

A close-up, high-contrast photograph of an elephant's head and tusk. The elephant's eye is visible, looking towards the camera. The skin is wrinkled and textured, and the tusk is prominent in the foreground.

REDUCING DEMAND FOR IVORY:

AN INTERNATIONAL STUDY

AUGUST 2015



TABLE OF CONTENTS

INTRODUCTION

EXECUTIVE SUMMARY

DETAILED METHODOLOGY

CORE REPORT

IVORY MARKET SEGMENTS

LIKELY BUYERS

FIRM REJECTERS

GOVERNMENT REGULATION

PURCHASING MOTIVES

TRUSTED SOURCES OF INFORMATION

IMPLICATIONS

COUNTRY SUMMARIES

CHINA

PHILIPPINES

THAILAND

UNITED STATES

VIETNAM

APPENDIX

REFERENCES AND ACKNOWLEDGEMENTS

PAGE 2

PAGE 3

PAGE 4

PAGE 6

PAGE 6

PAGE 7

PAGE 8

PAGE 10

PAGE 12

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 21

PAGE 25

PAGE 29

PAGE 33

PAGE 37

PAGE 41

INTRODUCTION

Background

African elephants are in serious trouble, their numbers declining by roughly 62% in just a decade in central Africa alone (Maisels et al., 2013). The remaining populations face problems, including habitat loss and fragmentation; conflicts with humans for land and resources; and illegal killing. Illegal killing for ivory is the biggest threat to elephants (Maisels et al., 2013; UNEP et al., 2013; Bennett, 2014; Gao and Clark, 2014), with a majority of the ivory supplies ending up in Asia (Christy, 2012; Underwood et al., 2013) and the United States (CITES Secretariat, 2014).

Ivory, which comes from the tusks of elephants, is used for jewelry, carvings, ornaments, medicine, chopsticks, signature stamps, musical instruments and other items. While ivory use has existed for centuries, market demands for ivory in Asia and the United States have led to an unprecedented level of elephant poaching.

Although international commercial trade in ivory was banned in 1989 through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), ivory continues to be traded on an alarming scale. Illegal international ivory trade has actually tripled since 1998 (CITES Secretariat, 2014); more than 100,000 elephants were poached in Africa between 2010 and 2012 (Maisels et al., 2014), with forest elephants bearing the greatest impact.

In 2013, the Clinton Global Initiative (CGI) gathered key conservation and scientific organizations to develop the Partnership to Save Africa's Elephants, a CGI Commitment to Action dedicated to preventing further elephant poaching using a three-pronged approach: stop the killing; stop the trafficking; and stop the demand.

As part of this effort, the National Geographic Society partnered with GlobeScan, an international research firm, to carry out qualitative and quantitative research in key markets for ivory – the United States, China, the Philippines, Thailand and Vietnam – to better understand the dynamics of consumer demand for ivory and to help inform approaches to reduce that demand.

Objectives and Approach

The research, conducted between February 2014 and September 2014, was designed to provide insight into the dynamics of demand for ivory and understand which consumer attitudes and opinions could be changed to reduce demand. The project approach was informed by a review of relevant and available research on ivory consumption from the nonprofit, academic and market research communities as well as extensive discussions with GlobeScan's in-country research institute partners and consultation with an advisory group assembled by GlobeScan and National Geographic.

This study took a societal approach, first putting ivory consumption and ownership in context with social norms, culture, tradition, aspirations and the dynamics of influence. Advanced modeling techniques were then used to illuminate the complex relationships at play among consumer values, attitudes, knowledge and behaviors. Such an approach was vital given that deeply embedded and unspoken opinions and interests underlie the desire for, and opposition to, the possession of ivory and other products from endangered species.

EXECUTIVE SUMMARY

The primary objective of this study is to understand the dynamics of demand for ivory. Qualitative and quantitative social research was conducted across five countries in which demand for ivory is known to be concentrated: China, the Philippines, the United States, Vietnam and Thailand.

Through cluster analysis of the resulting quantitative data, consumers in each country were grouped according to their stated interest in purchasing ivory and their self-reported financial ability to do so. Based on this segmentation, five groups were identified. **The most important group, labeled “Likely Buyers,” is substantial, representing 22% of consumers surveyed across the five countries.** In China and the Philippines, this group encompasses just over one-third of those surveyed. In the three remaining countries, almost 15% of survey respondents are “Likely Buyers.” These individuals, defined as those expressing the strongest intent to buy ivory in the future, are most likely to fuel the demand for ivory consumption.

Using various statistical modeling techniques, the study identifies a series of key motivators of purchase intent; the socio-cultural dynamics that drive demand are shown within the study to be very complex. Likely Buyers tend to describe themselves as fashionable, social and religious. **Their purchase decisions are motivated by a desire for products that convey financial and social status.** As a result, they are often drawn to ivory because of what ivory ownership suggests to others about them. **The most powerful source of intent to buy ivory is its perceived suitability for gifting.** Related to this is the feeling of happiness that ivory imparts upon both the giver and receiver as well as the status that ivory projects on both, amplified through gifting.

Despite the complexity of the demand drivers, the research indicates that **support for government action to ban or limit the trade in ivory is widespread in all countries surveyed, even among ivory owners and those who express interest in buying ivory.**

Three key factors are found to drive increased support for regulation. They are, in descending order, animal rights and the decline in elephant populations; illegality and criminal aspects of the ivory trade; and consumer desire to make ethical purchases generally.

Yet, while support for regulation is high, it is not strongly linked to individual purchase intent in the study results. Thus, increasing support for regulation does not appear to directly result in reduced demand for ivory. Advocacy work focused on threats to elephants may further strengthen support for government action, but this may not significantly alter the embedded social values that fuel demand. Demand reduction efforts will therefore likely require both top-down and bottom-up strategies.

Finally, the study found that nonprofit environmental organizations, scientists/ academics and family and friends are the most trusted sources of information on issues related to ivory. The types of organizations that are currently working to reduce demand and enable regulatory changes are well-positioned for impact.

DETAILED METHODOLOGY

THREE-PHASED APPROACH

The study was conducted in three phases: Two qualitative phases gathered an inventory of perceptions, attitudes and behaviors relating to ivory as a foundation for designing and interpreting the subsequent quantitative phase.

Qualitative Phases: Conducted February-March 2014

Phase 1: 45 In-Depth Interviews (IDIs):

- 15 in each of three countries: China, Vietnam and the Philippines.
- Within each group of 15 interviews, 12 were conducted among ivory owners or buyers and three among ivory “rejecters” who actively avoid ivory.
- See Country Summaries for additional details by country.

Phase 2: 10 Focus Groups:

- Two focus groups each in Vietnam (Ho Chi Minh City), the Philippines (Manila) and Thailand (Bangkok); four focus groups in China (Beijing and Chengdu).
- Recruitment criteria required respondents to have at least neutral or positive attitudes toward ivory.
- Majority of respondents owned and/or bought ivory.
- All focus groups were moderated by local qualitative research professionals and observed by GlobeScan and National Geographic team members.
- See Country Summaries for additional details by country.

As messaging efforts to curb demand for ivory will necessarily need to focus on current and potential ivory consumers, participants in the qualitative portion of the research were, by design, almost entirely current ivory owners and buyers. Within this group, the level of attachment to ivory varied. While many within the focus groups could be considered avid ivory consumers, and may therefore present a difficult audience for messaging, understanding both their attachment to ivory and their resistance to change provided important insight.

Quantitative Phase: Conducted July-September 2014

The quantitative survey phase was designed to help determine drivers of ivory acquisition and potential drivers of current or future rejection. Understanding how to target and influence people along the continuum of ivory interest and ownership is central to identifying potential communication strategies.

The study was designed to take into account the practicalities and best practices involved in consumer research on a sensitive topic in diverse cultures. Mixed methodological modes were required to capture the full spectrum of the dynamics that influence the demand for ivory within the specified set of countries. Online methodologies were best suited to the quantitative phase of this work in China, the Philippines and the United States, while face-to-face methodologies were required in Thailand and Vietnam. The analysis was treated accordingly, by qualifying differences between findings sourced from online and offline platforms following an overall statistical assessment of modal impact on the study.

Phase 3: Quantitative Survey:

- A quantitative survey in five countries: China, Vietnam, the Philippines, Thailand and the United States.
- Roughly 1,000 interviews in each country among representative samples of adults 18+.
- In China, the Philippines and the United States, the quantitative surveys were conducted using online consumer research panels. In Vietnam and Thailand, surveys were conducted in person, according to local best practice and feasibility. Throughout our reporting, the appellation “online countries” will be used to refer to China, the Philippines and the United States, while “offline countries” will refer to Thailand and Vietnam.
- The sampling for each online country included a main/general population sample weighted on national demographics (age, gender, household income, education and region) within each country. In the offline countries, weighting was not required due to the use of quotas in the sample plans that were set according to census data.

- In every country except Vietnam (where percentages of consumers indicating intent to buy ivory were sufficient initially), oversampling was used to provide sufficient samples of “potential buyers” for additional analysis (see table below). Where necessary, oversamples of potential ivory buyers were weighted down according to incidence rates found in the general population samples. The effect is that the proportion of potential buyers in the final total sample in each country is not over-represented, while ensuring that the subsample of potential ivory buyers is sufficiently large to render meaningful results for this subgroup.
- The unweighted base sizes for the total sample and oversamples within each country are as follows:

Country	Total Sample	Oversampling for Potential Buyers
China	1,039	200
Philippines	969	100
USA	1,186	200
Thailand	1,018	100
Vietnam	1,000	0

Since a primary objective of the research was to uncover insights that would support development of strategies that could be broadly applied across the five key consumption markets, weighting was done within countries (see Country Summaries), and then all countries were weighted equally for the five-country total analysis. Nuances by country, however, are noted in the Country Summaries.

- For sampling/screening purposes only, in the online countries, potential buyers are defined as those who say that it is more than likely that they will buy ivory within the next three years (5 to 7 on a 7-point scale where 1 is definitely will not buy and 7 is definitely will buy).
- In the offline countries, where interviews were done in person and therefore where social response bias can be a bigger factor, potential buyers are initially defined as those who say that it is likely or more than likely that they will buy ivory within the next three years (4 to 7 on a 7-point scale where 1 is definitely will not buy and 7 is definitely will buy).
- Our analysis of ivory market segments (beginning on page 6) applies a more sophisticated segmentation to identify a group we call “Likely Buyers.”

- For reporting purposes, differences among subgroups of greater than plus or minus three to five percentage points, depending on sample size, were used as the criteria for indicating meaningful differences. Since random probability sampling was not possible in all countries due to the use of online consumer panels, a strict definition of margin of error is not applicable. (See Appendix for additional detail.)
- During the questionnaire translation process, the English draft of each survey was translated into the local language for each of the study countries by experts specializing in questionnaire translations for survey research or by professional linguistic interpreters. Translated questions were then verified by a survey researcher fluent in the local language to check survey instructions and flow. All translations were then reviewed in detail by a different linguistics team than that used for the original translations and, in the case of any discrepancies, the respective questions were retranslated and verified to ensure translation accuracy.

Advanced Statistical Analyses

Among the advanced statistical analyses used to explore the continuum of consumer demand for ivory and the complex and interrelated opinions and behaviors surrounding it were driver analyses using regression techniques; path analyses using structural equation modeling; and segmentation using cluster analysis. More detail on each of these techniques can be found in the Appendix.

IVORY MARKET SEGMENTS

The purpose of this study is to gain insights into what motivates ivory demand and to understand patterns of beliefs and behavior among different consumer groups that can be profiled for intervention. Accordingly, GlobeScan conducted a market segmentation or cluster analysis using the data collected during the quantitative phase of the study to group consumers according to their stated future intent and financial ability to purchase ivory. Based on this segmentation, five differentiated groups were statistically identified and dubbed as follows: Likely Buyers, At Risk, Unlikely Buyers, Constrained Rejecters and Firm Rejecters.

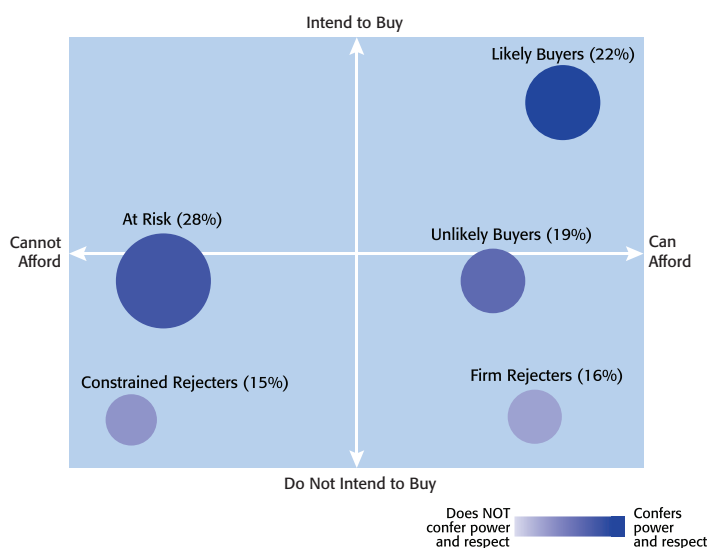
The segment most inclined to purchase elephant ivory within the next three years is the Likely Buyers. Likely Buyers represent 22% of the population across the five countries studied and constitute our baseline measure of the extent of ivory demand (per capita, not by volume of ivory). Consumers in the At Risk segment also demonstrate a desire to purchase ivory in the near future, but feel they cannot currently afford to do so. They represent 28% of the total study sample and could grow as incomes rise.

Those with lower inclination to purchase elephant ivory are the Unlikely Buyers and the Constrained Rejecters. Unlikely Buyers are consumers who are able to afford ivory, but indicate less interest in procuring it than Likely Buyers. Unlikely Buyers represent 19% of the total sample. Constrained Rejecters indicate little to no interest in buying ivory, and also feel they lack the financial ability to do so. They are not, therefore, a strategic segment for those working to reduce demand. Constrained Rejecters represent 15% of the total study sample.

Firm Rejecters, however, are of particular interest. Consumers in this group are the least likely to purchase elephant ivory in the future. They indicate no interest in buying ivory, even though they feel they can afford to do so. Their motives for actively rejecting ivory are important to understand so that these can be nurtured among other consumer segments. Firm Rejecters represent 16% of the total study sample, and we profile them later.

The following three-dimensional segmentation map shows the position of each segment group in relation to its intention to purchase ivory within the next three years (x-axis) and its self-reported financial capability to purchase ivory (y-axis). The size of the segment group is proportionate to the size of the bubble on the map.

Segmentation Map



Though not a determinant component of the segmentation algorithm, the segments were plotted on a third, highly correlated, axis. The color of the bubble indicates the strength of the segment's belief that ivory confers power and respect (a composite measure described below), which the study has found to be among the most powerful drivers of demand for ivory. The darker the blue, the more power and respect members of this segment believe that elephant ivory confers upon individuals.

The relation of ivory to the power and respect felt by consumers is a construct based on the strength of the association of ivory with several attributes. These include the social impact of ivory within the custom of gift giving, consumers' perception of elephant ivory as the "perfect gift" and ivory as a symbol of love and power. Buttressing these are a perception of ivory objects as being luxurious and noble and as symbolizing status. Finally, there is an emotional connection with ivory at work, which relates to the feeling of confidence, power, importance, pride and respect conferred by its ownership.

This segmentation analysis yields two key groups of interest for further discussion: Likely Buyers and Firm Rejecters. Being the consumers who will most drive current and future ivory demand, Likely Buyers are considered a key target for communication campaigns aimed at reducing consumer demand for ivory. At the other end of the spectrum are the Firm Rejecters, who are of

interest not only because they are already against ivory and therefore provide insight into what demotivates ivory purchase, but also because they have a vastly different outlook and feeling about elephant and ivory-related issues.

Likely Buyers of Ivory

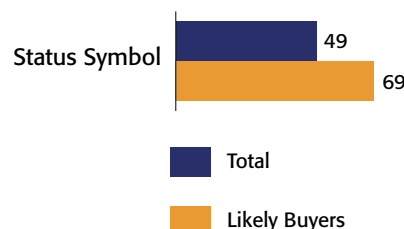
Likely Buyers represent just under one-quarter of the study sample. Similar to the samples from which they were drawn in each country, Likely Buyers tend to fall in the low-to middle-income bracket. They do tend to skew younger than average and are somewhat more likely to have a religious affiliation than those in the overall sample. These demographic tendencies are often mild at the total-sample level, and differences within countries are noted within the Country Summaries that follow. Finally, just under one-quarter of Likely Buyers already own elephant ivory, a result that is high compared with 7% for the total sample.

Likely Buyers are more utilitarian about the value of animals, with 40% of them agreeing that the most important value of animals is as a source of food, compared to the total average of 24%. They are also more in favor of using wild animals as a source of materials for human use compared with the total average. Notably, over half of Likely Buyers agree that it is “okay” to purchase ivory for personal use and enjoyment, compared with 24% for the five-country average. An additional one-quarter of Likely Buyers neither agree nor disagree that this use is okay, while the remaining 22% disagree. It is possible that these individuals are interested in buying ivory for other purposes, such as gift giving or as religious icons – which might not be perceived as being for one’s own personal use or enjoyment. While Likely Buyers are more accepting of human use of ivory, they express a similar level of concern about animal cruelty and species extinction as other consumers, signaling the complex challenge confronted by demand-reduction efforts.

Compared with the average of all respondents, Likely Buyers tend to describe themselves as fashionable, social and religious. Their purchase decisions are more likely to be influenced by friends and a desire for products that reflect their financial and social position and give them a sense of pride. Thus, Likely Buyers are allured most by the power and status that ivory confers on owners. Notably, seven in 10 Likely Buyers see ivory as a status symbol, a result much higher compared with five in 10 for the total average. Clearly, “face” consumption, i.e., the displayed ownership of prestigious items, materials and brands to convey elevated socio-economic status, is a factor that underlies demand for ivory.

Perception of Ivory Products

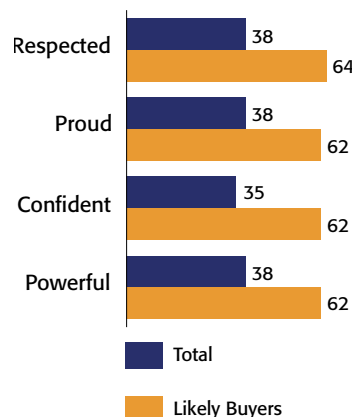
“Describes Well” (5+6+7), Total and Likely Buyers



Ivory inspires a strong feeling of respect, pride, confidence and empowerment among Likely Buyers, which is again much higher than the average for all countries. Their belief in the myths and properties associated with ivory, such as bringing good luck and peace to the household or attracting good spirits, is also higher, but only a third of Likely Buyers report being strongly aware of, and believing in, these ascribed attributes.

Feelings Inspired by Ivory Products

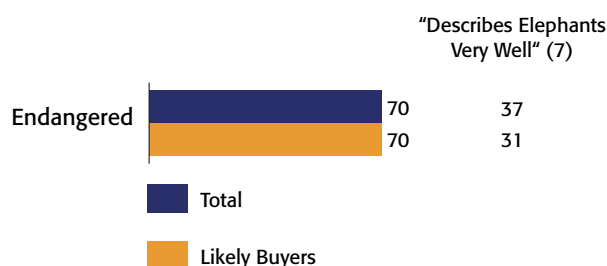
“Inspires This Feeling” (5+6+7), Total and Likely Buyers



Awareness of threats to elephants is generally high among Likely Buyers and does not differ greatly compared with the overall sample. The number of Likely Buyers who perceive elephants to be endangered is also high and is similar to the five-country average. These are among the most revealing ironies of the study’s findings. Still, only 31% of Likely Buyers see elephants as very endangered, a number that is slightly lower compared with the total average for all countries.

Perception of Elephants

"Describes Elephants Well" (5+6+7), Total and Likely Buyers



While Likely Buyers do not dislike elephants, only half of them believe that elephants are in immediate danger of becoming extinct, and over a third of them do not think that purchasing small items made of ivory contributes significantly to the overall demand. One interpretation of this based on the qualitative portion of the study may be that their desire to possess ivory and the strong feelings they have toward it together function to mute cognitive linkages to threats to elephants. Indeed, focus groups conducted among ivory-inclined individuals in all four Asian markets identified several enabling mechanisms at play. Firm Rejecters display very different characteristics.

Firm Rejecters of Ivory

Firm Rejecters represent less than one-fifth of the study sample; they are the second-smallest segment after Constrained Rejecters. Across the five-country total, they tend to be older and subsequently more likely to be either married or in a long-term relationship, and they tend to have an average to high income and live in major cities. Compared with the average of all respondents, Firm Rejecters are less likely to describe themselves as fashionable or extravagant. All in all, they appear to feel more secure and established within their lives. (See Country Summaries for variations.)

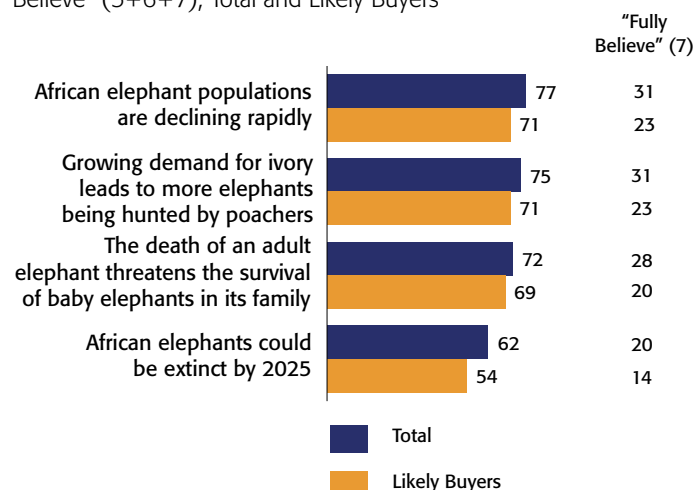
Unlike Likely Buyers, the majority of Firm Rejecters do not consider ivory as conferring power and status to its owners — a key determinant of the market. Nearly half of Firm Rejecters disregard ivory as a status symbol, a number significantly higher compared with 19% for the average of total respondents.

Firm Rejecters also believe much more strongly in threats to elephants compared with both the total average and Likely Buyers. A similar number of Likely Buyers and Firm Rejecters have heard of the possibility that African elephants may become extinct, the illegal killing of wild elephants for their ivory and the smuggling of illegal ivory. However, the percentage of consumers who perceive elephants to be endangered ("describes elephants very well") increases nearly twofold between the two segments, from 31% among Likely Buyers to 59% among Firm Rejecters. Significantly more Firm Rejecters also perceive elephants as endangered compared with the five-country average. Yet, as we address later, awareness of these threats may not directly mitigate demand and may serve only (but importantly) to encourage support for enhanced regulation of the ivory trade.

Despite the overall high number of Likely Buyers who think that elephants are endangered, just over half of them believe that extinction could occur by 2025, and only 14% fully believe this. Furthermore, significantly fewer Likely Buyers feel upset, and especially very upset, about these threats to elephants compared with the total average.

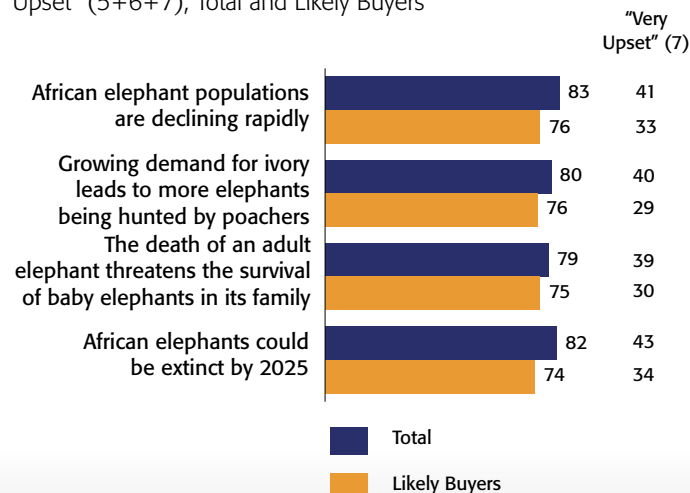
Belief in Threats to Elephants

"Believe" (5+6+7), Total and Likely Buyers



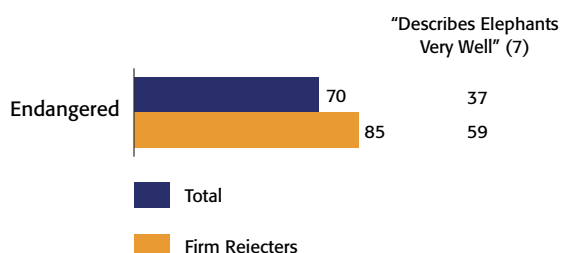
Feelings About Threats to Elephants

"Upset" (5+6+7), Total and Likely Buyers



Perception of Elephants

"Describes Elephants Well" (5+6+7), Total and Firm Rejecters

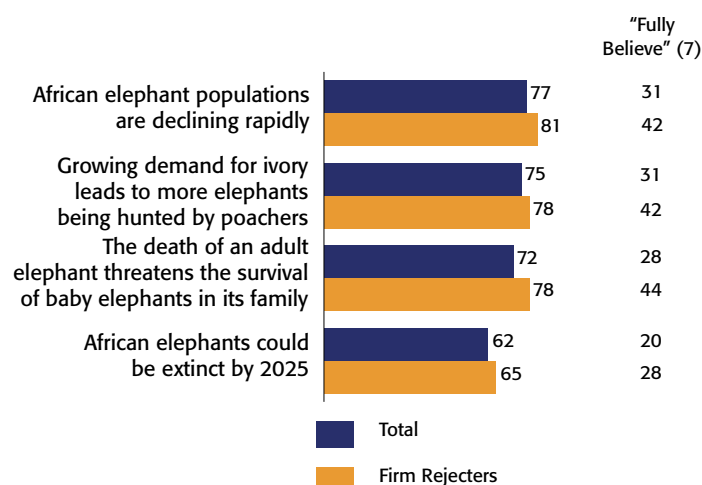


Disapproval with hunting elephants for their ivory and concern about elephant extinction are the two reasons that most explain Firm Rejecters' unlikelihood to purchase ivory in the next three years.

Most Firm Rejecters condemn using wild animals as a source of materials for human use, and just over three-quarters of them believe that all ivory purchases add to overall demand, however small the ivory object may be. This is in stark contrast to what the authors observed in focus groups among those inclined toward ivory and confirmed in quantitative findings for Likely Buyers. Most Firm Rejecters strongly support animal rights and react negatively toward cruelty compared with the total average for all countries.

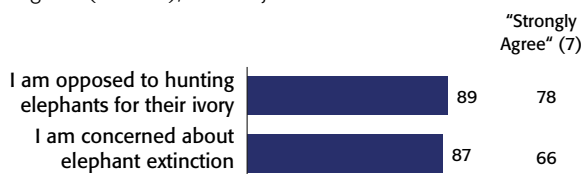
Belief in Threats to Elephants

"Believe" (5+6+7), Total and Firm Rejecters



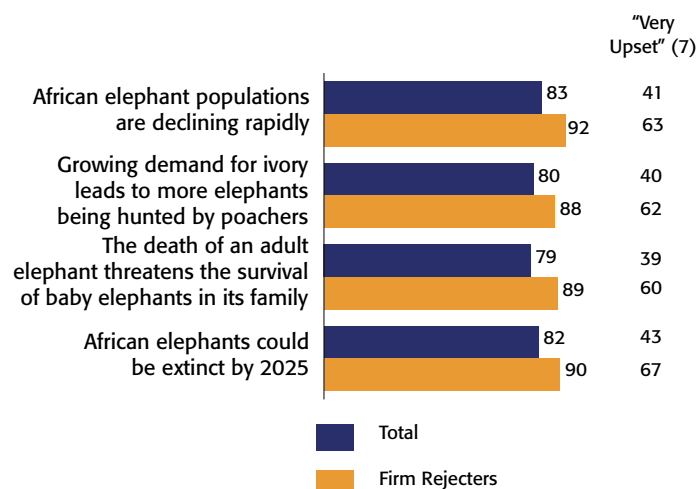
Reasons Unlikely to Buy Ivory

"Agree" (5+6+7), Firm Rejecters



Feelings About Threats to Elephants

"Upset" (5+6+7), Total and Firm Rejecters



GOVERNMENT REGULATION

As part of the quantitative study, GlobeScan conducted an assessment of awareness of and attitudes toward government regulation of the ivory trade. While awareness of current laws varies by market, support for regulation and stricter enforcement is consistently widespread. Even those respondents who are most pro-ivory (current owners and Likely Buyers) express support for government intervention.

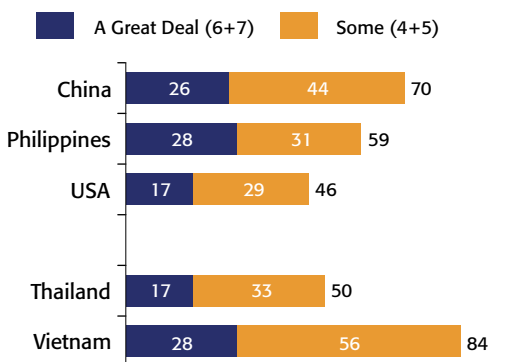
A modest percentage in each of the five countries (ranging from less than one-fifth to under one-third) say that they have heard a great deal about the laws in their country regulating the sale of ivory. However, majorities in all countries except the United States indicate at least some level of awareness of national regulation. Awareness levels of international treaties concerning ivory are similar. On both issues, awareness is lowest in the United States and Thailand and highest in Vietnam.

Likely Buyers are also significantly more aware of both national and international laws regulating the ivory trade than Firm Rejecters; over two-thirds of Likely Buyers have heard of them compared with just over half of Firm Rejecters, suggesting some sensitivity to the issue among the former.

Amount Heard About Ivory Laws

By Country

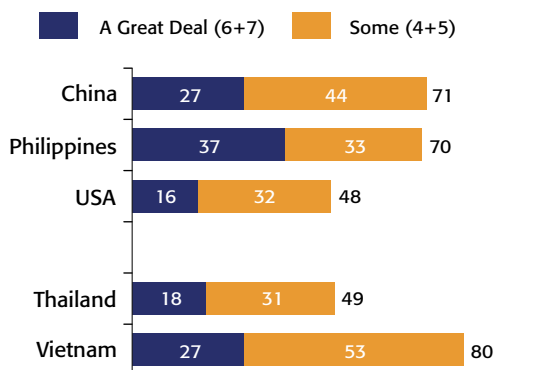
The laws in our country regulating the sale of ivory



Amount Heard About Ivory Laws

By Country

International treaties concerning the ivory trade

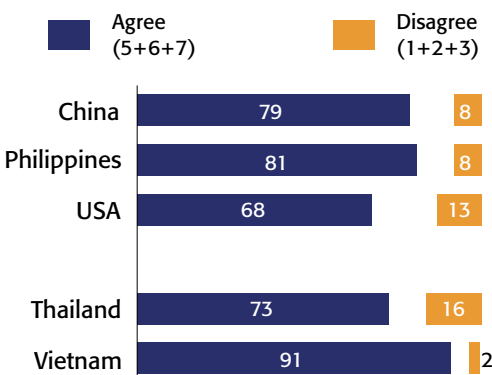


Support for a government ban on all buying, selling, importing or exporting of ivory is widespread, with majorities in all countries saying they would support such action. Furthermore, while a majority of both Likely Buyers (67%) – including current owners – and Firm Rejecters (88%) would support a government ban on all ivory trade in their country, significantly more Firm Rejecters (72%) would be strongly in favor of it compared with Likely Buyers (26%). In discussions with ivory owners during qualitative investigation, participants themselves voluntarily suggested the need for more severe punishments and stricter enforcement to curb ivory demand.

Attitudes Toward Government Regulation

By Country

Would support a government ban on all buying/selling/importing/exporting of ivory in my country



PURCHASING MOTIVES

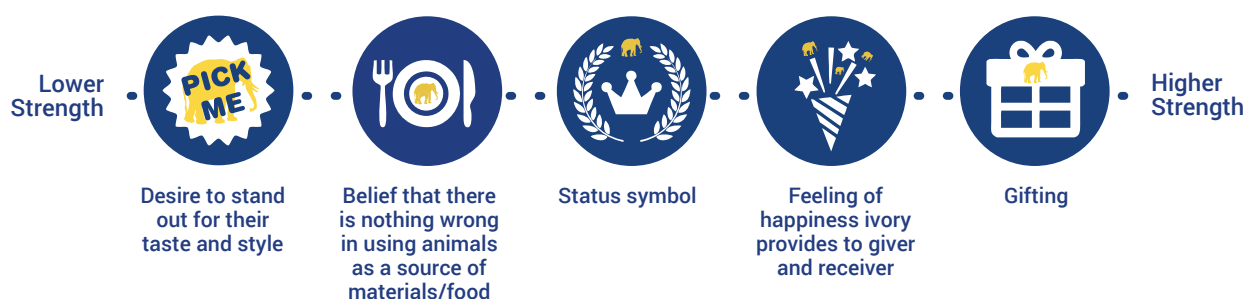
To better understand the importance of, and linkages among, various beliefs, attitudes and concerns that relate to intent to purchase ivory, GlobeScan conducted two types of statistical analyses: a driver analysis (regression) and a path analysis (structural equation modeling).

The driver analysis tests a series of predictors to determine which ones are most influential on a given outcome. While there are nuances among countries that need to be taken into account (see Country Summaries), certain drivers were found to be applicable across all or most markets studied. Each of the drivers is composed of an aggregate of a number of individual variables grouped using factor analysis. A breakdown of these is available in the Appendix.

In this linear analysis, gift giving is found to be the strongest driver of ivory purchase among consumers, followed by the feeling of happiness provided by ivory to both giver and receiver. The perception that ivory is a symbol of status that confers importance to the owner is the third most important driver of purchase. The belief that there is nothing wrong with using animals as a source of material or food and the desire to stand out for taste and style among peers are other important drivers of purchase, both of which are defining characteristics of Likely Buyers' attitudes and behavior.

In order to understand intent to purchase ivory and support for regulation against ivory trade through the interaction of perceptions of ivory and various social values, we also conducted a path analysis. Using structural equation modeling, the path analysis uncovers both direct and indirect drivers of key beliefs and behaviors that lead to the outcomes that this study seeks to advance.

First, multiple variables were grouped into factors, or clusters of related attitudes, values and behaviors using principal components analysis. The first cluster in the diagram on the following page relates to the personal characteristics of consumers and, more specifically, to being trendy and non-conformist and caring about what others think. The second cluster refers to positive associations with ivory, including serving as the perfect gift, providing happiness and being beautiful. The third cluster captures attitudes toward and concerns about animals and elephants specifically. The fourth cluster represents peoples' legal and economic thoughts relating to ivory, such as its high cost, belief that it is a bad investment and its possible illegality. The last cluster illustrates our key outcomes of intent to buy ivory and support for regulation. A more detailed explanation of the components within each cluster is available in the Appendix.



The graphic below illustrates the results of the path analysis. The arrows indicate elements that are connected; the thicker the arrow, the stronger the statistical relationship between the factors.

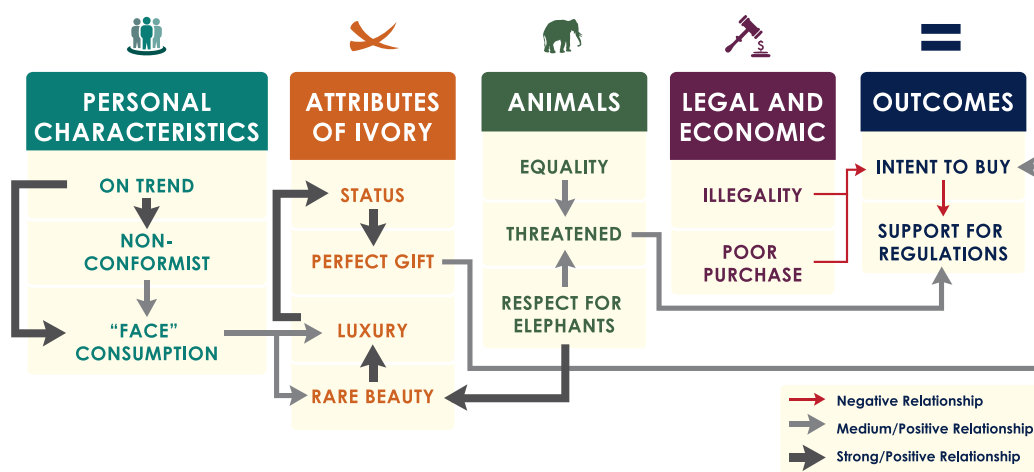
The color of the arrow indicates the type of relationship between the factors, with grey indicating a positive relationship and red a negative one.

The path analysis confirms that gifting, and ivory's suitability for such, is the most powerful element underlying intent to purchase ivory. Fueling consumer belief that ivory is the "perfect gift" is the perception of ivory as rare, precious, pure, beautiful and exotic and, importantly, that it confers status to not only the receiver but the giver of the gift.

Ivory is perceived as the perfect gift when it confers status and makes people feel confident, happy, respected, important, proud and powerful. The path analysis confirms the role of "face" consumption in driving ivory purchase, that is, the link between consumption, self-expression and

status, which supports the belief that ivory is luxurious and rare and therefore ideal for gifting. In contrast, legal and economic factors negatively impact on purchase intent, although mildly.

Finally, it appears that support for regulations that ban or limit the ivory trade or belief in the need for them are not linked to intent to buy ivory. In other words, increasing support for regulation does not appear to convert into decreased demand. Still, the path analysis indicates that respect for elephants and their rights as animals, along with recognition that they are threatened, increases people's support for regulation of the ivory trade. That is the good news. But at the same time, respect for elephants also supports the perception that ivory is rare and beautiful, hence luxurious and conferring of status, and it is therefore the perfect gift.



TRUSTED SOURCES OF INFORMATION

A series of questions was included in the survey to assess the sources of information for social and environmental issues and in particular those related to elephant ivory that are most trusted and most used. These findings are used to help provide guidance on communication strategies.

Nonprofit environmental organizations and scientists/academics are generally seen as the most trusted sources of information. This suggests that these types of individuals and organizations may lend credibility to public campaigns to discourage ivory purchases.

Family members and friends are the third most trusted source of information overall, suggesting social networking campaigns may be an effective tool in changing attitudes about ivory.

Vietnam is an exception to the pattern. Government employees and officials top the list of trusted sources of information in this country, consistent with a much higher level of agreement among Vietnamese respondents that the national government is doing a good job at protecting nature than is the case among respondents elsewhere. Despite this variance, nonprofits, scientists/academics and family/friends are all still trusted sources of information by large majorities in Vietnam.

In all five countries, either TV news or the Internet holds the top spot as the most frequently used source of information for important social and environmental issues.

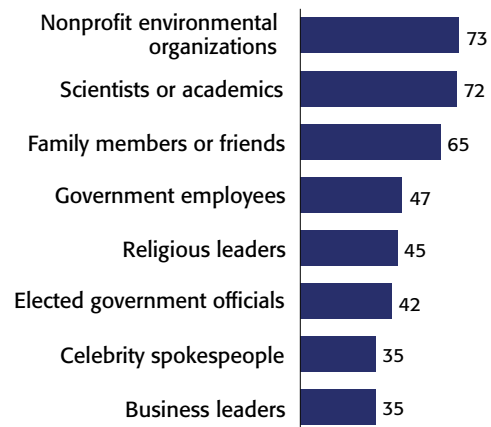
The Internet is the most used source in China (88% use weekly or more often) and the Philippines (78%). In these two countries, the next most frequently used sources are TV news and social media respectively.

In the United States, Thailand and Vietnam, TV news tops the list as the most often used source of information for important social and environmental issues.

Conversations with acquaintances and social media are commonly used sources of this type of information in all five countries, reinforcing the notion that personal networks can serve as an effective communication channel for social marketing campaigns.

Overall, science-driven non-governmental organizations are found to be a particularly authoritative voice on ivory, but it will be vital for them to catalyze action among individuals who influence their peers to follow suit.

Trust in People/Organizations to Provide Accurate Information About Issues Related to Ivory
Five-Country Average



Most Used Sources of Information to Follow Social and Environmental Issues Used Once a Week or More Often, Top Five by Country, 2014

China	Philippines	USA	Thailand	Vietnam
Internet (88%)	Internet (78%)	TV news (64%)	TV news (93%)	TV news (96%)
TV news (84%)	Social media (76%)	Internet (60%)	Conversations with acquaintances (73%)	Conversations with acquaintances (93%)
Social media (78%)	TV news (71%)	Conversations with acquaintances (52%)	Newspapers (70%)	Newspapers (77%)
Conversations with acquaintances (74%)	Conversations with acquaintances (60%)	Newspapers (44%)	Documentaries (59%)	Internet (66%)
Newspapers (72%) Radio (72%)	Radio (59%) Newspapers (59%)	Social media (44%)	Social media (49%)	Social media (63%)

IMPLICATIONS

The size of the potential ivory market is substantial, particularly in China and the Philippines. Intervention efforts are clearly needed to curb demand, yet the appeal of ivory, combined with its social function, will complicate demand-reduction efforts.

Strategies for reducing demand should be informed by analytics that deconstruct the direct and indirect interrelationships among various social values, attitudes, customs and behaviors. This study has sought to provide these.

The desire for ivory appears to be driven far more by its image-related attributes than by any functional benefit it provides. The feelings ivory inspires (e.g., pride, confidence, power, respect) in buyers and owners, its function as a status symbol and particularly its role as an ideal gift are found to be the strongest drivers of stated purchase intent. Of these, gifting emerges as the most powerful motivator, particularly because it seems to amplify the status ivory imparts upon both the giver and receiver.

Given that gifting plays a deeply social (and often economic) function in many societies both in the countries studied and well beyond, changing attitudes and behaviors associated with ivory presents steep challenges. In order to diminish desire for ivory, it will need to be devalued in the eyes of potential buyers in some way. In particular, messaging that could be effective would degrade ivory's association with status, being fashionable and, most importantly, being an ideal gift. On this last attribute, as ivory becomes less socially acceptable, its suitability as a gift could diminish.

Altering emotional attachment to ivory will pose further challenges. One potential strategy may be through rational messaging that heightens doubt that ivory is a good investment or a smart purchase.

Regulation and enforcement are other avenues for curbing the ivory trade. This study finds that public support for government actions is widespread, not only among the general public, but also among those who are current and potential buyers. Support for regulation is driven by awareness of the negative repercussions of the ivory trade (elephant endangerment, criminal activity), promoting awareness of the illegalities associated with the ivory trade, and fostering values such as animal rights and ethical purchasing. Current and past advocacy in the countries studied appear to have been effective in this regard.

Support for regulation, however, does not appear to directly translate into reduced intent to buy ivory, suggesting that both efforts to generate support for regulation and efforts to reduce demand using other strategies will likely need to be pursued.

Finally, the current timing seems opportune for influencing consumers with strategies aimed at reducing the size of the ivory buyers segment and growing the number of those who actively reject ivory. Progress toward these goals should be assessed with timely follow-up research. For now, the study finds that the scientific and nonprofit environmental communities are credible voices on the topic of ivory, and that peer influences can be leveraged to influence related behavior.

COUNTRY SUMMARIES

This study was conducted in five countries that are key markets for ivory purchase – China, the Philippines, the United States, Thailand and Vietnam. There are some inevitable differences in study methodology across countries, dictated by local best practices and feasibility within each country. While differences in data collection pose some limits to direct country comparisons, having three countries share in the online methodology and the remaining two in the in-person methodology allows for direct comparisons within the two sets of data collection modes.

Periodically throughout this report, on some measures, a reference may be made to a “total” or “five-country” average, which is an arithmetic average of a given measure obtained across the five countries, with each country weighted equally. This provides some context for interpretation.

A short summary of key findings for each country, with a focus on the most notable country differences, follows.

5

COUNTRIES

1. CHINA
2. PHILIPPINES
3. THAILAND
4. UNITED STATES
5. VIETNAM

CHINA

Methodological Notes

In China, 15 in-depth interviews (12 among ivory owners or prior buyers and three among ivory “rejecters”) were conducted in Beijing and Shanghai. Additionally, four focus groups among participants with a neutral or positive attitude toward ivory were conducted in Beijing and Chengdu (two in each city), primarily to guide the content of the quantitative questionnaire. Subsequently, quantitative research was conducted online using a best-in-class consumer research panel. Data were collected through online self-completion of the questionnaire in Mandarin. Invitations to complete the survey were emailed to a managed panel of adults in China who agreed to take part in online research.

It is noted that random probability sampling is not possible using online panels due to varying levels of Internet penetration among different demographic segments of the population. For the final sample to reflect the demographic and geographical makeup of China nationally, the final sample of 1,039 was weighted to the latest census figures.

Key Findings

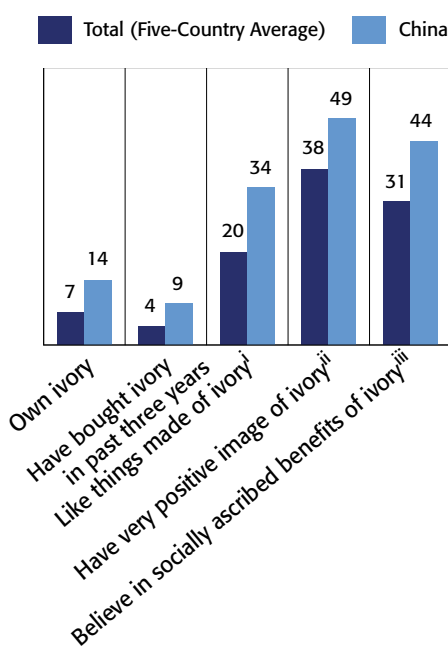
Among the five countries studied, China stands out as having the largest segment of Likely Buyers of ivory; the highest levels of current ownership and recent purchase rates; and the most positive perceptions of ivory as a desired material. Given its large population base, China is clearly the most important generator of ivory market demand. Coupled with, and perhaps in spite of, reverence for ivory among some Chinese are high levels of awareness of the threats to elephants and strong support for government action to curb the ivory trade.

Ownership and Perceptions of Ivory

The following graphic summarizes some of the key measures associated with ivory ownership and perception in China versus the average across the five countries surveyed.

Summary of Key Measures on Ivory Ownership and Perceptions

Total (Five-Country Average) vs. China



China generates the highest rates on a number of key measures related to ownership and positive perceptions of ivory. Here, the rate of ownership and purchase within the past three years is double that of the five-country average. As well, a sizeable portion of Chinese hold positive views of ivory, including having faith in many of ivory's socially ascribed, non-tangible benefits, such as the ability to bring good luck.

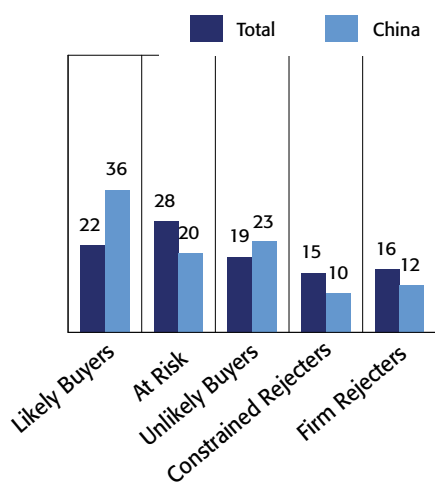
Likely Buyers

As noted in the body of this report, a key group of interest is consumers defined as Likely Buyers, i.e., those who indicate likelihood of buying ivory in the future and the absence of financial obstacles to doing so. These consumers represent the portion of the population most responsible for fueling demand for ivory. This segment is

larger in China than in any of the other countries surveyed. Thirty-six percent of Chinese fall into this group compared to 22% for the average across the five countries. At the other end of the spectrum are Firm Rejecters who indicate they are not interested in buying ivory, although they have the financial means to do so. This group accounts for 12% of Chinese respondents, a rate that is less than average, but greater than that for Vietnam (3%).

Segment Size

Total (Five-Country Average) vs. China



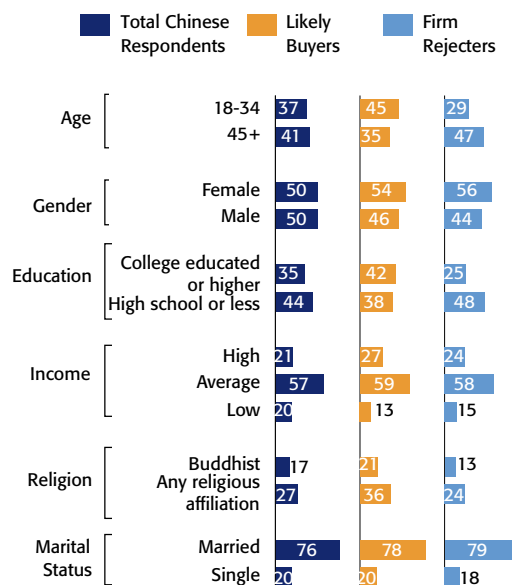
Across all five countries in the study, including China, Likely Buyers are concentrated in the 18- to 34-year-old age group. In China, Likely Buyers tend to be younger, better educated and slightly more affluent than the average Chinese respondent (although most still fall into the middle-income bracket). Most are married (78% – similar to the national average). While most Chinese are not religious (of the countries in the study, China has the lowest rate of religious affiliation of any kind at 27%) among Likely Buyers, the rates of being Buddhist (21%) or of having any religious affiliation (36%) are higher than that of the national average and compared with Firm Rejecters.

By contrast, Firm Rejecters in China tend to be older than average, less well-educated and less likely to have any religious affiliation.

Drivers of Demand for Ivory

Demographic Profile

Likely Buyers vs. Firm Rejecters – China



To better identify the importance of various beliefs, attitudes and concerns that underlie intent to purchase ivory, a driver analysis was conducted using statistical regression techniques to identify the most influential predictors of demand. A series of universal drivers was identified that occur across all or most countries studied, and these are discussed in more detail in the main body of this paper.

ADDITIONAL DRIVERS: CHINA



Belief that purchasing small pieces of ivory does not contribute significantly to overall demand



Belief that it is easy to identify real ivory



Belief that soon it will become impossible to acquire ivory legally, so there is a need to purchase ivory now

In China, three additional drivers are found to be important in predicting purchase intent. The first is the **belief that purchasing small pieces of ivory does not contribute significantly to overall demand**. In the qualitative discussions, it was clearly evident that many respondents use this belief to rationalize their own consumption.

The second is the **belief that it is easy to identify real ivory**. Those that hold this view are likely experienced buyers. However, those who are less experienced may be dissuaded from buying ivory for fear of purchasing artificial ivory.

Finally, the third additional driver important to Chinese demand is the **belief that it will soon become impossible to acquire ivory legally**. The implication is that there is a perceived need to purchase ivory now. This last influence suggests a potential backlash reaction to efforts to increase awareness of possible elephant extinction and to raise support for regulation, because these could signal an end to the supply of ivory, driving up demand. In fact, when asked what would be the effect of being told it would soon become impossible to legally buy ivory, 22% of Chinese respondents (a rate significantly higher than for any of the other countries) indicate that that this would increase their likelihood of buying ivory. As suggested by the qualitative discussions, dwindling supply leads some buyers to the expectation that the value of any ivory will increase in value – another impetus to buy while it remains possible to do so. Among Chinese respondents who indicate they have bought ivory at any time in the past, 16% say they have ever bought it for investment purposes with the intention of reselling the item. This figure does not reflect the extent to which individuals might want ivory for personal reasons, but still want its value to be retained or increased over time.

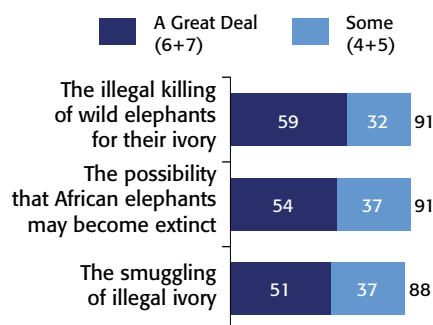
Awareness and Attitudes Toward Ivory Issues

While China represents a large market for ivory, awareness of the negatives associated with the ivory trade is high among the Chinese population. Half of Chinese respondents claim to have heard a great deal about the negatives of the ivory trade and about nine out of 10 say they have heard at least some about these issues. On these measures, there is no notable difference between Likely Buyers and total respondents in China.

Compared with the other countries surveyed, awareness levels in China are slightly higher than average and significantly higher than those in the United States and Thailand.

Amount Heard About Ivory Issues

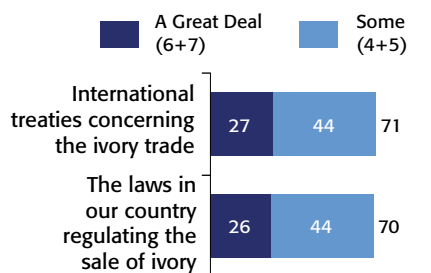
China



About two-thirds of Chinese are at least somewhat aware of national laws and international treaties concerning ivory. The level of awareness of both is higher in China than in the United States or Thailand, but lower than among respondents in Vietnam. Many Chinese respondents lack faith in both their own government's regulatory ability (45% disagree that Chinese laws are well-enforced) and in international efforts to protect the environment generally (38% disagree that governments around the world are doing a good job). By comparison, respondents in Thailand and Vietnam express greater faith in government efficacy, while Americans have the lowest level of confidence in governments on ivory-related issues.

Amount Heard About Ivory Treaties/Laws

China

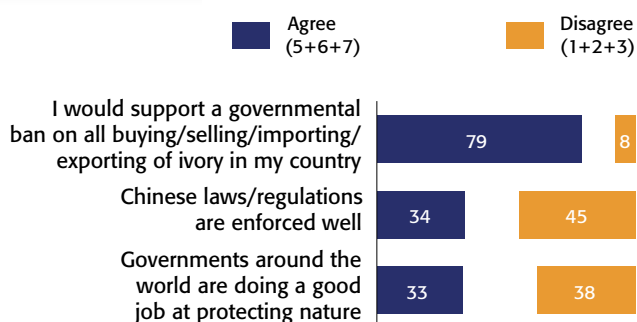


Perhaps tied to low confidence in current government actions, Chinese respondents express high levels of support for additional regulatory action to eliminate or limit the trade in elephant ivory.

A large majority (79%) of Chinese respondents say they would support a ban on all buying and selling of ivory in their country. Support of this level is fairly consistent across the five countries, even though the size of the pro-ivory (i.e., Likely Buyer) segment varies among them. Among Likely Buyers in China, 67% say they would support a ban.

Attitudes Toward Government Regulation

China



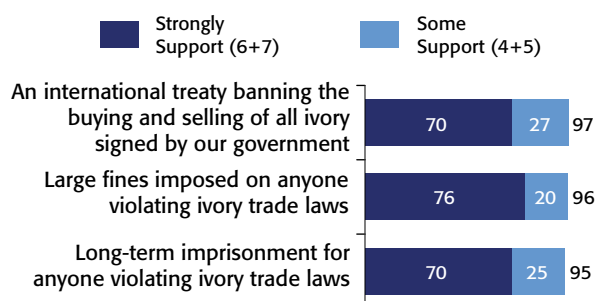
White space in this chart represents "neither agree nor disagree" and "don't know/not applicable."

When asked how much they would support different government actions to limit the trade in elephant ivory, large majorities of the Chinese respondents indicate support for all nine actions evaluated (see Appendix). The three actions generating the highest level of support in China are an international treaty banning the sale and purchase of ivory, large fines and long-term imprisonment. Over two-thirds of Chinese would strongly support these actions, while over 95% would support them to varying degrees. Support for such measures is fairly consistent across all countries surveyed, with majorities everywhere offering support to all of the nine suggested actions.

While the level of "strong" support for the proposed initiatives is more modest among Likely Buyers in China, notably each of the three top actions elicits positive support from at least nine in 10 Likely Buyers in this country. Opposition to any of the three initiatives among Likely Buyers ranges from 6% to 8%.

Support for Government Actions to Limit Elephant Ivory Trading (Top Three Actions)

China



Trusted Sources of Information

To help provide guidance on potential communication strategies, the survey asked how much participants would trust various institutions/people to provide them with accurate information about issues related to ivory. In China, respondents say they trust nonprofit environmental organizations (80%), scientists or academics (79%) and family/friends (78%). In all countries surveyed, the first two groups are found to be trusted by large majorities, while family/friends are seen to be trusted by about one-half to three-quarters of the respondents in each country.

Participants were also asked how often they use various communication channels to learn about social and environmental issues in general. The most used sources among Chinese respondents are the Internet (88% use it at least weekly for this purpose), TV news (84%) and social media (78%). Results of this question are also fairly consistent across all five countries. Other often used sources for China include conversations with acquaintances (74%), newspapers (72%) and radio (72%).

PHILIPPINES

Methodological Notes

In the Philippines, 15 in-depth interviews (12 among ivory owners or prior buyers and three among ivory “rejecters”) were conducted in Manila, including Makati and Quezon, which are part of Greater Manila. Additionally, two focus groups among participants with a neutral or positive attitude toward ivory were conducted in Manila, primarily to guide the content of the quantitative questionnaire.

Subsequently, quantitative research was conducted online using a best-in-class consumer research panel. Data were collected through online self-completion of the questionnaire in Filipino. Invitations to complete the survey were emailed to a managed panel of adults in the Philippines who have agreed to take part in online research. It is noted that random probability sampling is not possible using online panels due to varying levels of Internet penetration among different demographic segments of the population. For the final sample to reflect the demographic and geographical makeup of the Philippines nationally, the final sample of 969 was weighted to the latest census figures.

Key Findings

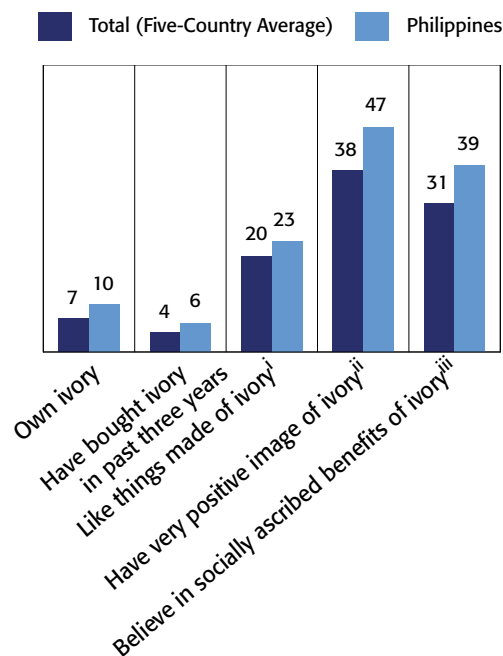
Among the five countries studied, the Philippines stands out as having the second-largest segment of Likely Buyers of ivory. The Philippines scores relatively high on all key measures associated with ivory ownership and perception, being above the average for all countries. The profile of the Philippines is similar to China in many respects, both in terms of the higher percentage of Likely Buyers and the strong level of awareness of ivory issues compared with the other countries surveyed.

Ownership and Perceptions of Ivory

The following graphic summarizes some of the key measures associated with ivory ownership and perception in the Philippines versus the average for the five countries surveyed.

The Philippines, after China, demonstrates the highest rates on all key measures related to ownership and positive perceptions of ivory. The Philippines rates above the five-country average on all of these measures and particularly higher than average on having a positive image of ivory. The number of Filipinos who believe in the socially ascribed benefits of ivory is also significantly higher compared with the average of all countries surveyed.

Summary of Key Measures on Ivory Ownership and Perceptions
Total (Five-Country Average) vs. Philippines



Likely Buyers

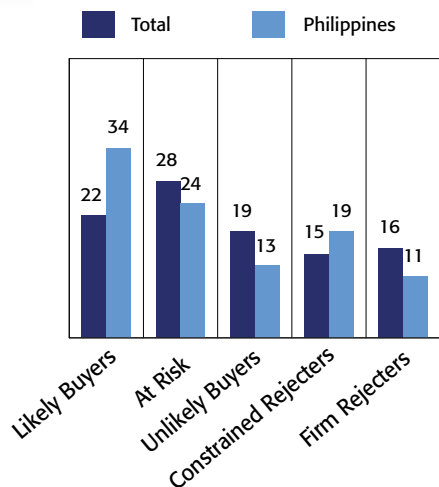
In the Philippines, over one-third (34%) of those surveyed fall into the Likely Buyer segment, i.e., respondents who show the greatest intent to purchase ivory in the near future and for whom affordability is not a reported obstacle to purchase. The size of the Likely Buyer segment in the Philippines is larger than the total average of Likely Buyers across all five countries and is also larger than in all other surveyed countries, with the exception of China (36%). Within the Philippines, Likely Buyers are also the largest segment.

At the other end of the spectrum, the number of Firm Rejecters of ivory is low, representing only 11% of Filipino consumers. This is the second-lowest number of Firm Rejecters across all surveyed countries after Vietnam (3%).

Similarly to the other four countries, the Likely Buyer segment in the Philippines is concentrated in the 18- to 34-year-old group (61%). Over half of Likely Buyers are female (55%), a higher number compared with the national average for the country (50%). Nearly half of Likely Buyers are single (48%), a number again significantly higher than the national average for the country (39%), while 44% are married. There are barely any differences in terms

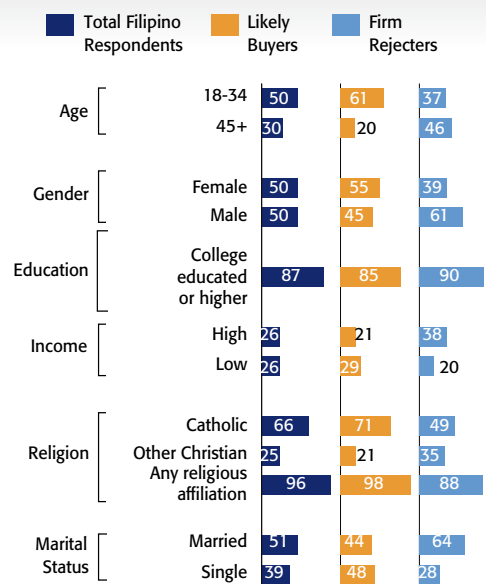
Segment Size

Total (Five-Country Average) vs. Philippines



Demographic Profile

Likely Buyers vs. Firm Rejecters – Philippines



of education between Likely Buyers and the national average, with the majority in both cases having at least some university education or having completed their undergraduate studies. Nearly all Likely Buyers (98%) also claim some religious affiliation, which is on par with the national average. Almost three-quarters of Likely Buyers (71%) are Catholic, which is above the national average of 66%.

Firm Rejecters in the Philippines, in contrast, tend to be older, wealthier and more likely to be married compared with both Likely Buyers and the national average for the country. A larger proportion of Firm Rejecters also tend to be male (61%) compared with both Likely Buyers (45%) and the national average (50%).

Drivers of Demand for Ivory

To better identify the importance of various beliefs, attitudes and concerns that underlie intent to purchase ivory, a driver analysis was conducted using statistical regression techniques to identify the most influential predictors of demand. A series of universal drivers was found to occur across all or most countries studied, and these are discussed in more detail in the main body of this paper.

In the Philippines, four additional drivers are shown to be important in predicting purchase intent. The first is the belief that **purchasing small pieces of ivory does not significantly contribute to the overall demand**. The second is the **belief that the elephant population**

ADDITIONAL DRIVERS: PHILIPPINES



Belief that purchasing small pieces of ivory does not contribute significantly to overall demand and that elephant populations are abundant



Belief that the elephant population is abundant in Africa



Belief that governments will make sure African elephants don't become extinct



Belief that elephants are a threat to humans living nearby

is abundant in Africa. The third is the belief that governments will make sure that African elephants do not become extinct. Together, these three drivers can be perceived as means for consumers to justify their desire to purchase ivory by minimizing the impact that they have on negative consequences that derive from the ivory trade and deflecting responsibility. A large proportion of Likely Buyers (85%) believe that the laws in place to protect elephants will protect the animals from extinction. Nearly two-thirds of Likely Buyers (60%) further think that purchasing small ivory items does not contribute significantly to overall demand, and 64% believe that elephant populations in Africa are abundant.

Awareness and Attitudes Toward Ivory Issues

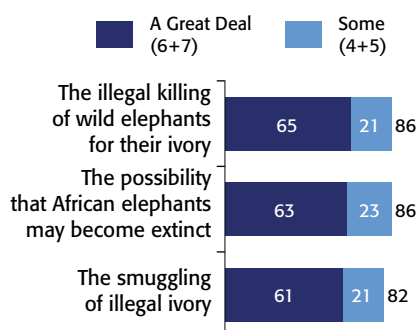
Awareness of the threats to elephants associated with the ivory trade, and knowledge of the trade's illegality, is high among Filipino consumers. Nearly six in 10 respondents claim to have heard a great deal about issues relating to elephants and ivory, while nearly all (96%) have at least some knowledge of them. Compared with the national average for the Philippines, fewer Likely Buyers have heard a great deal about the illegal killing of elephants for their ivory and about their possible extinction (50% for both). But even among this segment, awareness remains high overall. Firm Rejecters have the highest level of knowledge of these issues, with 88% having heard a great deal about the illegal killing of elephants and 77% having heard a great deal about their possible extinction.

Compared with the other countries surveyed, Filipino consumers have the highest level of awareness of these issues. It is noteworthy that China and the Philippines, the two countries that contain the highest proportions of potential ivory buyers, also have among the largest percentage of consumers who claim to be aware of negative issues relating to the ivory trade.

Fewer Filipino respondents have heard about ivory laws and regulations than about ivory-related issues. Seven in 10 Filipino consumers have at least some knowledge of international treaties concerning ivory, while nearly six in 10 have heard of the national laws regulating ivory sales. While high, the level of awareness of both is below that of China and Vietnam.

Amount Heard About Ivory Issues

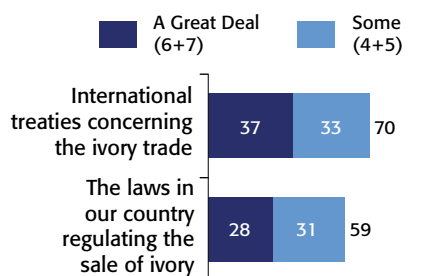
Philippines



Likely linked with their moderate level of awareness of existing national laws regulating the ivory trade, fewer than half of Filipino respondents are confident in the ability of governments around the world to protect nature, and even fewer believe their government is capable of enforcing regulations well (24%). These results are among the lowest across the five countries surveyed, after the United States. Fewer Chinese respondents also believe that governments around the world are successfully protecting nature compared with the Filipinos.

Amount Heard About Ivory Treaties/Laws

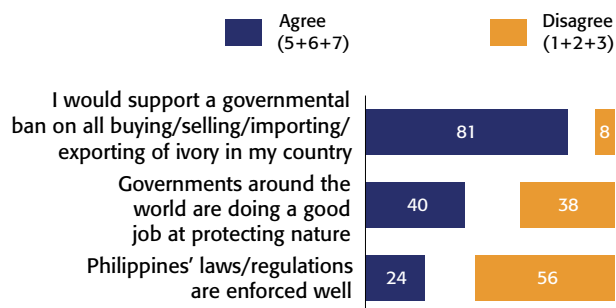
Philippines



Most Filipino participants (81%) would support a governmental ban on all trading of ivory in their country. While the number of Likely Buyers who would support a ban (70%) is lower compared to both the national average and Firm Rejecters, it remains nonetheless high; only in Vietnam are more Likely Buyers in support of a governmental ban on ivory trading (76%).

Attitudes Toward Government Regulation

Philippines



White space in this chart represents "neither agree nor disagree" and "don't know/not applicable."

When asked how much they would support different government actions to limit the trade in elephant ivory, most Filipino respondents indicate support for all nine actions evaluated (see Appendix). This is similar to the other four countries surveyed. On average, about six in 10 strongly support each of the nine actions, while over eight in 10 would support them to varying degrees. Among Likely Buyers, at least four in 10 would strongly support each of the nine government actions to limit the ivory trade. The number of Likely Buyers who would support all actions (44%) is on par with the national average (43%) for the Philippines.

The three actions generating the highest level of support in the Philippines are large fines, long-term imprisonment and an international treaty banning the trade of ivory. In all five countries, these three actions generally have among the highest levels of support.

Support for Government Actions to Limit Elephant Ivory Trading (Top Three Actions)

Philippines



Trusted Sources of Information

To help provide guidance on potential communication strategies, the survey asked how much participants would trust various institutions/people to provide them with accurate information about issues related to ivory. Like those in most of the other four countries surveyed, Filipino respondents say they trust scientists and academics most (74%) along with nonprofit environmental organizations (73%) and, then family/friends (64%).

Participants were also asked how often they use various communication channels to learn about social and environmental issues in general. The communication channels that Filipino respondents most use weekly are the Internet (78%), social media (76%) and TV news (71%). Other channels often used at least once a week in the Philippines include conversations with acquaintances (60%), newspapers and radio (59% each).

THAILAND

Methodological Notes

In Thailand, two focus groups among participants with a neutral or positive attitude toward ivory were conducted in Bangkok.

Subsequently, quantitative research was conducted via face-to-face interviews in respondents' homes. The interviews took place in the cities of Greater Bangkok, Chiang Mai, Chon Buri, Khon Kaen and Surat Thani. Survey respondents were selected using stratified random sampling with control quotas on age, gender and socio-economic level. No weighting of the main study sample was required due to the use of set quotas. The final sample of 1,018 respondents reflects the demographic makeup of the adult population living in major urban populations within Thailand.

Key Findings

Among the five countries studied, Thailand (along with Vietnam) appears to have the lowest rate of active ivory buyers. In both countries, only 1% say they have bought ivory in the past three years. However, about one-third of Thai respondents have a very positive overall image of ivory, which is a higher rate than among Americans, but lower than elsewhere.

The percentage of the Thailand sample categorized as Likely Buyers is 14%, which is in line with that for the United States (13%) and Vietnam (14%), but much lower than for China (36%) and the Philippines (34%). Thailand is among the three smallest of the five countries studied by population. Consequently, Thailand and Vietnam represent the two smallest markets.

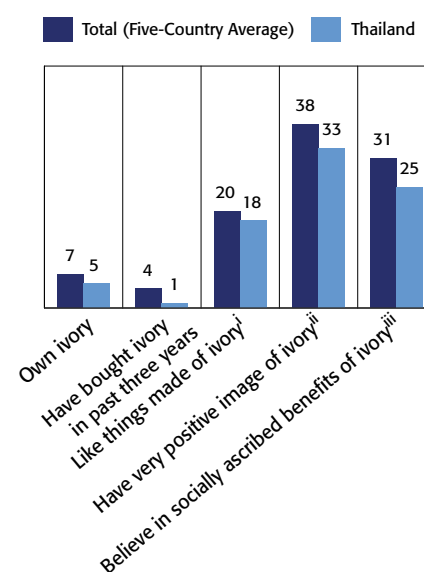
The Likely Buyer group in Thailand, as compared with elsewhere, is unique in terms of being almost exclusively Buddhist (99%) – a rate in keeping with the national average (95%). This high level of homogeneity in terms of religion is exceptional among the five countries studied – both in terms of overall population and the Likely Buyer segment.

Thai respondents, along with those in the United States, exhibit the lowest levels of awareness of issues related to the ivory trade. Yet, a large majority of the Thai sample support actions intended to curb the trade in elephant ivory. Notably, overall support for such actions is almost equally high among Likely Buyers in Thailand as compared with the total Thai sample.

Ownership and Perceptions of Ivory

The following graphic summarizes some of the key measures associated with ivory ownership and perception for Thailand versus the average across the five countries surveyed.

Summary of Key Measures on
Ivory Ownership and Perceptions
Total (Five-Country Average) vs. Thailand



Only 1% of the Thai respondents indicate they have bought any elephant ivory in the past three years. Along with Vietnam, this is the lowest past-purchase rate found in this study. Current ownership runs at 5%, which is a rate less than that for China and the Philippines (14% and 10% respectively), greater than that for Vietnam (2%) and very similar to that found in the United States (4%).

One-third of Thai respondents indicate having a very positive image of ivory, and one-quarter are aware of and believe in the socially ascribed benefits of ivory, such as bringing good luck and health. On both measures, the rates for Thailand are higher than those for the United States and lower than those for the remaining countries.

Likely Buyers

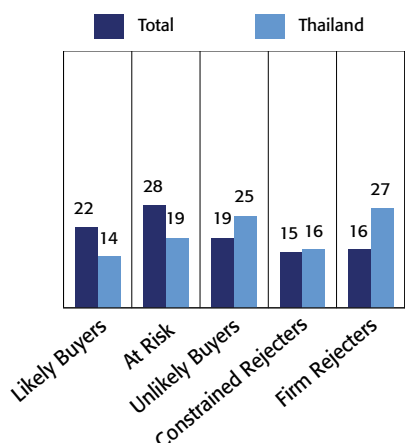
Consumers who are the most likely to purchase ivory, labeled as "Likely Buyers" in this study, account for 14% of Thai respondents, which is essentially the same as that for

the United States and Vietnam (13% and 14% respectively) and well below that for China (36%) and the Philippines (34%).

The segment least likely to buy ivory, the “Firm Rejecters,” account for 27% of Thai respondents. Americans are similar in this regard, where 24% are Firm Rejecters. Elsewhere, this segment accounts for a much smaller percentage of the populations studied.

Segment Size

Total (Five-Country Average) vs. Thailand



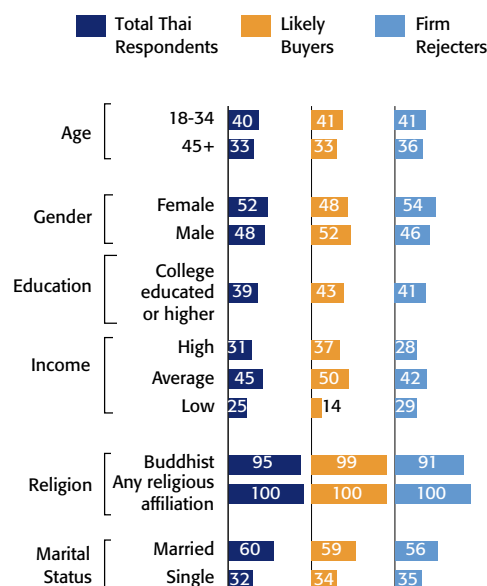
In Thailand, the profile of Likely Buyers generally reflects the demographic makeup of the overall sample. Those in this segment are slightly less likely than average to be very young (18-24 years of age).

Generally, as is the case elsewhere, Likely Buyers in Thailand are concentrated in the 18- to 34-year-old group. Almost all are Buddhist (99%) as are 95% of the total Thai sample.

The demographic makeup of the Firm Rejecter group also does not differ markedly from the average. They are slightly less likely to be Buddhist, although most are (91%).

Demographic Profile

Likely Buyers vs. Firm Rejecters – Thailand



Drivers of Demand for Ivory

A key objective of this study was to determine the most powerful motivators of intent to purchase ivory. For this purpose, a driver analysis utilizing statistical regression techniques was conducted. A series of purchase motivators was identified that occur across all or most of the countries studied and are referred to as “universal drivers.” These drivers are discussed in detail in the main body of this paper.

ADDITIONAL DRIVERS: THAILAND



Perception of ivory as
sacred, sublime, noble
and exotic

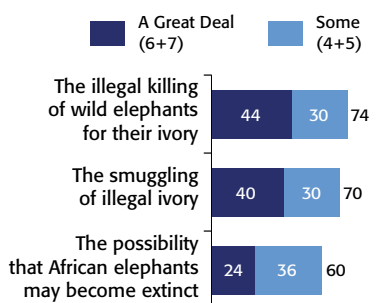
One additional driver of purchase intent was found for **Thailand**, and it relates to the positive imagery associated with ivory – namely that it is **sacred, sublime, noble and exotic**. The perception of ivory as sacred may be tied to its common use in religious carvings. During qualitative discussions, participants claim that ivory is ideal for such a purpose because of its whiteness and purity. The words “sacred” and “pure” were often used to describe ivory by these participants.

Awareness and Attitudes Toward Ivory Issues

Less than half of Thai respondents claim to have heard a great deal about the illegal killing of elephants for ivory or about illegal smuggling. Awareness drops to only one-quarter on the topic of elephant extinction. On these three questions, the percentage of those who indicate at least some level of awareness ranges from 60% to 74%. These levels of awareness are similar to those found among Americans, but lower than those found in the remaining countries.

Amount Heard About Ivory Issues

Thailand

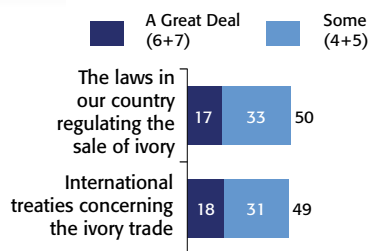


Fewer than one in five Thai respondents claims to have heard a great deal about international treaties concerning the ivory trade; the same is true about Thai laws regulating the sale of ivory. Again, awareness is lowest among those in Thailand and the United States and notably higher in the remaining markets.

While the percentage of Likely Buyers in Thailand who say they have heard a great deal about ivory laws and treaties is on par with the national average, a larger proportion of this segment has at least some level of awareness of international treaties (61%) and national laws (67%).

Amount Heard About Ivory Treaties/Laws

Thailand

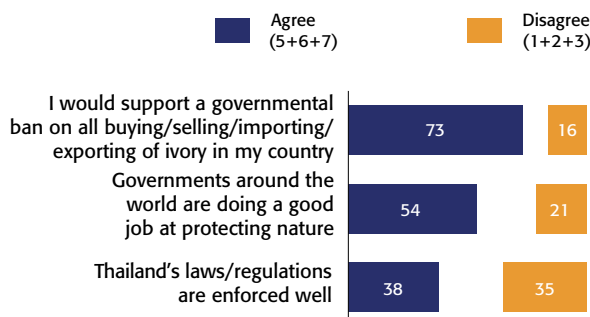


Over half of Thai respondents (54%) believe that governments around the world are doing a good job at protecting nature. Respondents in this are split regarding the law enforcement in their country, with 38% agreeing that they are well-enforced and 35% disagreeing.

On these two questions, opinions vary across the different markets studied. Americans are the most skeptical about the effectiveness of their own government or those of other countries. At the other extreme, a majority of Vietnamese respondents express faith in government.

Attitudes Toward Government Regulation

Thailand



White space in this chart represents “neither agree nor disagree” and “don’t know/not applicable.”

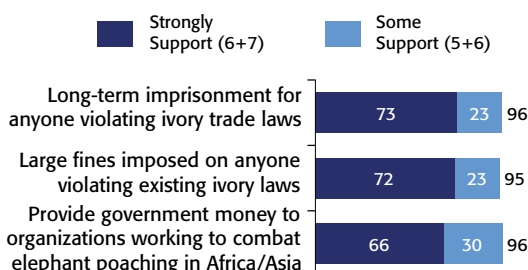
Almost three-quarters of Thai respondents are supportive of a ban on all buying, selling, importing and exporting of ivory. Among Likely Buyers, support is also widespread – with 70% in agreement with such a proposal and only 10% disagreeing with it. Such a ban on ivory is supported by majorities in all five countries in the study.

Respondents were asked to indicate their level of support on a series of nine different government actions intended to limit the trade in elephant ivory (see Appendix). Each of the nine actions is at least somewhat supported by over nine in 10 respondents.

The three actions that elicit the strongest support in Thailand are long-term imprisonment for violators of ivory laws, providing government money to organizations working to combat elephant poaching, and large fines for violators of existing ivory trade laws, signaling a perceived need for enforcement measures and a desire to help protect elephants. Long-term imprisonment is supported at least somewhat by 97% of Likely Buyers, a result slightly above the national average, while 94% of this group somewhat supports the other two measures.

Support for Government Actions to Limit Elephant Ivory Trading (Top Three Actions)

Thailand



Trusted Sources of Information

To help provide guidance on potential communication strategies, the survey asked how much participants would trust various institutions/people to provide them with accurate information about issues related to ivory. Among Thai respondents, the two types of sources most trusted on ivory issues are nonprofit environmental organizations (73%) and scientists or academics (65%). In all countries surveyed, these groups are found to be trusted by large majorities. Ranked third in Thailand is family/friends (48%). Such individuals are seen to be trusted by one-half to three-quarters of respondents in each of the five markets.

Participants were also asked how often they use various communication channels to learn about social and environmental issues in general. The most often used sources of information to learn about social and environmental issues are TV news, with 93% of Thai respondents watching it at least weekly, conversations with acquaintances (73%) and newspapers (70%). Rounding out the list of top five sources are documentaries (59%) and social media (49%).

On this particular question, Thai respondents stand out from people in the other countries in two ways. First is the absence of the Internet as a top five most often used source of information; only 48% of Thai respondents use the Internet weekly as compared to the five-country average of 68%. The second observed difference is the greater reliance on documentaries among Thai respondents. Documentaries are the fourth most frequently used source of social and environmental information; elsewhere, usage is less common.

UNITED STATES

Methodological Notes

In the United States, quantitative research was conducted online. Data were collected through online self-completion of the questionnaire. Invitations to complete the survey were emailed to a managed panel of adults in the United States who agreed to take part in online research.

It is noted that random probability sampling is not possible using online panels due to varying levels of Internet penetration among different demographic segments of the population. For the final sample to reflect the demographic and geographical makeup of the United States nationally, the final sample of 1,186 was weighted to the latest census figures.

Key Findings

Among the five countries studied, the United States stands out as having the smallest segment of potential buyers of ivory (i.e., “Likely Buyers”) and among the lowest rates of current ownership and past-three-year purchase. In addition, Americans are the least likely to express positive attitudes about objects made of ivory.

Although Likely Buyers of ivory represent a smaller percentage of the population in the United States compared to countries such as the Philippines and China, the large population base of the United States makes it an important market in terms of overall numbers of potential buyers of ivory.

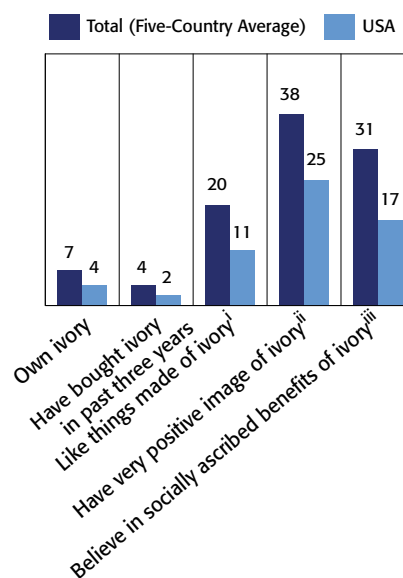
American respondents (along with those in Thailand) indicate the lowest level of awareness of issues related to the ivory trade. Nonetheless, support for actions to limit the trade in elephant ivory is widespread among Americans, with two-thirds expressing support for a total ban on all ivory trading in the United States, and only 13% stating that they would be opposed.

Ownership and Perceptions of Ivory

The following graphic summarizes some of the key measures associated with ivory ownership and perception for the United States versus the average across the five countries surveyed.

Summary of Key Measures on Ivory Ownership and Perceptions

Total (Five-Country Average) vs. USA



Americans express the lowest level of interest in ivory. In the United States, the rates of current ownership and purchase of ivory within the past three years are among the lowest of the five countries studied. The percentage of Americans who hold positive views of ivory is lower than in any of the other markets.

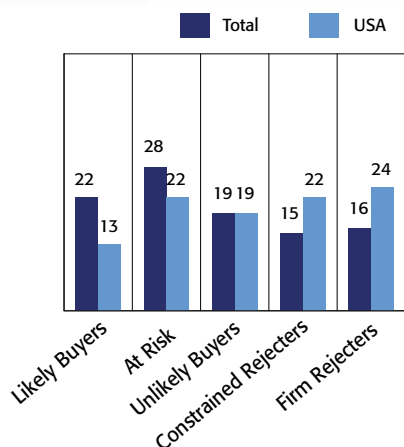
Likely Buyers

The segment of Americans who are categorized as Likely Buyers, i.e., those consumers who are most responsible for fueling demand for ivory, represents 13% of total American respondents. This rate is on par with that in Thailand and Vietnam, but substantially lower than for both China (36%) and the Philippines (34%).

Firm Rejecters, who are the least likely segment to buy ivory, represent 24% of American adults. Thailand is similar in this regard, while the percentage of Firm Rejecters in the remaining countries is much lower.

Segment Size

Total (Five-Country Average) vs. USA



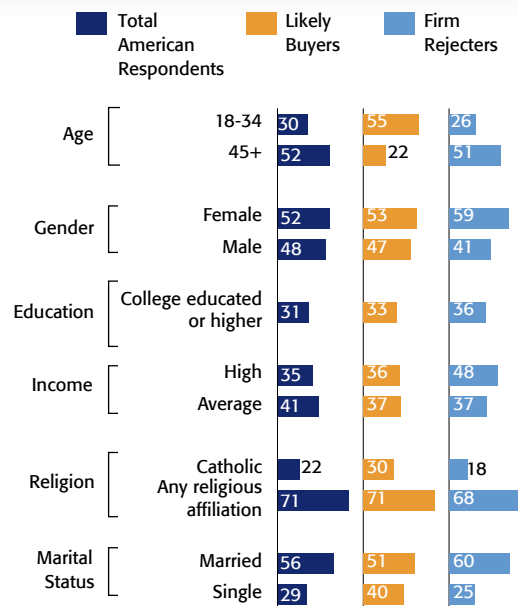
As is true in all markets studied, the Likely Buyer segment in the United States is over-represented by those aged 18 to 34. Notably, of American Likely Buyers, 25% are in the 18- to 24-year-old group, a rate double that of the national average. While half of them are married, 40% are single as compared to the average of 29% in this country.

In terms of religion, 71% of Likely Buyers claim some religious affiliation, which is on par with the national average. Thirty percent are Catholic, which is above the country average of 22%.

In contrast, Firm Rejecters in the United States are older, more affluent and less likely to be single compared with Likely Buyers and Americans in general. A slightly larger than average proportion of Firm Rejecters is female. The United States and Thailand have the largest proportions of Firm Rejecters (about one in four respondents for both countries), while only 3% of Vietnamese respondents fall into this category.

Demographic Profile

Likely Buyers vs. Firm Rejecters – USA



Drivers of Demand for Ivory

To better understand the mechanics of demand and to identify the most important motivators of intent to purchase ivory, a driver analysis was conducted using statistical regression techniques. The main body of this report provides a discussion of the drivers that occur across all or most of the countries in this study. In addition to these “universal” drivers, a series of key motivators, specific for the United States, were determined and are as follows:

ADDITIONAL DRIVERS: UNITED STATES



Belief that purchasing small pieces of ivory does not contribute significantly to overall demand and that elephant populations are abundant



Belief that governments will make sure African elephants don't become extinct



Perception of ivory as exotic and noble



Purchase of product or brand because it is fashionable/their friends buy it

In the United States, four additional drivers are found to be important in predicting purchase intent.

The first is the **belief that purchasing small pieces of ivory does not contribute significantly to overall demand**. The second is **faith in governments to ensure elephants do not become extinct**. Both of these beliefs may represent ways to rationalize ivory consumption. The remaining motivators of purchase intent relate to a desire for products that might serve to solidify belonging to and/or impressing one's peer group. Of these, one is the perception of ivory as **exotic and noble**, while the other speaks to the concept of products or brands representing a badge of style – more specifically defined as **buying a product/brand because it is fashionable and/or one's friends buy it**.

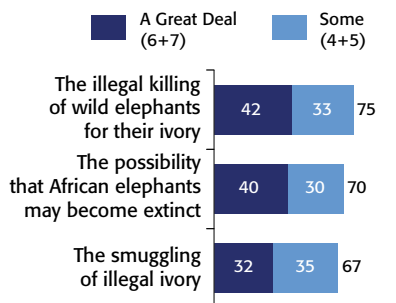
Awareness and Attitudes Toward Ivory Issues

Less than half of Americans claim to have heard a great deal about the illegal killing of elephants for ivory or the possibility that they may become extinct. Only one-third report having heard a lot about illegal ivory smuggling. While at least two-thirds to three-quarters claim to have heard at least something about these topics, awareness of these specific issues is lower in the United States than it is in three of the other surveyed countries. Thailand is the exception to this, with awareness levels very similar to those in the United States.

Among Likely Buyers in the United States, the level of awareness about these issues is similar to that of the total sample of Americans. For example, 68% of Likely Buyers have heard about the illegal killing of elephants; 67% about the possibility of extinction; and 63% about smuggling.

Amount Heard About Ivory Issues

USA

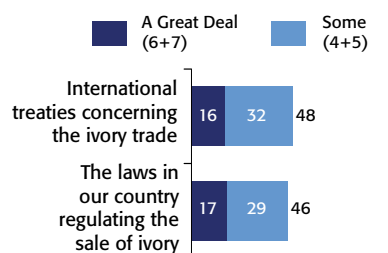


Fewer than one in five Americans says he or she has heard a great deal about international treaties concerning the ivory trade; the same is true about American laws regulating the sale of ivory. Again, awareness is lowest among those in the United States and Thailand and notably higher in the remaining countries.

Awareness about issues related to ivory and ivory laws is actually higher among American Likely Buyers compared with the national average.

Amount Heard About Ivory Treaties/Laws

USA

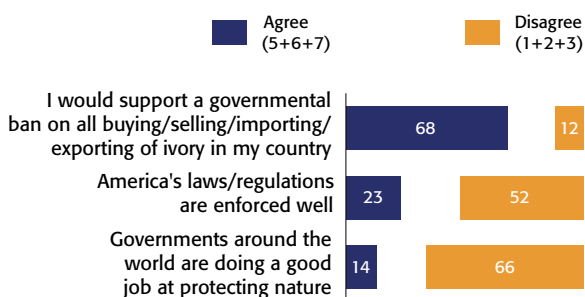


A majority (66%) of Americans do not believe that governments around the world are doing a good job at protecting nature. This level of disenchantment is more pronounced among Americans than among any of the other populations studied. As to how they feel about their own country's ability to enforce national laws and regulations, Americans are also skeptical, with 52% expressing a lack of faith in this capacity.

On both of these questions, opinions vary across the five countries. By comparison, faith in government is expressed by a large majority of Vietnamese respondents. Elsewhere, respondents are somewhat divided on both measures.

Attitudes Toward Government Regulation

USA



White space in this chart represents "neither agree nor disagree" and "don't know/not applicable."

Two-thirds of American respondents say they would support a ban on all buying, selling, importing and exporting of ivory in the United States. Among Likely Buyers in the United States, support for this action falls to 47%, with 24% of this group saying they would not support such a proposal.

Elsewhere, majorities in each country are in favor of a universal ban on trade, and opposition in the remaining four countries is limited to 16% or less.

When asked how much they would support various specific government actions to limit the trade in elephant ivory, around eight in 10 American respondents would at least somewhat support each of the measures. The three actions generating the highest level of support in the United States are large fines, stricter laws and the signing of an international treaty by the U.S. government banning the purchase and sale of ivory.

Over two-thirds of Americans indicate strong support for large fines and stricter laws, and 61% would strongly support an international treaty. Nine in 10 would support these actions to varying degrees. Support for such measures is fairly consistent across all countries surveyed. Each of the nine initiatives (see Appendix) generates support from a majority in each of the five countries.

Not surprisingly, the level of support for the proposed initiatives is lower among Likely Buyers. For example, for the three top actions, strong support among Likely Buyers in the United States ranges from 34% to 55%. These same three actions, however, elicit only a slightly lower level of support than the national sample.

Trusted Sources of Information

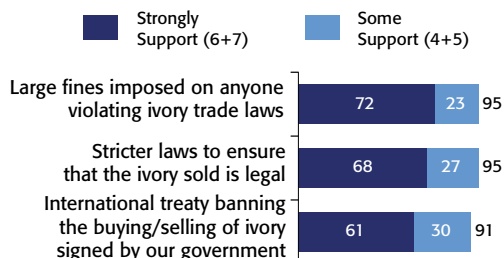
To help provide guidance on potential communication strategies, the survey asked how much participants would trust various institutions/people to provide them with accurate information about issues related to ivory.

In the United States, the most trusted sources are scientists or academics (63%), nonprofit environmental organizations (60%) and family/friends (59%). In all countries surveyed, the first two groups are found to be trusted by large majorities, while family/friends are seen to be trusted by about one-half to three-quarters of the respondents in each country.

Participants were also asked how often they use various communication channels to learn about social and environmental issues in general. The most often used sources by American respondents are TV news (64% watch it at least weekly), the Internet (60%) and conversations with acquaintances (52%). Newspapers and social media (both at 44%) round out the list of the top five most frequently used sources. Results of this question are fairly consistent across all five countries.

Support for Government Actions to Limit Elephant Ivory Trading (Top Three Actions)

USA



VIETNAM

Methodological Notes

In Vietnam, 15 in-depth interviews (12 among ivory owners or prior buyers and three among ivory “rejecters”) were conducted in Ho Chi Minh City (HCMC). Additionally, two focus groups among participants with a neutral or positive attitude toward ivory were conducted in HCMC, primarily to guide the content of the quantitative questionnaire.

Subsequently, quantitative research was conducted via face-to-face interviews in respondents’ homes. Interviews were conducted in Hanoi, HCMC, Da Nang and Can Tho. Survey respondents were selected using stratified random sampling with control quotas on age, gender and socio-economic level set according to census data. No weighting of the main study sample was required due to the use of these quotas. The final sample of 1,000 respondents reflects the demographic makeup of the adult population living in major urban centers within Vietnam.

Key Findings

Vietnam scores lowest among the five countries surveyed on all key measures associated with ivory ownership, and below the average for all countries on measures associated with positive perceptions of ivory. The Likely Buyer segment is small in Vietnam compared with the five-country average, but the size of the At Risk segment is significantly higher than in any other country surveyed. Vietnam also has the smallest number of Firm Rejecters. Vietnam also differs from most of the other countries surveyed for the very high level of trust placed by respondents in their national government as a source of information about issues related to ivory as well as the belief that regulations are well-enforced. Awareness of issues relating to ivory and support for regulation of the ivory trade are highest in Vietnam compared with the other countries surveyed.

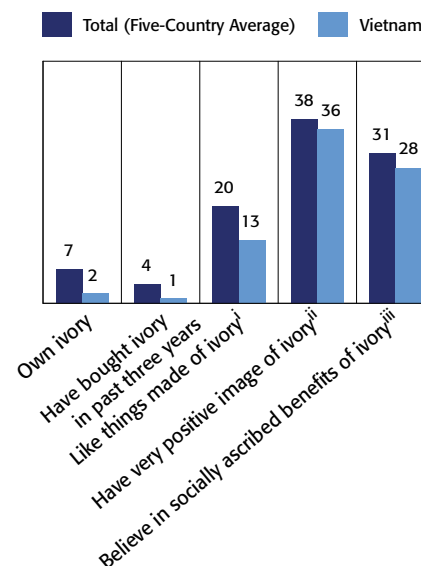
Ownership and Perceptions of Ivory

The following graphic summarizes some of the key measures associated with ivory ownership and perception in Vietnam versus the average for the five countries surveyed.

Vietnam rates lower than the five-country average on all measures associated with ivory ownership and the perceptions of ivory summarized in this chart. In particular, Vietnam is the country with the lowest level of ivory

Summary of Key Measures on Ivory Ownership and Perceptions

Total (Five-Country Average) vs. Vietnam



ownership and the second smallest number of consumers who claim to like things made of ivory, after the United States. However, while only 13% of Vietnamese consumers claim to like ivory a lot, over one-third of them have a very positive image of it, and over one-quarter believe in its socially ascribed benefits.

Likely Buyers

In Vietnam, 14% of the participants surveyed fall into the Likely Buyer segment, i.e., those who show the greatest intent to purchase ivory in the near future and for whom affordability is not a reported obstacle to purchase. Vietnam contains among the smallest number of Likely Buyers across the five countries, only slightly above the United States (13%) and on par with Thailand.

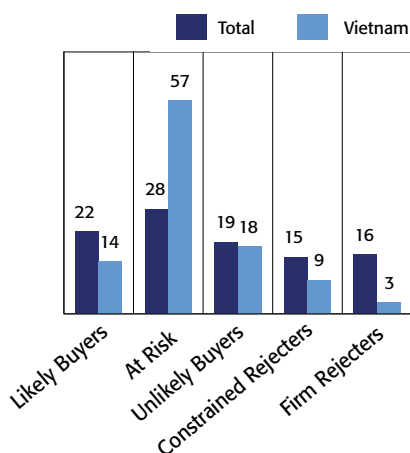
The largest segment in Vietnam is the At Risk group, i.e., people who would like to buy ivory in the near future but for whom affordability is a reported obstacle to purchase for now. Should their financial situation change, consumers in the At Risk segment could become Likely Buyers. In Vietnam, the At Risk segment represents over half of the consumers surveyed (57%). Vietnam is the only country with such a high number of At Risk consumers. In the other countries surveyed, fewer than one-quarter of participants fall into this group.

The Firm Rejecter segment, i.e., those who are least likely to purchase ivory in the near future, is extremely small in Vietnam, representing only 3% of respondents. Vietnam is the only country surveyed where fewer than 10% of respondents fall into the Firm Rejecter segment.

The majority of Likely Buyers in Vietnam (93%) are under 55 years old. Nearly two-thirds of Likely Buyers (65%) are married, a number lower than the national average (71%).

Segment Size

Total (Five-Country Average) vs. Vietnam

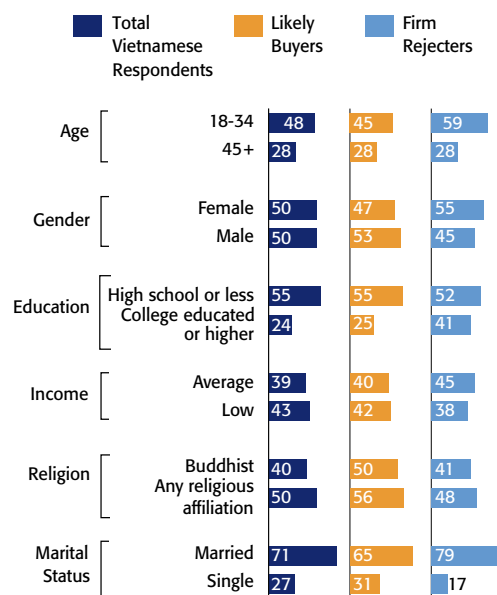


Thirty-one percent are single.

Over half of Likely Buyers (55%) have a low level of education, having at most completed high school, and the majority (82%) have average incomes or below. In terms of religion, over half of Likely Buyers claim some religious affiliation (56%) and half are Buddhist.

Demographic Profile

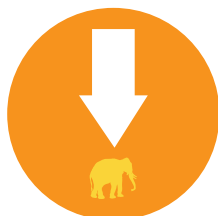
Likely Buyers vs. Firm Rejecters – Vietnam



Drivers of Demand for Ivory

To better identify the importance of various beliefs, attitudes and concerns that underlie intent to purchase ivory, a driver analysis was conducted using statistical regression techniques to identify the most influential predictors of demand. A series of universal drivers was found to occur across all or most countries studied, and these are discussed in more detail in the main body of this paper. Additional specific drivers for Vietnam are as follows:

ADDITIONAL DRIVERS: VIETNAM



Belief that African elephants are declining rapidly



Belief that most ivory sold nationally is illegal



Belief that some governments have intentionally destroyed their ivory



Lack of concern with what happens in other parts of the world

In Vietnam, four additional drivers are shown to be important in predicting purchase intent. The first is the **belief that African elephants are declining**. The second is the **belief that most ivory sold nationally is illegal**. The third is the **belief that some governments have intentionally destroyed their ivory**. Together, these three drivers suggest a sense of urgency or desire among Vietnamese consumers to purchase ivory before it becomes unavailable. The fourth driver is **a lack of concern with what is happening in other parts of the world**, presumably including threats to African elephants.

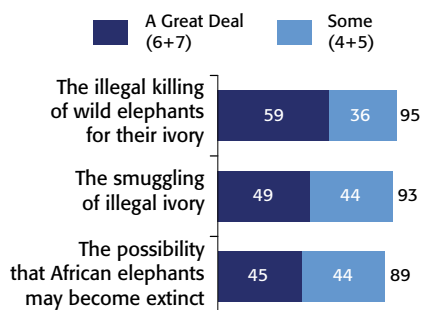
Awareness and Attitudes Toward Ivory Issues

Knowledge of the illegal killing of elephants for their ivory and knowledge of the illegality of the ivory trade are highest in Vietnam compared with the other countries surveyed. Awareness of the possible extinction of African elephants is similar to that in China (90%), with 89% of Vietnamese consumers having heard of it. While fewer Vietnamese respondents have heard a great deal about the smuggling of illegal ivory and the possible extinction of elephants compared with the illegal killing of elephants for their ivory, overall, around nine in 10 consumers report having heard at least something about each of these issues.

As in the other countries surveyed, while fewer Likely Buyers have heard of each of these issues compared with the national average for Vietnam, a relatively large proportion of them are aware of the negative impacts of the ivory trade. Nine Likely Buyers in 10 in Vietnam have heard of the illegal killing of wild elephants for their ivory, and eight in 10 have heard of the smuggling of ivory.

Amount Heard About Ivory Issues

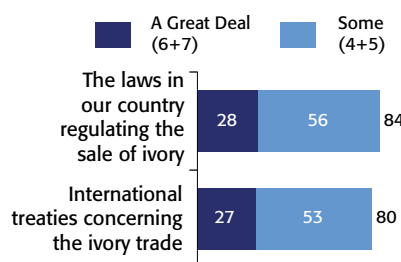
Vietnam



Among the five countries surveyed, Vietnam also has the highest level of awareness of ivory laws and regulations. Overall, around eight in 10 consumers are aware of both Vietnamese laws regulating the ivory trade and of international treaties. While fewer Likely Buyers in Vietnam are aware of both national and international regulations around ivory compared with the national average for the country, over six in 10 participants have heard of each of them.

Amount Heard About Ivory Treaties/Laws

Vietnam

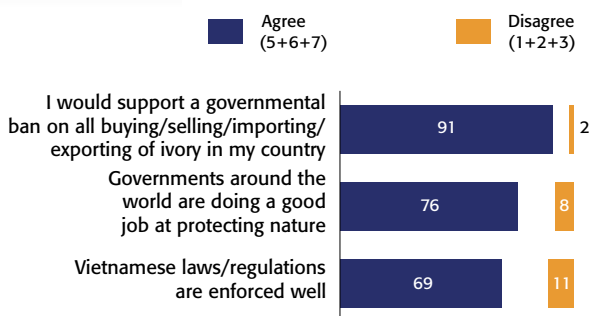


Three-quarters of Vietnamese consumers (76%) have confidence in the ability of governments around the world to protect nature, a number which is just slightly higher among Likely Buyers there (79%). This proportion is greater than in any other country surveyed and may be related to the high level of awareness among Vietnamese respondents of existing national laws regulating the ivory trade. Over two-thirds of consumers also believe that their government is capable of enforcing regulations well (69%).

Most Vietnamese participants (91%) would support a governmental ban on all trading of ivory in their country. While the number of Likely Buyers who would support a ban (76%) is lower than the national average, it is still substantial and the highest across all five countries surveyed.

Attitudes Toward Government Regulation

Vietnam



White space in this chart represents "neither agree nor disagree" and "don't know/not applicable."

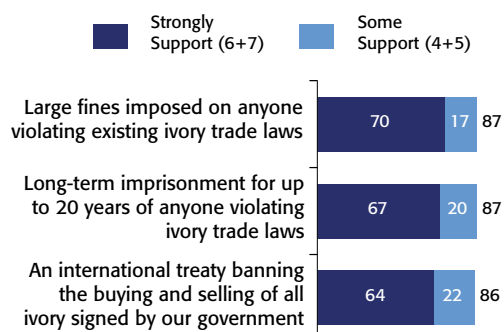
When asked how much they would support a variety of specific government actions to limit the trade in elephant ivory, most Vietnamese consumers indicate support for all nine actions evaluated (see Appendix). This is similar to the other four countries surveyed. Between 51% and 71% of respondents strongly support each of these actions, while around 95% of them would support each of them to varying degrees.

The two actions generating the highest level of support in Vietnam are an immediate ban on the buying and selling of ivory and stricter laws. Support for these measures is higher in Vietnam than in the other countries surveyed.

The number of Likely Buyers who would support government actions to limit elephant ivory trading is close to the national average for most actions, reaching 97% for stricter laws and 92% for an immediate ban on ivory selling and buying. The net number of Likely Buyers who would support all actions (39%) is however below the national average for Vietnam (46%), but remains nonetheless substantial.

Support for Government Actions to Limit Elephant Ivory Trading (Top Three Actions)

Philippines



Trusted Sources of Information

To help provide guidance on potential communication strategies, the survey asked how much participants would trust various institutions/people to provide them with accurate information about issues related to ivory. Unlike in the other countries surveyed, the two most trusted sources in Vietnam are government employees (90%) and elected government officials (86%). Vietnam is the only country surveyed where more than half of the respondents trust these sources. Nonprofit environmental organizations are the third most trusted in Vietnam (81%), with levels slightly higher compared to other countries surveyed.

Participants were also asked how often they use various communication channels to learn about social and environmental issues in general. The communication channels that Vietnamese participants most often use (at least once a week) are TV news (96%), conversations with acquaintances (93%) and newspapers (77%). Other frequently used channels include the Internet (66%) and social media (63%).

APPENDIX

Advanced Statistical Analyses

As a first step, GlobeScan conducted a statistical analysis to assess the extent to which findings from the online and offline modes could be directly compared. That analysis indicated there was no quantifiable pattern that could be intuitively isolated to survey mode. The country-by-country variation within and across modes seemed greater, and therefore the overall picture presented by the five-country total was deemed most useful for the objectives of the study, combined with relevant country specifics contained in the five Country Summaries.

Driver Analyses

To better identify the importance of various beliefs, attitudes and concerns that relate to intent to purchase ivory, GlobeScan conducted “driver” analyses using statistical regression techniques to identify the most influential predictors of intent to purchase. The regression analysis was conducted on the total sample and surfaced the drivers that were strongly applicable across all or most countries, then examined the output by country to understand nuances.

Predictors (or independent variables) tested were: consumer personality; perceptions of ivory gifting; perceptions of ivory buyers; perceptions of ivory/ivory objects; feelings inspired by ivory ownership; perceptions of elephants; perceptions of socio-environmental issues; perceptions of ivory regulations; perceptions of elephant- and ivory-related issues; feelings inspired by elephant and ivory issues. The most predictive or important drivers of demand were categorized thematically (see page 39).

Path Analysis

GlobeScan’s path analysis used structural equation modeling to uncover what is driving key beliefs and behavior, whether directly or indirectly, and the interrelationships among opinions and behavior. For this study, the path analysis examined the interaction of perceptions of ivory and a variety of social values, and ultimately intent to purchase ivory and support for regulation. For the purpose of the path analysis, several drivers and attributes were grouped into bigger clusters (using factor analysis) to surface statistical patterns and facilitate interpretation of the analysis. Perceptions that are grouped together occur naturally among respondents, i.e., are factors (see page 39).

The path analysis was conducted using the total sample, since the objective was to understand general demand dynamics to support development of strategies that would be broadly applicable across the five markets. However, GlobeScan also tested the five-country path analysis on China data alone and found the model was similarly applicable to both universes (China and total sample), providing additional confidence in the utility of the aggregate numbers.

Segmentation Analyses

GlobeScan’s segmentation analyses processed a large number of attitudinal, demographic and behavioral indicators to identify what variables or sets of variables most differentiated attitudinally defined subgroups of those studied. Cluster analysis was used to identify five segments of individuals according to their likelihood to purchase ivory using two indicators and their financial capacity to do so. The segments were plotted on a multi-dimensional map, analyzed, profiled and named to generate insight into the character of each of the segments. This technique is a powerful tool to help understand a complex universe of opinion and behavior and to optimally target communication to the right receivers.

Margin of Error

In reports on public opinion polls, a “margin of error” is often stated. The margin of error estimates the accuracy of the sample compared with the entire population. A margin of error of plus or minus 3% at a 95% confidence interval would mean that if we examined 100 truly random samples of a particular size, in 95 of such samples the figures would be within three percentage points of the “true” answer that would result from interviewing the entire population. Generally speaking, the larger the sample, the lower the margin of error.

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.

Margin of Error (cont.)

Another assumption underlying the validity of margin of error is close to 100% response rates. In contemporary polls, response rates rarely exceed 20%.

The accuracy of a public opinion poll is affected by multiple errors other than sampling, e.g., non-response bias, questionnaire wording bias, scale bias and response error, to name just a few. Therefore, reporting the margin of error is a false assurance of the accuracy of the data. It should also be noted that margin of error varies from survey question to question such that there is no such thing as a poll's single margin of error.

As the American Association for Public Opinion Research (AAPOR) states, "AAPOR considers it harmful to include statements about the theoretical calculation of sampling error in descriptions of such studies, especially when those statements mislead the reader into thinking that the survey is based on a probability sample of the full target population. The harm comes from the inferences that the margin of sampling error estimates can be interpreted like those of probability sample surveys." (<http://www.aapor.org/AAPORKentico/Education-Resources/For-Researchers/Poll-Survey-FAQ/Opt-In-Surveys-and-Margin-of-Error.aspx>)

The survey samples for the current study are not strictly random and, therefore, no estimates of sampling error can be calculated. However, the samples do not deviate considerably from the population statistics in the latest census data on such parameters as gender, age, education, ethnicity and geographic region.

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 five percentage point difference between males and females in a sample of 1,000 respondents may indicate a pattern, while a 10-point difference in opinion between smaller demographic groups may not.

The sampling methodology for this study was tailored to the overall objective of understanding the drivers of demand for ivory and how to reduce that demand. Industry standards and best practices suited to geographic realities have been applied throughout.

Path Analysis Methodology: Factor Composition

Personal Characteristics	On Trend	Modern; Social; Fun-loving; Fashionable; Generous; Informed about current events
	Non-Conformist	Non-conformist; Non-materialistic
	"Face" Consumption	I want to stand out among my friends/peers for my taste; What I buy should reflect my social/financial status; What I buy gives me a sense of pride and prestige; I like to buy the highest-quality things regardless of price; I enjoy giving valuable gifts of the highest quality
Attributes of Ivory	Perfect Gift	Ivory shows respect, love; It should only be given to individuals who are very important to the giver; Ivory is the perfect gift to mark special life events such as birth, marriage or graduation
	Status	Ivory makes me feel: Confident; Happy; Respected; Important; Proud; Powerful; Social; Privileged; Peaceful; Exotic
	Luxury	Status symbol; Noble; Luxurious; Sacred
	Rare Beauty	Rare; Precious; Pure; Beautiful; Exotic
Animals	Respect for Elephants	Powerful; Noble; Protective; Sensitive; Courageous; Wise; Intelligent; Peaceful; Gentle
	Equality	Animals should have the same rights to exist that humans have; I am currently trying to reduce my negative impact on the environment
	Threatened	African elephant populations are declining rapidly; African elephants could be extinct by 2025; The death of an adult elephant threatens the survival of its babies; The growing demand for ivory is causing an increase in the number of hunted African elephants by poachers
Legal and Economic	Illegality	Some governments have intentionally destroyed their stockpiles of ivory; Soon it will be impossible to acquire ivory legally; Most ivory sold nationally is illegal
	Poor Purchase	Buying ivory would be a bad investment; Ivory is not worth the price
Outcomes	Intent to Buy	Likelihood of ivory purchase
	Support for Regulations	Immediate ban on the buying/selling of ivory; Gradual ban on the buying/selling of ivory; Stricter laws to provide proof that the ivory sold is legal; Large fines imposed on those violating existing ivory trade laws; Long-term imprisonment for those violating ivory trade laws; International ban on the buying/selling of ivory; National boycott of trade with countries that fail to enforce national/international ivory laws; Provide government money to organizations combating elephant poaching; Require ivory owners to register their individual ivory pieces with the government

Definition of Drivers

Gifting	<ul style="list-style-type: none"> • Perfect gift to mark special life events • Gift for individuals who are important to the giver • Appropriate gift for business acquaintances • Shows love • Shows respect
Feeling of happiness it provides	<ul style="list-style-type: none"> • Inspires happiness • Buying ivory for personal use/enjoyment is okay
Status symbol	Provides feelings of: <ul style="list-style-type: none"> • Confidence • Pride • Importance • Power • Privilege
Belief that there is nothing wrong in using wild animals as a source of material/food	<ul style="list-style-type: none"> • There is nothing wrong with using wild animals as a source of materials for human use • There are so many species of animals in the world that it is okay if we lose a few individual species • The most important value an animal has is its value to humans as a source of food
Desire to stand out for their taste and style	<ul style="list-style-type: none"> • Desire to stand out among my friends and peers for my style and taste • I see myself as fashionable

Additional Footnotes

ⁱ “Like things made of ivory” is defined as assigning a rating of 5, 6 or 7 on a 7-point scale (where “1” means “dislike a lot” and “7” means “like a lot”).

ⁱⁱ “Very positive image of ivory” is defined as assigning a rating of 5, 6 or 7 on a 7-point scale (where “1” means “does not describe ivory at all” and “7” means “describes ivory very well”) for at least eight out of 10 positive attributes (pure, rare, precious, luxurious, exotic, sacred, noble, beautiful, status symbol and sublime).

ⁱⁱⁱ “Believe in socially ascribed ivory benefits” is defined as having heard a lot about and believe true for at least four out of seven ascribed benefits of ivory (brings good luck, attracts good spirits, brings peace, brings good health, can detect poison, wards off evil spirits and increases personal strength).

REFERENCES

- Bennett, E. L., 2014. Legal Ivory Trade in a Corrupt World and Its Impact on African Elephant Populations. *Conservation Biology*, Vol. 29, No. 1, 54-60.
- Christy, B., 2012. Blood Ivory. *National Geographic*, October. Available from <http://ngm.nationalgeographic.com/2012/10/ivory/christy>.
- CITES Secretariat, 2014a. Elephant Conservation, Illegal Killing and Ivory Trade. Convention on International Trade in Endangered Species of Wild Fauna and Flora. SC65 Doc. 42.1.
- Gao, Y. and Clark, S., 2014. Elephant Ivory Trade in China: Trends and Drivers. *Biological Conservation*, No. 180, 23-30.
- Maisels, F., et al., 2013a. Devastating Decline of Forest Elephants in Central Africa. *PLoS One* 8(3). DOI: 10.1371/journal.pone.0059469.
- Underwood, F. M., R. W. Burn and T. Milliken, 2013. Dissecting the Illegal Ivory Trade: An Analysis of Ivory Seizures Data. *PloS ONE* 8. DOI: 10.1371/journal.pone.0076539.
- UNEP, CITES, IUCN, TRAFFIC, 2013. Elephants in the Dust – The African Elephant Crisis. A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal.

ACKNOWLEDGEMENTS

We would like to express our gratitude to the many organizations that have contributed to this effort. These are the Clinton Global Initiative as well as the Advisory Group for the survey: African Wildlife Foundation; Wildlife Conservation Society; World Wildlife Fund; TRAFFIC; International Fund for Animal Welfare; and WildAid.