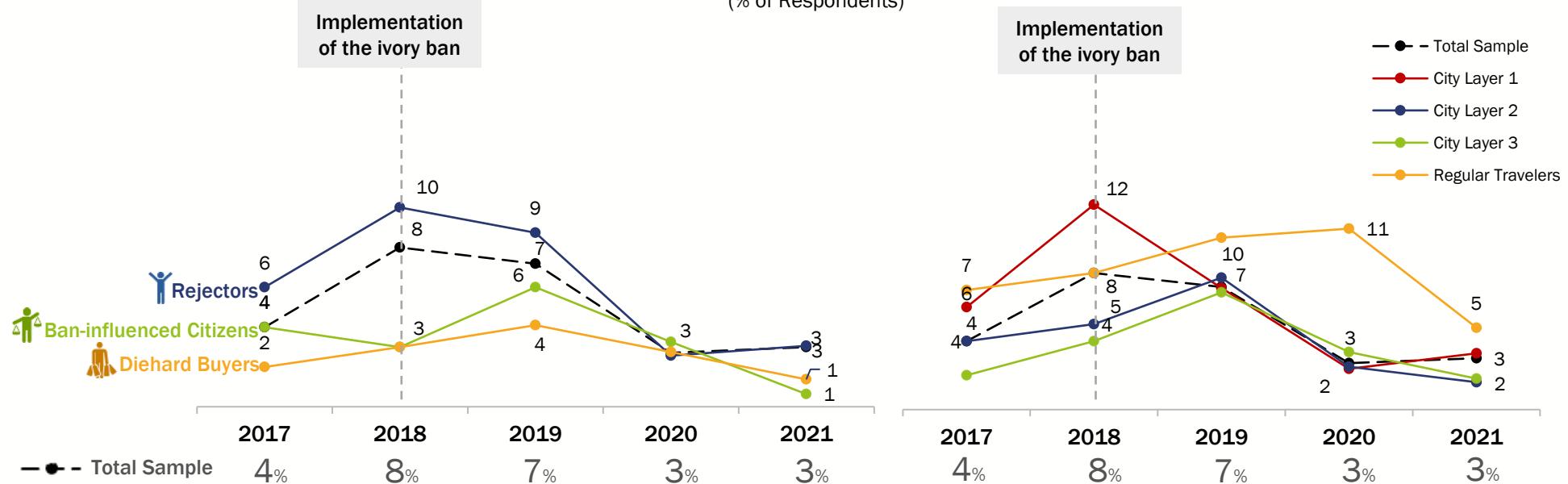


Awareness of the Ivory Ban (Unprompted)

Five-year Comparison – Buyer Segments and Other Sub-groups

Nearly five years after it took effect, the overall correct identification of the 2017 ivory ban in China has remained steady at 3 percent since 2020. Ban-influenced Citizens identify the ban at their lowest rate of only 1 percent. Regular Overseas Travelers also recognize the ban at lower rates than ever before, possibly because without much travel, many of their exposure opportunities to such information during trips have been significantly reduced.

Awareness of the Ivory Ban (Unprompted)
(% of Respondents)



Q13. Are you aware of any agreements or regulations controlling the sale of ivory in China? – Weighted data

Base: Total sample in 15 selected cities, 2017 Survey: n=2,000 / 2018 Survey: n=2,000 / 2019 Survey: n=2,000 / 2020 Survey: n=2,000 / 2021 Survey: n=2,000

Awareness of the Ivory Ban (Prompted)

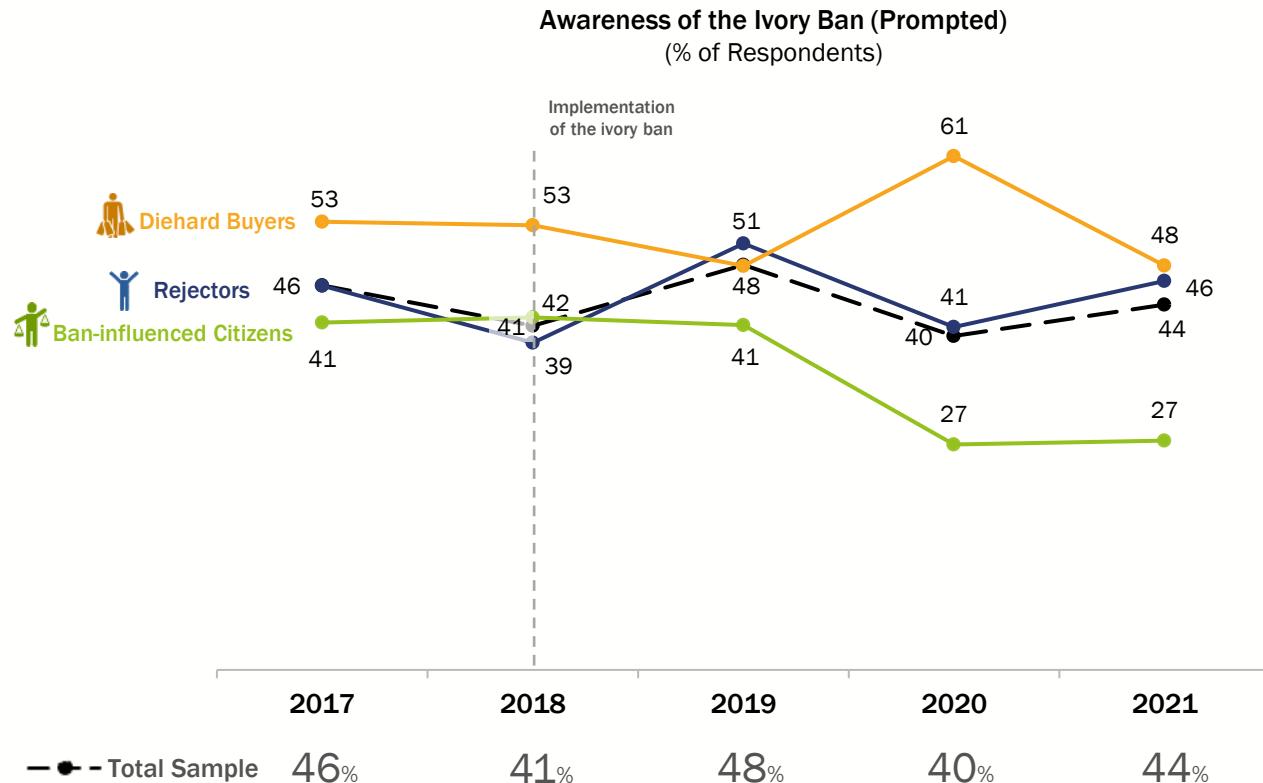
Five-year Comparison

After respondents were presented with information on the 2017 ivory ban, 44 percent say they recognized it.

Since 2020, statistically significantly more respondents recognize the ivory ban. This is driven by an increase in recognition among Rejectors.

Diehard Buyers have seen a significant drop in their recognition and have reverted to 2019 levels.

Ban-influenced Citizens have remained stable in their recognition of the ivory ban.



Q14a. Have you ever heard about this ban on ivory trade? – Weighted data

Base: Total sample in 15 selected cities, 2017 Survey: n=2,000 / 2018 Survey: n=2,000 / 2019 Survey: n=2,000 / 2020 Survey: n=2,000 / 2021 Survey: n=2,000

Awareness of the Ivory Ban (Prompted)

Five-year Comparison – Other Sub-groups

The higher stated awareness of the ban is driven by the sub-groups relatively evenly i.e., there is stable or increased recognition among most sub-groups.

Respondents residing in Layer 3 cities have seen a significant decrease in their recognition, as have 41–50-year-olds.

Awareness of the Ivory Ban (Prompted)
(% of Respondents)

		2017	2018	2019	2020	2021
	Total Sample	46	41	48	40	44
Gender	Female	48	43	46	39	45
	Male	44	39	50	40	42
Age	18–30	51	53	55	34	38
	31–40	49	51	53	43	45
	41–50	39	46	44	50	35
	51–60	46	24	36	40	59
	61 and above	43	26	50	34	47
	High	61	56	60	64	68
Education	Middle	37	37	49	43	44
	Low	60	26	44	23	28
Income Level	High income	61	31	48	58	64
	Medium income	41	42	47	50	47
	Low income	46	42	50	31	36
	Never	29	31	39	25	34
Travel Overseas	Occasionally	48	54	57	52	54
	Regularly	62	58	66	73	73
City Layers	Layer 1	56	45	51	41	49
	Layer 2	35	38	47	36	42
	Layer 3	38	37	44	41	34

Sources of Awareness of the Ban

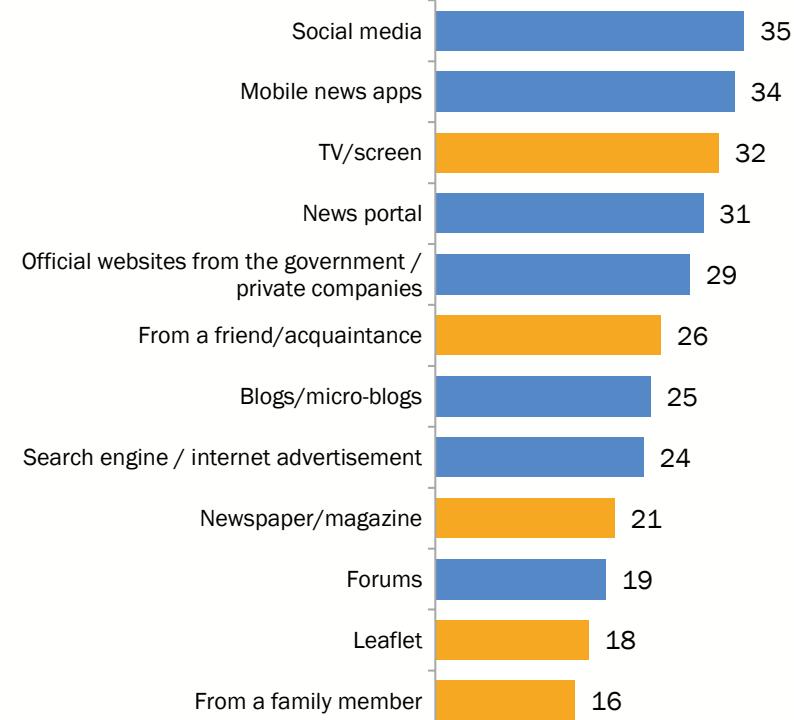
Post-ban Survey Only

The sources of information have remained similar to 2020, with few statistically significant changes.

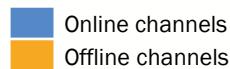
Acquiring information from news portals has dropped significantly, while TV/screen has increased significantly.

Shop/stall owners, while not in the top 12, have increased significantly as a source of information on the ivory ban from 4 percent in 2020 to 10 percent in 2021 (data not shown).

Top 12 Sources of Awareness (%)
Post-ban Survey (2021): Pre-coded List in Questionnaire



2018	2019	2020
32	29	34
31	27	34
28	31	28
40	33	37
21	21	27
19	18	24
21	20	23
25	21	25
17	18	18
21	21	21
16	14	16
13	14	13



Sources of Awareness of the Ban by Sub-groups

Top 4 channels

Diehard Buyers are more likely to say they received information from official websites than any other source.

Regular Overseas Travelers are more likely to have seen information on the ivory ban from many sources compared to other sub-groups, notably online forums, blogs, and official websites which may relate to their travel preparations.

Sources of Awareness of the Ban -2021 Among respondents who are aware of the ban (%)	Total (n=871)				Regular Overseas Travelers (n=122)	Rejectors (n=1470)	Ba-n influenced Citizens (n=315)	Diehard Buyers (n=216)
		Layer 1 (n=492)	Layer 2 (n=210)	Layer 3 (n=169)				
1 Social media	35	38	30	34	39	36	31	35
2 Mobile news apps	34	36	34	30	40	34	38	29
3 TV/screen	32	33	34	30	27	33	33	29
4 News portal	31	32	24	34	38	32	31	23
5 Official websites from the government / private companies	29	32	25	28	39	27	31	39
6 From a friend/acquaintance	26	26	27	25	21	25	26	31
7 Blogs/micro-blogs	25	27	18	27	35	23	24	33
8 Search engine / internet advertisement	24	23	23	26	30	24	27	22
9 Newspaper/magazine	21	22	20	17	20	21	23	18
10 Forums	19	20	20	18	35	18	23	23
11 Leaflet	18	19	14	17	21	17	19	17
12 From a family member	16	15	20	14	16	14	21	25
13 Official websites from NGOs	15	17	14	9	23	13	15	25
14 e-commerce websites	14	17	11	12	25	13	19	21
15 Billboards at transportation knots	14	15	14	11	24	13	9	26
16 Billboards in the airport	12	14	9	10	18	11	10	23

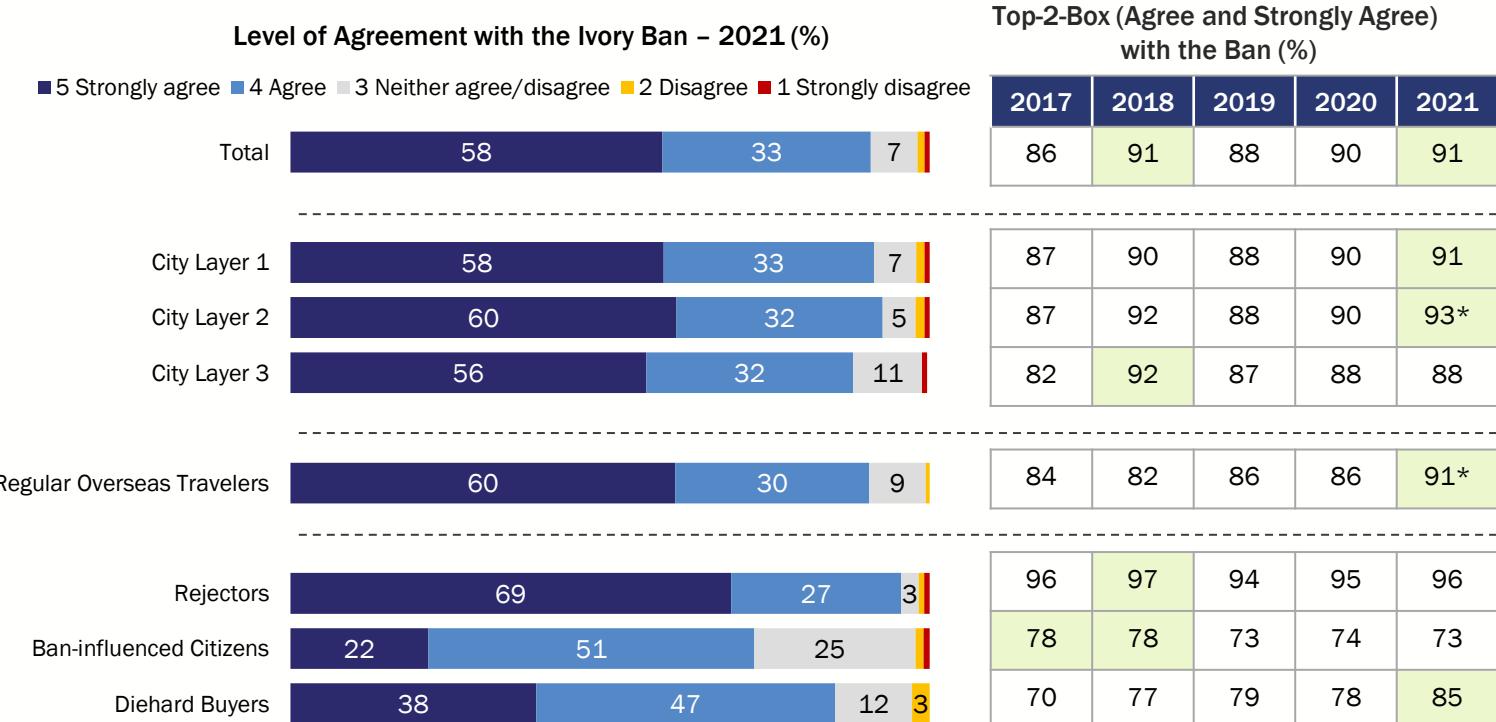
Q14b. You said that you heard about the ban on ivory trade. Where did you hear about this ban? – Weighted data
Base: Aware of the ban, n=871

Level of Agreement and Support for the Ban

Agreement with the ivory trade ban in 2021 is higher than it has been in all previous years for several of the sub-groups, notably Diehard Buyers and Regular Overseas Travelers.

As in previous years, Ban-influenced Citizens are the most likely sub-group to report that they are unsure.

Agreement with the ban differs little among City layers.



Note: Green indicates the highest point at which a "preferable" result is observed

Bringing Ivory Products Back to China

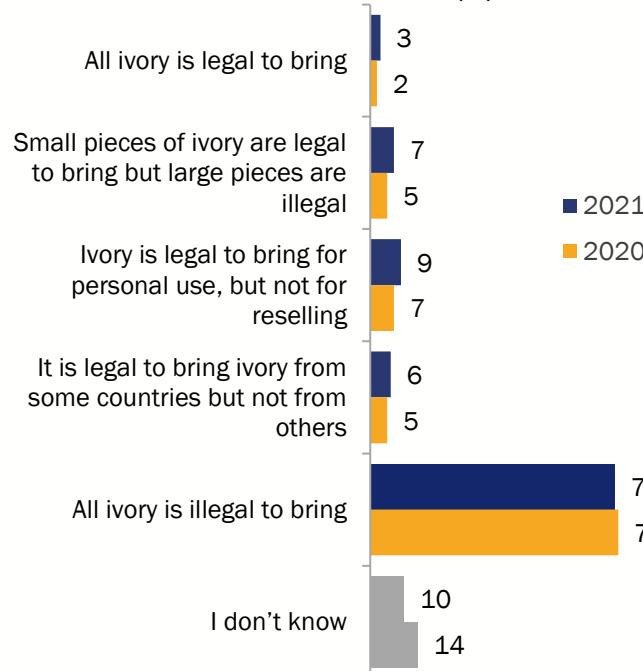
More than seven in ten respondents (72%) believe that all ivory is illegal to bring back to Mainland China, while 18 percent think that it is legal (in different ways), and 10 percent do not know (data not shown). Just 3 percent believe that all ivory is legal to bring into China.

Although the differences are small, the rise in people who believe ivory is legal to bring back to Mainland China in some form is statistically significant.

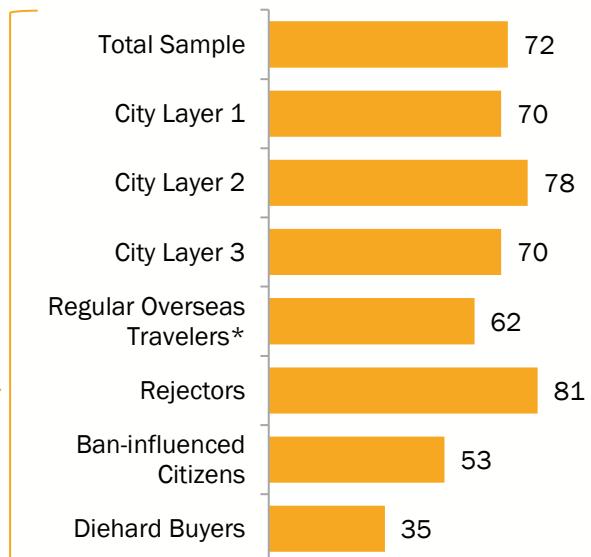
Rejectors have the highest awareness of the illegality of bringing ivory back to China, while only 35 percent of the Diehard Buyers claim that it is illegal.

Regular Overseas Travelers also have a relatively low awareness that it is illegal to bring ivory into Mainland China.

Is it Legal to Bring Ivory Back into Mainland China from Abroad? (%)



All Ivory Is Illegal to Bring Back into Mainland China – by Sub-groups - 2021 (%)



*Note: this group overlaps with other segments

Q21. [2020 revised question]. Is it legal to bring ivory back into Mainland China from abroad? Please select all that apply. – Weighted data

Base: Total sample, n=2,000; City layer 1/layer 2/layer 3, n=1,000/500/500; Regular Overseas Travelers, n=168; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=1,470/315/216



3.4 The Effect of the Ban on Ivory Purchase Behavior



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Federal Ministry
for Economic Cooperation
and Development



Impact of the Ban

Asked after Reading the Notice of the Ban

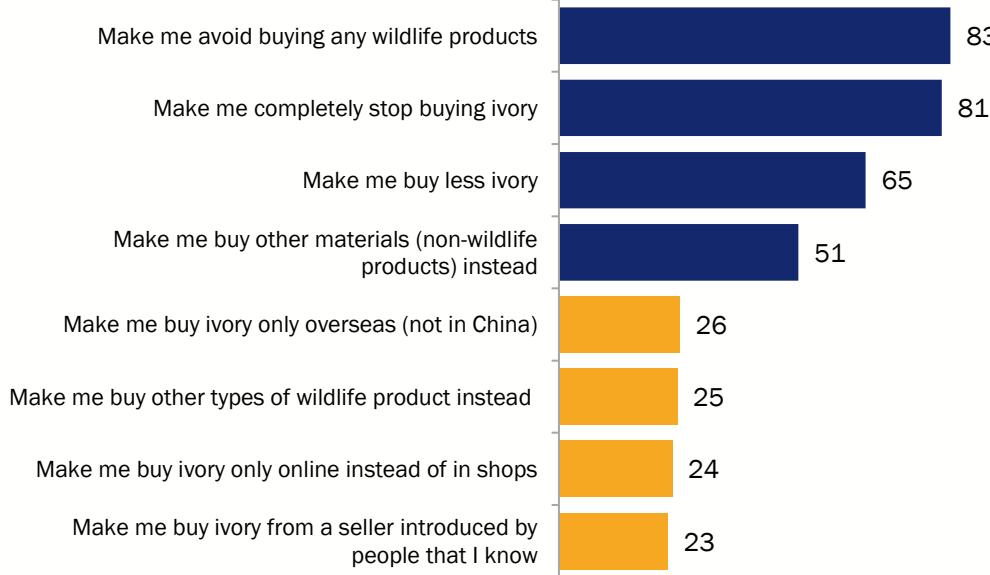
The perception among most respondents is that the ivory ban will limit their purchase of ivory rather than displace it. However, a significant proportion (about a quarter) say they will get ivory from other sources or buy other wildlife products instead.

The proportion of people who say they would buy ivory overseas, online, from a trusted seller, or buy other wildlife products has increased since 2020. However, given the rise in agreement to all statements, this may not be significant.

Impact of the Ban – 2021
% Top-3-Box (7 “Strongly Agree”+ 5+6)

Statements related to...

- Stopping or decreasing the purchase of ivory 
- Purchasing ivory via other channels or purchasing other wildlife products 



Top-3-Box by Year (%)

2017	2018	2019	2020
71	74	75	78
74	83	78	79
68	61	69	57
57	63	42	48
36	24	12	18
34	31	13	18
33	22	11	17
Not asked in previous years			17

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

Intention to Purchase Ivory after Mentioning the Ivory Ban

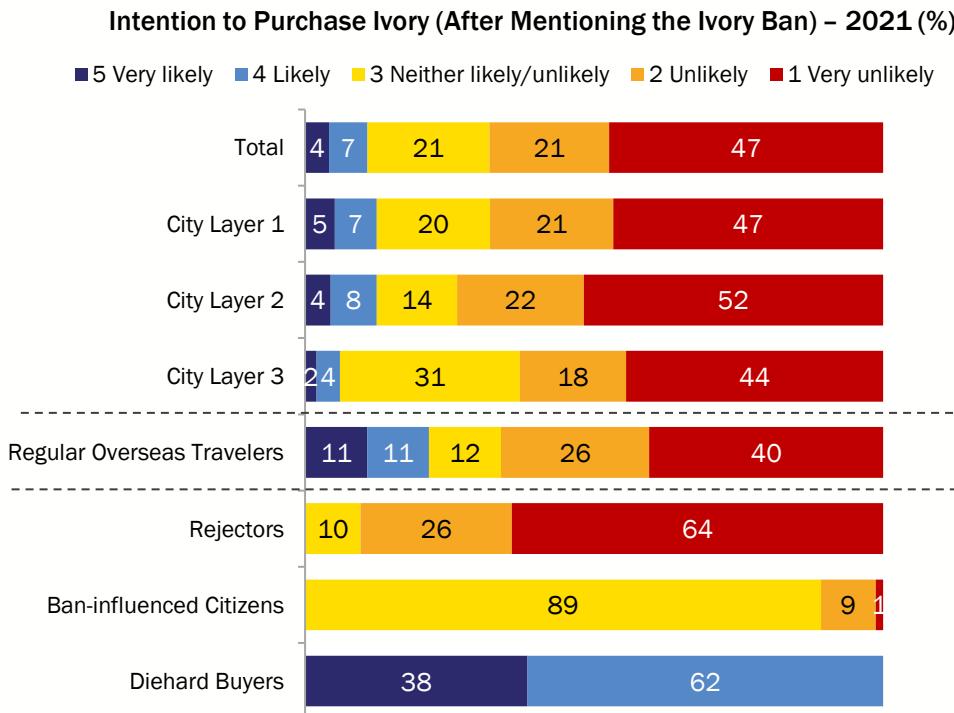
Top-2-Box Comparison of Past Five Years

Stated future intention to buy ivory has dropped from 22 percent (slide 38) before mentioning the ban to 11 percent after mentioning it.

In 2021, the intention to buy ivory after the ban was mentioned increased slightly in most sub-groups (statistically significantly in Layer 2 cities).

Regular Overseas Travelers reached their lowest ever stated intention to buy ivory after the ban was mentioned.

Diehard buyers increased in their intention to buy ivory after hearing about the ban, potentially indicating that rarity / status is an attractive aspect of buying ivory products



“Very Likely” + “Likely” to Purchase Ivory after Mentioning the Ivory Ban – Five-year Comparison (%)

2017	2018	2019	2020	2021
18	14	14	8	11
18	14	15	10	12
15	19	14	8	12
20	10	13	5	6
25	37	27	26	21*
As per segments definition, there are no Rejectors and no Ban Influenced Citizens likely to purchase in the future after the ban is mentioned. Please refer to Slide 80 for more details.				
98	100	100	100	100

Note: Green indicates the lowest point at which a “preferable” result is observed

* Figure is lower than the numbers that appear in the chart to the left due to rounding

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

Base: Total sample, n=2,000; City layer 1/layer 2/layer 3, n=1,000/500/500; Regular Overseas Travelers, n=168; Rejectors/Ban-influenced Citizens/Diehard Buyers, n= 1,470/315/216

Reasons Not to Purchase Ivory in the Future

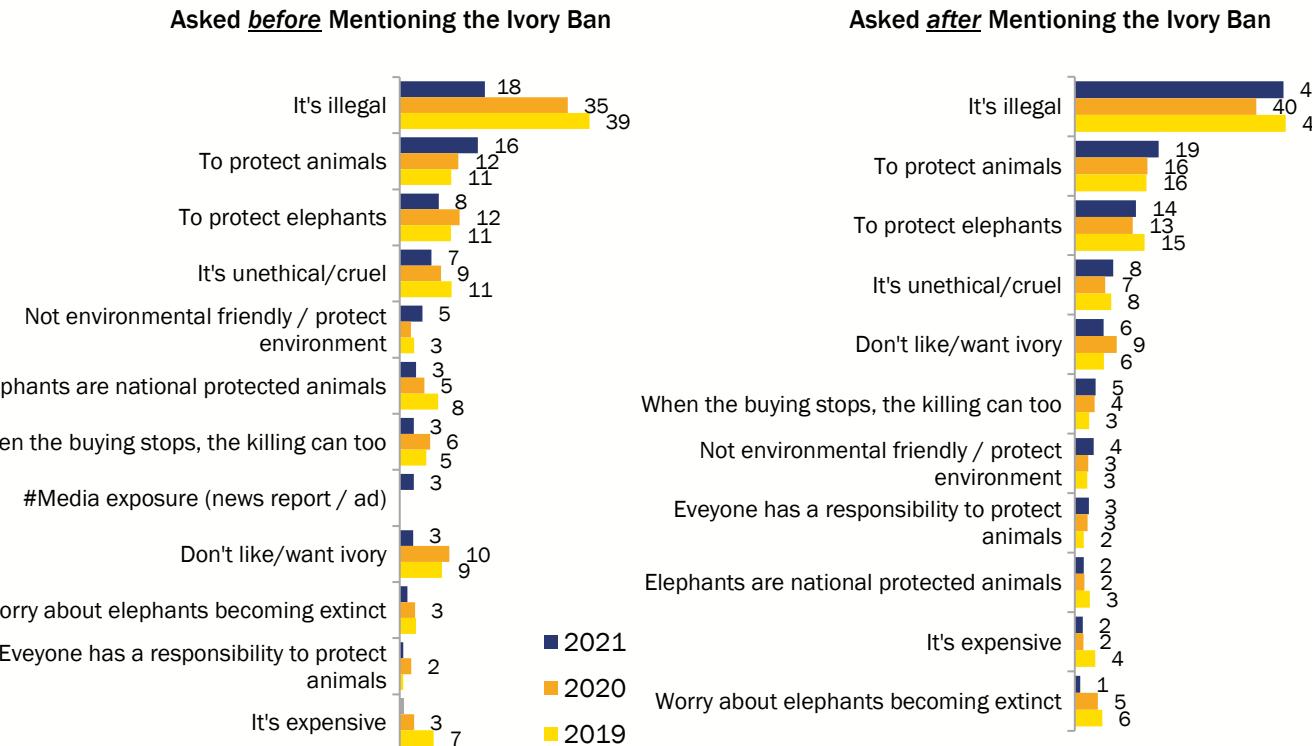
After Mentioning the Ivory Ban Comparison

Although illegality is the primary reason respondents give for not wanting to buy ivory before the ban was mentioned, it became a much stronger reason after the mention of the ban, with nearly half of respondents saying this was the reason they would not buy it.

The protection of animals/elephants remains an important deterrent to the desire for ivory.

Before mentioning the ban, the illegality of ivory has seen a reduced importance overall compared to other years. Protecting animals and protecting elephants combined, however, outnumber illegality in frequency of response before the ban is mentioned, in contrast to previous years.

Self-reported Reasons Why Unlikely to Buy Ivory in the Future (%)
– (Open-ended Answers)

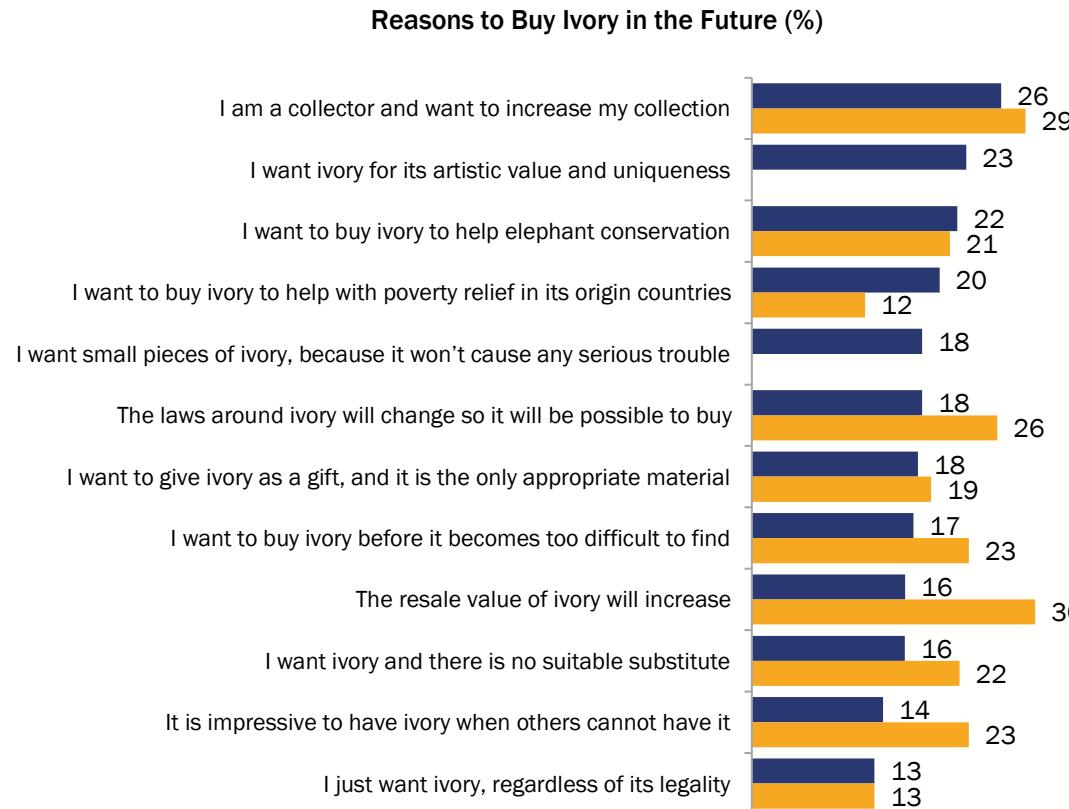


Reasons to Buy Ivory in the Future

Among those who intend to buy ivory in the future (after the ban is mentioned), more than one in four say that their reason stems from a desire to increase their collection.

A significant proportion of intenders claim altruistic reasons for wanting to buy ivory, i.e., to help with elephant conservation (22%) or to help with poverty alleviation (20%). Ivory's artistic value and uniqueness are prominent reasons for wanting to buy ivory in the future.

Compared with 2020, the resale value of ivory as a reason for future purchase has dropped statistically significantly in importance, as has the impressiveness when others cannot have it, while the poverty relief aspect has increased significantly.



Q17c. Why do you say that you are likely to buy ivory in the future? Please select up to three responses.

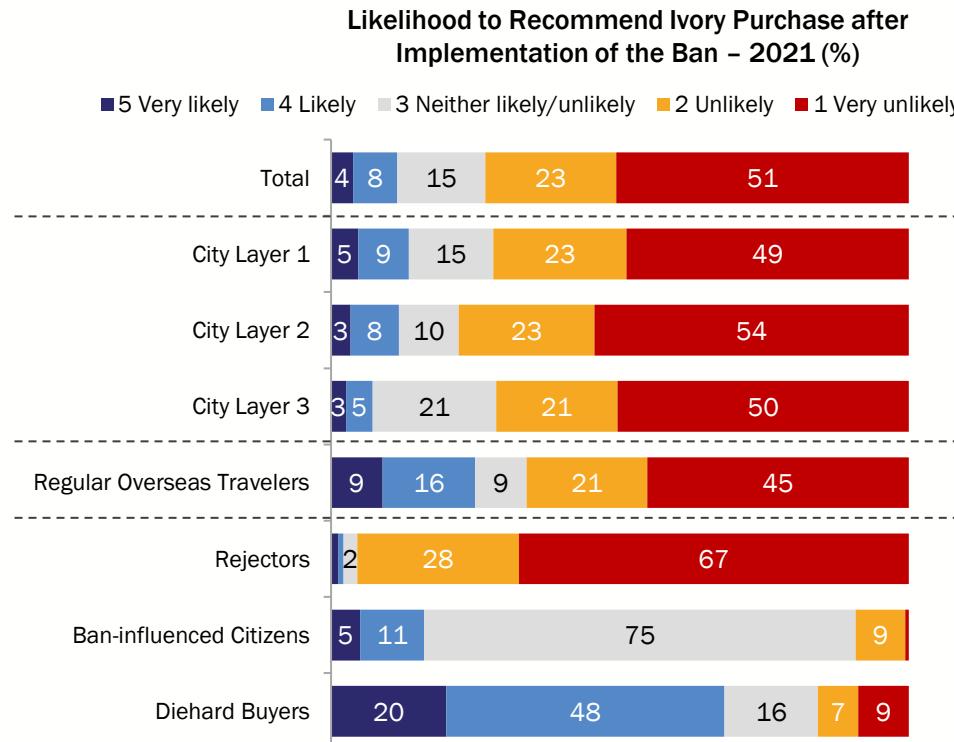
Base: Intenders to buy ivory, n=216

Likelihood to Recommend Ivory Purchase

Asked after Mentioning the Ivory Ban – With Five-year Comparison

As with likelihood to buy ivory in the future, likelihood to recommend buying ivory has increased slightly for most sub-groups.

Ban-influenced Citizens have seen a significant increase in their likelihood to recommend ivory since 2020.



"Very Likely" + "Likely" to Recommend Ivory Purchase after Implementation of the Ban – Five-year Comparison (%)

	2017	2018	2019	2020	2021
15	15	14	13	9	11*
15	15	14	13	10	13*
10	10	19	15	10	12*
17	17	10	12	7	7*
22	22	38	23	25	25
0	0	3	1	2	2
11	11	14	9	9	16
59	59	70	71	66	68

Note: Green indicates the lowest point at which a "preferable" result is observed

* Figure is higher/lower than the numbers that appear in the chart to the left due to rounding

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

Base: Total sample, n=2,000; City layer 1/layer 2/layer 3, n=1,000/500/500; Regular Overseas Travelers, n=168; Rejectors/Ban-influenced Citizens/Diehard Buyers, n= 1,470/315/216

Intention to Purchase Ivory – Regulated vs Unregulated

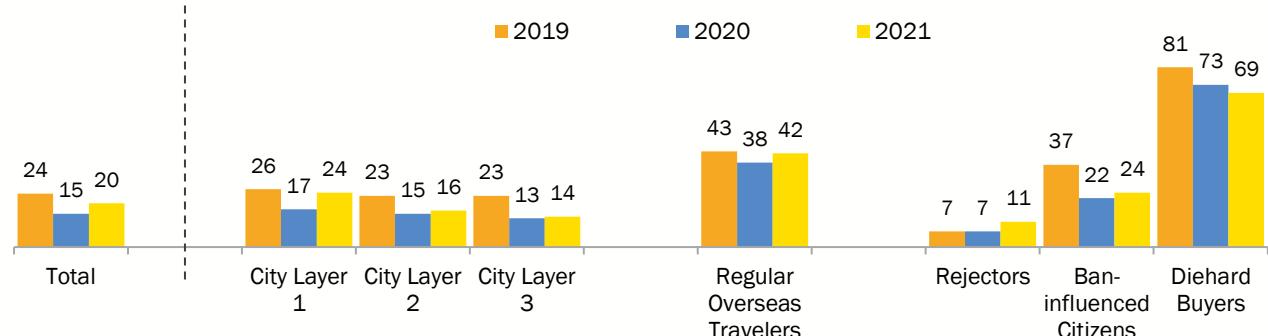
If ivory was made legal, 20 percent of respondents say they would buy it, a significant increase since 2020.

For most sub-groups, the increases seen between 2020 and 2021 in the percentage of people who would buy ivory if it was made legal are non-statistically significant or bring the percentages closer to 2019 levels.

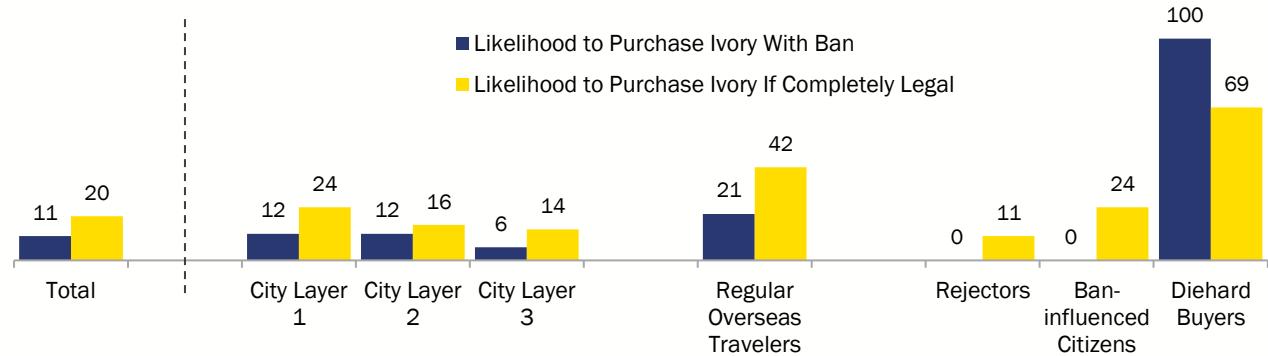
Rejectors have seen a significant increase in their desire to buy ivory if it was made legal.

The number of Diehard Buyers who are less interested in ivory if it was made legal continues to drop year over year, indicating that the status inferred by owning illegal products, a possible reduction in the monetary value of ivory if it was made legal, or the excitement of owning an illegal product may continue to be drivers for some people.

Likelihood to Purchase Ivory If it Is Completely Legal and Unregulated
“Very Likely” + “Likely” – 2021, 2020, 2019 (%)



“Very Likely” + “Likely” to Purchase Ivory after Mentioning the Ivory Ban
vs “Very Likely” + “Likely” to Purchase Ivory If it Is Completely Legal and Unregulated – 2021 (%)

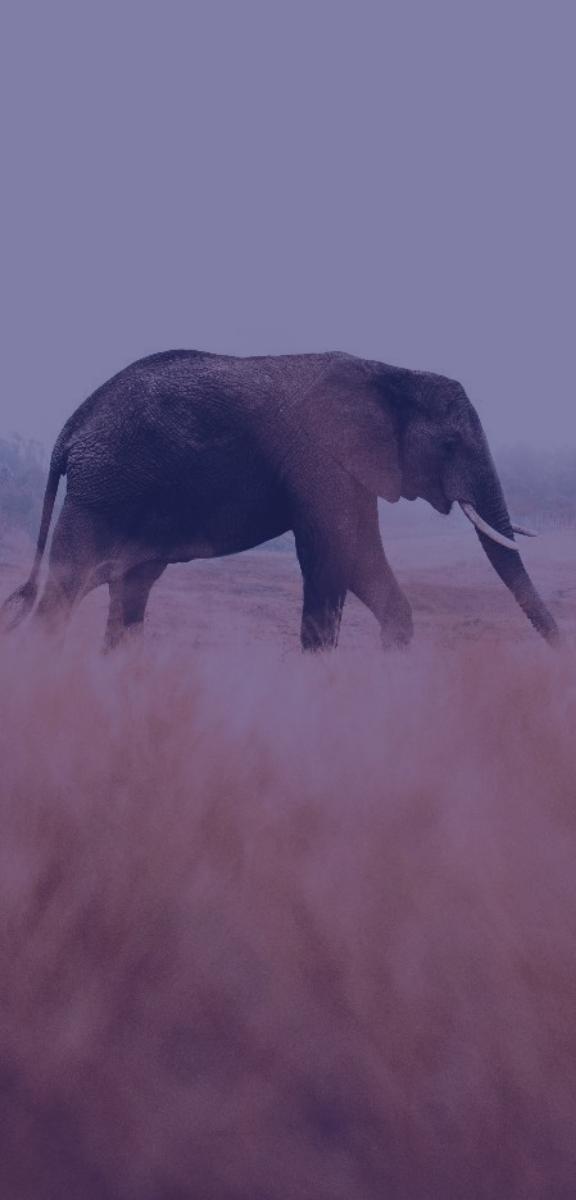


Q17a. How likely will you be to purchase ivory and/or anything made of ivory since the ivory ban is implemented? – Weighted data

Q20 [2019/2020/2021 question]. And if the purchase of ivory was completely legal and unregulated in Mainland China, how likely will you be to purchase ivory and/or anything made of ivory in the future?

- Weighted data

Base: Total sample, n=2,000; City layer 1/layer 2/layer 3, n=1,000/500/500; Regular Overseas Travelers, n=168; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=1,470/315/216



3.5 Campaign Recall, Recognition, and Effectiveness



Supported by the



Awareness of Any Ivory Campaigns (Spontaneous)

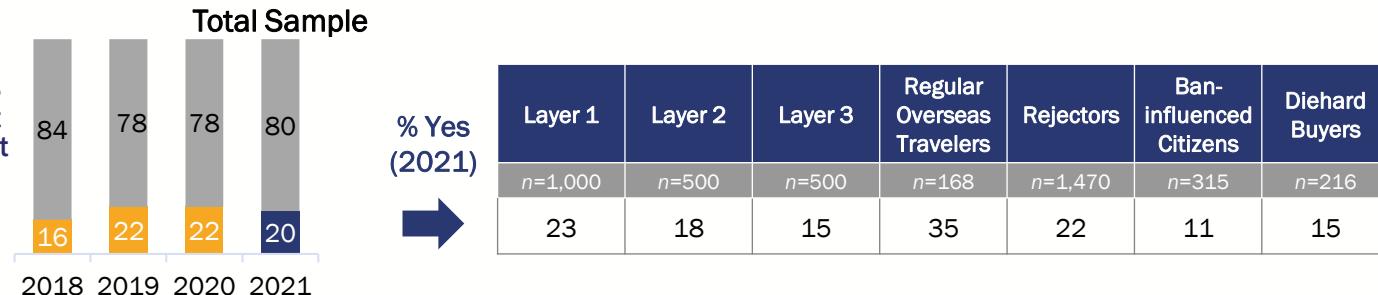
In 2021, 20 percent of respondents say they are aware of campaigns or advertisements against ivory trade and/or about elephant protection, a significant drop since 2020.

Regular Overseas Travelers maintain the highest rate of campaign exposure compared to other segments.

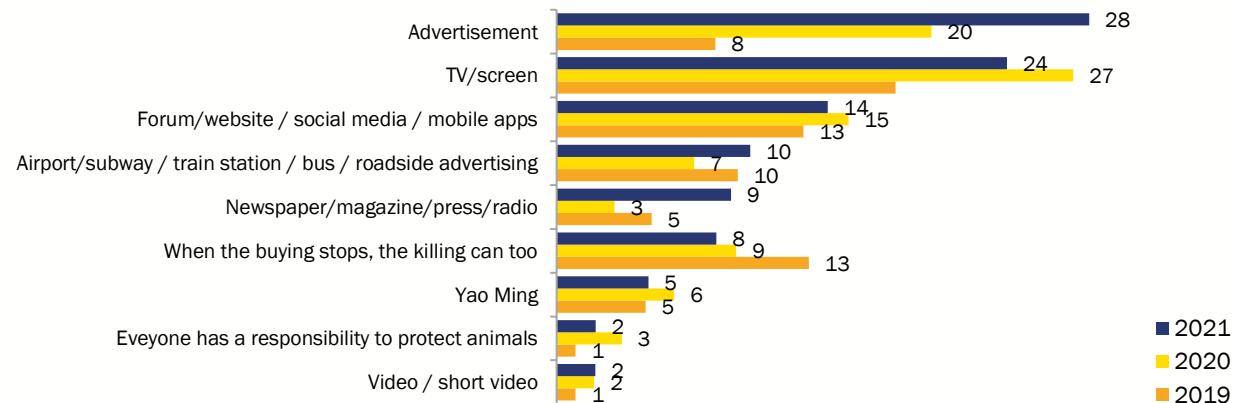
Layer 1 cities report a high level of exposure to campaigns, as do Rejectors. Ban-influenced Citizens have seen a significant decline in their campaign recognition since 2020 (data not shown).

When asked what they remember about the campaign, the most commonly-mentioned aspect is the term “advertisement.”

Have You Ever Seen and/or Heard Any Campaigns or Advertisements Against Ivory Trade and/or About Elephant Protection?



Campaigns and/or Elements of Campaigns Recalled Spontaneously (% among Those Who Recall Campaigns) (Open-ended Answers)



Q22. Have you ever seen or heard any campaigns or advertisements against ivory trade and/or about elephant protection? – Weighted data

Q22. Please describe the campaigns or advertisements that you have seen before, such as what you have seen and where you have seen them [Open-ended answers] – Weighted data

Base: Total sample, n=2,000 in 15 selected cities; Those who recall campaigns for 2019/2020/2021, n=450/447/391

Ma Weidu Campaign Recognition – among Total Sample

The number of people who say they had seen the Ma Weidu campaign video has risen to 15 percent.

The video was rated slightly lower across the campaign diagnostic questions, driven mainly by less-positive responses from Ban-influenced Citizens (data not shown).

Despite slightly lower positivity toward the videos, the opinion / behavior change metrics remained steady between 2020 and 2021.

Note: A social media campaign which was launched in the ‘Moment’ function of WeChat. It ran for one week before Chinese Golden Week (first week of October) to target Diehard Buyers and Regular Overseas Travelers, starring Chinese cultural celebrity Ma Weidu

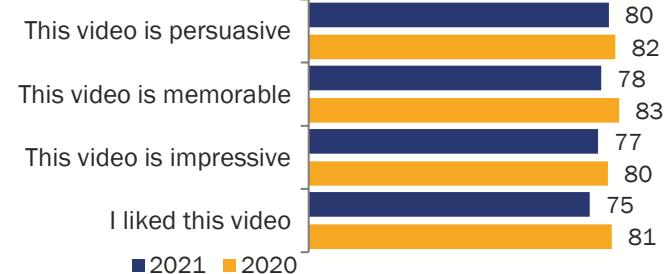


Q24b. How would you rate the video under the following categories?

Q27. Which of the following statement(s) describe your opinion and behavior the most after seeing this campaign? Please select all that apply.

Base: Total Sample, n=2,000 in 15 selected cities. – Weighted data

Campaign Diagnostic – 7-point Scale
(% of respondents, Top-2-Box 6+7, “Strongly Agree”)

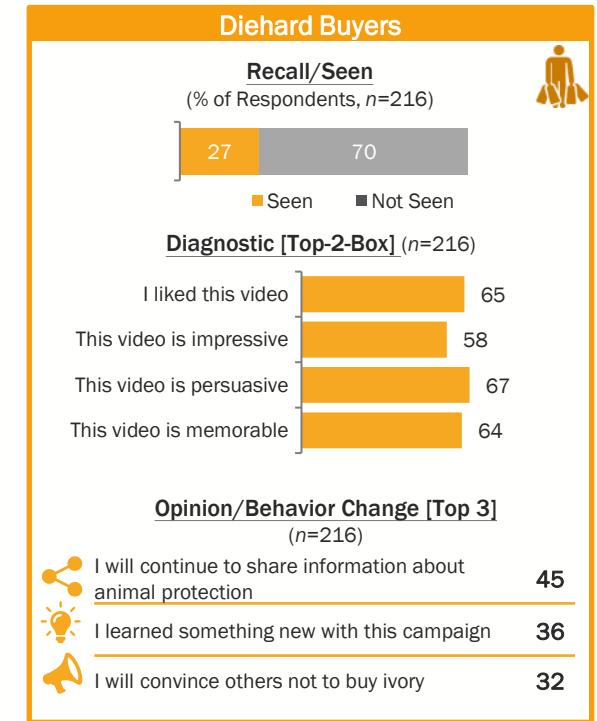
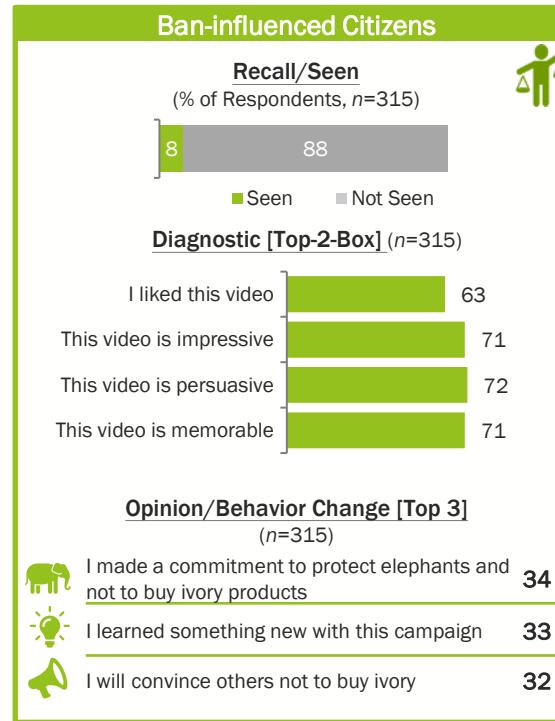
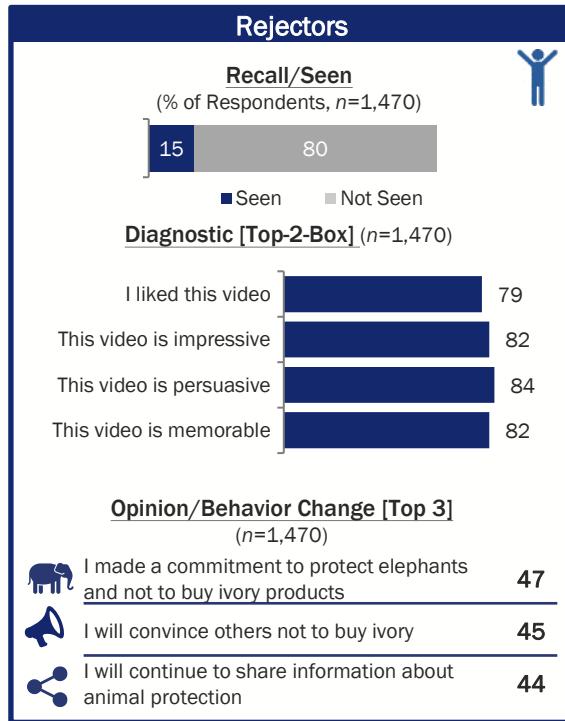


Opinion/Behavior Change [Top 3 of 9]
(% all Respondents)



Campaign Recognition – By Segment

Diehard Buyers have the highest rate of campaign recollection of the three segments, which coincides with this group being the target audience during the campaign launch. Their recognition of the Campaign is higher in 2021 (27%) than in 2020 (22%). However, responses to the video are significantly more positive among Rejectors than the other two groups.



Q24. Have you seen this video before today? – Weighted data

Q24b. How would you rate the video under the following categories? – Weighted data

Q27. Which of the following statement(s) describe your opinion and behavior the most after seeing this campaign? Please select all that apply. – Weighted data

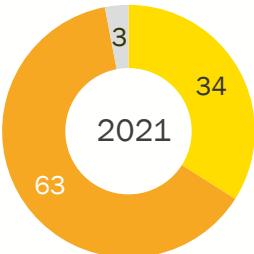
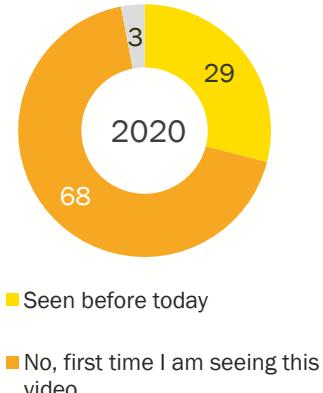
Base: Total Sample, n=2,000 in 15 selected cities

Campaign Recognition – Regular Overseas Travelers

Regular Overseas Travelers have the highest rate of campaign recognition, as they did in 2020, and their recognition of the campaign has increased since 2020.

Regular Overseas Travelers tend to have high opinions of the campaign and reacted more strongly than any other group with regards to opinion / behavior change (see previous two pages).

Recall/Seen Video (after Watching Video)
(% of Respondents, Regular Overseas Travelers)



Q24. Have you seen this video before today? – Weighted data

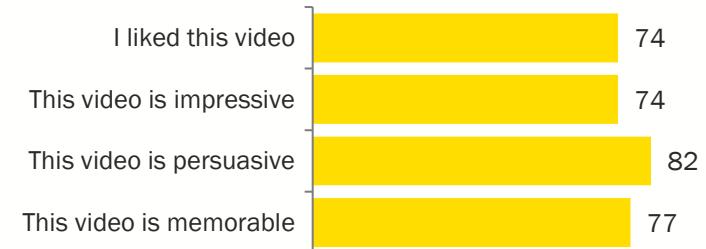
Q24b. How would you rate the video under the following categories? – Weighted data

Q27. Which of the following statement(s) describe your opinion and behavior the most after seeing this campaign? Please select all that apply. – Weighted data

Base: Regular Overseas Travelers, n=168

Campaign Diagnostic – 7-point Scale

(% of Respondents, Top-2-Box, 6+7, "Strongly Agree")



Opinion/Behavior Change [Top 3 of 9]

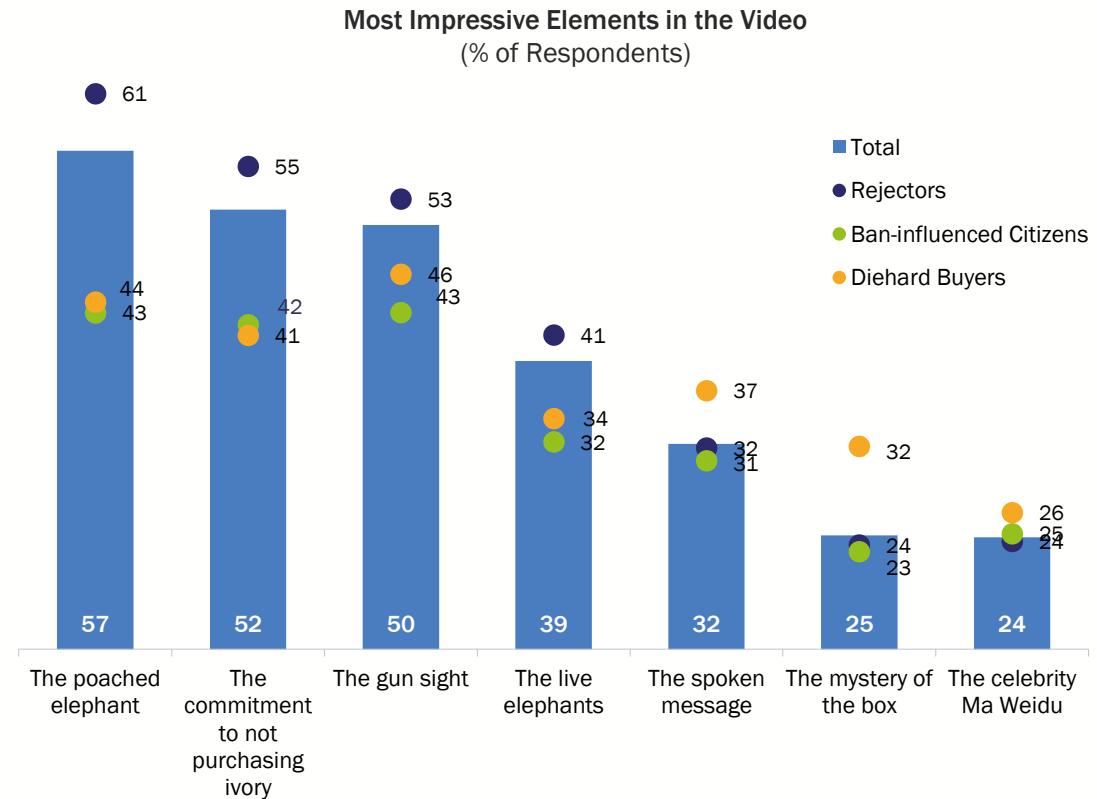
(% all Respondents)

- | | | |
|--|--|----|
| | I will convince others not to buy ivory | 51 |
| | I made a commitment to protect elephants and not to buy ivory products | 50 |
| | I will continue to share information about animal protection | 49 |

Elements of Campaign

In the Ma Weidu Campaign, the poached elephant is reported as the element that “resonated” the most among respondents, followed by the commitment to not purchasing ivory and the gun sight.

Rejectors are more impressed with many of the campaign video elements than the other segments, but Diehard Buyers are comparatively more impressed by the spoken message and the mystery of the box.



Q26. Which of the following elements from this video resonates most with you? – Weighted data

Base: Total sample, n=2,000 in 15 selected cities / Rejectors/Ban-influenced Citizens/Diehard Buyers, n=1,470/315/216

Intention Change after Seeing the Video – Among Future Ivory Purchase Intenders

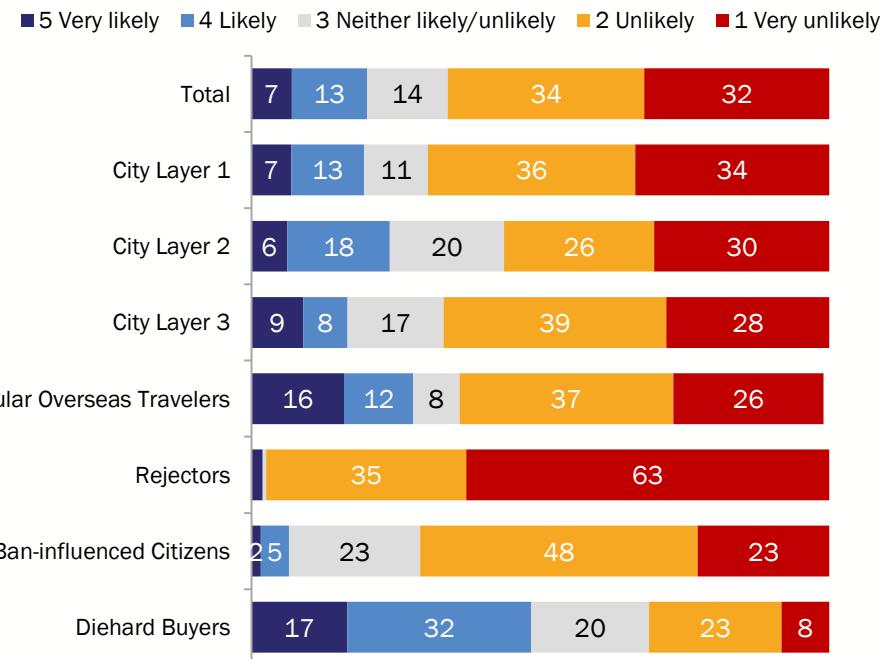
Among respondents who reported that they want to buy ivory in the future (before mentioning the ban), mentioning the ban combined with the Ma Weidu Campaign has a strong impact on changing their desire to buy ivory, though this has decreased since 2020 (74% to 66%).

Two-thirds of people who previously wanted to buy ivory are dissuaded by knowledge of the law combined with the Ma Weidu video.

Thirty-one percent of Diehard Buyers who intended to buy ivory are unlikely or very unlikely to buy it after campaign and ban exposure.

After exposure to the ivory ban, the number of Ban-influenced Citizens who say they are unlikely or very unlikely to buy ivory in the future is 9 percent (slide 57). With the addition of the video, this number increases to 71 percent.

Intention to Purchase Ivory (after Seeing the Video)
(Base: % of Those “Likely” or “Very Likely” to Purchase Ivory in the Future)



“Very Unlikely” + “Unlikely” to Purchase Ivory after Seeing the Video (%)

	2020	2021
	74	66
	68	69
	77	56
	80	67
	67	63
	100	97*
	82	71
	44	31

* Figure is lower than the numbers that appear in the chart to the left due to rounding

Q27b. After seeing the video, how likely are you to buy ivory in the future? – Weighted data

Base: Those “Likely” or “Very likely” to buy ivory in the future (from Q5a), n=436; City layer 1/layer 2/layer 3, n=262/96/78; Regular Overseas Travelers, n=73; Rejectors/Ban-influenced Citizens/Diehard Buyers, n=156/123/157

Reasons Why Ivory Purchase Intenders Changed Their Minds after Seeing the Video

When asked, respondents who had intended to buy ivory but decided not to buy it after having been informed of the ban and seeing the Ma Weidu Campaign video are more likely to cite the video as the reason for changing their minds than the legality.

This group says that the message to protect elephants and the cruelty are the primary drivers. Respondents also referred to the similarities between elephants and humans.

After having seen the video, only 7 percent say that the illegality of purchase is the primary reason for changing their minds.

Reasons Why Ivory Intenders Decided Not to Buy Ivory after Seeing the Video – 2021*	Total	Layer 1	Layer 2	Layer 3	Regular Overseas Travelers	Ban- Rejectors influenced Citizens	Ban-Travelers	Diehard Buyers
	(n=288)	(n=182)	(n=54)	(n=52)	(n=46)	(n=152)	(n=87)	(n=49)
1 Protect animals/elephants / they will be killed	39	41	44	27	46	35	38	53
2 It is cruel / it is a pity to see elephants suffer	23	23	17	31	15	23	22	24
3 This video caused me to stop buying	9	8	6	15	4	9	9	10
4 It is illegal	7	7	11	6	2	11	5	0
5 Elephants are like humans / we should respect their lives	7	6	6	12	4	5	8	8
6 Elephant's eyes (in the video)	6	4	11	4	6	7	7	0
7 Preserve the ecosystem / biodiversity / nature	5	5	6	4	11	5	6	6
8 Elephants will go extinct / fewer elephants	3	5	2	0	9	4	5	0
9 When the buying stops, the killing can too	3	4	2	2	7	3	5	0

Q27c. What made you change your view of buying ivory in the future? [Open-ended question] – Weighted data

*Base: Those “Likely” or “Very likely” to buy ivory in the future (from Q5a) and “Unlikely” or “Very unlikely” to buy ivory after watching the video (from Q27b), n=288



4. Conclusions and Recommendations



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Summary Conclusions – Starting Points for Recommendations (1)

Overall, 2021 has seen somewhat of a rebound in past-12-month ivory purchase as well as intention to purchase ivory in the future, but these metrics remain lower than 2019 levels. The downward trend from 2019 is despite a greater number of high-education, high-income respondents included in the sample to reflect China's growing middle class, consumer groups which tend to have higher ivory purchase numbers than lower income, and lower-educated consumers. It is also despite the easing of many COVID-19 restrictions in China over the past year. The easing of these restrictions was expected to create an increase in ivory purchase, and an overall downward trend since 2019 is potentially promising. At the same time, increasing affluence and education levels can push the trend upwards again.

- After a large decrease in past ivory purchase rates between 2017 and 2018, purchase rates levelled out in 2019. In 2020, the purchase rates further decreased significantly, though the impact of COVID-19 was unknown. Although COVID-19 is still affecting China, the restrictions have been less severe in 2021 than they were in 2020 and more outbound travel is possible and an increase in ivory purchase rates to below 2019 levels is potentially promising.
- Because of the small proportion of respondents and high purchase rates / intention to purchase ivory on the part of Diehard Buyers in 2020, this group was referred to as "core" Diehard Buyers. In 2021, this has reversed, and the number of Diehard Buyers has grown, but

their past purchase rates in particular are dramatically lower. Diehard Buyers have maintained many of their characteristics such as being the most frequent ivory buyers, the least likely to see legal control over ivory trade as necessary etc., but in some ways have "softened" and are not as adamant about the purchase of ivory. However, their intention to purchase ivory in the future has declined only marginally and their drop in ivory purchasing behaviour may be based on their lack of current access to it, rather than a lack of desire.

- The proportion of Rejectors has remained steadily high, but this group, with an added influx of high-education, high-income respondents, has seen an increase in their past-12-month ivory purchasing habits and their intention to purchase. Rejectors who bought ivory in the past 12 months or intended to buy it in the future maintain strong support for the ban when they are made aware of it and the ban is a strong influencing factor for their reduced intention to buy ivory. However, their low likelihood to recommend ivory differentiates them from Ban Influenced Citizens and they therefore do not fit into that segment. The distinction between Ban Influenced Citizens and Rejectors is not as clear as it was in previous years. Ivory is becoming increasingly less attractive to Ban-influenced citizens and their purchase rates continue to decline, as does their intention to purchase, while some of those respondents who would have been in this group are now found in Rejectors.

Summary Conclusions – Starting Points for Recommendations (2)

- Ivory buyers are mostly buying it as a gift for a friend or relative, though buying for personal use has increased significantly in the last year. Retail stores, though still the most-used channel of purchase, have decreased significantly as sources of ivory, while the use of market stalls and street vendors has increased. Luxury products, such as gold and silver, have decreased in popularity as suitable alternatives for ivory since their spike in 2020, though gold and silver remain the top perceived alternatives. An increasing number of respondents are saying that nothing can replace ivory.
- The percentage of people who believe ivory is illegal to trade in China has remained steadily high since 2020. For all groups except Ban-influenced Citizens, there is an increase in their support of a total ban on ivory trade. This comes on top of almost all groups citing increased support in 2020 for the ivory ban. Diehard Buyers saw the biggest rise in support for the ban from 2020 to 2021 (78% to 85%, respectively).
- Unprompted and prompted recognition of the ivory ban have remained similar to 2020, though Diehard Buyers dropped back to 2019 levels after a spike in 2020. Regular Overseas Travelers have maintained a higher level of prompted awareness, but their level of unprompted awareness has dropped. The drop in unprompted awareness among Regular Overseas Travelers could be in part due to their limited travel as they may have encountered information about

the law while making travel plans or during the trip itself. Although still not a major channel, there is a significant increase in the number of people who received information about the ivory ban from stall / shop owners indicating that this group may be more aware or vocal about the illegality of ivory purchase. News portals have dropped in prominence as a source of information on the ivory ban.

- When informed about the ban, respondents mostly report that it would deter ivory purchase behavior. There has been a significant increase in the proportion of people who say the ivory ban would influence them to buy ivory through another channel or buy other wildlife products, though this proportion remains low.
- Although the difference is small and the numbers are still low, statistically significantly more people in 2021 believe ivory is legal to bring back to China in some form, compared to 2020.

Summary Conclusions – Starting Points for Recommendations (3)

- Recognition of the Ma Weidu campaign is higher than in 2020 (11% in 2020 to 15% in 2021). Recognition is highest among Diehard Buyers and Regular Overseas Travelers, two of the target groups. The campaign video resonates strongly with respondents, especially the poached elephant, the gun sight, and the commitment to not purchasing ivory. Although positive feedback on the video is lower in 2021 than it was in 2020, the opinion/behavior change metrics remained the same.
- While some Diehard Buyers remain determined to buy ivory, the combination of information on the ivory ban and the campaign video reduces the number of respondents in this segment who intend to buy ivory by over 30 percent. This suggests that a combination of public awareness efforts and targeted behavior change campaigns has a measurable impact on ivory purchasing even among the most determined consumer group.
- Most respondents have not changed in their desire to buy or own ivory in the past three years. More people say that their desire for ivory has gone down (27%) rather than up (15%) in this time period, but the majority (59%) say their desire remains the same. (Note: Change in desire to own ivory does not consider the base level of desire, i.e., a respondent who has never wanted ivory and a collector who has always wanted ivory may both say there has been “no change” in their desire over the past three years). Diehard Buyers are more than three times as

likely to say their desire for ivory has increased in the past three years (47%) than they are to say it has decreased (15%). While most people do not change in their desire to buy ivory, the changes we do see indicate that wanting ivory is not a set state and that opinions can fluctuate over time. Among those whose desire for ivory increased, its beauty and collectability are the main drivers, as well as the opinion that buying ivory is contributing to conservation.

Recommendations (1)

As in 2020, we are seeing the continuation of many long-term trends, which in the past two years have been affected by COVID-19 but continue to show. Because many of the differences observed in 2021 are trends that are continuing from previous years, many of the recommendations remain similar to 2020. Continuing with measures that are resulting in declines in ivory purchase and purchase intention as well as support for laws controlling ivory trade will continue to have benefits. In anticipation of post-COVID travel, the programs to reduce ivory demand should be further intensified.

RECOMMENDATIONS BY POPULATION SEGMENT

- Regular Overseas Travelers: Continue to watch for a re-emergence –** Although they could not travel as much in 2021 compared to pre-pandemic levels leading to a further drop in their past-12-month purchase rates, this group has maintained their perceptions, attitudes, and intentions to purchase ivory. Their lower rate of ivory purchase in 2021 may be driven by the inability to travel, but their intention to buy in the future remains significant and with increased post-pandemic travel, could re-emerge.
- Target Layer 1 and 2 cities more than Layer 3 cities –** Although previous studies saw a decrease in the differences between the three Layers, the differences are more evident in the 2021 study. Layer 1 cities have higher purchase rates, frequency of purchase, and intention to purchase than Layer 2 cities, and even more so than Layer 3 cities. Agreement with

the ban is high in all three Layers and knowledge is higher in Layer 1 and 2, so continuing to use online campaigns will make sure that these cities are effectively targeted will help direct efforts to the areas that most need it.

- Rejectors: Be cautious of the rise in past purchase and future intention to purchase –** The past purchase rates of ivory and the future intention to purchase have increased. Although they remain the lowest of the three groups by a large margin, this rise should be monitored to ensure it does not become problematic. Rejectors make up the largest segment of the population so a small rise in this group is significant. Rejectors have the highest desire to share conservation materials and react most positively to the campaign. Targeting them with behavior change communication could help reduce the number of people buying ivory.
- Ban-influenced Citizens: Continue to target this group –** The number of Ban-influenced Citizens is gradually declining, while their ivory purchase rates and intention to purchase are dropping year over year. Ban-influenced Citizens have a poor knowledge that bringing ivory into China is illegal and have the lowest awareness of the ban. They remain heavily influenced by knowledge of the ban and perceive the campaign video positively. A significant number of Ban-influenced Citizens who were swayed by the law to say they are “neither likely nor unlikely” to buy ivory in the future were further swayed by the campaign video to say they are unlikely or very unlikely to buy it. Informing this group about the laws and effects of ivory trade and targeting them with campaign videos will help them to become more effective advocates.

Recommendations (2)

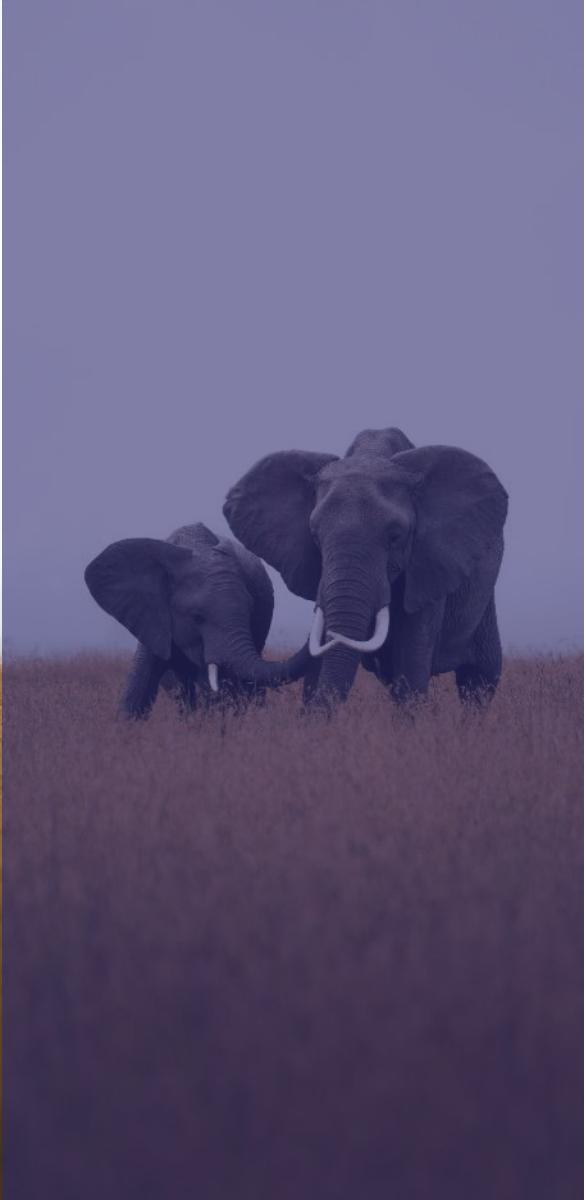
- **Diehard Buyers: Keep focus on this group** – Although past purchase rate of this group has dropped dramatically, their future intention to purchase has not dropped as much. This group may have been hampered by lack of availability or access to ivory in the past year, but they are likely to continue to buy it in the future. This group continues to buy ivory most frequently and they have the highest rate of misconceptions that ivory is legal to bring into Mainland China from abroad. However, this group also has the highest rate of campaign awareness among the three segments and more than three in ten were swayed by the knowledge of the ban coupled with the campaign video. Targeted, precision marketing aimed at this segment is reaching the group and having an impact on their attitudes.
- **Combine knowledge of the ban with campaign videos to create intention change** – Exposure to the ivory ban coupled with campaign messages reduces intention to purchase dramatically, even among Diehard Buyers. Multiple sources of intervention will help increase the efficacy of campaigns. Although the campaign video is not received as positively as it was last year, the behavioral and opinion changes it effects are just as high.
- **Tailor campaigns for online sharing and TV/screen** – With the majority of information about the ban being received through online sources, and with many respondents saying that they would like to “share” the elephant conservation campaign, these two channels should be targeted with messages above other forms.

COMMUNICATIONS RECOMMENDATIONS

- **Focus on luxury goods as alternatives** – Respondents are open to observing new alternatives according to the desire e.g., increase their collection, the object’s artistic value. Although gold, silver, and diamonds have decreased in their perception as suitable alternatives to ivory, they are still important. Promoting alternatives can help reduce demand for ivory. It is important to combat the notion that there is no suitable substitute for ivory as this is a growing perception.
- **Continue the message that it is illegal to bring ivory back to China** - This message needs to be reinforced for the likely travel boom that will follow the COVID-19 pandemic.

RECOMMENDATIONS FOR IVORY PURCHASE CHANNELS

- **Make note of the change of purchase channels** – The importance of retail stores has declined in 2020 as conduits for ivory sale. This may be linked to closures because of COVID-19 but the ease with which trade can transfer to markets and stalls is noteworthy.



5. Appendices



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Methodology Overview: Quantitative Research

Sample of Consumers and Other Sub-groups

Among the total representative sample, a specific sample of **Past-12-Month Consumers (P12M)** of ivory was identified for specific analysis. This sample allows the uncovering of the motivations, drivers, and inhibitors of consumers of ivory. “**Ever Consumers**” are defined as anyone who has bought ivory, even if only once. This includes the option “ivory” as an answer to the instruction: “Please indicate if you have ever bought this material or anything made from this material,” and those who answered “yes” to “Have you ever bought ivory, or any product or object made of ivory, for yourself or someone else?” P12M consumers are defined as Ever Consumers who said “yes” to the question “And have you bought ivory, or any product or object made of ivory, for yourself or someone else, in the past 12 months?” Analyses were also conducted among other sub-groups of respondents: for instance, the data were analyzed by gender, age, city, purchase intention, etc.

Nationally Representative Sample

The total sample size achieved was $n=2,004$ (unweighted), which we weighted to $n=2,000$, for ease of comparison with the 2017 pre-ban and the 2018, 2019, and 2020 post-ban surveys, each of which had a weighted total of $n=2,000$. This robust sample size has a margin of error of roughly 2 percent.

To ensure this sample was representative of the population of China, **quotas on gender, age, and income** were set from the start of fieldwork and were monitored regularly.

Comparison with Other Surveys

This survey is based on a selected sample, with a choice of cities being considered active ivory markets and the key metrics cannot be compared one-on-one with other surveys (except for the pre-ban 2017 survey, post-ban 2018 survey, post-ban 2019 survey, and the post-ban 2020 survey). The 2021 Survey follows the Pre-ban baseline survey conducted in September – October 2017 and the Post-ban surveys conducted in May – July 2018, May – July 2019, and October 2020 to January 2021. Relevant comparisons and trends can be observed as the five surveys are based on the same methodology and the same sampling plan.

While the data / key metrics are specific for the 15 cities, the underlying patterns on segmentation, purchase behavior, and communications are relevant for all ivory buyers, and the results can inform demand reduction campaigns throughout China.

Methodology Overview: Sampling and Quotas

Sampling Plan

- The fieldwork was monitored daily and detailed checks of interim data were performed during fieldwork (at 10%, 50% and 80% of sample completion) to ensure data quality and consistency.
- The census data from the National Bureau of Statistics of China was used to set these quotas: <http://www.stats.gov.cn/english/>
- As China conducted a national survey in 2021, the quotas were updated to match the new demographic splits of the country. This was most impactful on education, where those who had received a high education rose from 9.5% to 17%.

Quotas on Age (out of age 18+)	%
18-20	4.5
21-30	20.8
31-40	18.3
41-50	21.7
51-60	16.0
61 and over	18.7

Quotas on Gender	%
Female	48.8
Male	51.2

Quotas on Education	%
High	17
Middle	55
Low	28.2

The following quotas (except education which changed in 2021) were used for all five studies:

Layers	Soft Quotas on City	Soft Quotas %
Layer 1 cities	Beijing	12.5
	Shanghai	12.5
	Guangzhou	12.5
	Chengdu	12.5
Layer 2 cities	Xiamen	25 (Layer 2 cities combined)
	Kunming	
	Fuzhou	
	Xi'an	
	Shenyang	
	Tianjin	
Layer 3 cities	Nanning	25 (Layer 3 cities combined)
	Chongqing	
	Nanjing	
	Jinan	
	Shenzhen	

Methodology Overview: Weighting and Rounding

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, education and city layers has been applied on the total sample in order to fully match the quotas and correct (small) deviations in the sample completion compared to the quota set.
- This report presents only weighted results/data, and all the sample sizes indicated are weighted samples.
- The final sample achieved was $n=2,004$.
- 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 so the total sample is representative of the target population by age, gender, education, and city layer.

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 totals may therefore appear to add up to more or less than 100%.

Questionnaire and Respondents' Quality

- To assure that respondents answer honestly and approach the topic neutrally when they qualify for the survey, 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.”

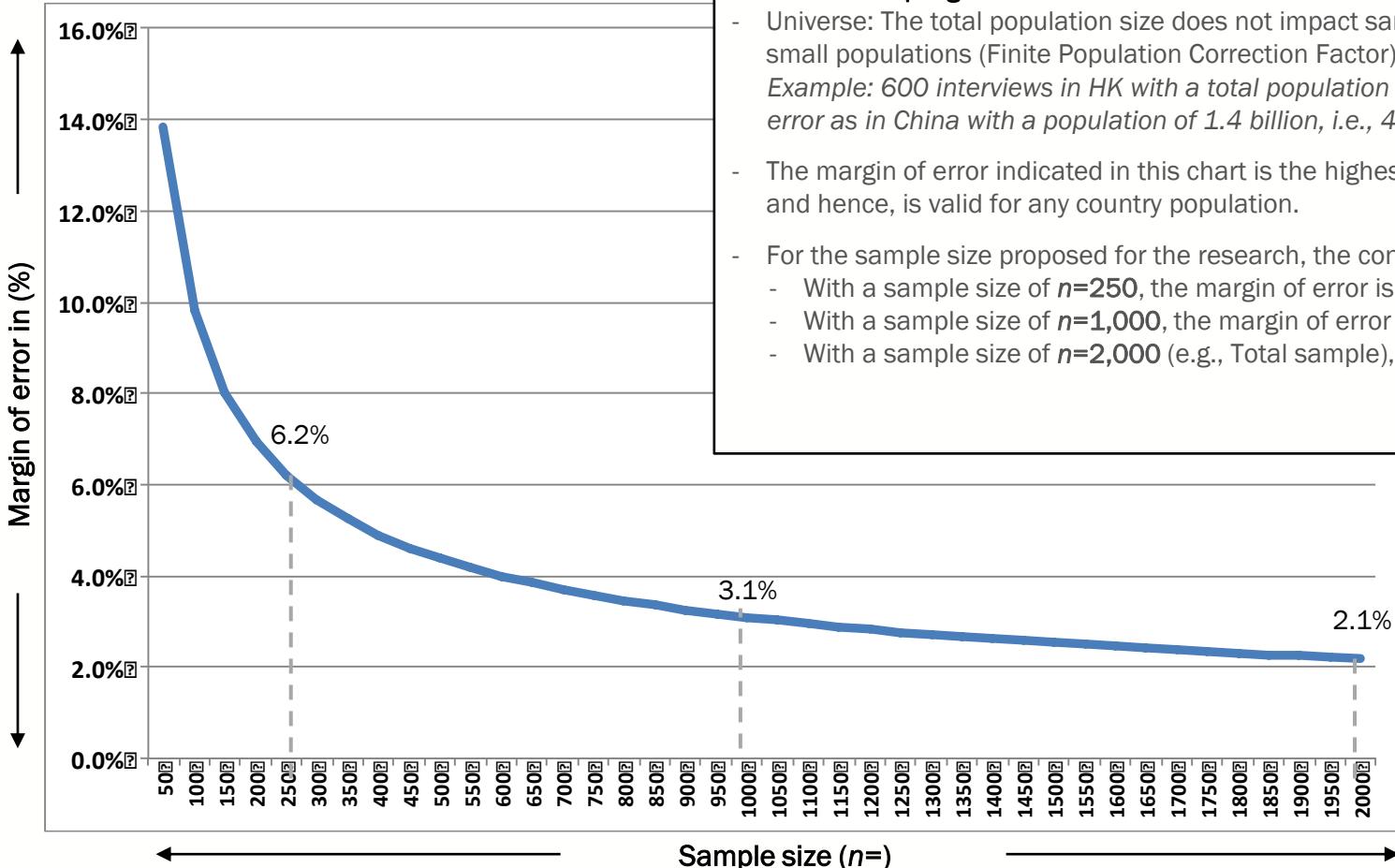
Margin of Error in Surveys (1)

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 percent at a 95 percent 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.
- Even though margin of error is not applicable to non-random samples, it can be used as a rough tool to assess patterns in the collected data. For example, a 5 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 awareness, knowledge, and perception of the consumption of ivory products. Industry standards and best practices suited to geographic realities have been applied throughout.

Margin of Error in Surveys (2)



About the Sampling Error:

- Universe: The total population size does not impact sampling error, except for small populations (Finite Population Correction Factor).
Example: 600 interviews in HK with a total population of 7.5 million has the same error as in China with a population of 1.4 billion, i.e., 4.0%.
- The margin of error indicated in this chart is the highest for any population size, and hence, is valid for any country population.
- For the sample size proposed for the research, the confidence level is strong
 - With a sample size of $n=250$, the margin of error is 6.2%
 - With a sample size of $n=1,000$, the margin of error is 3.1%
 - With a sample size of $n=2,000$ (e.g., Total sample), the margin of error is 2.1%

The Decision Tree – General

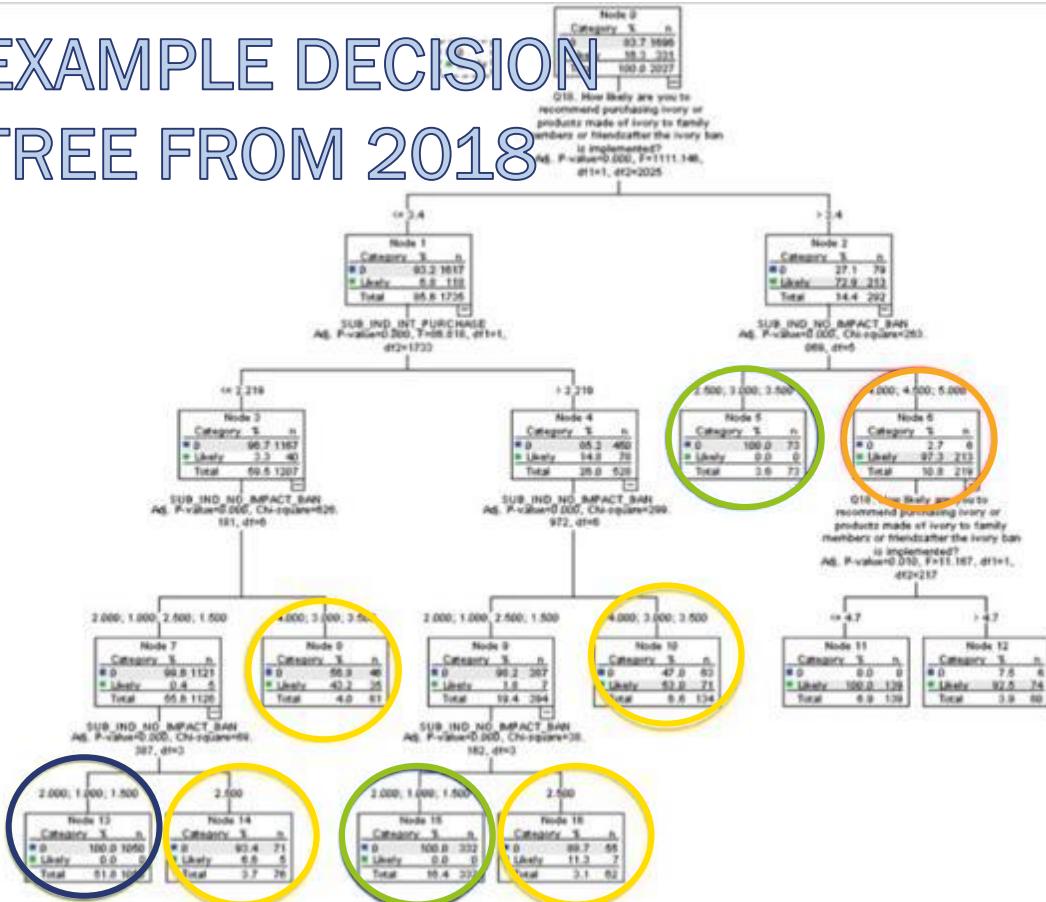
The Decision Tree methodology is a commonly used data mining method for establishing classification systems based on multiple covariates or for developing prediction algorithms for a target variable. This method classifies a population into branch-like segments. It follows the same approach as humans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

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 in the next slide).

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 three consumer segments, Diehard Buyers, Ban-influenced Citizens, and Rejectors. Each of these segments has a very distinct profile and behavior.

Example Decision Tree – 2018 Survey

EXAMPLE DECISION TREE FROM 2018



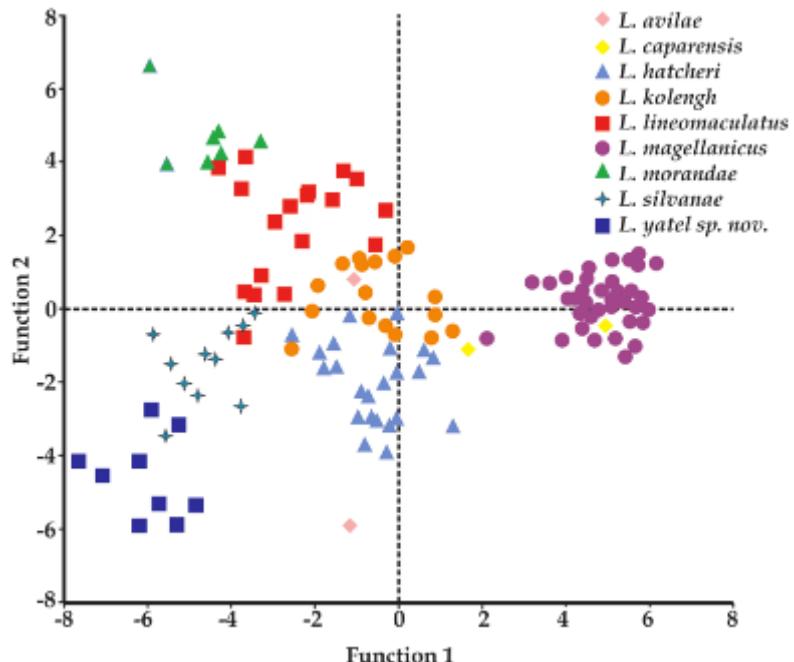
- Diehard Buyers (orange circle): 97.3 percent (100 percent in 2021) are likely to buy ivory despite the ban and are very likely to recommend purchasing ivory.
- Ban Influenced Citizens (two green circles): 100 percent (also 100 percent in 2021) of them will stop buying ivory after the ban is imposed. The difference between the Ban Influenced Citizens and Rejectors is in the likelihood to recommend ivory to family members or friends.
- Rejectors (blue circle): Tend not to buy or intend to buy ivory independently of whether the ban is imposed or not. They do not recommend buying ivory to others.
- 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 over 90 percent of the purchasing intent after the ban is imposed.

Segmentation Methodology: Discriminant Function Analysis

Discriminant Function Analysis

- In order to recreate the segments (e.g., Diehard Buyers, Ban-influenced Citizens, and Rejectors) identified in the Pre-ban poll, we used a statistical algorithm extracted using a Discriminant Function Analysis (DFA).
- DFA is a statistical method that is used to understand the relationship between a “dependent variable” and one or more “independent variables.” A dependent variable is the variable that a researcher is trying to explain or predict from the values of the independent variables. It is a statistical procedure that classifies unknown individuals and the probability of their classification into a certain group (such as sex, species, or ancestry group). For our studies, we use a DFA to classify respondents into their respective segments using inputs from a range of questions. By assigning values to certain responses and plotting data points on a graph, patterns start to emerge (see example).
- For detailed information, please check out:
https://en.wikipedia.org/wiki/Linear_discriminant_analysis

An example of a DFA used to test how genetically distinct different species are from each other is shown below. Source: Abdala, et al. (2014). New Patagonian species of *Liolaemus* (Iguania: Liolaemidae) and novelty in the lepidosis of the southernmost lizard of the world: *Liolaemus magellanicus*. Zootaxa, 866(4)



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 (before taxes) under RMB8,000 (approx. USD1,200)
- Medium income: Monthly personal income (before taxes) between RMB8,000 and RMB20,000 (USD1,200–3,000)
- High income: Monthly personal income (before taxes) above RMB20,000 (>USD3,000)

Education Level

- 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

Travel Behavior outside China (pre-COVID-19)

- Never: Never travel outside China
- Occasional: Travel outside China once per year or less frequent
- Regular: Travel outside China more than once per year

*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) and were kept consistent for comparison between years.

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：
为加强对象牙的保护，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、分批次停止商业性加工销售象牙及制品活动。2017年3月31日前先行停止一批象牙定点加工单位和定点销售场所的加工销售象牙及制品活动，2017年12月31日前全面停止。国家林业局要确定具体单位名录并及时发布公告。相关单位应在规定期限内停止加工销售象牙及制品活动，并到工商行政管理部门申请办理变更、注销登记手续。工商行政管理部门不再受理经营范围涉及商业性加工销售象牙及制品的企业设立或变更登记。二、积极引导象牙雕刻技艺转型。停止商业性加工销售象牙及制品活动后，文化部门要引导象牙雕刻技艺传承人及相关从业者转型。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。非营利性社会组织团体、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，加强执法监督，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，营造有利于保护象牙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。

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