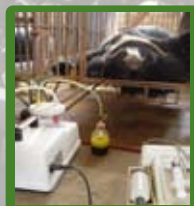


AN ANALYSIS OF ATTITUDES AND BEAR BILE USE IN VIETNAM



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Abstract

Vietnam is home to two species of bears, the Asiatic Black bear (*Ursus thibetanus*) and the Malayan sun bear (*Helarctos malayanus*). Both of these species are under serious threat mainly from illegal hunting and trade to support the demand for bear bile used as a traditional form of medicine. Bears are captured as cubs in the wild and sold to bear farms where they are raised and used to extract bile from the gall bladder. Currently there are about 3,500 bears on farms in Vietnam, most of which originated from the wild.

This study focuses on the social and geographic profiles of bear bile consumers. More than 3,000 people from three major cities in Vietnam; Hanoi (north), Da Nang (central) and Ho Chi Minh (south) were randomly selected and interviewed to analyze the motivation of bear bile consumers and evaluate demographic differences between respondents in their attitudes toward the use of bear bile. The results indicate that 22% of those surveyed have used bear bile in the past. Hanoi (35%) has a much higher percentage of people who have used bear bile than both Da Nang (15%) and Ho Chi Minh City (16%). Both men and women consume bear bile, but the percentage of men (29%) using bear bile is much higher than women (17%). Most bear bile consumers (73%) use bear bile to cure specific health problems, while only a small percentage (14%) use bear bile for entertainment purposes. While women tend to use bear bile to treat specific ailments (88%), the study showed that men use bear bile for many different purposes, including entertainment. The study also showed that bear bile consumption tends to increase with age.

These results suggest that the most effective means to reduce bear bile consumption in Vietnam is to promote more effective and readily available medical alternatives.

CHAPTER I - INTRODUCTION

The illegal trade in wildlife has become a global problem over the past few decades, threatening the survival of thousands of species, and affecting biodiversity and essential ecosystems in many places. According to Nijman (2010), more than 35 million animals were traded across international borders between 1998 and 2007, including 400,000 mammals, 1 million birds, and 17.4 million reptiles, most of which originated from the wild. Illicit global wildlife trade is growing and estimated to be worth between \$5 billion-\$20 billion annually (Wyler and Shikh 2008). It is now the second largest illegal form of trade in the world, ranking second behind drugs (Scheider 2008).



Vietnam plays a major role in regional wildlife trade both as a consumer state and also erving as the “back door” for wildlife smuggled into China. Nearly six tons of pangolins seized from a container offloaded from a ship in Quang Ninh originated in Indonesia and were destined for China.

Photo: CITES

China is one of the largest wildlife consumer countries in the world. Rapid economic development and rising incomes amongst a population of 1.3 billion has resulted in increased demand for exotic foods and traditional medicine made from wildlife. Demand from Chinese consumers has placed tremendous strain on wildlife resources in neighboring states such as Vietnam, where until recently, hunting and trade was nearly entirely focused on supplying the demand from Chinese markets. However like China, rising incomes resulting from rapid development have resulted in a growing consumer market for wildlife in Vietnam. Vietnam’s role in the wildlife trade has evolved from being an important source state supplying wildlife to Chinese consumers to that of a “middleman” in the international trade and growing consumer state.

Vietnam’s role in the international wildlife trade extends into neighboring countries and beyond with hunters operating in Laos (Nooren and Charigde 2001, Corlett 2007), and owning a stake in Laos bear and tiger farms supplying markets in Vietnam. Vietnamese nationals are known to operate in South Africa and other African countries, smuggling

rhino horn, ivory, and other products into Vietnam. Hai Phong has also become a major transit point for major shipments of ivory sourced from east African countries, as well as turtles and pangolins sourced from Indonesia that are then believed to be smuggled overland into southern China (ENV wildlife Crime database 2010).



Vietnam has become a major consumer of wildlife as incomes rise and the economy develops. This shipment of wildlife bones confiscated by Hanoi Environmental Police in September 2010 was destined for Vietnam's traditional medicine market.

Photo: ENV

About 3-4,000 tons of wildlife is illegally traded in and out of Vietnam every year (Nguyen 2008). Wildlife in trade ranges from small insects to large mammals, and common species to the most critically endangered species that are fully protected under Vietnam's wildlife protection laws such as Indochinese tigers (*Panthera tigris corbetti*), Asiatic black bears (*Ursus thibetanus*), and hawksbill turtles (*Eretmochelys imbricata*) [Rao et al. 2005, Corlett 2007, Zhang et al. 2007, Shepherd and Nijman 2008]. Many of these species are listed in Appendix I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) [Yming and Dianmo 1998].

The illegal trade in wildlife has many complex causes that are rooted in social, economic, cultural, and political structures (World Bank 2005). Most prior studies on wildlife trade have focused on describing hunting and trade at the local level. In Vietnam for example, there are a number of surveys of wildlife hunting and trade in communities surrounding parks and nature reserves. Johnson et al. (2003) carried out a study on wildlife hunting and use in the Nam Ha National Protected area in Laos. The authors identified animal species hunted by local villagers, hunting seasons and methods, values of wildlife and market price for different species. In the same year, the PARC project evaluated the wildlife trade situation in Na Hang District, Tuyen Quang Province, Vietnam. This work also focused on identifying the animal species that were hunted and traded by local communities, values of wildlife and local

market prices for each species. While useful, these types of studies do not attempt to identify the underlying factors that drive the wildlife trade. One study that did approach social dimensions of the problem in Vietnam is the Wildlife Trade Monitoring Network (TRAFFIC) survey (2007), which analyzed wildlife product consumption in Hanoi. The survey focused on identifying wildlife consumers' jobs, incomes and awareness of wildlife protection laws. The study's author estimates that 47% of Hanoi residents have used products made from wildlife, including specific groups such as entrepreneurs and government officials. The author also says that men use more wildlife products than women and people with higher income and education consume more wildlife than those with lower income and education levels. Wildlife consumption is also shown as a social activity. The analysis presented in the report, however, is not conclusive in describing the major characteristics, purposes and motivations of wildlife consumers in Hanoi. Moreover, as the survey was limited to Hanoi, which is very unique from other parts of the country, the survey also did not provide a picture of attitudes toward wildlife consumption at the national level. These limitations lend difficulty to the task of designing appropriate and effective measures to address the root causes of wildlife consumption. However despite these limitations, this initial survey was a critical first step forward in understanding attitudes and an important guide in devising strategies to reduce demand and consumption of wildlife.

In this study, we seek to examine the social and geographic profiles of illegal wildlife consumers in more detail than has been previously attempted. By looking at the specific instance of bear bile consumption in Vietnam, it is anticipated that a clearer perspective on the motivations of consumers will arise, which may in turn allow for better ways to approach the broader problem.

Illegal bear farming in Vietnam

Bear and wildlife farming in Vietnam is a recent development resulting from the growth of consumer markets in Vietnam and the corresponding reduction of wild-sourced animals due to hunting and trade. In the past, bears were hunted and killed for their gall bladder, which was used to produce traditional medicine. Bear farming, perhaps better described as bear "ranching", was developed to sustain the



Photo: ENV

harvest of bear bile from live bears, nearly 100% of which were wild-sourced. Bile is extracted from captive bears on an average of once every several months. Major bear farming operations have developed in China, Korea, Japan and Vietnam with other countries like Myanmar and Laos presently in the early stages of developing similar operations. In China, there are more than 7,500 bears in captivity (Earth Island Institute, 1997) while in Vietnam the number is estimated to be around 3,500. These totals account for almost 10% of the estimated total population of Asiatic black bears in the world (WSPA 2002).

Conservation status

Two species of bear are native to Vietnam, the Asiatic black bear (*Ursus thibetanus*) and the Malayan sun bear (*Helarctos malayanus*). The Asiatic black bear can be found widely throughout Asia, from Pakistan to Malaysia, Siberia, and the south of China. The sun bear is about half the size of the Asiatic black bear, and is native to Southeast Asia (Francis 2001), with its range extending from Indonesia north into Indochina and parts of southern China, and west into India. Both bear species are currently listed as “vulnerable” on the World Conservation Union’s Red List of threatened species (IUCN 2010).



Malayan Sun Bear (Helarctos malayanus)

Photo: Andrew Piggott



Asiatic Black Bear (Ursus thibetanus)

Photo: ENV

In Vietnam, there is very little known about populations in the wild. Some scientists suggest that Vietnam’s wild bear populations have declined sharply, largely driven by the lucrative trade in bear parts (particularly gall bladders) for use in traditional medicine (Servheen 1996; Shepherd 2001; Ellis 2005; Corlett 2007). Hunters interviewed during surveys at protected areas throughout the central and northern region of Vietnam support the concerns of scientists, noting the absence and reduction of bears encountered during hunting expeditions (ENV Central VN surveys, 2009, 2010,)

Legal protection

Both species of bear are protected under group IB of the Decree 32/2006, the government’s principle wildlife protection law. It is illegal to hunt, kill, transport, buy or sell either bear species or the parts and derivatives, including bear bile, from bears.

In 2005, the Ministry of Agriculture and Rural Development issued Decision 02/2005 specifically dealing with the management of captive bears (Forest Protection Department 2005). The aim of the regulation was to phase out bear farming in Vietnam through attrition, permitting owners to keep their bears on behalf of the government, but prohibiting the acquisition of new bears.

According to this regulation, all captive bears held on farms at the time of the regulation were required to be registered by the end of February 2005. According

to the regulation, any bears discovered by authorities after the registration deadline were to be confiscated. Microchips were inserted into all registered bears to allow authorities to identify each bear during monitoring inspections of farms.

Both the Asiatic black bear and Malayan sun bear are also listed under Appendix I of CITES, for which Vietnam became a signatory 1994. Both import and export permits are required for transportation of Appendix I-listed species and parts or derivatives of listed species across international borders.

Cultural importance

Bear bile has been used in traditional Chinese medicines for over 3,000 years (WSPA 2002). It has been used to treat a variety of health problems such as liver disease, burns, fever, internal bleeding, stomach ulcers as well as other ailments (Mills 1992). Use of bear bile as a form of medicine has subsequently been adopted by Korea, Japan, Vietnam and other countries in the region. The Asiatic black bear is said to be the most



Bear bile is sold in small bottles to customers who often want to witness the extraction process to ensure authenticity.

Photo: ENV

valued bear species for use in traditional medicine (Serheen 2001; Shepherd and Nijman 2008). Today, many Vietnamese people still believe that bear bile is a magical traditional medicine, curing many different health problems, ranging from bruising, stomach aches and digestion, to serious illnesses such as cancer. These beliefs may be a result of the influence of Chinese culture as China dominated Vietnam for more than a thousand years, from 179 BC until 938 AD (Nguyen 2006).

Vietnam is culturally divided into three regions; the north (Red river delta), central, and south (Mekong river delta). Chinese culture has perhaps had the most influence in northern parts of the country. Both Chinese and Vietnamese people believe that whatever part of an animal you eat will help make the same part of a human's body strong. For example, if one eats a chicken leg, it will help make their legs stronger and they will be able to run faster. Chinese and Vietnamese people particularly value wildlife meat and its products as they believe that consuming wildlife will give them the same strength that wildlife has in the wild, and thus consumption for this purpose particularly focuses on powerful animals like tigers and bears.

The growth of the bear bile industry in Vietnam

Until about 30 years ago, the main source of bear gall bladders and body parts was from wild bears that were hunted and killed (Li 2004). Still today, Mano and Ishii (2008) estimate that about 2,000 bears are killed in Japan every year for bear parts and gall bladders. The gallbladder is often dried and sold in traditional medicine shops (Feng et al. 2009). However in the early 1980s, North Korea developed a latex catheter technique for extracting bile from live bears, whereby a narrow rubber pipe was embedded under the skin and surgically attached to the gall bladder. The farmer extracted the bile through the rubber pipe which exited the skin at the top of the bear's thigh. The bile drained through the rubber pipe into the protected fluid bag and was emptied every two weeks or so (WSPA 2007, AAF 2010). This new method meant that bear bile could be produced and extracted many times from a single live bear. The

technique soon spread throughout the region, including China and Vietnam. Today bear cubs are often captured alive and sold to bear farms where customers can witness bear bile extraction to assure the authenticity of the product, and purchase bile.

In the early stages of the development of bear bile extraction techniques in Vietnam, bears were cut open every time the owners wanted to collect bile. This technique, however, was a long and complicated process. Moreover, it took a long time for a bear to recover from the surgery before it could be cut open again for subsequent bile extraction, and bears were exposed to risk of infection and complications relating to surgery. Today, the extraction process has graduated to more advanced methods which involve use of an ultra-sound system to locate the gall bladder and allow a needle to be inserted directly into the gall bladder to extract the bile. Use of this more advanced technique has made bear farming more profitable as bear bile extraction becomes a simplified process and owners can extract bile as frequently as monthly from their captive bears. This method has also likely reduced the occurrence of infection by eliminating the necessity of surgical extraction.



Although the sale of bear bile is illegal in Vietnam, one bear farm in Hanoi openly flouts the law. The sign reads “Fresh bear bile extracted on site”.

Photo: ENV

The bear bile industry appears to have undergone rapid growth in the late 1990s in Vietnam, corresponding to the rapid growth of the economy and increase in standard of living, particularly within urban centers, whereby people could afford expensive goods and products that ten years earlier were beyond their reach.

The number of bears on bear farms grew as new cubs were brought into the trade to captive populations. The growth of bear farming was particularly evident in the northern part of the country.

Bear farming operations vary in size, from one to a hundred bears. Larger bear farmers tend to operate under the protection of local authorities or are persons of influence in society, however, most bear farmers are small operations with one or two bears.

Vietnamese people used to pay US \$10/cc of bear bile but the price has dropped significantly to \$1-2/cc over the past five years due to its greater availability. Responding to potential business crises, many bear owners have been looking into the international market.



Modern means of bile extraction include use of ultrasound machines to locate the gall bladder before injecting a needle to drain bile through a suction tube.

Photo: ENV

A few major bear farm owners have developed “bear tourism” operations whereby they host organized tours, with Korean and Chinese visitors coming to the farm and observing the bile extraction process before paying for their bile, generally at an inflated price (ENV, 2009, Nguyen 2009). At least six bear bile tourism operations have been established in Ha Long Bay, Vietnam’s most popular tourist destination and a UNESCO World Heritage site. At least one other farm focused on Korean tourists is known to operate in Ho Chi Minh. These illegal businesses are extremely well organized and operate with the passive knowledge of local authorities.

The bear bile industry exists in Vietnam despite laws making the business illegal for a number of reasons, including the perception that extraction and use of bear bile is not really a negative behavior given its roots in traditional culture, and widespread perception amongst segments of society of its medicinal values. Moreover, when faced with crimes such as the discovery of illegal bears, senior authorities tasked with wildlife protection more than often lack political will and sustained commitment to address the issue in accordance with spirit of the wildlife protection laws that they authored.

Protecting Vietnam’s bears in the wild requires rigid enforcement of the law, strength and commitment from government, and a major focus on reduction and elimination of bear bile consumption by the public. The fact that bear bile has roots in Vietnamese

culture and its use is socially acceptable, remain major obstacles to overcome. However, there is little understanding of what specific factors motivate people to use bear bile in Vietnam, making it very difficult for authorities and conservation organizations to develop effective measures to target reduction of consumer demand, which would ultimately result in the elimination of bear farming and enhanced protection of bears in the wild.

This study is unique because it is the first study to focus on the demographics and geography of the consumption of endangered wildlife products. Conservation organizations hope to be able to direct awareness efforts such as public information campaigns

where these campaigns will have the greatest impact. Intuitively, understanding consumers is a critical part of designing effective campaigns that will have meaningful results. Looking at why people use bear bile and being able to focus in on specific segments of society is essential to this understanding. Prior to execution of this study, little was known about the important differences between bear bile consumption in the north, central and the south of Vietnam.

The findings of this research will test common presumptions, and provide local authorities and conservation organizations with a more detailed profile of domestic bear bile consumers and their motivations. This may help them to improve on current public policies, develop better public awareness campaigns and strengthen law enforcement. Findings from this research may also provide a broader picture of the social causes for endangered wildlife trade, particularly for comparable wildlife products, such as tiger bone glue consumers.



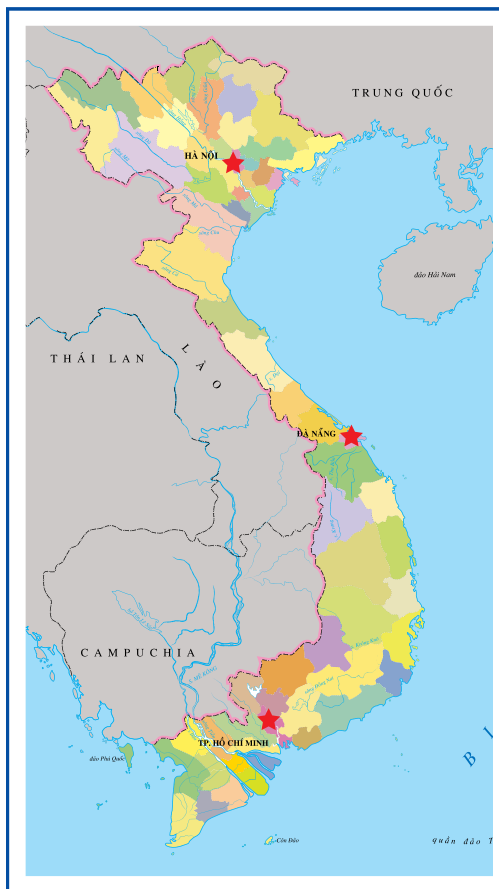
Photo: ENV

CHAPTER II - RESEARCH METHODS

A survey that was designed to collect information about the demographic characteristics and motivations associated with use of bear bile in Vietnam was carried out in mid-2009 in three major urban centers; Hanoi, Da Nang and Ho Chi Minh City. The cities were selected as representative of urban populations in the north, central and southern regions of Vietnam (Figure 2.1).

The questionnaire was comprised of 19 questions. The first four questions targeted both users and non-users of bear bile and aimed to establish a profile of the interviewees, such as their place of residence, age, level of education, as well as whether they consumed bear bile.

In addition, the survey included 10 questions for people who had either used bear bile in the past or considered themselves current users. These questions were aimed at learning about the perceived values associated with bear bile, why people use it, frequency of use, the primary sources for obtaining bear bile, the interviewee's intention regarding future use, as well as their opinions about how to reduce and eliminate bear bile consumption and phase out bear farming in Vietnam.



Graphic 1 : The survey was carried out in three major urban centers; Hanoi, Da Nang and Ho Chi Minh City.

Bear bile users were divided into two groups; past and current bear bile users. The term “past users” here refers to people who used bear bile at any time in the past but stopped using bear bile in the past two years. “Current bear bile users” include those who used bear bile at least once over the past two years.

The last five questions focused on non-bear bile consumers. This section was aimed at understanding the respondent's reasons for not using bear bile (for respondents that answered that they do not use bear bile), their understanding of the law, as well as their opinion on how to reduce the consumption of bear bile and phasing out bear farming operations in Vietnam.

The questionnaire was pre-tested in Hanoi and modified accordingly before the actual survey was carried out.

Interviews were carried out by staff of ENV that were trained in survey methods and interviewing skills, and had practiced these through training and execution of the survey pre-test in Hanoi. Approximately 9,000 home telephone numbers were

randomly selected and given to ENV by the Vietnam Multimedia Cooperation (VTC). More than 3,000 people 18 years of age and over were anonymously reached and interviewed via telephone at different times of the day (morning, afternoon, evening and the weekend) to ensure that the survey would reach the widest possible range of people from different ages and professions within society. The participation of the survey interviewees was voluntary and interview subjects were advised of their right to withdraw from the survey at any time. Each person was interviewed once and each interview lasted between 15 to 25 minutes.

In many western cultures, it is sensitive to ask about the age of an interviewee, especially among female participants, but this sensitivity is not prevalent in Vietnamese culture. However when inquiring about the age, the interviewer asked about the year the subject was born rather than how old they were in order to avoid confusion, as it is customary in Vietnam to consider the age at birth as one year, and thus the age remains one year higher than persons born on the same date in western culture.

The survey did not include specific reference to profession and income variables because the survey designers felt that it is difficult to obtain truthful information about these variables due to personal pride if respondents are unemployed or lack significant income from their employment, and the fact that many people do not keep track of their income, especially if official and unofficial income comes from a variety of sources.

Use of bear bile, though technically illegal, is socially acceptable in Vietnam. Thus using bear bile is not widely considered as negative behavior among Vietnamese and people were not embarrassed to talk about their use of bear bile.

Data management and analysis

As part of the analysis process, participants were divided into five age groups; 20s (including people of age 18 and 19), 30s, 40s, 50s and 60s (including all persons above 60). This division was based on the assumption of similarities in health condition, incomes and social status. For example, people in their 20s tend to have the least health problems and are just at the beginning of their careers. In contrast, people in their 60s and older are likely to have more health problems and to be retired. Meanwhile people in their 40s and 50s are probably at the peak of their career, still in good health condition, and likely to have more disposable income.

Current bear bile users are divided into four different groups based on their frequency of use. All the people who used bear bile once over the past two years were considered minor users. If they used bear bile two to five times they were considered small users. If they used bear bile between six to 15 times, they were considered moderate users. If they used bear bile more than 15 times, they were considered major bear bile users.

To analyze the potential relationships between education and the consumption of bear bile, participants were divided into two groups; those with basic education and those with advanced education. The basic education group included all the interviewees who claimed to have studied no further than high school. The advanced education level included the interviewees who claimed to have pursued further education, such as undergraduate or post-graduate studies or those who had attended vocational schools.

Additional information collected from respondents included gender, perceived values, purposes for using bear bile, awareness of the law, and attitudes toward animal welfare, since some respondents might have witnessed the bear bile extraction process or observed bears kept in captivity. Results are also analyzed geographically by comparing between the three surveyed cities Hanoi, Da Nang and Ho Chi Minh City.

During the analysis process, three binary regression models were created. The first model tested for the statistical significance of the demographic variables (e.g., education, gender, age and geography) in predicting bear bile consumption. The second and third model tested whether demographic variables can predict the use of bear bile for general health improvement and entertainment purposes, helping to identify the typical profile of these types of consumers.

Limitations of the survey

- The survey could not profile the participants' areas of profession or their annual income because many people did not feel comfortable talking about these matters and the survey designers felt that information provided may not be accurate.
- The survey did not reach people without house phones or those who use cell phones as their primary form of telephone communication.
- The surveys were only carried out in three major cities of the country and thus the results may not represent attitudes toward bear bile and its use in rural and remote areas of the country.
- The analysis of this study is based on stated responses of the interviewees. Some responses might not reflect participants' actual practices as a result of any variety of reasons or motivations. For example, some respondents might be a bear bile user but were worried about telling the truth to the interviewer via the phone as they were concerned about potential consequences.

CHAPTER III - RESULTS

Demographics of bear bile consumption

More than 3,000 people from three major cities - Hanoi, Da Nang and Ho Chi Minh - were reached via house telephone and voluntarily participated in the survey in 2009. Of these, 3,032 interviews were considered valid, having completed all the questions. In all three cities, women (1,871) participated in the survey more than men (1,161), probably as a result of women answering the telephone more than men when the interviewers called. Hanoi has the highest percentage (39.9%) of male participants in the survey and Ho Chi Minh has the lowest percentage (36.9%) of male respondents (Table 1).

Table 1. Geographic distribution of survey participants

Location	Male	Female	Total (people)
Hanoi	405	611	1.016
Da Nang	383	622	1.005
Ho Chi Minh	373	638	1.011
Total	1.161	1.871	3.032

All survey participants claimed to be at least 18 years of age and older. Due to the random sampling method, the distribution of age is not the same among different age groups. People in their 20s represented the largest group participating in the survey with 852 people (28.1%), followed by those in their 40s (22.9%). The smallest age group participating was those in their 60s or older, with only 381 people taking part (12.6%; Table 2).

Table 2. Age group distribution of survey participants.

Age group	Male	Female	Total	
			People	%
18-29 (20s)	314	538	852	28,1
30-39 (30s)	196	407	603	19,9
40-49 (40s)	280	413	693	22,9
50-59 (50s)	203	300	503	16,6
≥60 (≥60s)	168	213	381	12,6
Total	1.161	1.871	3.032	100,0

The survey participants were divided into two groups based on their education levels. More than half (59.8%) of the total participants claimed they only finished high school or a lower grade (basic education). Almost half of all male participants (48.1%) had achieved an advanced level of education while a majority of female participants (64.7%) had completed only a basic education level (Table 3).

Table 3. Education levels of survey participants

Education	Male	Female	Total	
			People	%
Basic levels	602	1.211	1.813	59,8
Advanced levels	559	660	1.219	40,2
Total	1.161	1.871	3.032	100,0

Only 655 out of 3,032 interviewees (21.6%) indicated that they had used bear bile in the past, with 399 respondents claiming to have used bear bile during the previous two years (13.2% overall). In addition, 7.7% of those surveyed who claimed to have never used bear bile in the past said they will definitely use bear bile in the future, while 21.4% of these non-users said that they were not sure if they would use bear bile in the future. Roughly half of the survey participants (1,497) who claimed never to have used bear bile in the past said that they would not use bear bile in the future (Table 4).

Table 4. History of bear bile usage by interviewees

Main groups	Sub-groups	Sub-total (people)	%	Total (people)
Bear bile users	Current users	399	13.2	655
	Past users	256	8.4	
Non-bear bile users	Non-future users	1.497	49.4	2.377
	Future users	232	7.7	
	Unknown	648	21.4	

Demographics of the bear bile users

The survey results indicate that men use bear bile more than women. Out of 1,161 men surveyed, 335 (28.9%) reported using bear bile in the past and 90 (7.8%) said that they would use bear bile in the future. In contrast, 320 out of 1,871 (17.1%) female respondents said that they have used bear bile in the past, and 142 (8.0%) said that they would use bear bile in the future.

People with higher education levels also used bear bile more than people who had only completed basic education levels. The survey results showed that 27.5% of respondents who have advanced education have used bear bile in the past and 7.7% claimed to be potential future users. Out of 1,813 respondents with basic education levels, 17.7% stated that they have used bear bile in the past and 7.6% claimed that they would use bear bile in the future (Table 5).

There are also differences in bear bile use between the three urban centers sampled. Bear bile use in Hanoi appeared to be more prevalent than in Da Nang or Ho Chi Minh. The survey showed that 34.6% of respondents in Hanoi have used bear bile in the past. In contrast, 14.5% of respondents in Da Nang and 15.5% in Ho Chi Minh have used bear bile in the past or expect to use it in the future (Table 5).

Table 5. Basic demographics of bear bile users

Bear bile users	Total	Gender		Education		City		
		M	F	Basic	Adv	Hanoi	Da Nang	HCM
Past users	256	121	135	128	128	123	74	59
Current users	399	214	185	193	206	229	72	98
Future users	232	90	142	138	94	99	87	46
Total	887	425	462	459	428	451	233	203

Regression model of demographic factors

Because the random survey method did not yield uniform sized demographic sub-groups, regression models were run to test for statistical significance of the different demographic relationships. Since all the P values (except Da Nang) in the regression model (Table 6) are zero, there are significant relationships between bear bile consumption and other demographic factors including age, gender, education and geography.

Age and geographic location are particularly important factors explaining the decision of the respondents to consume bear bile. The role of age is strongest (over all other

factors such as gender, education and geography). Older groups use bear bile more commonly than people in their 20s. In particular, people over 59 years of age are 2.8 times more likely to use bear bile than those in their 20s.

Living in Hanoi also has a very high probability associated with bear bile use compared to Ho Chi Minh City and Da Nang. People in Hanoi are 2.6 times more likely to use bear bile than those in Da Nang but there is not much difference between Da Nang and Ho Chi Minh City (Table 6).

Gender and education are also very influential. When controlling for other factors to test for the significance of gender, the model shows that men are 1.8 times more likely to use bear bile than women. When education is tested, the model indicates that people with advanced education have a 1.7 times greater probability of consuming bear bile than those with basic education levels (Table 6).

Table 6. Results from Logistic Regression model of Bear Bile Consumption in Vietnam. The odds ratios (Exp(B)) indicate the level of statistic significance between bear bile consumption and other factors.

Factors	B	S.E.	Wald	df	Sig.	Exp(B)
Male	.610	.094	42.113	1	.000	1.841
Advanced Education	.547	.097	31.594	1	.000	1.728
Age of 30s	.717	.144	24.876	1	.000	2.048
Age of 40s	.537	.145	13.700	1	.000	1.711
Age of 50s	.817	.148	30.371	1	.000	2.265
Age of ≥ 60s	1.041	.155	45.027	1	.000	2.831
Hanoi	.946	.112	70.872	1	.000	2.576
Da Nang	-.135	.127	1.124	1	.289	.874
Constant	-2.696	.144	352.058	1	.000	.067

The non-bear bile user group is made up by 82.3% of interviewees who claimed to have finished high school or lower, and 72.6% of participants with advanced education levels. A large number of both basic (52.1%) and advanced (45.3%) education level groups stated that they will continue not using bear bile in the future (Table 7).

Respondents have not used bear bile for many different reasons. The primary reason cited in the survey is that they have never needed it; a majority of those in Hanoi (60.1%) cited this reason. The second most important reason was that many respondents were not aware of its supposed values (21.6%), especially in Ho Chi Minh City (29.6%).

Motivations of non-bear bile users

A large number of respondents (78.4%) claimed that they have never used bear bile in the past (82.9% of females and 71.1% of males surveyed) and many also claimed that they would continue not using bear bile in the future (male: 63.4%, female: 62.9%). A majority of these respondents were from Da Nang (772 people). The survey results showed that only a small number of bear bile users (85 people) said they would stop using bear bile in the future. Half of this group was from Hanoi (Table 7).

Table 7. Basic demographics of non-bear bile users

Non-bear bile users	Gender		Education		City		
	M	F	Basic	Adv	Hanoi	Da nang	HCM
Non-users in the past	826	1.551	1.492	885	664	859	854
All time non-users	42	43	39	46	43	20	22
Current and future non-bear bile users	521	976	945	522	304	722	421

Respondents who claimed to have not used bear bile stated many reasons for their decision. The primary reason for not using bear bile was that the respondent has never needed it. A majority of non-users in Hanoi (60.1%) responded in this way. The second most important reason was that they were not aware of its supposed medicinal values (21.6%), especially in Ho Chi Minh City (29.6%). Interestingly, no one in Hanoi claimed to be unaware of the perceived medicinal value of bear bile (Table 8).

The market price of bear bile did not seem to be a major reason preventing a respondent from using bear bile (Table 8). Current prices (2010) range from USD \$1 - \$3/cc in today's market.

Legality and concerns over welfare of bears appear to have very little influence in people's decision not to use bear bile. Only 30 out of 2,377 non-user respondents (1.3%) claimed that they have never used bear bile because it is illegal and just 56 people stated their reasoning was out of concern for bears (Table 8).

Table 8. Reasons that non-bear bile users cite for not using it

Reason	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
Have never needed	399	60.1	344	40.1	410	48.0	1,153	48.5
Do not know its values	0	0.0	261	20.4	253	29.6	514	21.6
Too expensive	78	11.8	91	10.6	99	11.6	268	11.3
Ineffective	42	6.3	9	1.1	10	1.2	61	2.6
Concerned about bears	19	2.9	18	2.1	19	2.2	56	2.4
Illegal	11	1.7	13	1.5	6	0.7	30	1.3
Others	115	17.3	123	14.3	57	6.7	295	12.4

When asked whether they thought that the use of bear bile was legal, most non-bear bile users (74.3%) in all three cities thought that use of bear bile was legal, especially in Ho Chi Minh City (75.3%). This suggests that existing laws are not widely known and have little impact on people's decisions regarding the consumption of bear bile in Vietnam (Table 9).

Table 9: Responses to the legality of bear bile usage by non-users

Is the use of bear bile legal?	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
No	191	28.8	209	23.0	211	24.7	611	25.7
Yes	473	71.2	650	71.5	643	75.3	1,766	74.3

When asked to prioritize and rank a list of measures in the order of their perceived effectiveness to eliminate the use of bear bile and end bear farming operations in Vietnam, the non-bear bile users group ranked “alternative health options” as the most effective measure (31.2%), especially in Da Nang with more than 300 people (35.4%) choosing this measure. The second highest rated measure was raising awareness of the public (28.4%), followed by the forced closure of bear-farming operations (26.2%). Law and enforcement was considered the least effective (13.3%) amongst several other suggestions (Table 10).

Table 10. Responses to potential effectiveness of measures to reduce bear bile usage and bear farming in Vietnam by non-users

Measures	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
Alternatives	188	28.3	304	35.4	250	29.3	742	31.2
Greater Awareness	188	28.3	247	28.8	230	26.9	674	28.4
Closing down bear farm operations	152	22.9	223	26.0	261	30.6	636	26.8
Law and enforcement	109	16.4	85	9.9	104	12.2	298	12.5
Others	18	2.7	0	0	9	1.1	27	1.1

Characteristics and motivations of bear bile users

There are major differences in the use of bear bile between men and women. Men in general were much more likely to use bear bile than women in all three cities (men: 28.9%, women: 17.1%), especially in Hanoi, where 42.0% of the men interviewed indicated that they have used bear bile in the past.

In contrast, only 20.1% of the males surveyed in Da Nang and 23.6% of the males interviewed in Ho Chi Minh reported having used bear bile before. Women in Hanoi also used bear bile more than men or women in Da Nang and Ho Chi Minh City. Almost 30% of the women in Hanoi indicated that they had used bear bile in the past, while only 11.1% of those in Da Nang and 10.8% of those in Ho Chi Minh claimed to be bear bile users (Table 11).

Table 11. Distribution of bear bile users by gender and geography

Gender	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
Male	170	42.0	77	20.1	88	23.6	335	28.9
Female	182	29.8	69	11.1	69	10.8	320	17.1
Total	352	34.7	146	14.5	157	15.5	655	21.6

In general, bear bile use increases with age, a trend that can be seen in all three cities. The youngest group (20s) represents the smallest bear bile consumer group, with only 14.7% of respondents reporting that they had used bear bile. The highest percentage of young consumers is in Hanoi (24.4%).

People in their 30s used more bear bile (23.1%) than people in their 20s or those in the 40s. People in their 60s and older made up the highest percentage of bear bile users (32.3%), while people in their 50s were the second largest bear bile user group (26.4%), except in Ho Chi Minh City, where the percentage of bear bile users in their 30s and 50s was similar (Table 12).

Table 12. Distribution of bear bile users by age and geography

Age group	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
≤20	63	24.4	30	10.7	32	10.2	125	14.7
30	73	36.8	29	14.1	37	18.9	139	23.1
40	63	31.2	36	14.8	35	14.2	134	19.3
50	80	41.2	26	16.1	27	18.2	133	26.4
≥60	72	44.7	25	22.1	26	24.3	123	32.3

The survey reveals that people with higher education used bear bile more than people with lower education levels, and this trend is similar in all three cities. Overall, 321 out of 1,813 (17.7%) people with basic education levels had used bear bile in the past. Three hundred and thirty four out of 1,219 people (27.4%) with advanced education had used bear bile. In Ho Chi Minh City, the difference between basic and advanced education levels is slightly bigger (basic education: 12.6%, advanced: 27.4%) than in Hanoi and Da Nang (Table 13)

Table 13. Distribution of bear bile users by education and geography

Education	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
Basic	163	30.6	74	12.1	84	12.6	321	17.7
Advanced	189	39.1	72	18.4	73	21.2	334	27.4
Total users	352	34.6	146	14.5	157	15.5	655	21.6

The perceived values of bear bile is similar amongst the three cities. A large number of bear bile users (66.9%) believed that bear bile was useful for sprains, bruising and muscle complaints. Many people also believe that bear bile is good for general health (40.2%). Additionally, bear bile is also thought to be good for curing many other health problems such as arthritis, stomach and digestive ailments, and even cancer. Interestingly, only 3.1% of bear bile users from Hanoi say that bear bile does not have any health benefits compared to a much higher percentage of respondents in Ho Chi Minh (13.4%) with the same response (Table 14).

Table 14. Perceived medical values of bear bile.

Values	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
Sprain, bruising and muscle complaints	251	71.3	96	65.8	92	58.0	438	66.9
General health improvement	166	47.2	35	24.0	62	39.5	263	40.2
Arthritis	64	18.2	35	24.0	35	22.3	134	20.5
Cancer	38	10.8	2	1.4	7	4.5	47	7.2
Digestive problems	35	9.9	5	3.4	10	6.4	41	6.3
Eye-drops	0	0	10	6.8	0	0	10	1.5
Others	29	8.2	15	10.3	10	6.4	73	11.2
Bear bile has no benefits	11	3.1	10	6.8	21	13.4	33	5.1

Note: The total might be more than 100% as a surveyed participant might have more than one answer.

Most bear bile consumers use bear bile with the intention of treating a specific health problem such as muscle complaints, bruising, or digestive problems and arthritis (72.5%), while other respondents reported using bear bile for more general health improvement (40.2%). Only a small number of users (13.7%) said they used bear bile for entertainment purposes.

Usage in Da Nang tended to focus on treating specific ailments (80.1%) with a small number (8.9%) seeking general health improvement. In contrast, Ho Chi Minh City had the greatest percentage of people using bear bile for general health improvement (31.2%) and entertainment (17.2%). Hanoi had relatively high percentages of people using bear bile for both specific health treatment (73.9%) and general health improvement (26.7%) but the lowest percentage of people using it for entertainment (11.4%, Table 15).

Table 15. Intended purposes of bear bile usage by geography

Purpose	Hanoi		Da Nang		HCM		Total	
	N	%	N	%	N	%	N	%
General health improvement	94	26.7	13	8.9	49	31.2	156	23.8
Specific medical treatment	260	73.9	117	80.1	98	62.4	475	72.5
Entertainment	40	11.4	23	15.8	27	17.2	90	13.7

Note: The total might be more than 100% as a surveyed participant might have more than one answer.

Men and women responded very differently to the question about the purpose of using bear bile. Most women (88.1%) used bear bile to treat specific health problems and only a few (2.5%) used bear bile for entertainment. Meanwhile, only around half (56%) of all male consumers used bear bile for specific health treatment, but nearly one-fourth (24.5%) used bear bile for entertainment. Another one-quarter of all male consumers used bear bile for general health improvement compared to only a small number of women (14.7%, Table 16).

Table 16. Distribution of bear bile usage by gender

Purpose	Male		Female		Total	
	N	%	N	%	N	%
General health improvement	109	25.5	47	14.7	156	23.8
Specific medical treatment	193	57.6	282	88.1	475	72.5
Entertainment	82	24.5	8	2.5	90	13.7

Note: The total might be more than 100% as a surveyed participant might have more than one answer.

In general, a consumer’s education level does not appear to be linked to the primary purposes for which bear bile is used. The percentages of respondents using bear bile for specific treatment and general health improvement are consistent between basic and advanced education groups. However, there is a difference in use of bear bile between basic and advanced education groups for entertainment purposes, with higher rates seen among people with advanced education (Table 17).

Table 17. Distribution of bear bile usage by education

Purpose	Basic		Advanced		Total	
	N	N	%	N	%	N
General health improvement	74	23.1	82	24.6	156	23.8
Specific medical treatment	240	74.8	235	70.4	475	72.5
Entertainment	36	11.2	54	16.2	90	13.7

Note: The total might be more than 100% as a surveyed participant might have more than one answer.

The reasons given for bear bile use are quite similar amongst different age groups and geographic locations. Responses indicate that most people from all age groups use bear bile to treat a specific health problem, ranging from 63.4% to 83.2%, especially the youngest group in all three cities and the oldest group in Da Nang (96.0%). Many bear bile users have also used bear bile to improve their general health, perhaps as one would use vitamins to stay healthy. This is most common among older groups (40s: 29.9%, 50s: 29.3%, 60s: 29.3%). In contrast, fewer younger people use bear bile for general health.

Of the small number of consumers using bear bile for entertainment purposes, the largest percentage is mostly made up by middle-aged people in their 30s 40s and 50s. The youngest (9.6%) and the oldest (7.3%) groups used bear bile for entertainment the least (Table 18).

Table 18. Distribution of purposes for the use of bear bile by age

Age	City	General health improvement		Specific medical treatment		Entertainment	
		N	%	N	%	N	%
20	Hanoi	5	7.9	58	92.1	3	4.8
	Da Nang	4	13.3	25	83.3	4	13.3
	HCM	8	25.0	21	65.6	5	15.6
	Total	17	13.6	104	83.2	12	9.6
30	Hanoi	16	21.6	55	74.3	11	14.9
	Da Nang	2	6.9	23	79.3	5	17.2
	HCM	6	16.2	26	70.3	7	18.9
	Total	24	17.3	104	74.8	23	16.5
40	Hanoi	19	30.2	42	66.7	10	15.9
	Da Nang	3	8.3	26	72.2	9	25.0
	HCM	18	51.4	17	48.6	6	17.1
	Total	40	29.9	69	51.5	25	18.7
50	Hanoi	28	35.0	53	66.3	10	12.5
	Da Nang	3	11.5	19	73.1	4	15.4
	HCM	8	29.6	11	40.7	7	25.9
	Total	41	30.8	83	62.4	21	15.8
≥60	Hanoi	26	36.1	52	72.2	6	8.3
	Da Nang	1	4.0	24	96.0	1	4.0
	Tp. HCM	9	34.6	18	69.2	2	7.7
	Total	36	29.3	94	76.4	9	7.3

Additional statistic regression models were run to test users’ motivations in bear bile consumption. Table 19 shows the results examining the relationship between people who use bear bile for entertainment purposes and demographic characteristics. The results indicate that men have a much higher probability (12 times) of using bear bile for entertainment purposes than women.

Age is also significant in discriminating amongst users, with middle-aged people (between 30s and 50s) twice as likely to use bear bile for entertainment as those in their 20s or 60s (≥60 years of age).

Geographically, although Hanoi has the highest percentage of bear bile consumers, people in Da Nang and Ho Chi Minh are somewhat more likely (1.4 times) to use bear bile for entertainment (Table 19).

Table 19. Results from the logistic regression model indicating users’ motivations in using bear bile for entertainment purposes

Factors	B	S.E.	Wald	Df	Sig.	Exp(B)
Male	2.487	.383	42.235	1	.000	12.025
Advanced Education	.373	.256	2.116	1	.146	1.452
Age of 30s	.650	.405	2.581	1	.108	1.915
Age of 40s	.764	.407	3.519	1	.061	2.147
Age of 50s	.698	.413	2.861	1	.091	2.010
Age of ≥60s	-.337	.480	.491	1	.483	.714
Ho Chi Minh	.356	.293	1.483	1	.223	1.428
Da Nang	.323	.306	1.117	1	.290	1.381
Constant	-4.439	.516	73.973	1	.000	.012

Geography is the strongest correlate for people’s decision to use bear bile for general health improvement. Users in Ho Chi Minh City are 5 times more likely to use bear bile for this purpose than those in Da Nang, and users in Hanoi are 4.1 times more likely to use bear bile for health improvement than those in Da Nang.

The role of gender is also significant as men are almost 3 times more likely than women to use bear bile for general health improvement. Moreover, a user in the 40s age group and above is 3 times more likely to use bear bile for general health improvement than those in younger groups (Table 20).

Table 20. Results from the logistic regression model indicating users' motivations in using bear bile for general health improvement

Factors	B	S.E.	Wald	Df	Sig.	Exp(B)
Male	1.065	.206	26.647	1	.000	2.900
Advanced Education	.054	.201	.071	1	.790	1.055
Age of 30s	.174	.356	.239	1	.625	1.190
Age of 40s	1.005	.340	8.714	1	.003	2.731
Age of 50s	.979	.337	8.423	1	.004	2.661
Age of ≥60s	.933	.342	7.462	1	.006	2.543
Ho Chi Minh	1.619	.348	21.661	1	.000	5.049
Hanoi	1.426	.324	19.349	1	.000	4.162
Constant	-3.718	.429	74.961	1	.000	.024

The greatest proportion of current bear bile users surveyed are considered small users (44.4%) as they only used bear bile between two to five times in the past two years. One-quarter of current users are classified as major bear bile consumers as they reported using bear bile more than 15 times in the past two years. Minor users (single usage) are the smallest group (11.3%). Hanoi has the highest consumption frequency of the three cities, with more than 50% of its users classified as either major (30.1%) or medium (20.9%) users, and only 7.0% minor users. In contrast, Da Nang has the lowest consumption frequency with most current consumers classified as either small (51.4%) or minor (20.8%) consumers (Table 21).

Table 21. The frequency of using bear bile over the past two years

Frequency	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Minor (once)	16	7.0	15	20.8	14	14.3	45	11.3
Small (2-5 times)	96	41.9	37	51.4	44	44.9	177	44.4
Medium (5-15 times)	48	20.9	11	15.3	26	16.3	75	18.8
Major (>15 times)	69	30.1	9	12.5	4	24.5	102	25.6

A large number of bear bile consumers (56.6%) claim that they did not purchase bear bile by themselves; it was given to them by relatives or friends.

Of those that purchased bear bile directly, 37.9% purchased from private households and 26.5% purchased from farms. Medical doctors and hospitals were not common sources. Only 3.3% of those purchasing bear bile obtained it directly from these sources (Table 22).

Table 22. Sources where users obtained bear bile

Purpose	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Given by others	197	56.0	91	62.3	83	52.9	371	56.6
Private households	49	13.9	28	19.2	26	16.6	103	15.7
Directly from bear farm	49	13.9	8	5.5	15	9.6	72	11.0
Restaurant/ cafe	21	6.0	12	8.2	13	8.3	46	7.0
Traditional medicine shop	27	7.7	5	3.4	10	6.4	42	6.4
Medical doctor/hospital	5	1.4	0	0	4	2.6	9	1.4
Other sources	37	10.5	13	8.9	17	10.8	67	10.2

A total of 85 bear bile users claimed that they would discontinue using bear bile in the future for various reasons. The number one reason cited was the perceived ineffectiveness of bear bile (52.9%). A much smaller number of this group said that bear bile was too expensive (17.7%). Only a very small number of people stated that they would not use bear bile in the future because it was illegal (7.1%) or they were concerned about the welfare of bears (5.9%). The remaining 28 people (32.9%) said they would stop using bear bile for other reasons, such as “it is unsafe” or “it is difficult to find real bear bile” (Table 23).

Table 23. Reasons for discontinuing the use of bear bile

Reason	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Ineffective	32	74.4	7	30.5	6	27.3	45	52.9
Too expensive	7	35.0	1	5.0	7	31.3	15	17.7
Illegal	1	2.3	2	10.0	3	13.6	6	7.1
Concerned about bears	1	2.3	2	10.0	2	9.1	5	5.9
Others	9	20.9	11	55.0	8	36.4	28	32.9

Similar to the non-bear bile users group, 71% of bear bile consumers thought that using bear bile was not in violation of Vietnam's laws and regulations. Da Nang had the highest number of bear bile users (35%) who believe that using bear bile was illegal (Table 24).

Table 24. Responses to legality of bear bile usage by users

Is the use of bear bile legal?	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
No	94	26.7	51	34.9	45	28.7	190	29
Yes	258	73.3	95	60.9	112	71.4	465	71

Bear bile consumers ranked proposed measures to phase out commercial bear farming and reduce bear bile consumption in Vietnam in the same order that non-users did. Medical alternatives to bear bile (31.3%) was rated as the most effective measure followed by greater awareness (27.2%) and closure of bear farming operations (24.0%). Strengthening laws and enforcement was considered the least important and effective single measure amongst bear bile consumers, accounting for 15.9% of the bear bile users surveyed.

The ranking was quite similar among bear bile consumers in Ho Chi Minh and Hanoi, but distinct for Da Nang, where respondents suggested alternatives (30.8%) and closure of bear farming operations (30.1%).

Da Nang had the lowest percentage of bear bile users believing that strengthening laws and enforcement (10.3%) was an effective approach in dealing with bear bile consumption and trade, in contrast with higher percentages in Hanoi (17.3%) and Ho Chi Minh (17.8%) supporting this measure (Table 25).

Table 25. Responses to reduction of bear bile usage and closure of bear farming by users and geography

Measures	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Alternatives	107	30.4	45	30.8	53	33.8	205	31.3
Greater Awareness	92	26.1	42	28.8	44	28.0	178	27.2
Closing down bear farm operations	83	23.6	44	30.1	30	19.1	157	24.0
Law and enforcement	61	17.3	15	10.3	28	17.8	104	15.9
Others	9	2.6	0	0	2	1.3	11	1.7

More than one-third of the consumers who use bear bile for specific health problems believed that medical alternatives to bear bile is the most effective measure for reducing bear bile consumption in Vietnam, particularly in Ho Chi Minh City (42.9%).

Meanwhile, only 34.2% of such bear bile consumers in Da Nang, with similar figures in Hanoi, chose this measure. Many people that use bear bile for general health improvement (24.4%) also consider alternatives as an effective measure, especially in Da Nang (30.8%). However, only 20.4% of the same bear bile user group in Ho Chi Minh thought that alternatives would be effective. Not surprisingly, only 11.1% of bear bile users who use bear bile for entertainment purposes think that medical alternatives is an important measure (Table 26).

Table 26. Distribution of alternatives measures by user purposes and geography

Purposes of using bear bile	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Specific medical treatment	89	34.2	40	34.2	42	42.9	170	35.8
General health improvement	24	25.5	4	30.8	10	20.4	38	24.4
Entertainment/fun	3	7.5	3	13.0	4	14.8	10	11.1

Many bear bile consumers who used bear bile for different purposes believe that awareness-raising is an effective measure for eliminating bear bile usage, especially among the group that used bear bile for entertainment purposes (34.4%). Ho Chi Minh City has the highest percentage of consumers citing use for entertainment purposes and supporting this measure (40.7%), followed by Da Nang (34.8%). A large number of consumers citing general health improvement as a reason for use also consider awareness-raising (32.7%) as an effective measure, especially in Da Nang (38.5%) and Ho Chi Minh City (36.7%). In addition, one-fourth of consumers using bear bile for specific treatment of ailments supported awareness as an effective measure for phasing out bear farming and trade in Vietnam (25.3%), particularly in Da Nang (27.4%; Table 27).

Table 27. Distribution of awareness measures by user purposes and geography

Purposes of using bear bile	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Entertainment/fun	12	30.0	8	34.8	11	40.7	31	34.4
General health improvement	28	29.8	5	38.5	18	36.7	51	32.7
Specific medical treatment	67	25.8	32	27.4	21	21.4	120	25.3

Closure of bear farming operations in Vietnam was not strongly supported by survey participants in general, except amongst the smallest group of users who use bear bile for entertainment purposes (34.4%), especially those in Da Nang (43.5%). Almost one-quarter (23.0%) of those who use bear bile for specific medical treatments also

believe in this measure. About one-fifth (21.8%) of the group using bear bile for general health improvement consider closure of bear farming as an effective measure (Table 28).

Table 28. Distribution of closing-down bear farm operation measures by user purposes and geography

Purposes of using bear bile	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Entertainment/fun	14	35.0	10	43.5	7	25.9	31	34.4
Specific medical treatment	60	23.1	32	27.4	17	17.4	109	23.0
General health improvement	21	22.3	3	23.1	10	20.4	34	21.8

In general, strengthening laws and enforcement was considered the least effective measure among all three groups who used bear bile for different purposes, except for the group who used bear bile for entertainment purposes in Hanoi (25.0%; Table 29).

Table 29. Distribution of law and enforcement measures by user purpose and geography

Purposes of using bear bile	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
Entertainment/fun	10	25.0	2	8.7	5	18.5	17	18.9
Specific medical treatment	39	15.0	13	11.1	17	17.4	5	18.5
General health improvement	17	18.1	1	7.7	10	20.4	28	18.0

Only a very small number of bear bile users consider other measures effective in phasing out bear farming in Vietnam (Table 30).

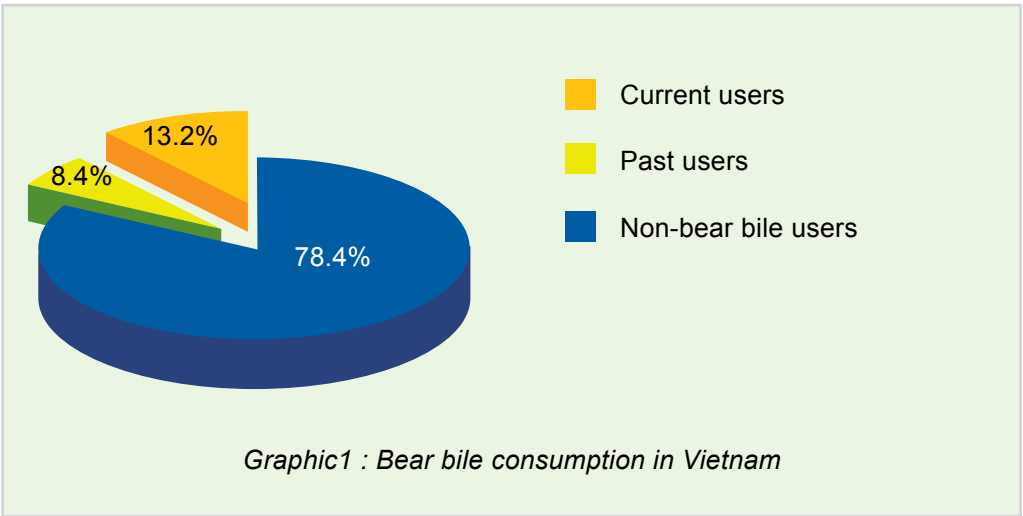
Table 30. Distribution of other measures by user purpose and geography

Purposes of using bear bile	Hanoi		Da Nang		Ho Chi Minh		Total	
	N	%	N	%	N	%	N	%
General health improvement	4	4.3	0	0	1	2.0	5	3.2
Specific medical treatment	5	1.9	0	0	1	1.0	7	1.5
Entertainment/fun	1	2.5	0	0	0	0	1	1.1

CHAPTER IV - DISCUSSION

Key Findings

Of the 3,000 people surveyed in three major urban centers, 22% reported having used bear bile in the past, however only 13% of those surveyed indicated that they had used bear bile in the past two years. A majority of bear bile users claimed to use bear bile for specific health problems (73%), while a smaller number of respondents stated that they used bear bile for general health improvement (24%). A total of 14% of all bear bile users reported using bear bile for entertainment purposes.



The survey showed that bear bile users widely believe bear bile to be a magic medicine. Bear bile is believed to help treat a range of ailments, with muscle complaints, sprains and bruising dominating the perceived values associated with use of bear bile (67%). A much smaller number of respondents associate bear bile use with treatment of arthritis, cancer, digestive problems or other ailments.

Age was identified as the most significant factor in determining use of bear bile amongst respondents, followed by geographic location, gender, and education level.

Bear bile is commonly mixed and consumed in rice wine and served in conjunction with any meal. Consumption of bear bile in wine relates to the Vietnamese tradition of eating products made from plants and animals to improve one’s health, especially products made from wildlife, commonly referred to as “Ruou thuoc”. Snakes and geckos are the most common species to be put in rice wine, however today Vietnamese custom is to consume virtually any wild animal in the wine, ranging from animal parts such as porcupine stomachs, bear paws and bones from tigers, to whole animals like macaques, pangolins, snakes, and monitor lizards.

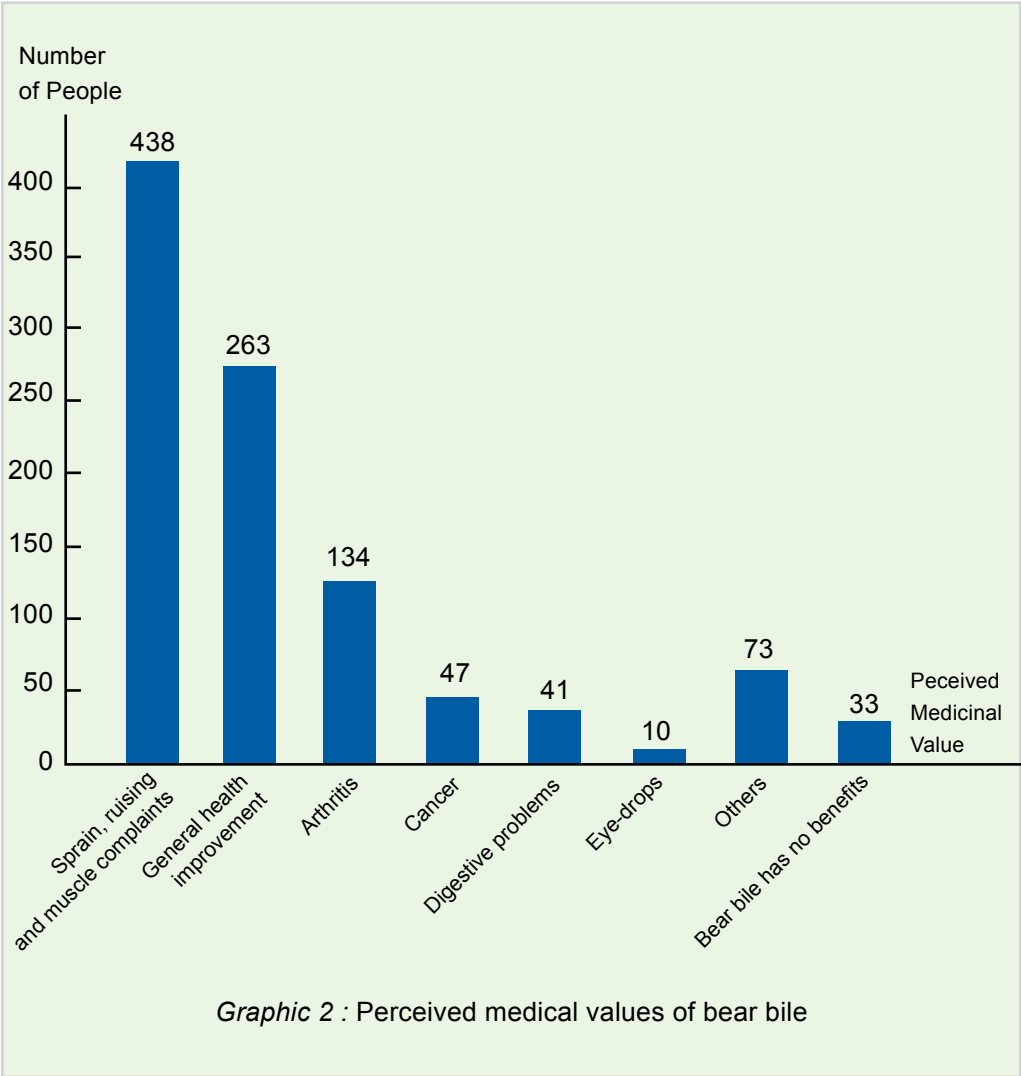
According to one owner of a forest specialty restaurant in Vietnam, Mr. Ha Le Hung, there are more than 100 kinds of medicinal wine made from wildlife. Each is prescribed for one or more different ailment (Bray 2010).

The perceived medicinal values associated with bear bile use are deeply rooted in traditional belief, not science, having developed over many centuries, and most likely passed down from generation to generation by family members and relatives, or recommended by friends and respected doctors.

Bear bile is perceived to treat a wide range of ailments. Bruises, sprains, and muscle complaints were the most commonly perceived benefits associated with the use bear bile use amongst consumers, with 67% of all users attributing value to this category. “General health” was the second most commonly reported benefit associated with bear bile use (40%). This category includes all non-specific perceived values associated with bear bile use (respondents were unable to articulate a specific ailment for which they believed bear bile could treat). A third smaller group (20%) of bear bile users stated that they believed bear bile was a form of treatment for arthritis.

A small fraction of users (7%) suggested that bear bile could cure cancer, while a similar 6% said they believe bear bile was effective for treatment of digestive, stomach, and liver ailments.

Five percent of all bear bile consumers stated that bear bile had no effective medicinal value at all.

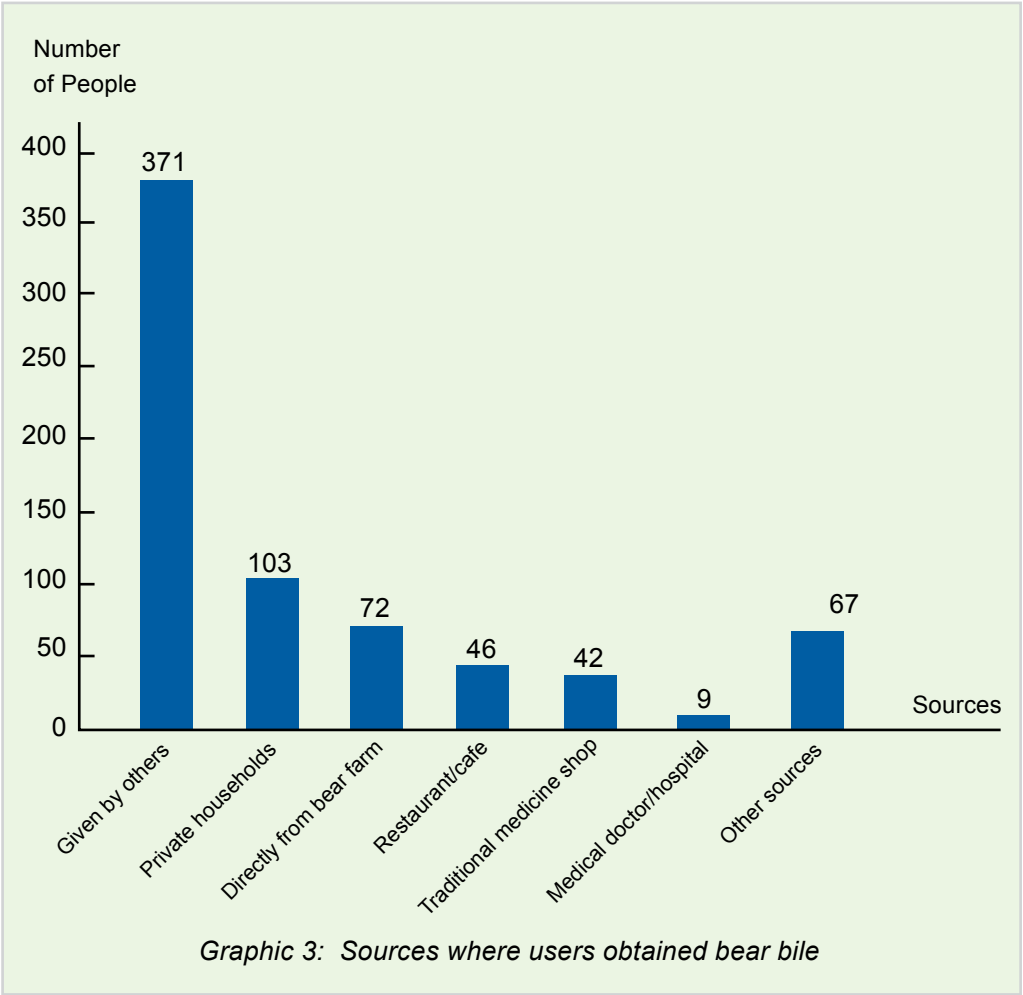


Almost half of the respondents who consumed bear bile during the last two years (44%) reported using bear bile only 2-5 times during that period. An equal number of current users reported consuming bear bile more than 5 times during this same period.

Frequent users (people who used bear bile more than 5 times in the past two years) more commonly used bear bile for general health improvement (65%) than people who used bear bile less than 5 times in the past two years (35%). Other purposes for using bear bile, including treatment of specific health problems and entertainment, were about equal between the two frequency groups.

This suggests that frequency of use is not an important factor in addressing bear bile consumption in terms of the volume of bear bile consumed or the number of consumers. Far greater numbers of people use bear bile for specific health problems, and since the percentage of use was similar between the two frequency groups using bear bile for specific health problems, measures to address frequent users would ignore a large group of other users.

More than half the people surveyed reported that they did not purchase bear bile themselves, but received it from relatives and others (52%). It can be assumed that since relatives and others that are reported to be the source of the bear bile originally purchased or received the bear bile from private establishments, bear farms, traditional Chinese medicine shops, or other sources, only those that obtained bear bile directly from a source have been considered in the findings of this survey.



Of those that purchased bear bile on their own, 30% said they obtained it from private homes which include private individuals keeping bears or selling bear bile. Another 21% stated that they obtained bear bile directly from bear farms, which may be distinguished in part from private homes by the fact that they generally keep more than one or two bears and tend to be organized business establishments set up for the purpose of extracting and selling bile. Fourteen percent of those that purchased bear bile did so from restaurants, this group reflecting mainly people that use bear bile for entertainment purposes, while 12% cited traditional medicine shops as the source of bear bile that they obtained. Less than 3% of all bear bile users identified doctors and hospitals as a source for obtaining bear bile.

These findings suggest that private households keeping bears and larger bear farms are the primary source of most bear bile (51%). This may in part reflect the fact that many consumers may prefer to witness the bear bile extraction process or purchase bile directly from establishments keeping bears in order to ensure the authenticity of the product. This preference has been clearly demonstrated with tiger bone glue consumers, and bear bile consumers have made similar references in the past (ENV Tiger Investigation Report, 2010).

Major factors in determining use of bear bile

Age

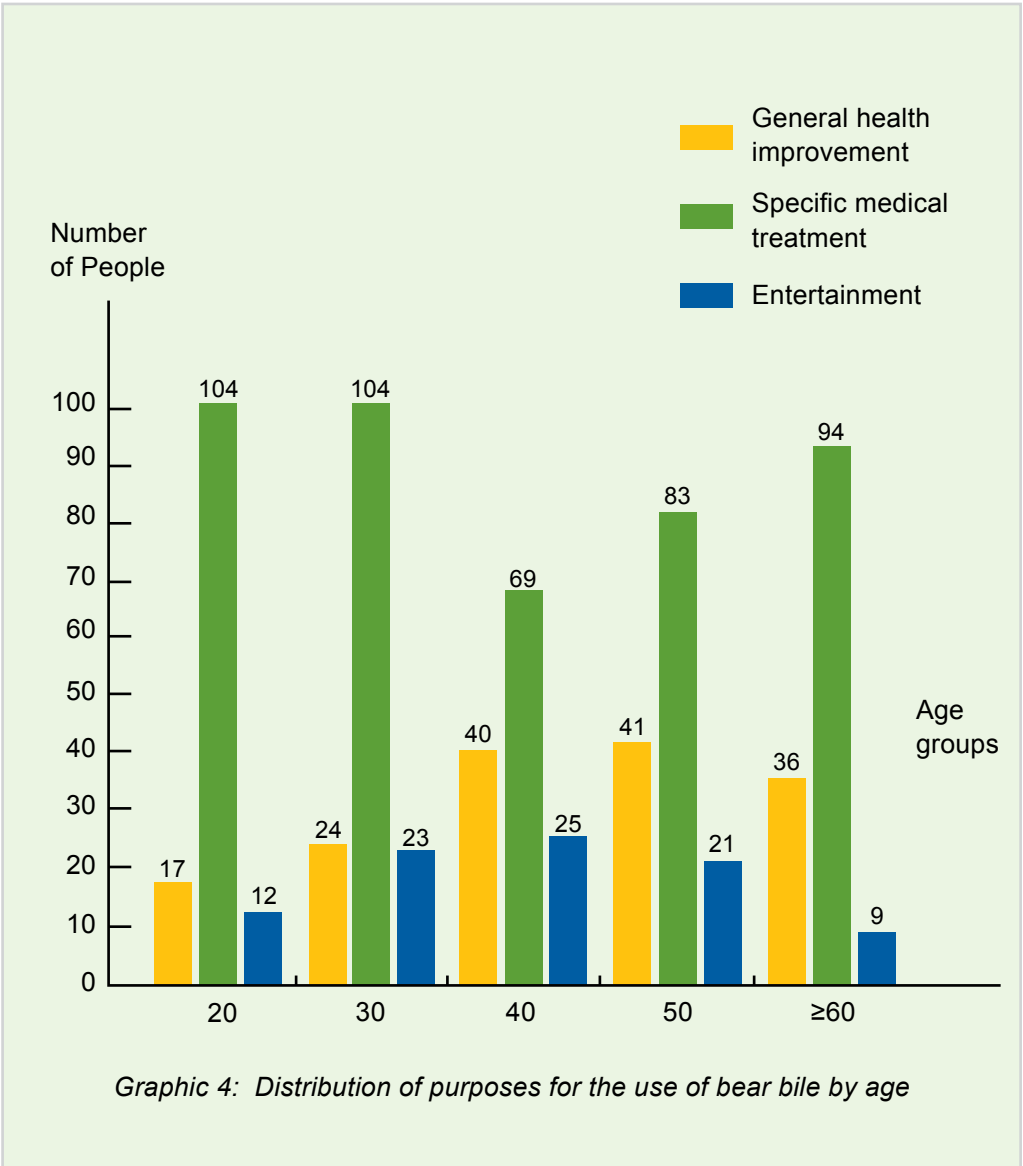
The first regression model (Table 6) suggests that age is the most important factor linking people to the use of bear bile. The older people get, the more likely they are to become bear bile users. People aged 60 and above formed the largest group of bear bile consumers (32%), while people in their 50s formed the second largest group of users (26%). In contrast, people in their 20s (the youngest group surveyed) were the smallest user group (15%). The first regression model indicates that people in their 20s are 2.8 times less likely to use bear bile than those in the older age group of 60 and above.

The greater use of bear bile amongst the older generation in Vietnam perhaps corresponds with more traditional ways of thinking. According to Craig (2002), prior to the 1990s, many Vietnamese depended almost entirely on traditional medicine for all but the most serious illnesses. Folk treatments are particularly influenced by Chinese concepts of yin and yang. Because medicine usually deals with invisible and immaterial elements, Vietnamese rarely feel the need for science-based techniques or surgical procedures (Nguyen 1985). In contrast, traditional medicine is familiar to them and they feel comfortable with it. Older Vietnamese tend not to go to a doctor or a hospital until absolutely necessary. Some elderly patients hesitate to seek care at a hospital because they are afraid of the hospital environment or uneasy about the kinds of treatments used there (D'Elia 2008). During a study in 2002, Nguyen et al. stated that 70% of sick people in Vietnam did not seek help from formal sources.

Another reason for the greater use of bear bile among older people may relate to the fact that as people get older, they are more likely to experience specific health problems or be concerned about their general health. Consequently, the survey showed that people who are in their 40s or older are three times more likely to use bear bile for "general health improvement" than people in their 20s.

General health improvement can roughly be defined as serving the purpose of improving one’s vitality, stamina and strength, much the same as one might use vitamins to maintain general health.

In contrast, middle-aged consumers (in their 30s, 40s, and 50s) also used bear bile to treat specific health ailments and for general health improvement, but regression analysis showed that these groups of consumers were twice as likely to use bear bile for entertainment purposes as older and younger age groups. Consumers in the middle aged groups are more likely to be at the peak in their careers and possess more disposable income and access to affluent lifestyles.



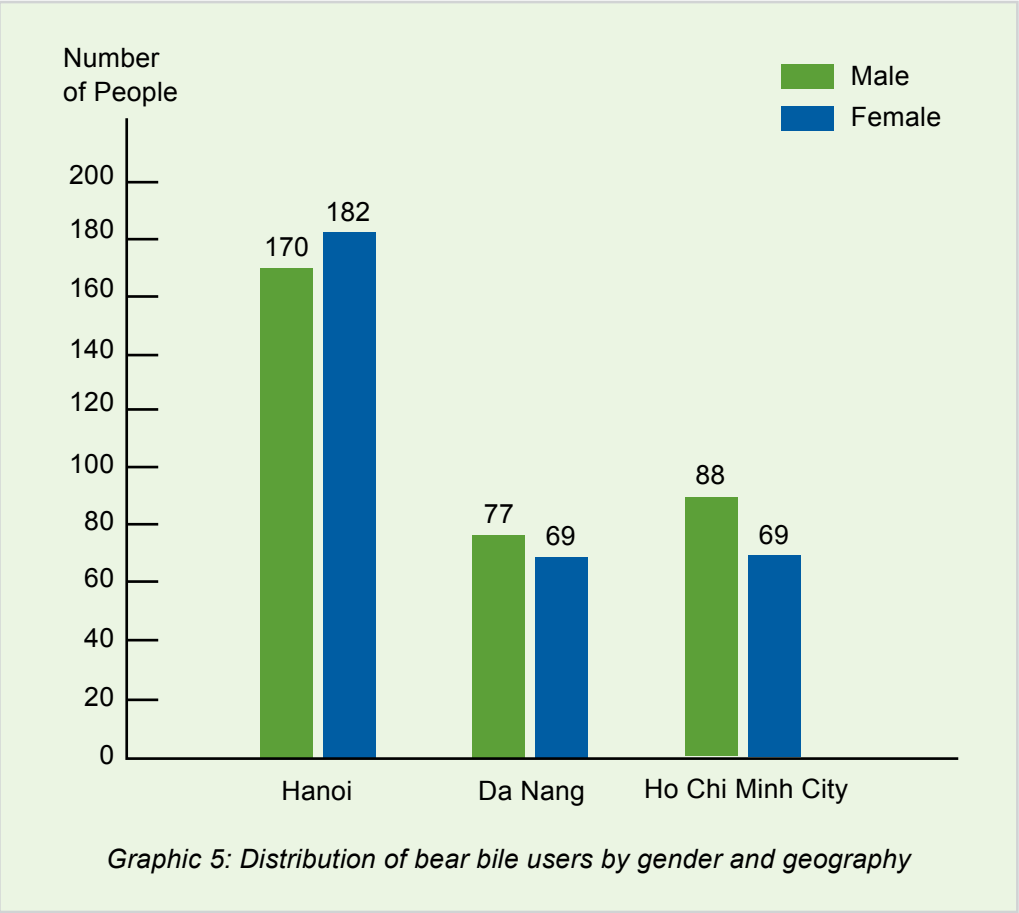
People in their 20s represented the smallest bear bile consumer group (15%). Like all other age groups, young people that use bear bile do so chiefly for specific medical treatment. This low usage might result from the fewer health problems which would be typical of this younger age group, so they may see less need for traditional medicine. Younger people also tend to have less disposable income as they are at the beginning of their careers and thus less likely to spend limited resources on expensive products such as bear bile for entertainment (10%) and general health improvement (14%).

Geography

These results suggest that domestic consumption of bear bile varies between regions. Hanoi had the highest percentage of bear bile consumers (35%) while both Da Nang (central) and Ho Chi Minh City (south) had similarly low percentages of people using bear bile (15% and 16%).

The regression model indicated that Hanoi residents were 2.5 times more likely to use bear bile than people in Ho Chi Minh. This difference might be explained by the historically strong influence of Chinese culture in the north of Vietnam. The use of wildlife products has been rooted in Chinese culture for centuries (Mainka et al 1995) and Vietnam has adopted many traditions from Chinese culture.

Many aspects of Chinese culture have also been adopted in the central and southern regions that were not part of Vietnam until after the liberation of Vietnam from China in the 10th century AD., however, Chinese domination historically never extended into central and southern regions of present-day Vietnam. According to Nguyen (2001), the central and southern regions of Vietnam have been more influenced by Indian and Thai culture.



Geographic variation in bear bile consumption is more likely to be linked to cultural differences between northern, central, and southern Vietnamese than economic factors. Per capita income in Ho Chi Minh was approximately \$2,800 in 2010 compared to \$1,800 in Hanoi. While economic considerations are often perceived to play a dominant role in people’s decision to consume wildlife, cultural influences appear to play a more significant role in people’s decision to consume bear bile.

The survey results showed that bear bile consumers in all three regions held similar beliefs on the medicinal value of bear bile and motivations in relation to the purpose and use of bear bile for treatment of specific health problems, general health improvement, and entertainment.

Gender

The survey indicated that men were 1.8 times more likely use bear bile than women. A total of 29% of all males surveyed reported having used bear bile compared to 17% of all female survey respondents.

Women used bear bile mainly to cure a specific health problem (88%), while men used bear bile for all three purposes; curing a specific health problem (58%), general health improvement (33%), and entertainment (25%).

Differences in use of bear bile between men and women may be explained in part by differences in the perceived values associated with use of bear bile, as well as differences in social lifestyles.

Compared to men, far fewer women used bear bile for purposes of improving their general health (15%) than men (33%). This is possibly related to the belief by men that wildlife products such as bear bile can help improve their stamina, strength, and benefit their sexual performance.

Likewise, men were 12 times more likely to use bear bile for entertainment purposes than women. Only 3% of all female users reported using bear bile for entertainment.

Differences in use for entertainment may reflect the fact that women are more inclined to spend more time at home taking care of the family while men are known to engage in more active social lives. As Nghe et al. (2003) state, much of male socialization takes place during the consumption of alcohol in a social environment involving peers, family and business acquaintances. Men may have the opportunity for consumption of alcohol in social settings more frequently.

Education

The use of bear bile can also be associated with education levels. People who have graduated from university are 1.7 times more likely to use bear bile than people with lower levels of education. The survey indicated that 27% of respondents with



The consumption of wildlife is deep-seated in Vietnamese culture, particularly for men who tend to consume it socially. These men in Vietnam's south are enjoying various wildlife dishes.

Photo: ENV

an advanced education use bear bile versus 18% of those in the lower education grouping. This may reflect the fact that people with higher education levels tend to have better paying jobs and more disposable income. As Dalton et al. (2002) noted, higher levels of income and education also increase one's access and participation in an array of social networks.

Motivation behind decisions not to use bear bile

Out of a total of 3,032 survey respondents, 78% claimed never to have consumed bear bile. When evaluating potential opportunities to reduce consumption and use, it is essential to understand the reasoning behind why a majority of people have made the decision not to use bear bile. The results of the survey indicated that only a small fraction (3%) of non-users stated that they did not use bear bile because it was ineffective.

Only 1% of all non-users claimed not to use bear bile because it was illegal. However, this figure may be influenced by lack of awareness of the law. When examining the 611 non-users that were aware of the law, only 30 people (5%) stated that their decision not to use bear bile because bear bile is illegal.



Photo: ENV

Just 2% of all non-users claimed that concern over the welfare of bears was behind their decision not to use bear bile.

These figures seem to undermine common perceptions among conservationists that awareness of the law, concern over the welfare of bears, and the potential ineffectiveness of bear bile are important factors in guiding people's decision to use or not to use bear bile.

In fact, when non-users were asked why they did not consume bear bile, almost half (49%) stated that they did not use it because they have never needed it. Ten percent of these non-users stated that they expected to use bear bile sometime in the future. In contrast, 22% of all non-users stated that they were unaware of the any specific benefits associated with bear bile, while 11% of non-users suggested that bear bile was too expensive.

Interestingly, out of the 85 people who claimed to no longer use bear bile, 53% stated that their decision to quit using bear bile was because they believed it was ineffective. Seventeen percent stated concerns over the high cost of bear bile. However, only a tiny fraction of people suggested that their decision was based on the fact that bear bile was illegal (7%).

When examining the 190 bear bile consumers who claimed to be aware of the law, only six (3%) people reported quitting on account of their concern over its legality. These findings further suggest that knowledge of the law does not seem to influence peoples' decisions not to use bear bile.

Concern over the welfare of bears was also not a major factor in people's decision to quit using bear bile (1%). The results of the survey showed that non-bear bile users and people who quit using bear bile both considered welfare of bears unimportant in their decisions. This would suggest that welfare-based arguments might not presently be an effective instrument for influencing attitudes on use of bear bile in Vietnam. The concept of 'animal welfare' is extremely new to Vietnam. In fact, there is no exact translation of this word "animal welfare" in the Vietnamese language.



*A bear with a mangled paw at a bear farm in Hanoi.
Photo: WSPA*

Moreover, as the survey findings suggest, one of the most potentially effective approaches to reduce bear bile consumption is to demonstrate its lack of effectiveness. In the case of non-bear bile users, only a small number stated that their decision not to use bear bile was because they thought it was ineffective. However, the difference between users and non-users is likely a result of experience, with people who have used bear bile more apt to understand its value, and if they perceive it does not work, consider it "ineffective."

Awareness and the law

A vast majority of bear bile users (74%) and non-users claimed to be unaware that bear bile was illegal (users: 71%, non-users: 74%). Despite bears being fully protected under government law, using bear bile is not generally perceived as a crime by the authorities or the public. Bear bile consumption is widely considered socially acceptable in Vietnam as illustrated by the fact that bear bile is openly sold at bear farms, shops, restaurants and commonly advertised on the street.

Measures to end bear bile use and consumption

When asked what measures should be taken to eliminate bear bile consumption in Vietnam, both bear bile users and non-users (31%) stated they believe that using medicinal alternatives was the most effective measure, especially amongst those that used bear bile for treatment of specific medical problems.

Greater awareness was considered the second most effective measure by both groups (28%), especially amongst those who used bear bile for general health improvement and entertainment purposes.

Survey respondents suggested that closing down bear farms (26%) would be a similarly effective measure in eliminating bear bile consumption in Vietnam.

Stricter laws and more effective law enforcement was considered the least effective measure (13%) in eliminating the consumption of bear bile in Vietnam by both bear bile users and non-bear bile users.

It is interesting to note that survey respondents did not feel that improved laws and enforcement were effective measures for ending bear bile consumption and trade. These attitudes may reflect lack of public trust in the legal system and effectiveness of law enforcement, though the survey did not illuminate the reasons behind the relatively small level of support for this measure.

The survey findings suggest that greater awareness and effective promotion of medicinal alternatives to bear bile may represent the most effective measures for reducing consumption and trade of bear bile, while at the same time shutting down bear bile farms to eliminate suppliers.

CHAPTER V - RECOMMENDATIONS

Ending bear bile consumption and trade in Vietnam

Awareness

Based on the findings of this study, ENV recommends execution of a long-term and sustained awareness campaign to dispel the perceived magical values of bear bile and achieve the objective of reducing consumption and demand for bear bile.

Promoting awareness amongst consumers as well as potential consumers is a priority for reducing demand and consumption of bear bile. A nationwide and long-term awareness campaign should be carried out to help the general public understand that bear bile is not a magic medicine and a universal cure for health problems as is commonly believed.



Ending bear farming and trade requires a sustained campaign to reduce bear consumption and demand for bear bile. In this photo, young people are pledging not to use bear bile during an ENV event.

Photo: ENV

Awareness campaigns should primarily target northern parts of the country where bear bile consumption is more common, without ignoring other regions of the country.

Campaign efforts should focus on promoting alternatives to bear bile including use of both modern medicines and traditional herbal alternatives, while recommending that people who are sick consult a professional medical doctor.

Younger people are more likely to gravitate toward using western forms of medicine for treatment of specific health problems. This may result from their tendency to live more modern lifestyles and be open to new ideas, as well as the fact that younger generations have had the advantage of a more advanced education. Modern medicines should be

widely advertised as they may be more effective than bear bile, and readily available in pharmacy shops around the country at a reasonable price.

In contrast, older people are more likely to be set in their beliefs associated with use of traditional forms of medicine. Herbal alternatives would likely have a higher rate of acceptance and appeal amongst senior segments of society who would tend to be already familiar with traditional remedies.

Herbal alternatives might also be an acceptable alternative for middle-aged people, especially people in their 40s-50s, who do not have an advanced education, as many of them still hold strong beliefs in traditional medicine.

The survey results suggest that the perceived medicinal value of bear bile is wide-ranging and that these perceived benefits could be broken down further to define more specific types of ailments that have thus far been broadly defined (i.e. digestive problems). However, the results clearly show that there is no single value associated with bear bile, and thus when evaluating potential alternatives, a broad range of ailments and perceived benefits must be considered.

This would suggest that awareness activities must focus on a wide-ranging list of potential alternatives, with priorities placed on muscle complaints, bruising, sprains, arthritis, and general health improvement, the five primary ailments for which most people believe bear bile can effectively treat. Many herbal alternatives have been identified by Chinese scientists (WSPA's Finding Herbal Alternatives to Bear Bile report 2005).

Although the perceived ineffectiveness was not a major reason for peoples' decision not to use bear bile, 52% of the consumers who stated that they had quit using bear bile said they did so because it was ineffective. This would suggest that the experience of bear bile consumers could potentially be used to influence other consumers, and also potential consumers, by highlighting the reported ineffectiveness as reported by former consumers.

At present, knowledge of the fact that bear bile is illegal was insignificant in influencing people's use of bear bile and ranked low amongst other measures proposed by consumers and non-consumers to eliminate consumption and trade of bear bile.

Awareness activities focused on the law can only become an effective tool in influencing behavior of consumers as well as deterring potential consumers if enforcement agencies take active measures to uphold the law. As noted previously, bear bile consumption is



Despite there being no scientific basis to the effectiveness of bear bile, many Vietnamese still believe that it can be used to treat a variety of health problems, even cancer. This sign found in a restaurant advertises bear bile as “magic medicine”.

Photo: ENV

not considered a serious offence and is widely accepted amongst the public, and thus the law has little value as a deterrent.

If authorities actively enforced the law, awareness campaigns should be initiated that focus on making the public aware that bear bile is illegal, and highlighting the fact that enforcement measures are resulting in fines and punishment of buyers and consumers. This would likely begin to have an impact as the public recognizes that enforcement measures are consistent and sustained.

Promotion of alternatives or the ineffectiveness of bear bile would likely have little impact on people who use bear bile for entertainment purposes. This group, comprising about 34% of all users, is more likely to be influenced by the law, and a reduced availability of bear bile products resulting from enforcement whereby business establishments no longer offer bear bile to customers.

Awareness campaign activities such as promoting herbal and western medicine alternatives should be delivered via national and local TV and radio channels, as television appears to be the most effective way to reach large segments of the public (TRAFFIC 2007).

Awareness messaging should also be integrated into college-level academic curriculum, helping to instill environmental values amongst Vietnam's younger generations, and graduate attitudes and thinking toward more sustainable and effective treatment for medical conditions.

While perceived values of bear bile may be perpetuated by beliefs passed down through generations within the family and amongst friends, these beliefs are further fueled by traditional medicine doctors, publications, institutional support, and the media.



ENV's bear Public Service Announcement was aired on national television, encouraging the public to say NO to the use of bear bile. TV and radio advertising is very effective in raising awareness amongst the public in Vietnam.

Photo: ENV

Similar measures must focus on gaining the support of the traditional medicine industry including both suppliers at the retail level as well as research, university, and other institutional support to help promote alternatives and break down traditional beliefs associated with the use of bear bile. These efforts should focus directly on forging alliances with institutional players within the health and traditional medicine industry, as well as promoting alternatives and key messages through the media.

Strengthening of laws and law enforcement

Stronger laws and more effective enforcement are critical measures in efforts to eliminate bear bile consumption and trade. While public attitudes did not appear to place much faith in the law or enforcement as measures, nearly a quarter of all bear bile consumers stated that bear farms should be closed as an effective measure to address the problem, which in itself is an enforcement measure.

As consumers and potential users become aware of more effective and legal alternatives to bear bile, it is essential to carry out corresponding enforcement campaigns to help drive change toward these legal alternatives.



“Bear bile tourism” is a new development in the commercial bear bile industry whereby foreign tourists are taken to farms and encouraged to break the law and buy bear bile and other bear products. Environmental police question the Korean manager of a farm in Quang Ninh after a raid in October 2009.

Photo: Quang Ninh EP

As a bear bile consumer, believing that bear bile is a valued form of treatment for a specific ailment or generally good for his or her health, becomes aware of other legal forms of treatment that are similarly perceived effective, enhanced enforcement of laws prohibiting use of bear bile results in fewer available supplies to consumers, closure of bear farms that are illegally extracting bile, and punishment of both traders and consumers caught with illegal products. From the perspective of the bear bile consumer, facing reduced availability and presumably higher prices, potential punishment, and a reasonable alternative, the consumer will likely select the path of least resistance, and gravitate toward use of legal alternatives.

However, this successful transition from bear bile consumer to consumer of alternatives requires a sustained campaign to both raise awareness and enforce the law. Half measures will not achieve success. Success will require political will and a genuine commitment by government and relevant authorities to eliminate consumption and use of bear bile.

Clear and unambiguous laws prohibiting possession, use, sale, or extraction of bear bile form the foundation of an effective enforcement campaign.

As part of the law improvement process, all wildlife protection laws and policies need to be thoroughly reviewed by the government as currently there are many conflicts between degrees, circulars and decisions issued by the Ministry of Agriculture and Rural Development (MARD), leaving provincial Forest Protection Departments and police to interpret the law in an inconsistent manner that is often in conflict with their responsibilities to the state.

For example, Group 1B fully protected species in Decree 32/2006 ND-CP such as bears should be confiscated if they are not of proven legal origin. However, the law is interpreted differently in different provinces with bears confiscated in some provinces and owners fined and allowed to keep illegal bears in other provinces. In 2008, MARD sent out Correspondence No. 970/ BNN-KL suggesting that local authorities should issue administrative fines to bear farm owners when illegal bears are discovered and allow them to keep bears that they obtained illegally. As a result, many local authorities have adopted this solution in dealing with illegal bears discovered in their provinces, which is easier than enforcing the law developed for the purpose of protecting bears.



Authorities often allow bear farms to register illegal bears rather than punish the owners and confiscate the bears, undermining the spirit of the law.

Photo: ENV

Laws governing possession of unregistered and illegal bears, extraction of bear bile, possession of bear bile and instruments for the purpose of extracting bear bile, selling and advertising bear bile, and consumption of bear bile, need to be clarified within legislation and subsequent instructions to functional agencies, removing ambiguous and conflicting language, and permitting local authorities to do their jobs more effectively.

Based upon a foundation of clear and specific laws concerning the protection of bears and extraction and use of bear bile, law enforcement agencies need to execute a consistent and sustained enforcement campaign targeting bear farms, suppliers, and consumer establishments. This campaign, corresponding with awareness campaign efforts promoting alternatives to bear bile, must focus on building respect for the law and establishing a strong deterrent. It is recommended that law enforcement targets specific large scale bear farming and supply operations to set an example, demonstrating through sustained enforcement activities (regular and ongoing high profile enforcement actions), that enforcement measures will not let up. In doing so, a portion of violators will comply without necessity of involvement by authorities as bear farmers and bile suppliers recognize that their illegal business will not be allowed to continue unhindered.

An equally important part of enforcement is measures to phase out bear farming. The registration and micro-chipping of bears in 2006 was intended to prevent additional bears from entering farms, freezing existing populations, and allowing for a phase out over time as captive bears die and are then not replaced. While the number of new bears entering farms appears to have slowed considerably compared to before 2006, the success of this strategy depends on the capacity and effectiveness of monitoring by local authorities.

Similar to overall enforcement measures, monitoring requires a sustained commitment and political will of authorities to achieve the intended objective: prevention of new bears from entering farms. Provincial authorities must prioritize establishing detailed and effective monitoring programs for farms within their province, enforce strict controls over movement of bears, and confiscate all cubs and unregistered bears discovered during monitoring. Spot checks should be carried out by the National Forest Protection Department on a regular basis without advanced notice.

Moreover, local authorities must act to prevent owners from continuing to make profits from registered bears, including issuing severe administrative fines to farmers who extract and sell bear bile, and confiscating all the equipment and involved bears as evidence of the crime. Repeated crimes should be even more severely punished, making it unprofitable for bear owners. All bears that die in captivity must be turned over to authorities and incinerated to ensure that no one can make money from dead bears. This will not only make it less desirable for bear farmers to keep registered bears but also decrease the demand for more bears at these facilities.



This bear cub was discovered at a bear farm in Hanoi but disappeared shortly after this photograph was taken.

Photo: ENV

The key to overall enforcement is sustained action and establishing a strong deterrent that will result in most violators voluntarily complying with the law in order to avoid punishment. This translates to bear farmers choosing not to receive new bears, ceasing bile extraction at their farms for fear of being caught, suppliers and retail outlets not advertising or selling bear bile and bear products, and consumers avoiding purchasing illegal products.

This deterrent, while not reflective of Vietnam today, is an essential objective that must be reached in order to establish the rule of law, and achieve the aim of eliminating bear bile consumption and trade, and reaching the ultimate purpose and goal: protecting Vietnam's bears.

Success depends much upon the political will of enforcement agencies to take active measures to enforce the law, as well as the support they get from higher authorities in government.

Research

Lack of scientific knowledge has been preventing the government of Vietnam and conservation organizations from developing effective measures to protect Vietnam's wildlife and stop the illegal trade of endangered species. To protect Vietnam's bears, a wide range of studies should be carried out including ecology and the current status

of bear populations in the wild, the trade dynamic (both supply and demand sides of the trade), analysis of the law, as well as commercial farming of endangered species and its impact on species conservation. In addition, scientists should also focus on identifying critically important wild populations of bears in Vietnam for which protection and recovery efforts should be prioritized.

Protection of wild bears

Although outside the scope of this study, one cannot avoid the issue of protecting Vietnam's wild bears. All of these measures, promoting alternatives, better enforcement, stronger laws, political will and commitment, are aimed at once single outcome: protecting bears.

Some scientists estimate that there are more bears in captivity in Vietnam than in the wild. However few surveys have been conducted to establish even a basic idea of how many bears may remain in Vietnam's forests, but most can agree that at least some bears remain in the wild.



Bears belong in the wild. This sun bear was rescued from illegal captivity by a local resident in Dien Bien province.
Photo: AAF

Protection of these bears requires urgent and decisive action by government, supported by the public, to eliminate the root causes behind their plight. The bear bile industry and the traditional beliefs that support this industry are the drivers behind the loss of Vietnam's wild bears, and indeed the loss of bears from neighboring countries as well.

Reducing the demand for bear bile, closing bear farms, and influencing attitudes away from unsustainable use and consumption of bear bile and bear products is perhaps the only route to achieve protection of Vietnam's last wild bears.

To this end, measures are necessary to enhance protected area management in areas where bears remain in the wild, and engage in the same sort of active commitment to protection and enforcement of the law at the protected area level, which must be applied to farms and the consumer trade in general.

Implications for conservation and protection of other endangered species in Vietnam

This study is one of the first efforts to delve into the social issues that strongly impact upon the survival of endangered wildlife in Vietnam. By developing a better understanding of the root causes and attitudes behind bear bile consumption, government agencies, conservation organizations and ecosystem managers can develop more effective strategies to protect the last of Vietnam's wild bears. Moreover, these findings have strong implications for the conservation of other endangered wildlife in the region such

as tigers, langurs, pangolins and other species with deeply-rooted traditional beliefs associated with their use.

The success or failure of conservation and protection of Vietnam's bears also has a direct impact on other species, especially tiger conservation. Currently, the commercial farming of tigers is growing, in ways very similar to the development of bear farming in the late 1990s. If Vietnam is successful in eliminating commercial bear farming and reducing bear bile consumption, this success



The protection of wildlife begins in forests. Strengthening the management of protected areas is one of the best ways to protect animals in the wild.

Photo: Tim McCormack

will have a significant and positive impact upon the protection of tigers and other endangered wildlife in Vietnam, and possibly elsewhere in Asia.

Conclusion

The future of Vietnam's bears is threatened by the widespread consumption and use of bear bile. Bears continue to be captured in the wild and transferred to farms where they spend the remainder of their lives in cages and exploited for their bile. Efforts to protect bears require that the bear bile industry be closed down, as nearly a quarter of all users suggested as a measure to end bear bile consumption and trade.

While effective laws and strong enforcement are critical to successfully ending the illegal bear bile trade, equally critical to this success are efforts to address consumer demand and influence attitudes and beliefs that have evolved over centuries.

As the belief in and the use of bear bile is deeply engrained in the Vietnamese psyche, it is unreasonable to assume that a culture that has used traditional Chinese medicine for thousands of years will suddenly discard this form of therapy (Manika et al 1995). It will take time to change traditional forms of thinking.

Vietnam has made some progress down this long road toward achieving the protection of bears. While it would have been less costly and far easier to address proactively the development of bear farming during its early stages of development when captive populations were small, plans to phase out farming through attrition is an important and essential first step down this long road. The true test of commitment lies in efforts to strengthen and enforce the law, as corresponding awareness campaigns focus on promoting alternatives and chipping away at social attitudes. Most importantly, choices have to be made. Vietnam can't have its bears and bile too.

APPENDIX

Survey Questions Section 1: All Respondents

1. Age of survey subject: _____ (obtain exact age in years).
2. Gender of the subject: Male Female
3. Education: Indicate the level of education completed (select one).
 - A. Primary school
 - B. Secondary school
 - C. High school
 - D. University
 - E. Advanced university degree
4. Have you ever used bear bile?
Yes
No

If the respondent answered “NO” to question 4, please skip to question 16. If the answer to question 4 was “YES”, please continue with question 5.

Survey Questions Section 2: People Who Have Used Bear Bile

This section should be completed ONLY for respondents that answered “Yes” to question 4.

5. What have you used bear bile for? (respondent may select one or more answers)
 - A. General health improvement
 - B. Specific medical treatment
 - C. Entertainment/fun
 - D. Other: _____
6. Based on your knowledge, what medical problems or ailments is bear bile useful in treating?
List all ailments or medical problems stated (use additional space if needed)

7. Where did you get the bear bile from? (respondent may select one or more answers)
 - A. Directly from bear farm
 - B. Traditional medicine shop
 - C. Restaurant/Café/Ruoi bar
 - D. Private household
 - E. Medical doctor/Hospital
 - F. Given to you by others
 - G. Other source: _____

8. Have you used bear bile anytime over the past two years?
- Yes
No
9. If yes to question 8, how often have you used bear bile over the past two years?
Select exact or APPROXIMATE number
- Indicate approximate number of times bear bile has been used:
- _____
10. If you have not used bear bile in the past two years, might you decide to use bear bile again in the future?
- Yes
No
I don't know
11. If you plan not to use bear bile again in the future, what factors have influenced your decision to stop using bear bile? (respondent may select one or more answers)
- A. Too expensive
B. Ineffective
C. Illegal
D. Concerned for bears
E. Other: _____
12. Explain in greater detail how and why you made a decision to stop using bear bile?
- Survey team record complete answer carefully
- Explain: _____
- _____
13. Use of bear bile is illegal. As far as you know, is use of bear bile illegal?
- A. Yes
B. No
C. I don't know
14. What measures should be taken to reduce and eliminate use of bear bile in Vietnam?
- Respondent should indicate whether each option is important or not important
- | | | |
|--|-----------|---------------|
| A. Stricter laws and punishment | Important | Not important |
| B. Cheaper and more effective alternatives available to the public | Important | Not important |
| C. Greater public awareness | Important | Not important |

D. More effective enforcement of laws

Important

Not important

E. Close bear bile farming operations

Important

Not important

F. Other: _____

15. Which measure above do you think is the most important action to take in order to eliminate the use of bear bile in Vietnam? Pick only ONE.

A

B

C

D

E

F

Survey for people who answered "YES" to question 4 is complete. Thank the respondent for their assistance and conclude the survey

Survey Questions Section 3: People Who Have Not Used Bear Bile

This section should be completed ONLY for respondents that answered "NO" to question 4.

16. Would you consider using bear bile in the future?

Yes

No

I don't know

17. If you answered NO to question 16, why have you chosen not to use bear bile? (select one or more answers)

A. Too expensive

B. Ineffective

C. Illegal

D. Concerned for bears

E. Other: _____

18. Explain in greater detail how and why you made a decision not to use bear bile?
Survey team record complete answer carefully

Explain: _____

19. As far as you know, is use of bear bile illegal?

A. Yes

B. No

C. I don't know

20. Use of bear bile is illegal. What measures should be taken to reduce and eliminate use of bear bile in Vietnam?

Respondent should indicate whether each option is important or not important

A. Stricter laws and punishment

Important

Not important

- | | | | |
|--|-----------|-----|--------|
| B. Cheaper and more effective alternatives available to the public | Important | Not | impor- |
| tant | | | |
| C. Greater public awareness | Important | Not | impor- |
| tant | | | |
| D. More effective enforcement of laws | Important | Not | impor- |
| tant | | | |
| E. Close bear bile farming operations | Important | Not | impor- |
| tant | | | |
| F. Other: _____ | | | |

21. Which measure above do you think is the most important action to take in order to eliminate the use of bear bile in Vietnam? Pick only ONE.

A B C D E F

REFERENCE

- Animal Asia Foundation. 2010. Bear bile farming. Retrieved from <http://www.animalsasia.org/index.php?UID=FFFUD5EP49V5>. Last accessed October 13, 2010
- Bray, A. 2010. *The intoxicating world of Vietnam's rice wine culture*. Retrieved from <http://www.cnn.go.com/explorations/none/vietnams-rice-wine-culture-223868#ixzz0uWbBZIAL>. Last accessed July 10, 2010.
- Corlett. T. R 2007. *The impact of hunting on the Mammalian Fauna of Tropical Asia Forests*. Biotropica Journal. The Association for Tropical Biology and Conservation. 39(3): 292-303.
- Craig, D. 2002. *Familiar medicine: everyday health knowledge and practice in today's Vietnam*. University of Hawaii Press. Honolulu, HI 96822-1888 USA
- Cục Kiểm lâm. 2005. *Quyết định số 02/2005/QĐ-BNN ngày 05/01/2005 Về việc ban hành Quy định về quản lý gấu nuôi nhốt* www.kieumlam.org.vn/Desktop.aspx/Tai-nguyen/Quyet-dinh/1674859DFFA04EC5A38DD1E62B2DEE08. Last accessed 5 August 2010.
- Dalton. R. J, Pham. H. M, Pham. N. T. and Nhu-Ngoc. O. T. 2001. *Social Relations and Social Capital in Vietnam: Findings from the 2001 World Values Survey*. University of California – Irvine.
- D'Elia, L. A. 2008. *Mobilizing for action: A Report to Help Create Culturally Responsive Pathways for Isolated Immigrant Seniors*. A report by Edmonton Seniors Coordinating Council.
- Earth Island Institute. 1997. *Bear Farm Decrease*. Earth Island Journal. 12(4): 56-85.
- ENV. 2010. Summary of bear hunting and trade at protected areas in the central of Vietnam.
- ENV. 2010. Summary of Quang Ninh bear tourism.
- ENV. 2010. Tiger investigation report
- ENV. 2010. Wildlife Crime database 2010.
- Feng. Y, Siu. K, Wang. N, Ng. K.M, Tsao. S.W. Nagamatsu. T and Tong. T. 2009. *Bear bile: Delima and traditional medicinal use and animal protection*. Journal of Ethnobiology and Ethnomedicine. 5 (2): no page numbers.
- Francis. C. M. 2001. *Mammals of Thailand and Southeast Asia*. Modern Age Repro House Limited, Hong Kong.
- Johnson. A, Singh. S, Dongdala. M and Vongsa. O. 2003. *Wildlife hunting and use in the Nam Ha National Protected Area: Implications for rural livelihoods and biodiversity conservation*.

- Li, J.P. 2004. *China's Bear Farming and Long-Term Solutions*. Journal of Applied Animal Welfare Science. 7(1):71-80.
- Mainka, S. A, D.V.M and Mills. J.A. 1995. *Wildlife and traditional Chinese medicine – supply and demand for wildlife species*. Journal of Zoo and Wildlife Medicine. 26(2): 193-200.
- Maitland, E. 2001. *Corruption and The Outsider: Multinational Enterprises in the Transitional Economy of Vietnam*. The Singapore Economic Review. 46(1):63-82.
- Mano, T and Ishii. 2008. *Bear gallbladder trade issues and a framework for bear management in Japan*. Urus. 19(2):122-129.
- Mills, J. 1992. *Milking the Bear Trade*. International Wildlife. 92(22): 25-87.
- Newton, P., N. Van Thai, et al. (2008). *Pangolins in peril: Using local hunters' knowledge to conserve elusive species in Vietnam*. Endangered Species Research 6(1): 41-53.
- Nghe. L. T, Mahalik. J.R. Lowe. S. M. 2003. *Influences on Vietnamese men: examining traditional gender roles, the refugee experience, acculturation, and racism in the United States*. Journal of Multicultural Counseling and Development. 31 (4): 45-61.
- Nguyen, D. 1985. Culture shock – A review of Vietnamese culture and its concepts of health and disease. West J Med. 142 (3): 409-412.
- Nguyen. D. K. 2001. *Jewelry from late prehistoric sites recently excavated in south Vietnam*. Indo-Pacific Prehistory Association Bulletin. 21(5): 107-113.
- Nguyen. N.Q.2006. *History of Vietnam*. Education Publishing House. 57-59
- Nguyen. T. 2009. *Xâm nhập “tập đoàn” trại gấu ở Hạ Long: xử lý như... không* (Sneaking in bear farms “Alliance” in Ha Long: Punishment is like...nothing). Tuổi Trẻ Newspaper. 11/2009.
- Nguyen. T. H. H. Berman. P. and Larsen. U. 2002. *Household utilization and expenditure on private and public health service in Vietnam*. Health Policy and Planning. Oxford University Press. 17(1):61-70.
- Nguyen. S.V. (2008). *Wildlife trading in Vietnam: Situation, causes, and solutions*. Journal of Environment and Development. 17(2): 145-165.
- Nguyen. T. 2009. *Xâm nhập “tập đoàn” trại gấu ở Hạ Long: “Ăn dày trên thân xác gấu”* (Sneaking in bear farms “Alliance” in Ha Long: “Over fed” on bear bodies). Tuổi Trẻ Newspaper. 10/2009.
- Nijman, V. 2010. *An overview of international wildlife trade from Southeast Asia*. Biodiversity and Conservation. 19(4). 1101-1114.
- PARC Ba Be/Na Hang Project. 2003. *Evaluation of the wildlife trade in Na Hang District*.

Schneider, J. L. (2008). *Reducing the illicit trade in endangered wildlife: The market reduction approach*. Journal of Contemporary Criminal Justice. 24(3): 274-295.

Shepherd, C. R. and V. Nijman (2008). *The trade in bear parts from Myanmar: An illustration of the ineffectiveness of enforcement of international wildlife trade regulations*. Biodiversity and Conservation 17(1): 35-42.

TRAFFIC. 2007. *A matter of attitude: The consumption of wild animal products in Hanoi*. TRAFFIC. Hanoi. Vietnam

Wyler, L. S and Sheikh. P. A. 2008. *International Illegal Trade in Wildlife: Threats and U.S. Policy*.

World Bank. 2005. Going, going, gone... *The illegal trade in wildlife in East and Southeast Asia. Vietnam*. Clearance Center Inc. 222 Roswood Drive, Danvers, MA 01923. USA

World Conservation Union. 2010. IUCN's Red list. www.iucnredlist.org/apps/redlist. Last accessed September 1, 2010.

World Society for Protection of Animals. 2002. *The bear bile business: The global trade in bear products from China to Asia and beyond*.

World Society for Protection of Animals. 2005. *Finding herbal alternatives to bear bile*. Eastland Press, Inc. P.O. Box 99749, Seattle, WA 98139, USA.

Yiming. L. and Dianmo. L (1998). *The dynamics of trade in live wildlife across the Guangxi border between China and Vietnam during 1993-1996 and its control strategies*. Biodiversity and Conservation 7(7): 895-914.

Zhang, L., N. Hua, et al. (2008). *Wildlife trade, consumption and conservation awareness in southwest China*. Biodiversity and Conservation. 17(6): 1493-1516.

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ENV specializes in four major program areas that collectively form ENV's integrated and strategic approach toward achievement of our mission. These include:

- Combating wildlife crime
- Raising public awareness
- Working with key decision-makers to strengthen policy and legislation
- Strengthening protected area management through education and training

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