



WHAT DRIVES DEMAND FOR WILDLIFE?

A SITUATION ANALYSIS OF CONSUMER DEMAND FOR
WILDLIFE PARTS AND PRODUCTS IN CHINA, THAILAND
AND VIETNAM BASED ON A LITERATURE REVIEW

(ELEPHANT – PANGOLIN – RHINO – TIGER)

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EXECUTIVE SUMMARY

The USAID Wildlife Asia (UWA) Activity is funded by the Bangkok-based USAID Regional Development Mission for Asia (RDMA) currently managed by IRG, now RTI. The project addresses wildlife trafficking by working to reduce demand of wildlife products and improve regional action to end wildlife crime in Southeast Asia and China. The consumer demand reduction component of this Activity is managed by FHI 360, an IRG/RTI sub-contractor. Illegal wildlife trafficking is directly responsible for the decline in wildlife populations. The four primary wildlife products that are currently in high demand are elephant ivory, rhino horn, pangolin and tiger products. The principal markets for these products are in China, Thailand, and Vietnam.

This Situation Analysis is the first step in creating an evidence base for a UWA demand reduction program in the three focus countries. The Analysis aimed to collect, summarize, and review consumer research and evaluation studies of past demand reduction campaigns on ivory, pangolin, rhino horn, and tiger products, and other literature available on the internet in these countries. It summarized and synthesized findings on the different consumers of the four focal species, their socio-demographic characteristics, key drivers underlying their consumption behaviors, commonalities among drivers and consumers across countries and/or species, consumers' perception of the risks that their purchase or consumption behaviors posed, among others.

The findings revealed that the number of people consuming wildlife products in China, Thailand, and Vietnam is significantly large enough to drive markets for wildlife products in these countries. There are two key drivers underlying consumption: 1) affirmation of status and wealth (with attachment to cultural heritage to a lesser extent); and, 2) belief that wildlife products have medicinal or health value. Ivory consumption is mainly driven by the concern for status and wealth while tiger products are mostly valued for their perceived medicinal/health benefits. Pangolin and rhino horn are associated with both drivers. Consumption for medicinal value is correlated with consumption for status. Consumers are aware that wildlife species are endangered but generally do not relate this to their own consumption. There is a significant group of likely buyers who aspire to buy wildlife in the future.

Information on ten campaigns were accessed for this Situation Analysis. Of these, five had evaluation components. The ten campaigns targeted general populations and aimed to raise awareness about the dangers that consumption of wildlife have on depletion of species, wildlife crime and/or the environment. Most messages focused on relating wildlife consumption to animal protection or wildlife conservation issues. The campaign evaluations revealed an increase in awareness and positive attitudes but not on practice.

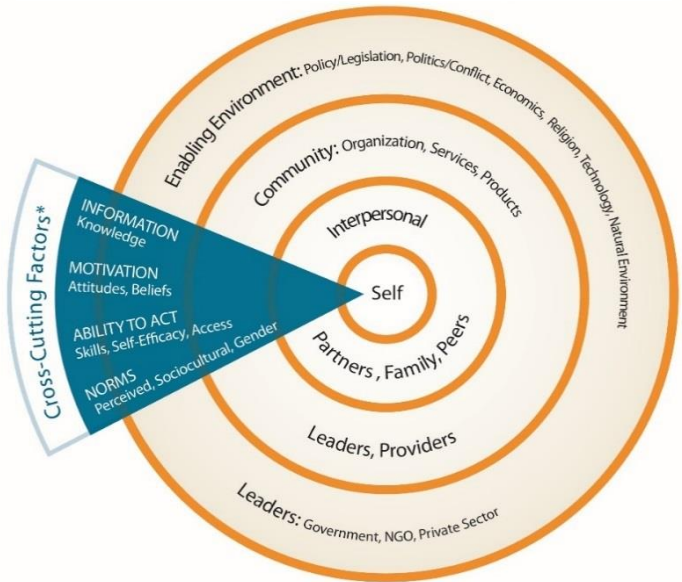
In order to design effective demand reduction campaigns targeting consumers and likely buyers for wildlife products, more information is needed. Research gaps include, among others, insights on differences among buyers, users and gift receivers; regularity of purchase and use; sources of beliefs about wildlife; specific influencers (family, peers, role models, traditional medicine practitioners) per consumer segment; specific types of products consumed per species and socio-demographic differences among those consuming them; whether those who are consuming wildlife are consuming one or more species; what would motivate them to stop purchase of consumption.

I. INTRODCUTION

Illegal global trafficking of wildlife and wildlife products is responsible for a significant reduction of wildlife populations in Southeast Asia and China. Elephant ivory, rhino horn, pangolin, and tiger products are among the top items illegally trafficked around the globe; surging demand for these has led to high prices and a lucrative business. The Wildlife Crime Scorecard Report by the World Wildlife Fund (WWF 2012) identified China, Thailand, and Vietnam as the primary destination countries in Asia for illegal wildlife. Although demand in Thailand is not as great as in the other two countries, it is unique in allowing the sale of ivory from domesticated elephants, and therefore creates a loophole for the illegal trade of ivory of African origin as well (WWF 2012).

The United States Agency for International Development (USAID) Wildlife Asia Activity aims to end illegal wildlife traffic in Asia through a comprehensive approach and improved regional cooperation. Desired outcomes for the Activity include reduction in consumer demand for wildlife parts and products; improved enforcement of existing laws, policies, and agreements related to wildlife crime; passage and implementation of new laws, policies, or reforms; improved cooperation and collaboration among regional, international, and inter-institutional law enforcement; and increased collaboration and coordination between development partners and United States Government (USG) agencies involved in combating wildlife trafficking.

Figure 1: Socio-Ecological Model for Change



*These concepts apply to all levels (people, organizations, and institutions). They were originally developed for the individual level.

SOURCE: Adapted from McKee, Manoncourt, Chin and Carnegie (2000)

Figure 2: SBCC C-Planning



SOURCE: Adapted from Health Communication Partnership, P-Process Brochure, CCP at JHU (2003); McKee, Manoncourt, Chin, Carnegie, ACADA Model (2000); Parker, Dalrymple, and Darden, The Integrated Strategy Wheel (1998); AED, Tool Box for Building Health Communication Capacity (1995); National Cancer Institute: Health Communication Program Cycle (1989).

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FHI 360 is responsible for activities to reduce *consumer demand* for wildlife parts and products in China, Vietnam, and Thailand. In China, FHI 360 is collaborating with another project sub-contractor, the International Fund for Animal Welfare (IFAW). FHI 360 utilizes a social and behavior change communication (SBCC) framework and a systematic planning and implementation approach to bring about positive changes in behaviors and social norms. The SBCC framework is based on a *socio-ecological model* (figure 1), which recognizes the relationship

between people and their immediate and broader environment.

The SBCC planning process (figure 2) utilizes research to understand the behavioral determinants—benefits, barriers, and influences on different population segments—that drive behaviors. These determinants may arise at various levels: personal, family, community, and/or the larger environment (social, political, religious, and economic).

Insights obtained from formative research are then used to design strategies to promote change. Strategies may include *advocacy*, *social mobilization*, and/or *behavior change communication (BCC)* at multiple levels.

As background for such formative research, the USAID Wildlife Asia Activity commissioned a Situation Analysis of consumer demand for four species of wildlife parts and products in China, Thailand, and Vietnam to survey what is already known. The work was conducted in January and February of 2017

II. PURPOSE AND OBJECTIVES

The Situation Analysis was the first step in creating an evidence base for a systematic SBCC program in the three target countries. The purpose was to collect, summarize, and review consumer research studies and evaluations conducted as part of past demand reduction campaigns on ivory, pangolin, rhino horn, and tiger. The work focused on five objectives:

1. Summarize and synthesize the current **evidence** or “state-of-the-art knowledge” on consumer behaviors and demand reduction activities
2. Define the **key consumer segments**
3. Determine the **significant drivers** underlying purchase and consumption
4. Assess **commonalities** of drivers and barriers across species and/or consumer segments and/or countries
5. Identify **gaps** in consumer-related research

In the next phase of the program, additional research will be conducted to address critical gaps in knowledge.

III. METHODOLOGY

A. DATA COLLECTION

The Situation Analysis was based on a review of publications, gray literature available on the internet, and electronic blogs. Some partner organizations also provided reports of research they commissioned. Priorities for collection and analysis included reports of original consumer research and evaluations of demand reduction campaigns focused on the four species of interest in the three priority countries. Google Scholar was the main source of documents. The following key words/search strings were used: “wildlife consumer research,” “wildlife consumer study,” “wildlife demand reduction,” “wildlife consumer behavior change,” “China tiger elephant rhino pangolin,” “Vietnam tiger elephant rhino pangolin,” “Thailand tiger elephant rhino pangolin.” Searches were conducted in English and Vietnamese for publications between the past 10 years. Seventeen consumer research studies and five case studies of campaigns were reviewed. In addition, 46 articles, reports, and blogs were also analyzed. These cover reports on market trends, articles on wildlife demand reduction in general, opinion pieces, individual blog posts that were shared by colleagues or found from internet searches.

Tables 1, 2, and 3 below provide breakdowns of sources reviewed in these three basic categories and the species and country/ies they covered.

TABLE 1: CONSUMER RESEARCH STUDIES

COUNTRY	IVORY			RHINO HORN			PANGOLIN			TIGER			MULTI-SPECIES			TOTAL
	Q1	Q2	C	Q1	Q2	C	Q1	Q2	C	Q1	Q2	C	Q1	Q2	C	
China	1	-	3	-	1	1	2	-	-	-	-	1	1	-	-	10
Vietnam	-	-	-	-	-	2	1	1	-	-	-	-	1	1	-	6
Thailand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multi-country	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Total	1	-	4	-	1	3	3	1	-	-	-	1	2	1	-	17

Note: Q1 = quantitative; Q2 = qualitative; C = combined quantitative and qualitative methods

Table 1 shows that, of the 17 consumer research studies reviewed, most concerned China (10), followed by Vietnam (6). No relevant consumer research was found focusing on Thailand. One study looked at the situation regarding elephant ivory in several countries (China, the Philippines, Thailand, the United States, and Vietnam). The largest number of studies looked at ivory (5) and the smallest at tiger (1). The multi-species studies (3) included a wide array of wildlife species that are used in traditional medicine or as wild meat for consumption including all the four target species.

TABLE 2: STUDIES OF COMMUNICATION CAMPAIGNS*

COUNTRY	IVORY	RHINO HORN	PANGOLIN	TIGER	MULTI-SPECIES	TOTAL
China	2	1	-	-	-	3
Vietnam	-	-	-	-	1	1
Thailand	-	-	-	-	1	1
Total	2	1	-	-	2	5

*Note: All of the studies combined qualitative and quantitative methods

All of the campaign studies reviewed combined quantitative and qualitative methods. No studies of campaigns were found that focused on pangolin or tiger. Two campaigns (one in

Vietnam and one in Thailand) focused on multiple wildlife species.

TABLE 3: ARTICLES, BLOGS, AND REPORTS ABOUT CONSUMER DEMAND

COUNTRY	IVORY	RHINO HORN	PANGOLIN	TIGER	MULTI-SPECIES	TOTAL
China	1	-	1	1	3	6
Vietnam	1	4	-	-	5	10
Thailand	6	-	1	-	3	10
Multi-country	2	1	-	1	16	20
Total	10	5	2	2	27	46

Of the 46 additional sources reviewed, the largest number focused on multiple species (27). Ten focused on elephant ivory.

B. ANALYSIS

Information contained in the studies that pertained to our primary study objectives—i.e., regarding the different consumers of wildlife, the drivers of their demand, and any commonalities of these drivers across countries and/or species—was summarized in a matrix by country and by wildlife species. We were then able to identify gaps in what is known and where further research is needed.

In addition to answering our primary research questions, we hoped to gather information about several secondary issues. From the consumer research studies, we hoped to learn whether the identified population segments are aware of the risks that their purchase and consumption behaviors entail. If so, why do they continue to consume or desire to consume? From the campaign evaluations, we hoped to learn what messages and channels have been used to reduce consumption practices, what/who might influence consumer segments who are resistant to change, and what results were achieved by the campaigns. We were also interested in the recommendations made by the authors of these different studies.

IV. LIMITATIONS

The Situation Analysis was limited by several factors. Our review only considered documents/blogs written in English or Vietnamese. Studies written in Chinese or Thai languages were not included. We found very few studies on Thailand, and these were primarily about ivory. Insights into consumer demand for wildlife in Thailand and the extent and drivers of this demand are therefore limited. Studies focused on urban areas, so information about target groups in rural areas is lacking. The review was paper- and internet-based, and did not include follow-up questions with authors about their methodologies or about any additional recommendations they might have. The most recent studies gathered were in 2016 before China announced the Domestic Ban on Ivory for 2017. No information relevant to the Ban on ivory consumption in China, therefore, is contained in this review.

V. FINDINGS

The findings are organized in two parts: (a) information about consumers, primarily gained from the qualitative research studies, and (b) information about campaign strategies and results.

A. CONSUMERS/USERS OF IVORY, RHINO HORN, PANGOLIN, AND TIGER

I. SIZE OF POPULATIONS CONSUMING/UTILIZING WILDLIFE IN THE THREE COUNTRIES

The studies showed that very large numbers of people consume wildlife parts and products in China, Thailand, and Vietnam. Based on the proportions to overall populations, these numbers are large enough to drive markets in these countries. Most of the studies were conducted in urban areas, so the situations in rural areas may be different for each species.

Most studies measured consumer demand by asking whether the animal or related parts/products had been acquired in the last year. According to this measure, pangolin meat is in high demand in China. A 2015 study found that 8.7 percent of people surveyed had eaten pangolin meat in the past year (Horizon China for HSI & AITA Foundation 2016). In another study, results showed that 10 percent of the population surveyed in Beijing, Shanghai, Guangzhou, Hangzhou, Nanning and Kunming had purchased pangolin products (WildAid 2015).

In Thailand, two studies (Rapid Asia 2013 and Rapid Asia 2016) both showed that 11 percent of those surveyed in the greater Bangkok area bought medicine or products made from **wildlife although the species were not specified**.

One study in **Vietnam** found that 4.2 percent of the population surveyed had bought or consumed **rhino horn** in the past year (Nielsen 2013). However, in another study in Vietnam, the current usage is low but with high risk of increase: 16 percent of non-users said they intended to purchase rhino horn in the future, even though they had never done so to date. Among those who had used rhino horn, 60 percent said they intended to purchase again (Ipsos 2013).

Ivory is highly valued in both China and Thailand. However, studies generally asked whether respondents owned any ivory—without regard to when they may have acquired it. Since ivory is not “consumed” but is made into products such as carvings, jewelry, trinkets or home décor items that may be kept for many years (handed down from generations and re-sold to a new owner as an antique), *measuring ownership per se* makes it difficult to know what the implications are for wild elephants. Horizonkey for IFAW (2007) survey in **China** indicated that 14.5 percent of urban residents surveyed owned products made of ivory. A study in 2015 found that in **Thailand**, 5 percent of those surveyed owned ivory and 1 percent had bought ivory in the past three years (National Geographic 2015). The same study found that in **Vietnam**, 2 percent of the population surveyed owned ivory and 1 percent had purchased an ivory product in the past three years. Studies also indicated large numbers of people who do not currently own ivory aspire to do so. Among all of those surveyed in 2015 in China, Vietnam, and Thailand, 22 percent said they would likely buy ivory in the future (National Geographic 2015).

Tiger parts or products are highly valued in **China**. A study (Gratwicke et al. 2008) found that 43 percent of respondents had consumed some product alleged to contain tiger parts. The two predominant products used were tiger bone plasters (38 percent) and tiger bone wine (6.4 percent).

2. BASIC CONSUMER PROFILES BY WILDLIFE SPECIES AND COUNTRY

Among those who consumed wildlife, two important determinants or drivers of consumption stood out:

- Affirmation of status, wealth/investment, enjoyment of luxury accorded to purchasing, owning, and/or gifting wildlife products
- Belief that specific wildlife products have medicinal value

Two species were each associated with one key driver. **Ivory** was driven mainly by a concern for status and wealth (and association with tradition/cultural heritage). In Thailand, ivory was also associated with religion/superstitious belief. We did not find any studies associating purchase or ownership of ivory for medicinal purposes. On the other hand, **tiger** parts were valued mainly for their medicinal properties. Status and wealth were not associated with owning or using tiger parts although one study in China (Gratwicke et al. 2008) revealed that those who bought tiger products were wealthy. This may also be due to the limited number of studies on tiger accessed.

Pangolin and **rhino horn** were associated with both status and medicinal drivers, making analysis of consumer segments for these species a bit more complex. The specific medicinal values or powers attributed to tiger, pangolin, and rhino horn varied by species and to a lesser extent by country.

In China, women mainly comprise those who buy ivory for jewelry and post-menopausal women use tiger bone for rheumatoid arthritis and osteoporosis. In Vietnam, women constitute a significant number of those purchasing rhino horn for the general health or medicinal needs of their families while pangolin scales are consumed by lactating mothers to enhance breast milk.

The tables that follow in this section present consumer profiles by animal species and secondarily by country and major determinants of use.

a. Consumers of ivory

Table 4 shows that in all three countries, ivory was considered to be a material with special qualities and was highly valued. In Thailand, the white color of ivory was associated with purity; it is commonly used in religious carvings. Objects made of ivory are especially suitable as gifts, reflecting positively on the status and taste of both giver and recipient, and purchasers included both males and females. Those able to buy ivory were generally more affluent, but people who could not presently afford it also aspired to purchase ivory. In Vietnam, a total of 71 percent of those surveyed said they intended to purchase ivory either soon or when they were able. **Likely buyers** described themselves as fashionable, social and religious, and inclined to buy ivory as a gift.

COUNTRY CONSUMER PROFILES—IVORY**CHINA**

Geographic locations of studies: Shanghai, Beijing, tier 1, 2, 3 urban cities

Consumers generally fell into three categories:

Purchase for home décor: 39 percent of current buyers and 37 percent of potential buyers. Included both sexes, moderately affluent, willing to pay more for an item. One out of three considered themselves collectors. They bought ivory to show good taste and to connect with cultural heritage.

Purchase as gift: 31% of current buyers and 23% of potential buyers. **These were mostly males, 35-50 years old, and moderately affluent.** They purchased for friends 70% and business relations 40% to said ivory showed respect for the recipients and reflected the status and wealth of the giver.

Purchase of jewelry (for self): 24 percent of current buyers and 24% of potential buyers. **These were mostly females and** younger and less affluent than other buyers. They had only purchased ivory once or twice in their lives and did so to show their good taste. They were concerned about being judged regarding their choices.

Source of ivory: Most consumers bought ivory from licensed stores; however nearly one-third purchased ivory overseas and one-fifth purchased ivory from unlicensed sellers.

Concern for wildlife and willingness to change behavior: Among those purchasing ivory for home décor, 41 percent had made their purchase from an unauthorized shop. They were generally not worried about the legality of their behavior. They considered conservation important but didn't see the link. On the other hand, they said they would not purchase ivory if their friends disapproved.

Gift buyers were willing to consider other high priced materials (e.g., jade, agate, and rosewood) as substitutes. Most knew what they were buying was illegal. They were willing to buy gifts from authorized stores.

Among those purchasing ivory jewelry, there was little awareness of a link to the killing of elephants; although they were concerned about animal cruelty, 30 percent felt elephants were too far away from their lives in China to think much about. Most were unaware it is illegal to purchase ivory and those who were aware did not think there was much risk of enforcement.

(Source: China Market Research Group for IFAW 2016)

When asked if they would buy ivory in the future, 75 percent said that they would not, and said it was wrong to kill endangered elephants.

Consumers surveyed for this study also bought ivory online via websites and social media.

(Source: Rapid Asia 2015)

THAILAND

Geographic locations of studies: cities of Greater Bangkok, Chiang Mai, Chon Buri, Khon Kaen, and Surat Thani

Ivory was considered especially suitable for gift-giving. Likely buyers were in the 18- to 34-year-old age group; 99 percent were Buddhist.

One-third of those surveyed said ivory is sacred, sublime, noble, and exotic. This perception is tied to its common use in religious carvings and because of its whiteness and purity.

Purchase of ivory was also motivated to convey financial and social status.

Concern for wildlife and willingness to change behavior: Of those surveyed, only 25 percent were aware of the illegal killing of elephants for ivory, illegal smuggling, or the danger of elephant extinction; 54 percent of those surveyed believed governments around the world are doing a good job protecting nature. They were also supportive of a ban on all buying, selling, importing, and exporting of ivory.

For information about environmental issues, most of those surveyed said they learned from documentaries. Internet was the fourth most-cited source. Only 48 of those surveyed used the Internet weekly.

(Source: National Geographic 2015)

VIETNAM

Geographic locations of studies: Hanoi, HCMC, Da Nang and Can Tho

Among those surveyed, 14 percent said they intended to purchase ivory in the near future and affordability was not an obstacle. The majority of these likely buyers were under 55 years old, married, completed high school at most, and with average or below average incomes. Most had some religious affiliation or were Buddhist.

Another 57 percent would like to buy ivory in the near future but will not be able to do so until their financial situation improves.

Ivory was considered valuable as a gift. It projects status on both the recipient and the giver, and gives happiness.

Concern for wildlife and willingness to change behavior: Buyers believed that African elephants were declining and that most ivory sold nationally was illegal. However, because they believed some governments intentionally destroy their ivory, they felt it was urgent to purchase ivory before it becomes unavailable. Among buyers, 76 percent said they had confidence in the ability of governments around the world to protect nature and 91 percent said they would support a governmental ban on all trading of ivory in the country. While support for regulation was high, it was not strongly linked to individual purchase intent.

(Source: National Geographic 2015)

b. Consumers of tiger/tiger products

Information about consumers of tiger and tiger parts was found for China and Vietnam. In both countries, tiger bones and plaster made from tiger bones was thought to help in treating arthritis and other bone problems and to improve joint-related problems. In China, tiger-bone wine was also thought to improve sexual prowess. Consumers tended to be older and included both men and women. Consumers in China were generally older, well-educated, and wealthy.

TABLE 5: CONSUMERS OF TIGER PARTS BY COUNTRY AND DETERMINANTS/CHARACTERISTICS OF USE

COUNTRY	CONSUMER PROFILES—TIGER
CHINA	<p>Geographic locations of study: Kunming, Guilin, Harbin, Chengdu, Guangzhou, Shanghai, and Beijing (Consumption is said to be highest in Chengdu and Shanghai.)</p> <p>43 percent of those surveyed said they had ever consumed some product alleged to contain tiger parts.</p> <p>Consumers were older (>55 years old), urban, well-educated, and wealthy and used tiger parts as a medicine and/or tonic. Tiger bone wine and tiger bone plaster were the most common products. Consumers believed that both of these heal bone degeneration and improve joint-related conditions, such as arthritis and rheumatism. Tiger-bone wine is also said to improve male sexual prowess.</p> <p>A large number of post-menopausal women reported using tiger bone for rheumatoid arthritis and osteoporosis.</p> <p>Most consumers of tiger (71 percent) preferred products from wild tigers over those captive bred.</p> <p>Concern for wildlife and willingness to change behavior: Most of those surveyed said they supported tiger conservation and thought it was important to protect wild tigers. However, this did not prevent them from consuming.</p> <p>(Source: Gratwicke et al. 2008)</p>
VIETNAM	<p>Geographic locations of study: Hanoi, HCMC</p> <p>Consumers were older</p> <p>Consumers used tiger plaster most to treat arthritis and bone problems, as well as to improve general health.</p> <p>Consumers were shifting from traditional physical markets to use online platforms to purchase tiger products.</p> <p>(Source: TRAFFIC no date)</p>
THAILAND	(No information found)

c. Consumers of rhino horn

As for tiger, information about consumers of rhino horn was found for China and Vietnam but not for Thailand. Rhino horn is used in Chinese medicine and is thought to be especially efficacious for rheumatism and erectile dysfunction (China) and also to detoxify the body (Vietnam). The medicinal qualities associated with rhino horn seemed to be well known, and purchasers were driven largely by their beliefs in those special powers, and by the status associated with a purchase. Rhino horn is expensive and can be hard to find. It was considered a valuable gift. Among those surveyed in the two countries, both men and women purchased rhino horn.

TABLE 6: CONSUMERS OF RHINO HORN BY COUNTRY AND DETERMINANTS/CHARACTERISTICS OF USE

COUNTRY	CONSUMER PROFILES—RHINO HORN
CHINA	<p>Geographic locations of study: Harbin, Guangzhou, Kunming, Beijing, and Shanghai</p> <p>A study in 2016 found that those surveyed who used rhino horn were driven by two factors:</p> <ul style="list-style-type: none"> 48.3 percent were driven wholly or mostly by medicinal beliefs 12.2 percent were driven wholly or mostly by luxury status 21.3 percent were driven by both luxury and medicinal reasons <p>The same study found that purchasers of rhino horn included those who use it in the home and those who buy it as a gift.</p> <p>Buyers of rhino horn for their own use were middle aged (aged 36-45), well-educated, and wealthy. They favored Chinese medicine for rheumatism, and erectile dysfunction. They believed that Chinese medicine had fewer side effects than Western medicine. They chose Western medicine to treat common conditions such as fever, rash, and hangover.</p> <p>Place of purchase: Consumers bought Chinese medicine in traditional medicine hospitals (44.2 percent), general pharmacies (28.3 percent), general hospitals (26.9 percent), Chinese medicine clinics (15.4 percent), and general clinics (11.4 percent).</p> <p>Those buying rhino horn as a gift were young (aged 18-45), well-educated males from the growing middle and upper classes. The main reason for buying horn as a luxury good was to “give as a gift” to friends, family members, and associates because it was “unique,” “rare,” traditional,” associated with prestige, and a sign of success.</p> <p>Concern for wildlife or willingness to change behavior: Around 25 percent of those surveyed were not aware that purchasing rhino horn was illegal. Over 70 percent of those surveyed thought it was difficult to buy rhino horn, but most believed the risk of arrest for buying rhino horn was average or low. Only the wealthy can purchase rhino, and when prices are low, potential buyers worry that the goods are fake. These buyers did not care about the rhino population and it had little or no effect on purchasing.</p> <p>(Source: Kennaugh 2016)</p>
VIETNAM	<p>Geographic locations of study: Hanoi, and HCMC</p> <p>Medicinal-driven buyers of rhino horn were also status-driven. They were generally affluent women in their 50s who purchased rhino horn for their families. While their main reason for purchasing rhino horn was to affirm their social status, they also believed in its health benefits (as a detoxification for the body and cure for hangover and serious illnesses). They felt that keeping rhino horn at home ensured the well-being of their families.</p> <p>Buyers were often middle-aged or older women, wealthy business owners, and well-educated people buying for their parents. Both buyers and users tended to have health problems (e.g., bone and joint issues, stroke, cancer) and to be conscious of maintaining good health to continue enjoying life.</p> <p>Rhino horn was also bought as a gift for others, including family members, business associates, or those in the position of authority. Owning rhino horn or being able to give it as a gift affirmed social status and strengthened bonds within a social network.</p> <p>Concern for wildlife or willingness to change behavior: Although those using rhino horn knew animals were killed for horn, they felt disconnected from this. Some felt that even if the species were to be lost forever, they personally would not be affected. There was a strong sense of trust within the social networks of consumers, and they were not concerned about engaging in an illegal activity.</p> <p>(Source: Ipsos 2013)</p>
THAILAND	Rhino horn (no info)

d. Consumers of pangolin

Again, information was found about consumers of pangolin for China and Vietnam but not for Thailand. Respondents said pangolin is eaten as meat, is made into a wine, and its scales are also used for medicinal purposes. Like rhino horn, pangolin is associated with powerful medicinal qualities and also with high status. It is valued as a treatment for rheumatism, skin disorders, and wound infections and to improve both the quality and quantity of breastmilk in lactating mothers (specifically pangolin scales). In Vietnam, pangolin is also used to treat asthma and cancer and to increase libido.

TABLE 7: CONSUMERS OF PANGOLIN PRODUCTS COUNTRY AND DETERMINANTS/CHARACTERISTICS OF USE

COUNTRY	CONSUMER PROFILES—PANGOLIN
CHINA	<p>Geographic locations of study: Beijing, Shanghai, Guangzhou, Hangzhou, Nanning, and Kunming</p> <p>In one study, 10 percent of those surveyed purchased pangolin; among consumers, 66 percent used prescription medicines containing scales or consumed pangolin liquor.</p> <p>Among those surveyed, 70 percent believed that pangolins had medicinal value. The majority believed scales could cure rheumatism, skin disorders, and wound infections.</p> <p>Pangolin meat was consumed largely because it is an “expensive status symbol” and “exotic wild animal” (no proportion mentioned)</p> <p>Source of pangolin: 63 percent of the people surveyed believed pangolin products came from farmed pangolins, while many (50 percent) believed they also came from poached animals</p> <p>74 percent believed consuming pangolin was illegal.</p> <p>(Source: WildAid 2015)</p> <p>Geographic locations of study: Beijing, Shanghai, Guangzhou, Harbin, Fuzhou, Wuhan, Chengdu, Xi’an, Taiyuan, Kunming</p> <p>In this study, of those surveyed, 9 percent ate pangolin meat; 14 percent consumed medicine with pangolin</p> <p>Source of pangolin: Consumers mentioned three main sources of the pangolins for meat or medicinal products: “wild pangolins in China” (55.2%); “captive-bred pangolins” (53%); and “illegally smuggled pangolins” (43.3 percent)</p> <p>Concern for wildlife and willingness to change behavior: Of those surveyed, 82 percent said they believed pangolin was endangered and needed to be protected and that they would not use any medicine or health care products derived from pangolins in the future.</p> <p>(Source: Horizon China for HSI and AITA Foundation 2016)</p>
VIETNAM	<p>Geographic locations of studies: Hanoi, HCMC, Da Nang, Hai Phong</p> <p>Among those surveyed, 4 percent had consumed pangolin; they purchased wine, meat, and scales</p> <p>Among those surveyed, 8 percent said they believed pangolins had medicinal properties. They said pangolin helped increase libido, treat rheumatism, asthma, skin diseases, cancer, swelling, hangover (detoxify), and promote lactation. (Pangolin consumers included lactating mothers who believed the scales improve breast milk quality and quantity.) An additional 64 percent of those surveyed said they had heard of such “curative” properties but were not certain they were true.</p> <p>Consumers were high and upper middle income people living in cities. They consumed pangolin because it: a) is rare, b) when wild, has medicinal value, and c) is expensive and therefore shows prestige of the user even though consumers believed it was illegal.</p> <p>(Source: WildAid 2015)</p> <p>Among traditional Chinese medicine practitioners in Hanoi and Ho Chi Minh City in 2012: 86.1 percent believed pangolin scales enhanced the quantity and quality of breast milk; 70.8 percent believed they purged toxins from the body; 29.2 percent thought they reduced fever; and 26.2 percent thought they reduced inflammation.</p> <p>(Source: Education for Nature, Vietnam 2016)</p>
THAILAND	(no info)

e. Summary of medicinal qualities of the different species and purchasers

Table 8 below summarizes the most common beliefs about the medicinal qualities of the three (tiger, rhino horn, pangolin) wildlife species, by country. Views about these qualities were relatively similar across countries. In addition to the specific illnesses or conditions that different animals/parts were thought to treat/cure, each (especially the wild meat/parts) were thought to restore general good health and balance. Respondents often mentioned that these products were used to treat degenerative ailments, problems with libido or sexual dysfunction, or to detoxify (purify) the body and provide strength. Consumers included both males and females.

TABLE 8: SUMMARY OF MEDICINAL QUALITIES OF SPECIES BY COUNTRY			
COUNTRY	TIGER BONE	RHINO HORN	PANGOLIN
China	Bone degeneration, joint-related conditions such as arthritis and rheumatism (Tiger-bone plaster and wine); sexual capacity (Tiger-bone wine)	Rheumatism, erectile dysfunction, detoxification for the body, hangover, serious illnesses such as cancer	Libido, rheumatism, asthma, body detoxification, skin disorder, wound infections, breast milk quality and quantity
Vietnam	Arthritis and bone problems, general health improvements (Tiger-bone plaster and wine)	Detoxification for the body, hangover, serious illnesses such as cancer	Libido, rheumatism, asthma, detoxification for the body, breast milk quality and quantity
Thailand	Aches & pains (bone plaster), sexual capacity (bone wine)	Insufficient information	(Scales purge) Body heat, fever, inflammation, blood circulation, acne, boils, measles, malaria, and even cancer

Although consumers of these products generally also used Western medicine, use of traditional medicines, including those with wild animal/s as an ingredient, are embedded in the culture and thought (unlike modern or Western medicine) to have little or no side effects. For some illnesses, particularly fatal or chronic diseases wildlife products are considered as “best of the best,” “last solution” or “last resource” (e.g., rhino horn) (Ipsos 2013) Use of these rare/exotic products is also a sign of prestige.

3. INFORMATION ABOUT SOURCES AND PROVIDERS OF THESE PRODUCTS

Sources of the endangered wildlife species of interest to this Situational Analysis varied by species. Ivory was purchased in both legal and illegal retail outlets (Min, Shen, Wang Jin, Liu Lixia 2007). Purchasers of rhino horn, pangolin, and tiger were able to acquire it as an ingredient to traditional Chinese medicine from multiple outlets, even including public hospitals and clinics (Kennaugh 2016). Traditional medicine is sold all over in China, even in public hospitals.

While many consumers continued to buy wildlife and wildlife products in retail stores, illegal wildlife trade today is also becoming available via online platforms in Asia and globally. One online survey focusing on Facebook in Vietnam (Nguyen 2016) over a six-month period revealed that elephants (ivory, foot stumps, whole tails, tail hairs), big cats (including tigers), and pangolin (meat and scales) were being advertised on Facebook accounts. Products also included pangolin scales carved into Buddha plates and sold as lucky charms and the bodies of pangolin with scales removed (sold as meat).

One source reviewed for this study indicated the illegal wildlife trade has increased in China and Vietnam via social media (e.g., Facebook and WeChat) and on smaller e-commerce websites (TRAFFIC nd). Since online trade is largely unregulated, anonymous, open 24 hours a day, and has unlimited reach, internet purchases are perceived by buyers as especially low-risk.

4. AWARENESS OF ILLEGALITY, CONCERN FOR WILDLIFE, AND WILLINGNESS TO CHANGE BEHAVIORS

Although there was widespread awareness that elephants are endangered and it is illegal to kill them, some purchasers of ivory were not aware that elephants have to be killed for their tusks (China Market Research Group for IFAW 2016; The Nature Conservancy 2015). Most consumers of wildlife products were aware that the products they purchased were illegal, but they considered the risks of a fine or arrest very low (China Market Research Group for IFAW 2016; WildAid 2015, National Geographic 2015.)

The studies revealed some ambivalent and even contradictory responses among those who said they knew their purchases involved killing endangered animals. Some considered the connection to them personally as remote or of little concern (National Geographic 2015). At the same time, some agreed that they would not make such purchases in future (Horizon China for HSI and AITA Foundation 2016). People generally agreed that stronger government actions should be taken to curb wildlife consumption (National Geographic 2015) and/or to impose a ban on the trade (including domestic) of ivory (WildAid 2012).

Pertinent laws remain inadequate or ineffectively enforced (China Market Research Group for IFAW 2016). Stronger enforcement was needed across the three countries across species or wildlife. Most of the studies revealed that users consider risk as average or low (Kennaugh. 2016) and consumption of pangolin should be banned (Horizon China for HSI and AITA Foundation 2016). In China, this included pangolin meat consumption, medicine consumption or commercial use of pangolin. Vallianos (2016) suggested China should be encouraged to remove pangolins from the Pharmacopoeia of the People's Republic of China and end the use of scales in patented medicines and clinical trials. Chinese and Vietnamese traditional medicine journals and websites should also be encouraged to stop advocating use of pangolin scales in medical treatment.

TABLE 9: CONSUMER AWARENESS OF ILLEGALITY AND PERCEPTION OF RISK

(SPECIES)	CHINA	VIETNAM	THAILAND
Ivory	Home décor buyers not worried about legal issues; 1/5 purchased from unlicensed sellers (China Market Research Group for IFAW 2016)	Many believed most ivory sold was illegal and some governments have intentionally destroyed ivory (National Geographic 2015)	From 60% to 70% of people surveyed have had some awareness about the illegal killing of wild elephants for their ivory, the smuggling of illegal ivory, or the possibility of elephant extinction; 44% claim to have heard a great deal about these issues. (National Geographic 2015)
Rhino Horn	Over 70% thought buying rhino horn was difficult but most believed risk of arrest for buying was average to low (Kennaugh 2016)	Those buying rhino horn were aware that they were engaging in an illegal activity (Ipsos 2013)	
Pangolin	43% of users believed pangolins were illegally smuggled (Horizon China for HSI and AITA Foundation 2016)	Users believed consuming was illegal (WildAid 2015)	
Tiger	88% of users knew it was illegal to buy/sell tiger products (Gratwicke 2008)		
Multi-species		HCMC residents surveyed do not know clearly about wild animal trade. They think that trading of any wild species is illegal (Do Thi Thanh Huyen, Bui Huu Manh et al, 2011.)	

B. FINDINGS REGARDING COMMUNICATION OR DEMAND REDUCTION CAMPAIGNS ON WILDLIFE PARTS AND PRODUCTS IN CHINA, VIETNAM, AND THAILAND

I. OVERVIEW OF CAMPAIGNS

For this Situation Analysis, information on ten communication campaigns aimed at reducing wildlife consumption in the three countries were reviewed. These were the campaigns either shared by organizations or could be readily accessed through our internet search. This section includes information about their objectives and target audiences, the strategies used, and (when available) results and lesson learned/recommendations for future efforts. Only five of these were systematically evaluated (the first five described on Table 10)

Table 10 below presents some basic information about these ten campaigns.

TABLE 10: CAMPAIGNS TO REDUCE CONSUMPTION OF IVORY, RHINO, TIGER, AND GENERAL WILDLIFE

CAMPAIGN/DATE	OBJECTIVES/TARGET AUDIENCE	KEY MESSAGES/ STRATEGIES/CHANNELS	EVALUATION METHODOLOGY	RESULTS
<p>iTHINK campaign, China (ivory)</p> <p>Dates of campaign/s: 2013-2015</p> <p>http://www.freeland.org/wp-content/downloads/toolkits/iThink/I THINK-ads-videos-surveys-China.zip</p>	<p>Objective: Reduce demand for ivory in <u>China</u> and attract online visitors to the Freeland website and Facebook page</p> <p>Target: Consumers and potential consumers of ivory, law enforcement officers, and policy makers</p>	<p>Exposure to nine PSAs via print media supported by social media</p> <p>Messages focused on:</p> <p>Raising awareness that ivory comes from dead elephants</p> <p>Raising awareness that demand for ivory kills elephants</p> <p>Raising awareness that elephants needs to be protected</p> <p>Making people feel concerned about elephants (emotional appeal)</p> <p>Making people question their need for ivory (moral appeal)</p> <p>Discouraging people from buying ivory</p> <p>PSA A: I refuse all ivory products. I hope to see strong banning ivory trade, and artists reject carving with ivory.</p> <p>PSA B: Every 15 minutes an elephant is killed for ivory. I hope we can erect a strong protective fence for elephants with our conscience.</p> <p>PSA C: Be an ethical collector. Do not take away the only treasure of an elephant – his tusks.</p> <p>PSA D: When an elephant, tiger and rhino one by one disappear from the earth, how long can we survive alone here?</p>	<p>Rapid Asia, a research agency hired to conduct evaluation study</p> <p>Data collection: Online panel</p> <p>Target group: Ivory buyers/non-buyers ages 18 to 64 years</p> <p>Sample: N=500+ (half male, half female)</p> <p>Sample weighting: between 2013 (baseline) and 2015</p> <p>Questionnaire</p> <ul style="list-style-type: none"> - Screening questions based on target respondent criteria - Ownership and purchase behavior for ivory products - Exposure and perception about law enforcement - Exposure to the IFAW PSA and media source 	<p>Those who claimed they bought ivory in the past 12 months declined from 44% in 2013 to 33% in 2015. However, the recent auction ban in China is likely to have contributed to this decline. The slowing economy in China may also be a contributing factor.</p> <p>Overall KAP index was 17 points higher at endline than at baseline.</p> <p>Overall 62 percent of the urban population surveyed confirmed they had seen the PSAs when shown pictures of them.</p> <p>No particular demographic profile of ivory buyers. However, a higher proportion is female in management with higher income.</p> <p>Main motivation to buy ivory is 1) decoration and 2) jewelry; most purchases were in retail stores.</p> <p>Reasons for not buying in the future included feeling it is 'wrong as elephants are killed' and 'elephants are endangered.'</p> <p>Potential reasons to stop buying ivory (future buyers) include "it may be bad for luck," "strong recommendations from government leaders," and "make it illegal to buy ivory"</p>

PSA E: Live elephants or blood-stained ivory? We should leave the former as our legacy!

PSA F: “When the so-called “beauty” oversteps the bounds of morality, it is ugliness and evil”

PSA G: I know elephants are killed for the ivory trade. I will never buy ivory.

PSA H: The most powerful weapon to protect elephant is our humanity.

PSA I: We cannot let elephants die for our frivolous appetite for ivory.

ITHINK campaign
Thailand (wildlife)

Dates of campaign/s:
2013-2015

<http://www.freeland.org/wp-content/downloads/toolkits/iThink/ITHINK-ads-videos-surveys-Thailand.zip>

Objective: Reduce demand for wildlife in Thailand and attract online visitors to the Freeland website and Face book page.

Target groups:
Consumers and potential consumers of wildlife products, law enforcement officers, and policy makers

Exposure to four PSAs via mass media, social media, websites, billboards, BTS sky train, and magazines, as well as newspaper featuring different spokespersons

Messages focused on:

Raising awareness that buying wildlife can contribute to animal cruelty

Raising awareness that buying and selling wildlife kill wild animals

Raising awareness that many species are endangered and need protection

Making people feel concerned about wildlife

Making people respect the law against illegal wildlife trade

Encouraging people to take action to support wildlife protection

Rapid Asia, a research agency hired to conduct evaluation study

Target group: Buyers/non-buyers ages 18 to 64 years

KAP Score

N = 300

Data collection using an already-established online panel in Thailand

The sampling method used was quota sampling to ensure representation of the greater Bangkok population and having matched samples between the exposure and control groups

The PSAs were shown online via online streaming. Each respondent tested two PSAs and they were tested in rotation order and in random pairs to eliminate any form of order-bias

Overall, 63 percent of the population surveyed in Bangkok said they had seen the PSAs when shown pictures of them.

Among buyers of wildlife products, reach was 82 percent. Of those reached, 11 percent could recall that FREELAND sponsored the campaign.

Between 54 and 71 percent said the PSAs made they stop and think about the issue and many said would talk to others about the PSA messages.

Overall KAP index for past buyers of wildlife products was 27 points higher at endline than at baseline and for non-buyers change was 7 points.

11% of those surveyed in the greater Bangkok area bought medicine or a product made from wildlife in the past 12 months. Buyers include people of different ages, sex, and incomes.

The main reason to buy wildlife products is medicine (increase from 63% in 2013 to 91% in 2015) followed by jewelry or fashion item and as decoration for the home. Some buy as a gift or religious item; 23% reported buying wildlife to keep as a pet

One in two people have only bought wildlife products once or twice; more than one third

		Discouraging people from buying or consuming wildlife or wildlife product		<p>have bought it occasionally; 6% of past buyers reported that they buy it regularly (consistent with 2013 result).</p> <p>Past buyers of wildlife products are 12 times more likely (12%) to state that they may buy wildlife products in the future compared to those who did not buy wildlife products in the past 12 months (1%).</p> <p>Those who say they will not buy in the future say they feel it is wrong (64%), is against the law (62%), come from endangered species (57%), no desire (56%), and don't see the benefit of buying (41%)</p>
<p>ITHINK campaign, Vietnam (wildlife)</p> <p>Dates of campaign/s: 2013-2015</p> <p>http://www.freeland.org/wp-content/downloads/toolkits/IThink/ITHINK-ads-videos-surveys-Vietnam.zip</p>	<p>Objective: Reduce demand for wildlife products, initiate a downward trend in wildlife consumption while at the same time attract online visitors to the Freeland website and Facebook .</p> <p>Target groups: Consumers and potential consumers of wildlife products, law enforcement officers, and policy makers</p>	<p>Seven PSAs featuring different spokespersons discussing the wildlife trade via social media, websites, billboard, newspaper.</p> <p>Wildfest event</p> <p>Messages focused on:</p> <p>Raising awareness that buying or consuming wildlife can contribute to environmental destruction</p> <p>Raising awareness that buying and selling wildlife kill wild animals</p> <p>Making people feel concerned about wildlife and endangered species</p> <p>Making people respect the law against illegal wildlife trade</p> <p>Encouraging people to take action to support wildlife protection</p> <p>Discouraging people from buying or consuming wildlife or wildlife products</p>	<p>Rapid Asia, a research agency hired to conduct evaluation study</p> <p>KAP Score</p> <p>Pre and post design was used: Pre-stage with no exposure to the campaign, and after a few days, post-stage with exposure to campaign materials</p> <p>Target group: Age 18 up to 64 years: Residents of Hanoi, Vietnam; 50/50 split between males/females</p> <p>Data collection method: Online using a well-established online panel in Vietnam</p> <p>Sampling method used was quota sampling to ensure representation of the population</p> <p>Total sample size N=420</p> <p>The PSAs were shown online via online streaming. Each respondent tested two PSAs and they were tested in rotation order and in random pairs to eliminate any form of order-bias</p>	<p>4% of those surveyed in Hanoi intend to buy wildlife in the future (compared to 26% who bought in the past 12 months)</p> <p>26% of those surveyed have bought medicine or other products made from wildlife in the past 12 months (baseline data not available).</p> <p>Overall, 75 percent of the population surveyed said they had seen the PSAs when shown pictures of them</p> <p>Of those reached 17 percent could recall that FREELAND was the sponsor of the campaign.</p> <p>Of those reached, most saw it via internet, followed by TV, newspaper, magazines and events (e.g., WildFest).</p> <p>Between 48 and 57 percent said the PSAs made them stop and think about the issue and many said would talk to others about the PSA messages.</p> <p>Overall KAP index for past buyers of wildlife products was 23 points higher at endline than at baseline and for non-buyers change was 7 points.</p> <p>More than half of respondents were aware of the WildFest event. Of those, 52 percent reported they had attended. Among all survey respondents who had also attended the WildFest event, the shift in KAP index was 35 points.</p> <p>Main reason to buy wildlife products is medicine (85%), followed by jewelry or</p>

				<p>fashion items (36%) and decoration for the home (36%)</p> <p>Purchasers are generally higher income</p> <p>Wildlife products are bought in traditional Chinese stores (53%), from private individuals (48%), open air markets (35%) and via the internet (35%)</p> <p>Reasons for not buying in the future include that it is wrong (85%), products come from endangered species (73%), it is against the law (68%), no desire (44%) and no benefits of buying (42%)</p> <p>Most (94%) believed that the government should put in more efforts to protect wildlife.</p>
<p>Ivory Campaign, China (ivory). WildAid, Save the Elephants and African Wildlife Foundation</p> <p>Dates of campaign: 2013-2014</p> <p>(Source: WildAid 2014 (ivory))</p>	<p>Objective: Reduce the demand for elephant ivory in China</p> <p>Target: Residents in Beijing, Shanghai and Guangzhou</p>	<p>Key message: “Say No to Ivory”</p> <p>Media Outlets: featured in television ads and billboards</p>	<p>Baseline interviews conducted in November 2012 with residents in 3 cities: Beijing, Shanghai, and Guangzhou N=961; Endline interviews replicated in October 2014 N= 935 urban residents in the same 3 cities</p> <p>Samples weighed according to the Yearbook of Statistics of Chinese Cities in 2013; Urban residents who have lived in Beijing, Shanghai, or Guangzhou for over one year</p> <p>Age: 18 years old and older where 18 -35 year old accounted for 40.2%, 36 - 50 year old accounted for 37.8%, and those above 50 years old accounted for 22%.</p> <p>In-person, questionnaire.</p> <p>Income: Monthly income between RMB 0 to over RMB 10001.</p>	<p>70% aware of elephant poaching problem compared to 46% in 2012</p> <p>Increase awareness on how ivory is obtained (48% from 33%)</p> <p>Beijing more aware of ivory from poached elephants (53% from 25%)</p> <p>49% can’t tell the difference between illegal and legal ivory. Improved in knowledge that they should ask for a certificate.</p> <p>56.1% saw WildAid PSAs featuring Yao Ming or Li Bingbing and 90.1% of those said they wouldn’t buy ivory after viewing the PSAs.</p> <p>52.9% cited graphic and cruel images of poached elephants as the most effective way to persuade consumers to end consumption.</p>
<p>Rhino Horn Campaign, China (ivory). WildAid, Save the Elephants and African Wildlife Foundation</p> <p>Dates of campaign: 2013-2014 (launched April 2013)</p>	<p>Objective: Reduce the demand for rhino horn in China</p> <p>Target: Residents in Beijing, Shanghai and Guangzhou</p>	<p>Key message: “Say No to Rhino Horn”</p> <p>Media Outlets: featured in television ads and billboards</p>	<p>Baseline interviews conducted in November 2012 with residents in 3 cities: Beijing, Shanghai, and Guangzhou N=963; Endline interviews replicated in October 2014 N= 935 urban residents in the same 3 cities</p> <p>Samples weighed according to the Yearbook of Statistics of Chinese Cities in 2013; Urban residents who</p>	<p>50% aware of wild rhino poaching problem compared to 33% in 2012</p> <p>Nearly half, 49.4% of participants in 2012 and 46.3% in 2014, believed that rhino horn could be legally purchased from official stores</p> <p>2014 survey showed a 23.5% reduction in the belief that rhino horn has a medicinal effect, falling from 58.2% in 2012 to 44.5% in 2014.</p>

<p>(Source: WildAid 2014 (rhino horn)</p>			<p>have lived in Beijing, Shanghai, or Guangzhou for over one year</p> <p>Age: 18 years old and older where 18 -35 year old accounted for 40.2%, 36 - 50 year old accounted for 37.8%, and those above 50 years old accounted for 22%.</p> <p>In-person, questionnaire.</p> <p>Income: Monthly income between RMB 0 to over RMB 10001.</p>	<p>Of participants who do not buy rhino horn, 95% said the Chinese government should take stricter action to prevent the use of rhino horns. Even 87% (compared to 72% in 2012) of those who purchase rhino horns agreed with stricter restrictions</p> <p>More than 90% of interviewees think poaching poses a serious (or very serious) threat to rhinos, compared to 74% in 2012. The increase was most pronounced in Beijing, where awareness of the seriousness of poaching grew from 6.1% to 54%.</p> <p>More than 92% (90% in 2012) of all respondents believe that trade in rhino horn is illegal. In 1977, China signed CITES and banned all international trade in rhino horns. In 1993, the State Council banned rhino horn sales within China</p> <p>40% of participants interviewed in 2014 had watched PSAs featuring ambassadors Yao Ming or Jackie Chan and 90.9% of those said they wouldn't buy rhino horn after viewing the PSAs</p> <p>In 2014, 44.4% of residents cited seeing graphic images of poached rhinos as the most effective way to persuade consumers to end their ivory consumption</p>
<p>Illegal Wildlife Trade campaign, Vietnam. WWF.</p> <p>Dates of campaign: No info</p> <p>(Source: Olmeda 2015)</p>	<p>Objectives: Deliver messages to reduce demand for consumption of <u>rhino horn, ivory, and tiger</u> to top leaders of the world</p> <p>Target: General public, wealthy people, leaders</p>	<p>Key message: Rhino horn is the same stuff as human nails. Still want some?</p> <p>Media Outlets: mass media such as newspapers, television, in public areas as well as social media platforms like Facebook</p> <p>Events, workshops, collaterals, outreach</p>	<p>N/A</p>	<p>N/A</p>
<p>Trafficking Networks and Government</p>	<p>Objectives: Achieve high-level government</p>	<p>Events, workshops, collaterals, outreach</p>	<p>N/A</p>	<p>N/A</p>

Commitment, Vietnam. WCS.	commitment to illegal wildlife trade in <u>Vietnam</u>			
Dates of campaign: No info	Target: Government, policy makers			
(Source: Olmeda 2015)				
Awareness Raising through Public Service Announcements, Vietnam. Education for Nature – Vietnam.	Objectives: Elevate <u>wildlife</u> issue among public/consumers, address myths regarding the magic qualities of certain medicines and status in <u>Vietnam</u>	Mass media, outreach activities, collaterals, events	N/A	N/A
Dates of campaign: No info	Target: General public			
(Source: Olmeda 2015)				
“No more buyers, no more killers,” Vietnam. WildAid/CHANGE	Objectives: Raise the profile of <u>rhino horn</u> issue and increase the level of public engagement in <u>Vietnam</u>	Key Message: stop using rhino horn	N/A	N/A
Dates of campaign: No info	Target: Business sector, monks, doctors, children, women	Mascot, events, billboards, collaterals, outreach activities, networking, study visits, workshops, community leaders, mass media		
(Source: Olmeda 2015)				
Pride campaign, Thailand. WCS.	Objectives: Increase numbers of five ungulates (including Indochinese <u>tigers</u>) in Huai Kha Khaeng Wildlife Sanctuary in <u>Thailand</u>	Media placement, outreach, targeted communication	N/A	N/A
Dates of campaign: No info	Reduce poaching of ungulates and demand and			

(Source: WCS nd)

supply of ungulate meat by the local community; increase reporting and enforcement of wildlife poaching and trading

Targets:

Community members, including teachers and students in 20 local schools in Lansak district

Owners of restaurants and food shops; owners of market stalls

2. STRATEGIES, CHANNELS, AND INFLUENCERS USED IN THE CAMPAIGNS

A majority of the campaigns focused on awareness raising about wildlife consumption, trade, and depletion of species. They targeted the general public—including those in different age groups and socioeconomic strata. Messages provided information on endangerment of species, including the status of certain animals and education about laws and regulations, as well as the importance of conservation. The iThink campaign messages focused on raising awareness and changing attitudes. The campaigns included a “Call to Action” (protect wildlife, don’t buy or consume, say no...) as part of the messaging strategy. Media strategies included posting PSAs (billboards, videos, collaterals) in high-traffic areas and short films disseminated on TV, social media/website/online platforms, and events for large public audiences. These often featured key opinion leaders (KOLs). Some utilized social mobilization strategies such as WildFest events (one-time events) for the youth, competitions, and other similar activities.

The “Pride” campaign in Thailand aimed to help reduce poaching and demand for ungulates (including tigers) (WCS nd). It engaged community members including teachers and students in local schools, as well owners of restaurants, food shops, and market stalls. This was the only campaign our search found that attempted to engage both the “demand” and “supply” sides of wildlife consumption.

Finally, the Trafficking Networks and Government Commitment campaign in Vietnam aimed at engaging high-level officials and policy makers in the efforts to combat illegal wildlife trafficking (Olmedo 2015).

In Vietnam, two campaigns not cited in Table 10 above addressed underlying drivers of status and medicinal value associated with wildlife use in order to reduce consumer demand.

The *Breaking the Brand* campaign (Johnson, 2014) to reduce rhino horn consumption in Vietnam attempted to evoke fear and anxiety in users by suggesting it would have a negative impact on their social status (thus turning the existing social norm on its head) (Johnson 2014). Messages emphasized rhino horn consumption’s negative effects on one’s personal status and health as well as on the health of family and associates. Based on their qualitative research, the campaign strategists believed that users had no or very little empathy for the animals *per se*, so that a “protect a species” message would have little appeal. (In addition, users seem unaffected by the deaths of rangers who protect rhinos from poachers, but there appears to be an emerging sense of shame about the impact on wives and children of those rangers.)

Traffic’s *Chi* campaign in Vietnam also aimed to reduce rhino horn consumption (World Wildlife Fund 2014). It targeted wealthy urban businessmen aged 30-55 years old and used results from consumer research to address their motivations—particularly the power and credibility they believe rhino horn bestows on them and how it enhances their image with others. TRAFFIC (2013) found that businessmen generally wanted to maintain a healthy lifestyle for themselves and their loved ones. Major messages included:

- **‘Be Aware’:** Wise men know the truth. They use natural means to keep their body free of toxins. Vitality comes from lifestyle, not from a piece of horn.
- **‘Character’:** Character comes from within. A successful businessman relies on his will and strength of mind. Success comes from opportunities you create, not from a piece of horn.
- **‘Masculinity’:** A man’s allure and charisma come from within, not from a piece of horn.

- **‘Spirituality’:** Good luck comes in many forms. Health. Success. Respect. The lucky man knows that the tallest towers rise from the ground, not from a piece of horn

The champions or spokespersons in the Chi campaign were successful businessmen with high social standing who could serve as role models for typical consumers. Studies found that social networks of elite peers were particularly important for rhino horn users (TRAFFIC & WWF 2014, Ipsos 2013, TRAFFIC 2007).

A common objective of campaigns that have been implemented was to address powerful social norms—not only in terms of behaviors, but in terms of underlying values and both conscious and unconscious needs. As pointed out by Drury (2009) in a study on wild animal consumption in Vietnam, “major societal shifts are required regarding the importance of status—or at least the roles of consumption in demonstrating status—resulting in a reduction in the symbolic values of wildlife products as a medium for communicating prestige.” Consumers may buy wildlife products for decorative or medicinal uses, but also because of the need to feel “valued, safe, powerful, accepted, respected, connected with history or one’s cultural heritage,” or to have the satisfaction of possessing what was once accessible only to the elite.

3. RESULTS OF THE CAMPAIGNS

Of the ten campaigns (Table 10) five were systematically evaluated using baseline and post-surveys. These five campaigns had stated objectives of reducing the demand for consumption wildlife and wildlife products. The evaluation of these campaigns found that they were successful in reaching target audiences and raising their awareness about wildlife consumption. As a result of these campaigns, 62 percent of the urban population surveyed in China were reached (iThink Campaign China 2015). Similarly, 63 percent were reached in Thailand (iThink Campaign Thailand 2016) and 75 percent in Vietnam (iThink Campaign Vietnam 2016). Among those reached by the iThink campaign in Thailand, 82 percent were consumers of wildlife products.

The evaluations found an increase in the awareness of poaching; among the people surveyed during the Ivory Campaign in China (WildAid 2014) there was an increase of 24 percent in awareness of poaching between 2012 and 2014. Furthermore, a 27 percent increase in awareness was noted between 2012 and 2014 by the Rhino Campaign in China (WildAid 2014). Evaluations of these five campaigns showed an increased awareness around the illegality of the consumption of wildlife products and a positive perception of engagement in wildlife protection among those surveyed. A survey conducted in 2014 as a part of the Rhino Campaign in China (WildAid 2014) showed a 23.5 percent reduction in the belief that rhino horn has a medicinal effect, falling from 58.2 percent in 2012 to 44.5 percent in 2014.

The evaluations of the five campaigns revealed findings on the campaigns’ impact on consumer attitudes and behavior. The iThink Campaign in Vietnam (iThink Campaign Vietnam 2016) reported that between 54-71 percent of people surveyed said that public service announcements (PSAs) made them stop and think about the issue of wildlife conservation and felt empowered to discuss the topics with others. The same campaign revealed that only 4 percent of those surveyed in Hanoi, Vietnam intend to buy wildlife in the future compared to 26 percent who had made a wildlife purchase in the past 12 months (iThink Campaign Vietnam 2016). However, future intention to buy wildlife products is influenced by past buying behavior. Past buyers of wildlife products were found to be more than 12 times more likely to state that they may buy wildlife products in the future

compared to those who did not buy wildlife products in the past 12 months (12 percent vs. 1 percent).

The only campaign (among the five evaluated) that showed some impact on actual consumption was the iThink Campaign in China. The evaluation reported a decline of 11 percent in ivory consumption within the past 12 months (iThink Campaign China 2015). However, the same evaluation noted that this decline could likely be due to a recent auction ban in China as well as a slowing economy.

VI. SUMMARY INSIGHTS AND RECOMMENDATIONS FROM THE LITERATURE

While the proportions of those purchasing/using ivory, pangolin, rhino horn, and tiger are not large vis-à-vis total populations in the countries of interest to this study, they nevertheless constitute a significantly large number of people (especially in China) and are sufficient to continue driving markets for those species. For ivory, even many of those who have never purchased or owned products aspire to ownership. For the other three species, the markets are driven by repeat users who have a strong inclination to continue.

For ivory, the primary driver is the special value of the material and the status associated with owning (or giving) such a fine product (whether for home décor, as a piece of jewelry, or a religious carving). For all of the other species studied, the main driver of consumption was the particular medicinal power/s held by the respective animals (in particular when captured in the wild). These powers and related uses varied by species, but not greatly from country to country. The medicinal-value driver was also highly associated with the status driver.

The profiles of users for all of these products was quite broad—not restricted to a specific age group or to males or females. Consumers were by necessity mostly of higher socio-economic status. A large segment of ivory purchasers consists of professional women. Medicinal value-driven consumers tend to be status-driven consumers as well. The high prices and rarity of the products contribute to rather than detract from their value, and many purchasers also buy these products as gifts.

The research reviewed here indicates most consumers are aware that the animals in question are endangered and that purchasing them or products made with them is illegal. As mentioned, an exception is purchasers of ivory. *Once informed, ivory purchasers were also most willing to consider alternative products. Medical or health value-driven customers of other species tended to believe Western medicine could not offer the same benefits as medicines made with wild animal parts; alternate products would not be as beneficial and would not be considered as replacements.*

In China, Thailand, and Vietnam there have been few campaigns targeted at specific species (except perhaps for ivory in China) and very few have been evaluated. Most have focused on raising awareness and educating the general populace about the effects of wildlife consumption on animal species and the illegality of the trade. There is still room for such efforts, but campaigns must also be better targeted at regular consumers of specific wildlife products and their motivations. Many consumers felt their own behaviors had little importance or effect; many also felt there was little danger that existing laws would be enforced and they would be punished for illegal purchases.

The campaigns studied indicated peer pressure and the opinion of traditional Chinese medical practitioners have the greatest potential to influence consumers. Traditional medicine practitioners (TCM) are common providers of wildlife products. In China, they play an important role in

influencing beliefs regarding these products (Rapid Asia 2016, TRAFFIC & WWF 2014, Liu et al. 2016). Evaluation studies of the *iTHINK* campaign conducted in China, Vietnam, and Thailand found that those surveyed ranked TCM practitioners very high in terms of credibility (Min et al. 2007). However, no campaigns were found that attempted to affect TCM practices or to use them as spokespersons.

Suggesting alternate products to ivory purchases may be a promising tactic. Designers of the *IThINK* campaign in China also suggested that the message “purchasing ivory may be bad luck” would be effective in the context of information about Chinese belief that animal cruelty may bring bad luck. Suggesting alternative products to long-time medicinal-purchasers will be more difficult and will require strong involvement of influential people.

Communication and policy and enforcement must go hand in hand. Consumer research indicated the public is quite aware that existing laws are not being enforced. Stronger enforcement combined with stronger messages about the consequences of buying or selling illegal products are needed. New laws are also needed (*iTHINK* 2016). Vallianos (2016) suggested China should be encouraged to remove pangolins from the Pharmacopoeia of the People’s Republic of China and end the use of scales in patented medicines and clinical trials. Chinese and Vietnamese traditional medicine journals and websites should also be encouraged to stop advocating use of pangolin scales in medical treatment.

The growth of social media is now being exploited by both the wildlife market and by those attempting to constraint. Access to and purchase of illegal products with impunity is made vastly easier by the Internet. However, several campaigns (*iTHINK* in Vietnam and Thailand) have attempted to utilize the power of social media to reach broad general audiences in conservation efforts. Much remains to be done to use the power of this channel to target those regular purchasers of wildlife with messages that speak to their personal motivations and provide them with alternative voices, alternative practices, and the will to change.

VII. RESEARCH GAPS

The review of available research provides rich information on the key drivers for consumption of ivory, rhino horn, pangolin and tiger products in China, Vietnam and Thailand. However, there is need for additional information to plan communication campaigns aimed to reduce demand for these products in each country. Further research among the key consumer segments of each species in-country is necessary to elicit insights useful to define priority target audience segments, develop relevant messages that will resonate with these segments, and select appropriate channels and activities. The following are key questions that need still need to be answered for China and for Thailand, where formative research is planned under the USAID Wildlife Asia Activity (formative research for Vietnam will not be conducted considering that the Saving Species project will conduct a similar formative research).

A. FOR CHINA

I.1 BUYERS AND CONSUMERS

- Are there socio-demographic and psychographic differences among those who buy, use/own and accept ivory (and rhino horn) as gifts? For those who “use” or “own”, did they buy these products or were they handed down from previous generations?

- What **specific products** do they buy e.g. ivory tusks, ivory carvings, ivory trinkets, rhino horn, rhino horn powder, medicines containing pangolin (if aware), pangolin scales, pangolin meat, tiger products, etc. and for what purpose?
- Where do they buy their products? How much do they cost? How often do they buy (correlate with product bought)? Do they think these products are affordable?
- Do they plan to buy ivory/rhino horn/ pangolin/tiger products in future? Why and where?
- Do they think that buying ivory/rhino horn/pangolin/tiger products is illegal? If illegal, do they think that they will suffer penalties with purchase? Why or why not?
- Who are the people that these various consumer segments will listen to regarding their consumption of wildlife products?
- Do they know that domestic sale of ivory will be banned by end-2017? Are they aware of the penalties involved? What will they do when this ban is fully in effect? Will they buy abroad when they travel and bring back home? Will they shift to other wildlife products?
- What are the sources of medicinal beliefs for tiger/rhino horn/pangolin? Do these beliefs come from elders, peers, TCM practitioners, western medicine practitioners, previous users, their own experience? Are there belief sources markedly different for rhino horn powder, pangolin meat, pangolin scales, medicines containing pangolin, tiger bone and tiger plaster? Are there socio-demographic, psychographic differences among the consumers of these specific products?
- Are these medicinal products used alone or to supplement other “medicines” (what medicines)? Have they experienced healing or health benefits with use of these products? Will offering alternatives to these products reduce their desire for the wildlife product in question?
- Will stigmatizing buyers and users of ivory/rhino horn/pangolin/tiger products work?
- What are the socio-demographic, psychographic characteristics of buyer, users, and gift receivers of specific wildlife products? Can they be further divided into sub-segments? Based on what criteria?
- What are the socio-demographic and psychographic characteristics of buyers and users of tiger products? Can they be further divided into sub-segments? Based on what criteria?

I.2 GIFT RECEIVERS

- What do they feel if they are gifted with ivory, rhino horn, pangolin? What are these specific gifts?
- Do they use these “gifts” for themselves, their families?
- What are the benefits (status, medicinal, religious, etc.) of using these specific wildlife gifts?
- Do they themselves buy ivory, rhino horn, pangolin and/or tiger products? Why do they buy and where? Do they also give these items as gifts?

- Do they know that domestic sale of ivory will be banned by end-2017? Are they aware of the penalties involved? What will they do when this ban is fully in effect?
- Will they be able to “refuse” to accept the gift of ivory/rhino horn/pangolin/tiger? If no, why? If Yes, what will motivate or convinces them to “refuse” to accept the gift?

I.3. TCM PRACTITIONERS

- What are their beliefs underlying medicinal and/or health benefits of rhino horn powder, pangolin scale, meat and liquor, tiger bone wine and plaster and other relevant products? What are the sources of these beliefs? How strongly do they hold these beliefs?
- Have they prescribed these products in the past, currently? For what ailments? To be used alone or with supplementation from other medicines?
- Where do these products come from – farmed or endangered species, locally or from other countries (specify which)?
- Do they think that these products are illegal?
- Do they think that they can prescribe these products in future indefinitely? Why, why not? What will make them agree to stop prescribing these products?

B. FOR THAILAND

- What are the socio-demographic and psychographic characteristics of buyer, users, and gift receivers of ivory? Can they be further divided into sub-segments? Based on what criteria?
- What specific wildlife product (ivory tusks, carvings, trinkets; tiger parts, bone wine, bone plaster) do they buy or use? How much do they cost, and do they think it is affordable?
- What are the socio-demographic and psychographic characteristics of buyers and users of tiger products? Can they be further divided into sub-segments? Based on what criteria?
- What socio-ecological factors are driving demand for ivory and tiger products?
- Who are the influencers of ivory and tiger product consumers?
- Are there differences in gender among ivory and tiger consumers, and among sub-segments?
- Where do ivory and tiger product consumers live? Where do they buy these products? Do those who buy ivory also buy tiger products and vice-versa? Do they also buy or consume other wildlife products (specify which), and for what purpose?
- For religious/spiritual-driven consumption, why do they value ivory or tiger part/product for religious/spiritual purposes? What specific ivory or tiger part/product do they associate with religion or spirituality? Why? Is it better to have the carvings/ivory or tiger part/product at home or near their body? What is the influence of Buddhist monks and other religious/spiritual leaders? How strong are these religious beliefs and association with ivory

and tiger part/ products and availability at home or near their body? What is the influence of family, friends, etc.

- Do they perceive that the purchasing of ivory or tiger parts is illegal? Do they believe that there is a possibility that the ivory they buy or have comes from African elephants or tiger part/product comes from poached tigers?
- Who do they gift ivory to? For what purposes? Do they plan to gift ivory in the future?
- Why do these consumers buy tiger parts/products (specify which product – bone wine, bone plaster, etc.)? Where do these products come from? Where do they buy these products? How/from whom did they learn about the medicinal value of tiger products? Have they experienced health benefits with taking these products?
- Do we need to target consumers according to species or by other demographic characteristics? If yes, why and how? If no, why not?
- Who/what are their influencers, particularly those who may dissuade or de-incentivize use? Who/what will make them change their consumption and purchase patterns i.e., stop consuming wildlife? Do we need to propose alternatives to wildlife parts and products?
- What types of tactics can be used within the cultural context of the consumer segments? Considering that loss of face is part of the culture, will a “shaming” strategy work?
- What are the most effective channels to reach them? How can Wildlife Asia gain access to them and/or their leaders and influencers?

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