

REDUCING DEMAND FOR ILLEGAL WILDLIFE PRODUCTS

RESEARCH ANALYSIS ON STRATEGIES
TO CHANGE ILLEGAL WILDLIFE PRODUCT
CONSUMER BEHAVIOUR

September 2018



Research report for the Defra project ref: WC1110

September 2018

Project team:

TRAFFIC: Gayle Burgess, Sabri Zain

University of Oxford: E.J. Milner-Gulland

Imperial College London: Andreas B. Eisingerich, Vian Sharif, Harriet Ibbett, Alegria Olmedo Castro

WWF-UK: Heather Sohl

With thanks to the following who advised on, or carried out, particular elements of the research: Lisa Groves, project Steering Group member Simon Christmas, and those who provided content for, or expert opinion on, the evidence and literature review component: Edmond Chan (who led on researching the China component), Dao Truong (who led on researching the Viet Nam component), Rowena Merritt (who provided content for and commentary on the Theoretical Frame of Reference), as well as other members of staff from project Team organisations.

This report was supported by Defra (Defra Project Code WC1110) and is available from the Department's Science and Research Projects Database at <http://randd.defra.gov.uk>. While the research was commissioned and funded by Defra the views expressed reflect the research findings and the authors' interpretation; they do not necessarily reflect Defra policy.

With thanks to support for TRAFFIC's contributions from the German Polifund project, implemented by GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU).

Contents

1. Key findings	7
2. Executive summary	9
2.1 Introduction	9
2.2 Project aims and activities	9
2.3 Mapping demand reduction activities.....	10
2.4 Understanding demand.....	11
2.5 Changing demand.....	16
2.6 Conclusions and key suggestions for next steps	20
3. Project background and context.....	22
4. Project aim and activities	23
4.1 Project aim	23
4.2 Project activities	23
5. Mapping demand reduction activities	26
5.1 What the project team did	26
5.2 What the project team discovered	26
6. Understanding demand	34
6.1 What the project team did	34
6.2 What the project team discovered	39
7. Changing demand	54
7.1 What the project team did	54
7.2. What the project team discovered	61
8. Conclusions and key suggestions for next steps	82
8.1 Conclusions	82
8.2 Key suggestions for next steps	87
9. Annexes	92
9.1. Primary research methodology, analysis and detailed results.....	92
9.2: References for the evidence and literature review.....	119

List of figures

Figure 1. Types of demand reduction initiative by objective, 2004-14, in China and Viet Nam...	11
Figure 2. Respondents were asked to pick words from a list that they associated with the most desirable product (self-chosen), elephant ivory and rhino horn.....	14
Figure 3. Brand attachment-aversion scores for the most desirable product (self-chosen), elephant ivory and rhino horn (based on responses to a range of questions about their feelings towards the good)	14
Figure 4. Free-listed words associated with a) elephant ivory, b) rhino horn	15
Figure 5. The 'twin-track' approach	17
Figure 6. Overview of demand reduction initiatives in China and Viet Nam delivered during the decade to 2015: each animal silhouette represents one demand reduction initiative	27
Figure 7. Behaviour change project design wheel developed for the study outlines basic elements of a social marketing intervention	28
Figure 8. Range & frequency of brand attachment-aversion scores for each product. Sample sizes: most desirable n = 460, ivory n = 404, rhino horn n = 56	43
Figure 9. Percentage of respondents in each attachment-aversion category. Sample sizes: most desirable n = 344, ivory n = 294, rhino horn n = 37	44
Figure 10. For those who selected electronic goods and cars as their most desirable good, word cloud showing descriptors associated with owners of these products with the largest words mentioned most often	46
Figure 11. Words most frequently associated with owners of designer leather & fashion goods with largest words mentioned most often	47
Figure 12. Words most frequently associated with owners of ivory products with the largest words mentioned most often	48
Figure 13. Words most frequently associated with owners of rhino horn products with the largest words mentioned most often	48
Figure 14. Percentage of respondents that associated each given word with each of three different products, ordered by the response frequency for ivory	49
Figure 15. Connotations of the most desirable good, ivory and rhino horn, according to the attachment-aversion status of the respondent. Results are ordered by ivory	51
Figure 16. Examples of questions that can be answered by the combination of approaches piloted in the primary research component of the project.....	53
Figure 17. Considerations in planning behaviour change frameworks	56
Figure 18. MINDSPACE & 4Es.....	59
Figure 19. The theory of planned behaviour.....	60

List of tables

Table 1: Existing research and knowledge on consumption of ivory and rhino horn at the time the research was conducted (it is acknowledged that circumstances may have changed since then). Red = no information available, yellow = some information available, green = comprehensive research conducted.....	13
Table 2: Demand reduction initiatives in Viet Nam, and their key contacts	27
Table 3: Consumer surveys with particular relevance to the Defra demand reduction project...	40
Table 4: Summary of evidence base in relation to demand reduction initiatives at the time the assessment was made (late 2014), based on the analysis conducted in the scoping study. Green = subject is well understood; yellow = some progress has been made; red = very little understanding exists. Note: changes have occurred since 2014	41
Table 5: Number of respondents who identified each product as their most and second most desirable luxury good to own (N=327).....	42
Table 6: Search terms for the Chinese component of the ELR	55
Table 7: Search terms for the Vietnamese component of the ELR	55
Table 8: Measures required under China's State Council notice on banning thin plastic bags in 2008.....	62
Table 9: Elements of social marketing considered in the Viet Nam Review	67
Table 10. Four selected behavioural change initiatives in Viet Nam	68
Table 11. Evaluation methods used in the behavioural change initiatives and reported impacts	72

Abbreviations

Abbreviation	Description
BCC	Behavioural Change Communications
CBC	Consumer Behavioural Change
CN	China
Defra	UK government Department for the Environment, Food and Rural Affairs
DR	'Demand Reduction' (actions that contribute towards a reduction in the demand for products by consumers, users, buyers and intenders)
ELR	evidence and literature review
IGO	Inter-Governmental Organisation
IWT	Illegal Wildlife Trade
NGO	Non-Governmental Organisation
SBCC	Social and Behavioural Change Communications
TH	Thailand
UCT	Unmatched Count Technique (a technique trialled in the primary research component of the project)
VN	Viet Nam
SR	'Supply Reduction' (actions that contribute towards a reduced availability of goods in the market/offers for sale—could be at any point along an illegal wildlife trade route)
WWF	<i>Formerly</i> ; World Wildlife Fund

1. KEY FINDINGS

- The project identified 85 demand reduction initiatives delivered during the decade to 2015. The majority related to ivory in China, while rhino horn activities were focused in Viet Nam. Most involved broad communications (LCD displays, Public Service Announcements, banners and posters, etc) aimed at the general public. Few initiatives were targeted to more specific audiences, or underpinned by adequate understanding of the motivations of target audiences.
- An in-depth review of demand reduction activities in Viet Nam in 2015 evaluated interventions by comparing them to social marketing and behavioural change criteria. This showed that many lacked the components required to achieve change. Very few campaigns included adequate research to identify the target audience, used behavioural change models or set adequate indicators or evaluation methods to record the success of their interventions. The review found that messages seeking to persuade consumers to change their behaviour have primarily been designed based on assumptions instead of insights into motivations of consumption. Measures of success tended towards anecdotes and expression of interest in the messages, rather than evidence of actual behavioural change.
- The project also included a broad (i.e. rather than systematic) evidence review (sources per Annex 9.2) covering Chinese and Vietnamese literature on what has worked previously in influencing consumer choice or changing behaviour, including beyond conservation related issues, and identified promising evidence to inform campaigns. It highlighted the potential of marketing and consumer engagement strategies used in the luxury brand sector. The evidence review considered a range of behavioural change approaches that have been effective in China and Viet Nam. Some of the most successful examples exhibit a 'twin-track' approach. One track involves activities and communications to implement a societal behavioural control (e.g. ensuring the laws are appropriate, perceived to be an adequate deterrent and effectively enforced) and restricting consumer choice (e.g. retailers removing products from sale, or manufacturers using alternatives). The other track involves influential individuals, who can shape the attitudes and social norms of consumer groups and other target audiences, issuing messaging to help inspire and shape individual motivation.
- The new primary research conducted as part of the study trialled promising methods to understand the motivations underpinning demand and estimate the prevalence of demand for illegal wildlife products. In addition, ten in-depth interviews were conducted with key informants, who were leading figures from across the spheres of business, celebrity and the brand and communications industry. The research suggested that the following methods are potentially useful:
 - Brand attachment - this can provide an accurate prediction of i) intention to purchase; ii) actual purchase behaviours; iii) 'brand purchase share' (or, the share of a brand amongst directly competing brands); and iv) 'need share' (or, the extent to which consumers rely on a brand to address their needs);
 - Emotional territory mapping - which can reveal the emotional connections and benefits consumers make when they are considering products and services to purchase;
 - Unmatched count technique - this is a survey-based approach which can provide an estimate of the proportion of people who have engaged in sensitive behaviours. The research suggested that it could be used more widely to assess levels of demand for illegal wildlife products and improve identification of key target audiences.

It should be noted that overall the findings do not provide in-depth insight into the motivations of actual consumers of illegal wildlife products, since as it was a methodological pilot it was not possible to engage specifically with these groups. The target demographic was relatively well-off urban people, who use online media and who are interested in luxury brands. This group has been highlighted by previous research as potential users of both ivory and rhino horn. However, the achieved sample was disproportionately female and in the 26-45 age bracket, so was not representative of the target population. The small sample size contributed to the fact that the dataset for the unmatched count technique could not be analysed although the findings suggested that the method had potential.

In further research to inform the development of demand reduction initiatives, the project suggests it will be important to engage directly with actual consumers of illegal wildlife products. The methodological challenges associated with this will require specific consideration.

- The project contributed to a successful demand reduction workshop in Hong Kong in March 2016¹, and was focused on in day one. The workshop brought together around 100 participants from 60 organisations, able to offer diverse expertise, experience and professional opinion around what it takes to change consumer choice.

Overall, combining insights from previous evidence, knowledge and experience as well as new findings from this research, the project makes the following key suggestions to those designing, developing and delivering demand reduction initiatives and associated behaviour change interventions:

1. Employ an evidence-based and insight-led approach to produce effective, targeted interventions;
2. Ensure that initiatives have a foundation in behavioural science, so that they use efficient and effective approaches to influence consumer choice;
3. Consider employing new approaches from luxury brand marketing, consumer research and other fields when conducting research to understand demand for wildlife products;
4. Increase efforts to share findings, harmonise collection protocols and pool data between implementing organisations;
5. Ensure government buy-in and multi-stakeholder partnerships, as part of a Twin-Track Approach: track one using mechanisms to impose a societal control or restrict consumer choice; track two using messaging and influencers to shape individual motivation;
6. Mainstream demand reduction action where possible (e.g. relate activities and messaging to wider issues, rather than just those focused on natural resource use/conservation), and explore whether it can be embedded within existing culturally appropriate / context specific communications;
7. Employ creative communications and make lateral connections;
8. Understand the barriers to changing behaviour, and ensure that these are removed and that direct benefits of adopting the new behaviour are made clear to the target audience;
9. Adopt multiple ways of reaching the target audience to reinforce the message over time;
10. Adopt an iterative (adaptive) approach to demand reduction intervention design and implementation, including ongoing monitoring and evaluation of intervention effectiveness.

¹ <http://www.changewildlifeconsumers.org/workshop-on-demand-side-strategies-for-curbing-illegal-ivory-trade>

2. EXECUTIVE SUMMARY

2.1 Introduction

The illegal trade in wildlife is a substantial threat to the survival of many species. In the past, efforts to address this trade have been primarily focused on law enforcement to prevent the poaching and illegal harvest of animals and plants, and trafficking of their parts, products and derivatives along trade routes. However, a complementary effort is also required to address demand amongst consumers². This need has been recognised by governments, international organisations, NGOs and others, through several high-level declarations and commitments to action³. Stakeholders now have an imperative to understand and apply the most effective and efficient strategic approaches through which to change consumer choice, and shift purchasing preference and buyer behaviour away from illegal wildlife products.

2.2 Project aims and activities

Within this context, the UK government commissioned and funded a research project to identify insights into what could be effective in changing illegal wildlife product consumer behaviour. The activities in this project, with a particular focus on elephant and rhinoceros products, are summarised as follows;

1. To undertake a **scoping study**, to take stock of existing evidence and knowledge and identify gaps arising;
2. To undertake an **evidence and literature review** (ELR), to fill an element of those gaps, and identify insights that could help strengthen future efforts to reduce demand for illegal wildlife products;
3. To conduct **primary research** to pilot particularly promising methods and approaches in filling any knowledge gaps identified through the scoping study;
4. To deliver a project **workshop**, through which draft findings from the project research could be presented to, and discussed by, stakeholders and experts; including those working in NGOs, 'think tanks', research institutions and academia, media, marketing, advertising, business management consultancies and PR, government representatives, and others; and
5. To capture key insights through a final project **research report**, providing a common reference point for those with a stake, passion, interest or mandate in changing consumer behaviour and reducing demand for illegal wildlife products.

² E.g. <http://www.traffic.org/home/2011/11/25/creative-experts-devise-multi-layered-strategies-to-curtail.html> (accessed February 2016) and Editorial: *TRAFFIC Bulletin* 25(1) (2013)

³ <http://www.traffic.org/home/2015/7/30/un-adopts-resolution-on-tackling-wildlife-trafficking.html> (accessed Feb 2016)
London Declaration on Illegal Wildlife Trade:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281289/london-wildlife-conference-declaration-140213.pdf /

Kasane Statement on Illegal Wildlife Trade:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417231/kasane-statement-150325.pdf

Relevant communication products and authorised outputs will also be included in the 'Wildlife Consumer Behaviour Change Toolkit' (www.changewildlifeconsumers.org), developed outside of the project and funded through other sources.

The project has been implemented by a consortium of organisations, featuring TRAFFIC, WWF, Imperial College London and the University of Oxford. The individuals involved from these organisations are hereafter referred to as the 'project team'. Work on the project commenced in December 2014. Insights and findings are collated in the pages that follow under three headings:

- **Mapping demand reduction activities**—capturing who is doing what under a demand reduction (DR) heading, and where;
- **Understanding demand**—identifying the evidence base for current DR initiatives, trialling promising survey techniques to fill gaps in this evidence base, and capturing the success factors and lessons learned in their application;
- **Changing Demand**—capturing insights into what is effective in changing wildlife product consumer behaviour, based on evidence in the Chinese and Vietnamese language literature and experience in sectors beyond conservation.

2.3 Mapping demand reduction activities

What the project team did

- Mapped DR communications—a scoping study was produced which included a review of activities that could be roughly characterised as aligned with a DR theme, in relation to elephant ivory and rhino horn in Viet Nam and China, during the decade 2004–2014 inclusive.
- After the scoping study, a more in-depth review was conducted of the initiatives being implemented in Viet Nam, in order to assess the extent to which they incorporated a behavioural change methodology.
- During the project workshop, delegates were asked to identify any activities delivered under a DR heading, during the calendar year of 2015. The aim was to get as complete a picture as possible of who was doing what and where.

What the project team discovered

- The project team identified a significant increase in the number of activities delivered during the decade to the end of 2014 (Figure 1). Activities relating to elephant ivory in China formed the focus for the great majority, compared with those related to rhino horn in Viet Nam.

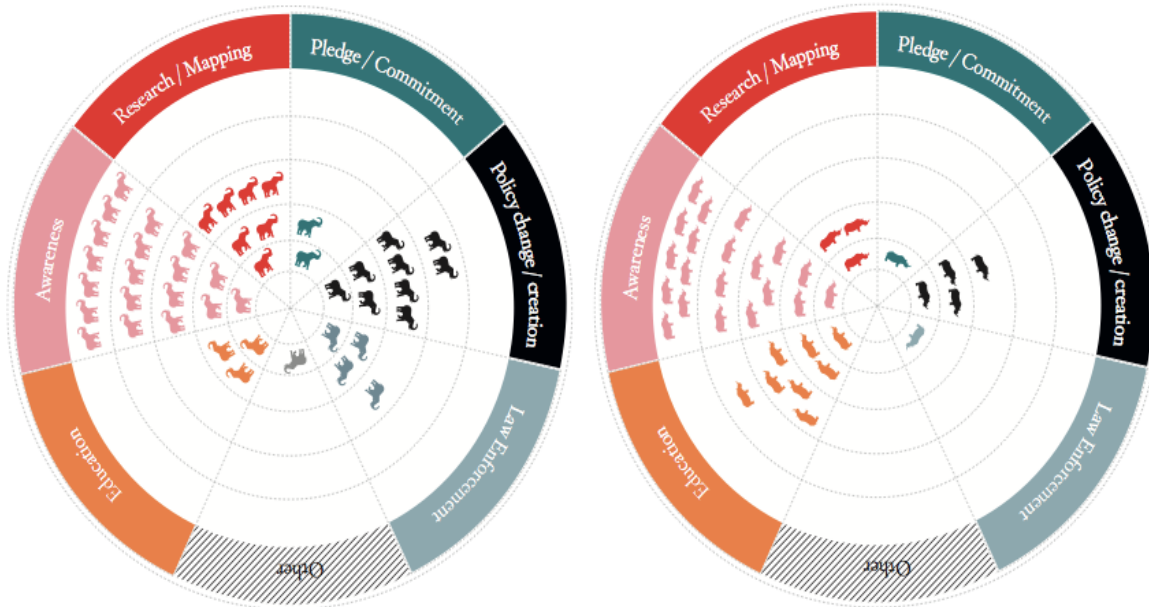


Figure 1. Types of demand reduction initiative by objective, 2004-14, in China and Viet Nam

- More than 50 different communication activities were recorded as being delivered in China and Viet Nam during 2014 alone. Most communications (LCD displays, public service announcements, banners and posters in the airport, etc.) were issued to the general public; i.e. rather than the more targeted approaches typically employed in behavioural change.
- Communications with a broad audience such as this would typically raise awareness, or generate 'Knowledge' (K), amongst consumer groups. Behavioural change communications (BCC) by contrast, would typically be more targeted, and use messaging intended to undermine specific motivations for consumption behaviour amongst specific target audiences (e.g. buyers, users, and intenders), reaching out to all through those that influence them. In this way, BCC build on those that raise awareness, by specifically encouraging and enabling the target audience to shift their 'Attitudes' (A) and ultimately 'Practice' (P); thus, moving them through the K→A→P continuum, which is one of the most basic expressions of the stages often required to change behaviour. A more detailed explanation of the Theoretical Frame of Reference to which this relates, is available in the section on 'Changing demand'.

2.4 Understanding demand

What the project team did

- Reviewed the evidence base being used by those delivering DR activities, and identified gaps in knowledge and understanding arising.
- Considered and trialled innovative survey techniques that might be used to fill the identified gaps in knowledge and understanding—about both consumers and

consumption of illegal wildlife products. These techniques included those currently used more in mainstream consumer marketing:

- 'Brand attachment', which can be an accurate predictor of: i) intention to perform 'difficult' behaviours; ii) actual purchase behaviours; iii) 'brand purchase share' (or, the share of a brand amongst directly competing brands); and iv) 'need share' (or, the extent to which consumers rely on a brand to address their needs).
 - 'Emotional territory mapping', which can reveal the emotional connections and benefits consumers make when they are considering products and services to purchase.
 - 'Unmatched count technique', an empirically robust technique for questioning around sensitive behaviours, which can provide an estimate of the proportion of people within a sample who have bought a particular product.
- The application of these survey techniques was trialled so that the success factors and lessons learned could be captured and shared with others. The application was in relation to surveys of consumer attitudes towards rhino horn and elephant ivory in Viet Nam. An online questionnaire was conducted with 460 readers of high-profile fashion and lifestyle magazines over a six-week period. Because of the nature of the publications, 77% of respondents were female and 68% were in the 26–45 age bracket. High-end titles featuring celebrities and luxury goods were specifically selected to capture perspectives from a segment of the Vietnamese population affluent enough to purchase rhino horn and ivory products.

What the project team discovered

- Generally speaking, a lack of a consistent and coordinated approach seems to be being employed to gather consumer insights, by those delivering activities under a DR heading. If standardised approaches and information sharing (e.g. sharing survey approaches, question framing, geographic coverage and methodologies, and being prepared to pool results) were adopted, this might enable more representative sampling to be attained, so that more statistically robust analyses could be conducted. If all organisations were to use comparable methodology and questions across different geographies, the potential for robust analyses would be greater, and better understanding and targeting would follow.
- There is a need to extend the existing body of consumer research—for example, at the time the research was conducted, many surveys were evident on the intent to purchase elephant ivory in China, but few in Viet Nam, and vice versa for rhino horn. Table 1 shows the status of research and knowledge in these countries at the time of our research, for consumption of elephant ivory and rhino horn.

Table 1: Existing research and knowledge on consumption of ivory and rhino horn at the time the research was conducted (it is acknowledged that circumstances may have changed since then). Red = no information available, yellow = some information available, green = comprehensive research conducted

	Consumers identified	Baseline survey	Monitoring of trends against a baseline	Measurement of campaign effectiveness
China – elephant ivory	Green	Green	Yellow	Yellow
China – rhino horn	Yellow	Yellow	Red	Red
Viet Nam – elephant ivory	Red	Red	Red	Red
Viet Nam – rhino horn	Green	Green	Red	Red

- There is also a lack of in-depth approaches to understanding behavioural decisions or motivations, or more nuanced attitudinal data; e.g. how price influences purchase choice, who the most willing/able to act are, what the triggers are for them doing so, etc.
- In the trial of innovative survey techniques, some of the main findings included: while a majority of respondents claimed to be indifferent about illegal wildlife products, some were ambivalent. Only a minority expressed either aversion or attachment towards illegal wildlife products (Figure 3). Illegal wildlife products have been noted in other studies as enhancing consumers' perceived worth in social contexts. However, our respondents expressed predominately negative emotions with respect to these goods, and associated them with rich people and men. They also associated the products with luxury, as well as high-quality and high-price, suggesting that some of the themes picked up in previous studies resonate with this group (Figures 2 and 4). Bearing in mind that the sample consists primarily of affluent younger women, it may be that this particular demographic group is less engaged with wildlife product use than other demographics, such as older men.

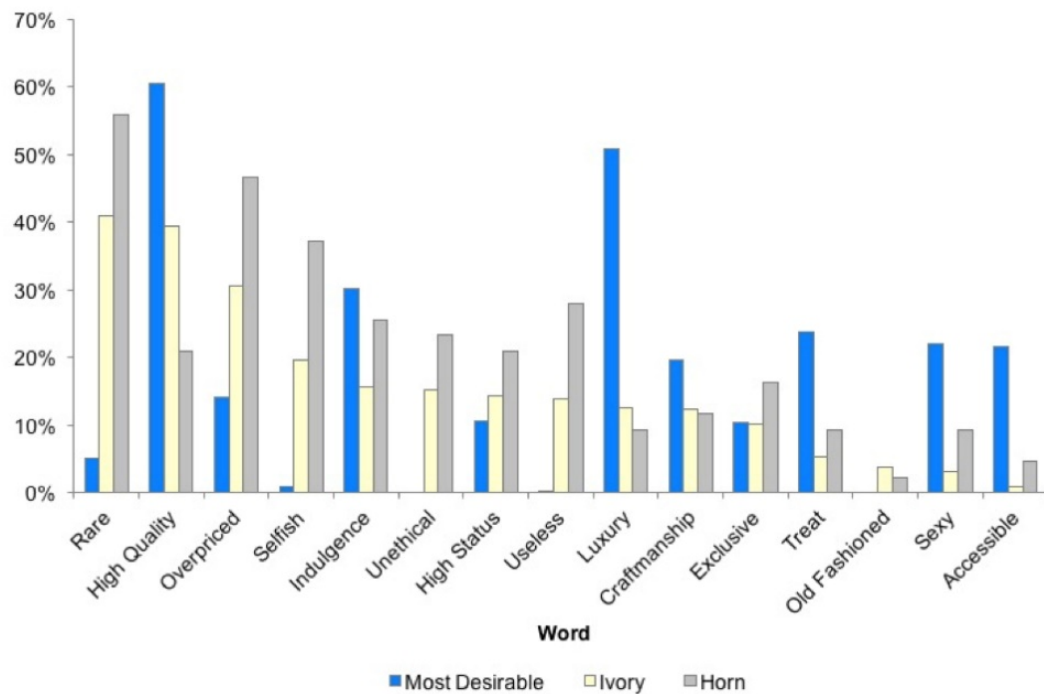


Figure 2. Respondents were asked to pick words from a list that they associated with the most desirable product (self-chosen), elephant ivory and rhino horn

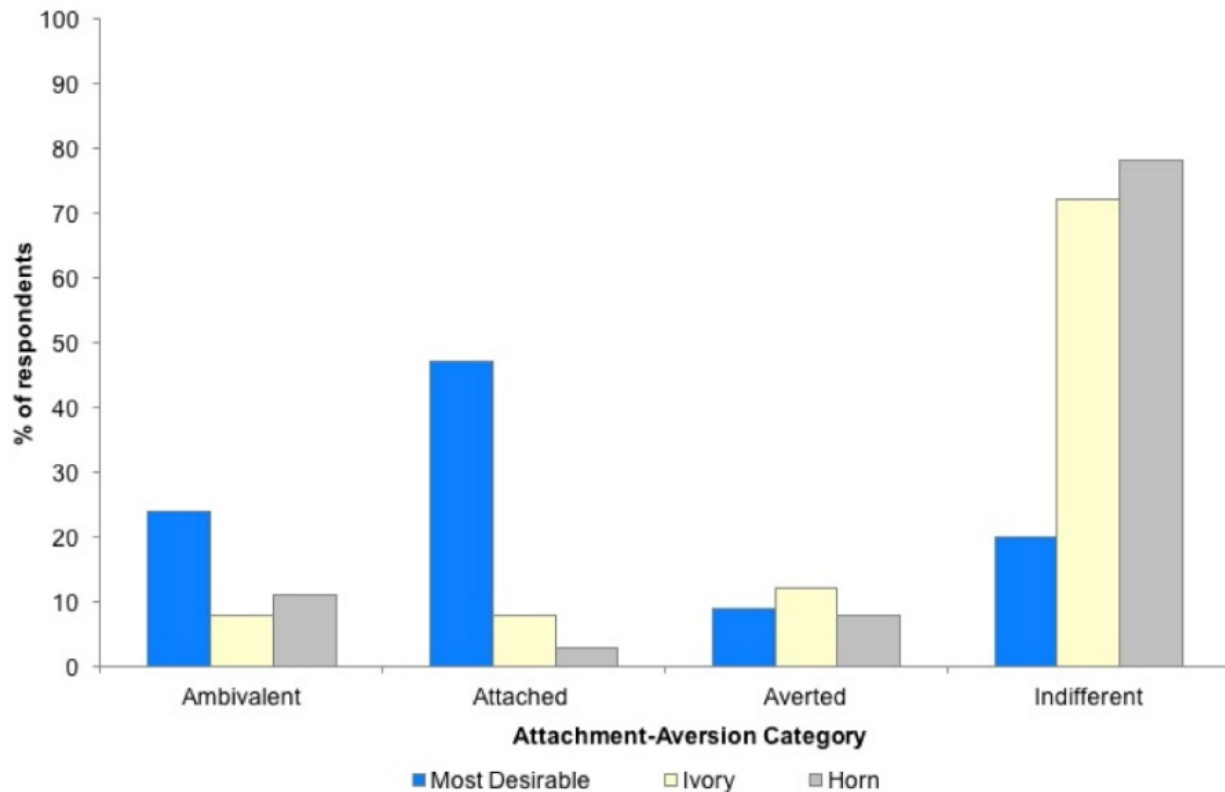


Figure 3. Brand attachment-aversion scores for the most desirable product (self-chosen), elephant ivory and rhino horn (based on responses to a range of questions about their feelings towards the good)

2.5 Changing demand

What the project team did

- We sought to fill one of the gaps in knowledge identified through the project scoping study, which concerned effective approaches to changing consumer behaviour reported in Chinese and Vietnamese language literature. Specifically, the project sought to answer the following questions through a broad (i.e. rather than systematic) evidence and literature review (ELR):
 - What types of ‘behavioural change’ have already been demonstrated in Chinese and Vietnamese society? What does the literature broadly say about ‘behaviour change’ in these societies?
 - With regard to fields beyond nature conservation, what does the literature suggest are the most influential factors in changing consumer behaviour?
- A project workshop, supported by a range of donors including Defra, involved extensive discussion about novel approaches to changing demand, including lessons learnt from successful projects addressing wildlife trade issues, as well as from other sectors.

The ELR focused on identifying:

- Strategic approaches employed to change behaviour in other fields (i.e. the ‘mechanisms’);
- Some of the message qualities that appeared important in this (i.e. the ‘messaging’); and
- Who seemed especially influential when issuing these messages (i.e. the ‘messengers’)

The draft results, and additional insights, were presented at the project Workshop: focusing on ‘Changing Behaviour to Reduce Demand for Illegal Wildlife Products’, and held in Hong Kong (7–9th March 2016)⁴. This workshop was attended by around 100 delegates from 60 organisations, representing a diverse set of individuals and institutions with a stake, passion, interest or mandate in behaviour change/delivering DR interventions. It was supported by a range of donors including Defra.

What the project team discovered

Below is a summary of the key findings from these two elements of the project.

Mechanisms:

- As had been apparent through research and experience prior to this project (e.g. Toko and Kitade, 2016), some of the most successful efforts to change societal behaviour in China and Viet Nam have tended towards a ‘twin-track’ approach (Figure 5, below). The ELR and project workshop both emphasised the importance of this approach. One track involves efforts, activities and communications around implementing a societal behavioural control (e.g. ensuring the laws are appropriate,

⁴ <http://www.traffic.org/home/2016/3/11/changing-consumer-choice-experts-gather-to-ensure-a-future-f.html>

perceived to be an adequate deterrent and effectively enforced) and restricting consumer choice (i.e. by retailers removing products from sale, or manufacturers using alternatives). The other track involves those influential with consumer groups and other target audiences, issuing messaging to help inspire and shape individual motivation, through social and behavioural change communications (SBCC), or behavioural change communications (BCC) and associated approaches to advocacy and social mobilisation.

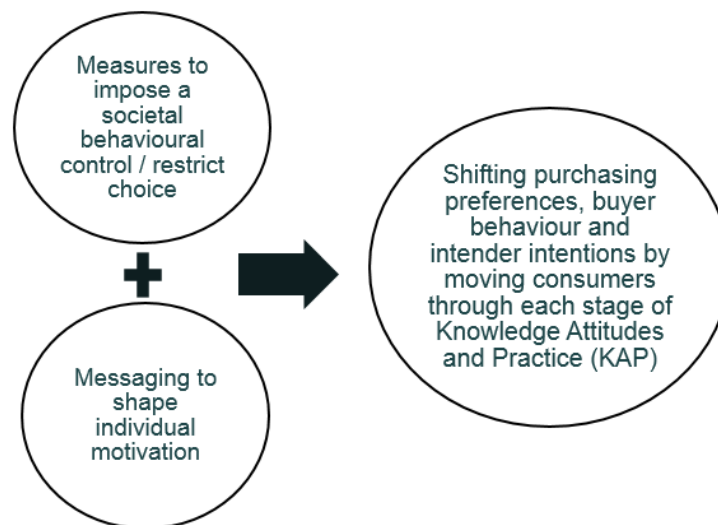


Figure 5. The 'twin-track' approach

- Where social campaigns led by governments have been successful in the past, the ELR reinforced that a major requirement was that the government provided a set of new values, ideologies or national development plans to justify the adoption of the new/desirable behaviours. These values were also used to inspire a sense of patriotism, and cultural or civic pride, i.e. so that an individual's behavioural change was akin to conducting a patriotic act, and the benefit to broader society clear. Pride in the collectivist identity and a desire to conform were also seen to be strong motivators for behavioural change. In some instances, the importance of legal enforcement of associated policies, legislation or penalties for non-compliance, was also noted (e.g. wearing helmets when riding motorbikes in Viet Nam).
- When attempting to change a consumption behaviour in particular, an understanding of the desirable product attributes (or 'utility' to economists) being sought and providing equivalents for those seemed fundamental. The use for which the product was being purchased was also important—e.g. considering whether the product was purchased more for the social gain it might enable, rather than for personal pleasure.

Messaging:

- As had been evident prior to this project, the ELR and project workshop discussion reinforced that in the past, governments' messaging has tended to use an authoritative quality and focus on (e.g. raising awareness of the law), employing either a neutral tone or negative framing. Recently however, it was noted that governments have also begun using more positive messaging to promote desirable behaviour changes; potentially in recognition of the influence of social media on popular lifestyle choices and day-to-day behaviours. In the private sector and civic

society on the other hand, positive messaging has consistently appeared more commonplace; showcasing an aspirational lifestyle choice to which people can be drawn towards, being more of a norm.

- Further research is required to understand in which circumstances different types of message framing should be used to best effect. That said, risks are already noted by experts (e.g. in the project workshop) in relation to messages that are framed too negatively (i.e. don't do that because of this dire consequence...); or when the consequence highlighted in the negative message, has little direct relevance to the individual's daily life. In simple terms, consumers may turn away from overly negative messages, or those that prompt excessive discomfort or disgust, because of 'emotional regulation'. The need for context and culturally specific influences on this is noted: some evidence exists to suggest that one-sided messages (e.g. those with a purely positive focus) may seem misleading to non-Western audiences, and appeals containing both positive and negative messages may be more persuasive (Williams & Aaker 2002) in Confucianist societies. Finally, as had been noted elsewhere prior to the research—it is worth considering whether messaging will resonate to the level required if it appeals for empathy towards animals for which actual consumers have little direct exposure or experience. Overall, more research is required around SBCC message framing.

Messengers:

- Again, as had been evident prior to this Project, despite the diversification in who/what is most effective in influencing consumers—potentially associated with the rise of social media—governments are still seen to be extremely powerful messengers; reinforced through the ELR and discussion during the project workshop. Research (e.g. Ipsos, 2010) reveals that in some countries (including China and Viet Nam, the focal countries for this project), the populace expect their government to take a leadership role in influencing the collective choice towards a 'better' behaviour. Anecdotal information confirms this. Alongside this, it is recognised that in these countries governments are also, in practical terms, one of the few entities able to deliver behavioural change messaging for the sustained duration and at the level of market saturation required in order to achieve a 'transformative' or enduring effect—i.e. rather than transient change. Ministries of Communications, Education and Public Health have for many decades delivered messages that reach across countries' entire populations—thus, they are likely to have established the infrastructure and outreach channels through which to continue to do this, whatever the nature of the message. Whether particular types of messages will adequately resonate through all of these channels at all times needs to be explored further.
- Findings from the ELR also reinforced how heavily influenced consumers are by those within their social groups; peers, colleagues, family and friends.
- Discussion in the project workshop, in particular, reinforced that conservation NGOs should consider whether they are always best placed to influence consumer choice. Alternatives of using a 'brand' that avoids overt association with animal protection values, were considered per the Workshop Proceedings (TRAFFIC, 2016) and additional content in www.changewildlifeconsumers.org

Ways forward:

Discussion at the project workshop highlighted that investigating the following questions may be useful in the future:

- **Whether there are particular products DR initiatives should target first, in order to achieve the greatest conservation impact;** e.g. Ivory chopsticks or statuettes? The answer may depend on considerations such as the durability of each product; the volume of source material used to produce it; frequency of purchase choice; how many people purchase; and how easy it is to change their behaviour (it may be easier to persuade people to alter one-off/opportunistic purchases, rather than more regular/habitual or deterministic ones).
- **Who the most willing/able to act are in any one population/attitudinal segment;** e.g. who are the ‘honestly disengaged’ vs. the ‘positive greens’ and how should SBCC messages, messengers and mechanisms be adapted accordingly?
- **What the economic determinants of behaviour are:** for example, what utility do people attach to products, and how does this fluctuate over time/different pricing? How do reported drops or increases in price influence the desire to purchase? How does a perceived increase in a reduced supply of goods in the market change consumer choice?
- **What the ‘gateway’ behaviours/triggers for purchase of illegal wildlife products are;** do consumers tend to buy small pieces first and then move on to larger one-off pieces after this? What prompts their first time purchase? How can this best be influenced?
- **What is the ‘behavioural journey’ consumers go through when buying an illegal product?** At what point should messaging be delivered to disrupt most effectively the journey/change their behaviour? What are the measures that should most effectively be applied in order to impose societal behavioural control and restrict consumer choice, alongside messaging to shape motivation?

Workshop discussion also recognised some specific questions that would be useful to address in relation to demand around particular use types—the following were in relation specifically to the use of illegal wildlife products for speculation and investment purposes:

- What is the specific market and channels of speculation/investment?
- Who advises investors on their choices?
- How do fluctuations in price affect demand?
- How do perceptions of future availability of products affect investor demand? i.e. How do stockpile destruction events and announcements of future trade bans impact on the use of products for speculation and investment?

These and other aspects of workshop discussion (including presentations, speaker videos/interviews, and a ‘Community of Practice’ information hub), are captured in the workshop proceedings, and are available alongside many other relevant materials, in a ‘Wildlife Consumer Behaviour Change Toolkit’ (www.changewildlifeconsumers.org) which has been developed for the ‘Community of Practice’ delivering DR interventions currently.

2.6 Conclusions and key suggestions for next steps

This project explored a number of issues in relation to initiatives to reduce the demand for pachyderm (e.g. elephant and rhino) products in selected countries in Asia. The current scope of interventions to reduce demand for illegally traded wildlife species, and the evidence base being employed to inform these interventions were investigated and mapped. The project also identified gaps in approaches and knowledge about demand for these products, and sought to fill some of those gaps by trialling innovative methods in primary research, as well as reviewing the evidence for what works and what doesn't in influencing consumer choice, both through the ELR and in the project Workshop. Resulting from these activities, the following suggestions are made to those designing, developing and delivering DR initiatives, SBCC approaches and associated behaviour change interventions:

1. Employ an evidence-based and insight-led approach to produce effective, targeted interventions.
2. Ensure that DR initiatives have a foundation in behavioural science, so that they use efficient and effective approaches to influence consumer choice.
3. Consider employing new approaches from luxury brand marketing, consumer research and other fields, when conducting research to understand demand for wildlife products.
4. Increase efforts to share findings, harmonise protocols and pool data between implementing organisations.
5. Ensure government buy-in and multi-stakeholder partnerships, as part of a Twin-Track Approach: track one using mechanisms to impose a societal control or restrict consumer choice; track two using messaging and influencers to shape individual motivation.
6. Mainstream DR action where possible, and explore whether it can be embedded within existing culturally appropriate / context specific successful communications.
7. Employ creative communications and make lateral connections.
8. Understand the barriers to changing behaviour, and ensure that these are removed and that direct benefits are made clear to the target audience.
9. Adopt multiple ways of reaching the target audience to reinforce the message over time
10. Adopt an iterative (adaptive) approach to DR intervention design, implementation, learn and adapt.

2.7 Additional note

It should be noted that overall the findings do not provide in-depth insight into the motivations of actual consumers of illegal wildlife products, since as it was a methodological pilot it was not possible to engage specifically with these groups. The target demographic was relatively well-off urban people, who use online media and who are interested in luxury brands. This group has been highlighted by previous research as potential users of both ivory and rhino horn. However, the achieved sample was disproportionately female and in the 26-45 age bracket, so was not representative of the target population. The small sample size contributed to the fact that the dataset for

the unmatched count technique could not be analysed although the findings suggested that the method had potential.

In further research to inform the development of demand reduction initiatives, the project suggests it will be important to engage directly with actual consumers of illegal wildlife products. The methodological challenges associated with this will require specific consideration.

3. PROJECT BACKGROUND AND CONTEXT

Poaching of wildlife and the illegal trade in their parts, products and derivatives remains a serious threat to many species, including elephants and rhinos. To date, informing or enhancing law enforcement action to ‘starve the supply of goods into the market’ (i.e. those deterring or apprehending poachers, traffickers and illegal traders), has been the primary mechanism for stemming this trade. However, without a complementary effort to effectively address the market demand driving this trade, law enforcement action alone may not be sufficient to eliminate the threat to species. Increasing numbers of successful interdictions will provide an excellent enabling environment for effective behavioural change.

The nature of the market for products such as those from elephants and rhinos is changing rapidly, with economic growth facilitating increased consumption of a wide number of luxury products, including wildlife products, by the emerging middle-classes within Asia⁵. Consumption for some goods is driven by complex social forces such as lifestyle and recreational choices, individual aspirations, as well as desire for individual, social, and corporate status. In light of the significant recent increases in demand for illegal wildlife products, there has been recognition of an urgent need to explore new approaches to tackling it; including by using SBCC and behavioural change strategic approaches, to influence consumer attitudes, values, beliefs, motivations and drivers.

A large number of initiatives have been undertaken in light of this imperative, to tackle the illegal wildlife trade. In early 2014, the UK government and members of the UK Royal Family convened high-level international stakeholders at the London Conference on the Illegal Wildlife Trade. The Declaration⁶ arising from this landmark event recognised that trade will only be effectively tackled if both the demand and supply sides are addressed. The Declaration also recognised the need to support and undertake effectively targeted actions to eradicate demand - including but not limited to raising awareness and changing behaviour amongst consumers. The Declaration stated that actions should be evidence-based, building on research into users’ values and behaviours. This project, commissioned by Defra, has aimed to help provide elements of that evidence base, as well as generate critical insights into what works and what does not in changing consumer behaviour.

⁵ E.g.; Milliken, T. and Shaw, J. (2012). The South Africa – Viet Nam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates. TRAFFIC, Johannesburg, South Africa

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281289/london-wildlife-conference-declaration-140213.pdf

4. PROJECT AIM AND ACTIVITIES

4.1 Project aim

Following a competitive tender process in the autumn of 2014, Defra commissioned a consortium to undertake research to support action to reduce demand for illegal wildlife products. The consortium featured WWF, TRAFFIC and Imperial College London (Business School and Department of Life Sciences), and later also Oxford University. The aim of the Project was to improve understanding of the most effective ways to gather evidence to inform, and implement, interventions to change consumer behaviour, to reduce demand for illegal wildlife products. In addition, the project also aimed to produce suggestions to support governments, non-government organisations (NGOs) and others in developing DR approaches and campaigns. This was with a view to helping to ensure that future policy interventions and initiatives to raise awareness and influence consumer behaviour, had the information they needed to achieve conservation impact in as efficient and effective a manner as possible.

4.2 Project activities

The activities within the Project delivering against this aim were as follows;

To undertake a **scoping study** to map who is doing what, where, using what evidence. This was to build upon research conducted prior to TRAFFIC's 2011 'Creative Experts' meeting in Hong Kong and a previous report for the Royal Foundation of the Duke and Duchess of Cambridge and Prince Harry ("the Royal Foundation") by Imperial College's researcher Vian Sharif. Additional data sources were also secured with a focus on those originating from within Asia. The Study set the scene by framing the project scope – i.e. fleshing out what is currently known about types of consumer psychodemographics and other aspects of the consumption of wildlife products in major markets. In addition, it provided a summary mapping of what is already being done by NGOs and others under a DR heading, to raise awareness, change behaviour and shift social norms. It identified roughly who was designing, developing and delivering this work, where, to whom and with what evidence. It also identified what gaps were emerging and what the project might do to fill those gaps. This was an internal exercise, which sought to identify the most effective focus for further research.

To undertake an **evidence and literature review (ELR)**, to fill a gap identified in the scoping study; that of insights from the local language literature, in Chinese and Vietnamese, on especially effective ways to influence consumer choice (i.e. in fields beyond conservation). The Review included both academic research literature and publicly available and grey literature of reports (full list available in Annex 8.2), in order to broaden the scope of current knowledge beyond the English-language literature. The project team reviewed evaluations of responses to broad types of behavioural change interventions (including luxury product marketing, sustainable tourism, 'buy locally made goods' and public and sexual health projects). The Review used the insights gleaned to highlight possible approaches to reducing demand for illegal wildlife products. The purpose was to gather insights into lessons learned and success factors that could be applied to conservation-focused BCC and broader DR efforts, to strengthen approaches

and impact. Analysis and case studies considered who did what, where, how and with what impact, with a focus on the qualities and type of behavioural change messages and communications used. The ELR also specified further questions that the primary research could usefully answer.

To carry out targeted **Primary Research**, based on the gaps in understanding identified in the scoping study and ELR. The Research explored the potential of particularly promising and innovative research methods, not yet deployed for conservation. As the scoping study identified gaps in understanding the demographics and potential motivations of ivory consumers in Viet Nam, this was a topic of focus in the Primary Research. Interventions already taking place for rhino horn and elephant ivory in Viet Nam were also researched, to assess the extent to which they employed a behavioural change approach. It was not possible to conduct a comparative review in China, due to limited project resources.

To engage **‘Creative’ or ‘Collaborative’ Experts** and ensure a comprehensive set of perspectives were captured. Some feedback was secured through interviews and written reviews of material, with other feedback sought from those participating in the final project workshop – which included those working in NGOs, think tanks, research institutions and academia, media, marketing, advertising, business management consultancies and PR and government representatives, amongst others. Through collaborations with other donors, the project team then held a **Workshop on changing behaviour to reduce demand for illegal wildlife products (7-9 March, 2016, Hong Kong)**. Through this Workshop delegates were invited to reflect on the draft findings and complementary insights, to help finalise aspects of this Research Report. Discussion during the Workshop was informed by a **‘Briefing Note’** summarising aspects of the findings from this research project as well as previous insights beyond it.

Using support from other donors, but informed by the work carried out in this project, TRAFFIC has convened a **‘DR Community of Practice’** including all those with a stake, passion, interest or mandate in applying SBCC and changing consumer behaviour to reduce demand for illegal wildlife products. Relevant resources are being included in an Online Resource Bank and Decision-Making Tool, developed through other donors’ funding, and now called the **‘Wildlife Consumer Behaviour Change Toolkit’** (www.changewildlifeconsumers.org).

This Toolkit, created and hosted by TRAFFIC, aims to support all those in the demand reduction (DR) ‘Community of Practice’ (CoP), improve the efficiency, effectiveness and impact of their initiatives. It is a free resource, accessible to all those with a stake, passion, interest or mandate in applying Social and Behavioural Change Communications (SBCC) and strategic approaches, for conservation gain. It is both a repository of technical information and SBCC resources, and also a communication platform and coordination hub for the DR CoP.

More than 200 resources are available through a filterable/searchable list. These draw from best practice in behavioural science from fields within and beyond conservation, and include expert interviews, film footage, links to academic and consumer research reports, case studies featuring success stories and lessons learned, TED talks, Journal articles, Briefing Papers, Good Practice Guidance, and other reference material. The more interactive components of the Toolkit include a Webinar Gallery and hosting

platform, plus 'Members Area' and series of Discussion Forums, where CoP members can 'Ask an Expert'; learn more about upcoming events and activities; and share information about their planned campaigns (i.e. including messaging and key visuals), to support efforts to improve sector-wide collaboration and coordination.

A Steering Group (SG) has been set up to ensure the Toolkit remains a vibrant and vital resource, both useful to and utilised by, members of the DR CoP. This SG includes senior representatives (Comms Directors or above) of all the main NGOs delivering DR in Asia, in addition to interested professionals from the private sector, and relevant independents. It meets quarterly to exchange news and views, and Minutes are posted in the Members Area of the Toolkit.

5. MAPPING DEMAND REDUCTION ACTIVITIES

5.1 What the project team did

During the scoping study, the Project Team mapped demand reduction activities – reviewing those that could be roughly characterised as aligned with a DR theme in relation to elephant ivory and rhino horn in Viet Nam and China, and delivered during the decade concluding in December 2014. The aim was to get as complete a picture as possible of who was doing what, where and how. Following the scoping study, a more in-depth review was conducted of the initiatives being delivered in Viet Nam specifically – this was in order to understand the extent to which they employed a behavioural change methodology; in particular, social marketing. During the project Workshop, delegates were asked to identify any further activities they were aware of that had been delivered during the calendar year 2015.

The scoping study built upon previous work done to produce the report *Analysis of conservation initiatives aimed at reducing demand for traded wildlife in China and Viet Nam* (Stop Ivory for the EPI & The Royal Foundation, 2014). The work was conducted through a desk based review and interviews with key stakeholders. The follow-up consisted of more in-depth review of initiatives being delivered in Viet Nam, involving interviews with the main contacts in each organisation responsible for developing and implementing the initiatives. A "behaviour change wheel" was developed (see Figure 7) based on these interviews and a review of the literature on behaviour change interventions. The project team then mapped the interventions onto this framework, based on evidence from project documentation and the interviews. This aspect has been published in a separate full study (Olmedo et al. 2017)⁷.

5.2 What the project team discovered

Scoping study overview of demand reduction activities

- During the scoping study, 85 activities were identified as delivered during the decade ending in December 2015. During the project workshop, a further five campaign-style activities were identified. Activities relating to ivory in China formed the great majority, while rhino horn activities were focused in Viet Nam.
- The number of demand reduction activities in China and Viet Nam increased significantly in 2014. The majority involved broad communications (LCD displays, PSAs, banners and posters in the airport, etc.,) issued to the general public.
- Broad communications such as this would typically focus on raising awareness, or generating 'Knowledge' (K), amongst consumer groups. Behavioural Change Communications (BCC) by contrast, would typically be more targeted, and use messaging intended to undermine specific motivations for consumption behaviour amongst specific target audiences; e.g. buyers, users, intenders, reaching out to them through those that influence them.

⁷ <http://onlinelibrary.wiley.com/doi/10.1111/conl.12365/abstract>

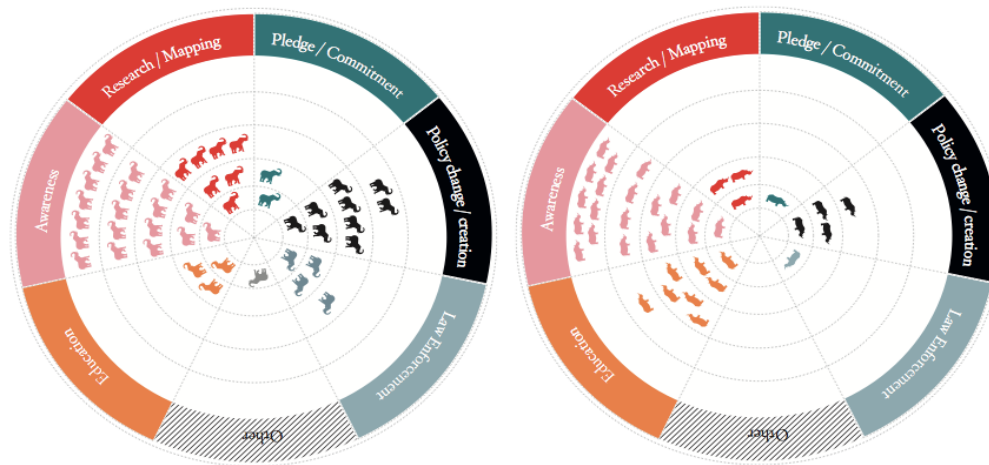


Figure 6. Overview of demand reduction initiatives in China and Viet Nam delivered during the decade to 2015: each animal silhouette represents one demand reduction initiative

In-depth review of demand reduction activities in Viet Nam in 2015

We acquired as much information as possible regarding the planning and design of behaviour change interventions for rhino horn in Vietnam, using a combination of in person interviews, review of reports and websites and personal contacts. Each intervention was linked to the principal implementing organisation, and the relevant contact points were approached to participate in the study. Ten initiatives were found for rhino horn demand reduction in Viet Nam (Table 2).

Table 2: Demand reduction initiatives in Viet Nam, and their key contacts

Organisation	Initiative	Contact	Position	Website
FREELAND	Operation Game Change	Phuong Hoang	Project Coordinator	goo.gl/wRqTL9
TRAFFIC	Chi Campaign	Trinh Nguyen	Demand Reduction Officer	goo.gl/5T0oWK
Education for Nature - Vietnam (ENV)	N/A	N/A	N/A	goo.gl/BjMVT1
World Wild Fund - Vietnam (WWF)	Illegal Wildlife Trade Campaign	Van Nguyen Dao Ngoc	Project Manager	goo.gl/su0iB0
Wildlife Conservation Society (WCS)	Trafficking Networks & Government Commitment	Scott Robertson Thuy Hoang Ha Pham	Country Representative Program Manager Policy & Comms Coordinator	goo.gl/jtg3Mo
Convention on Illegal Trade in Endangered Species of Wild Fauna and Flora Management Authority (CITES M.A.)	Awareness Raising Campaign with HSI	Thuong Nguyen	International Cooperation Official Coordinator for Rhino Horn Demand Reduction Campaign	goo.gl/jV2k4a
Humane Society International (HSI)	Awareness Raising Campaign with the CITIES M.A.	Teresa Telecky	Wildlife Department Director	goo.gl/jV2k4a
Wild Act	Various Projects	Trang Nguyen	Founder	goo.gl/f66ZlR
Breaking the Brand	Stop the Demand	Lynn Johnson	Founder	goo.gl/YznKK1
WildAid/CHANGE	"Stop Using Rhino Horn"	Nhi Chau	Program Development Coordinator	goo.gl/hVupk9

When these interventions were evaluated by comparing them to social marketing and behavioural change criteria defined by other fields (Figure 7), results showed that many lacked the components required to achieve change according to the literature (e.g. Andreasen, 1994; Jones et al., 2005; Smith & Strand, 2009; WARC 100, 2014; David Ogilvy Awards, 2011). Further, very few campaigns included adequate research to identify the target audience that the intervention must be aimed to, used behavioural change models or set adequate indicators or evaluation methods to record the success of their interventions. Messages seeking to persuade consumers to change their behaviour have primarily been designed based on assumptions instead of insights into motivations of consumption. Measures of success tended towards anecdotes and expression of interest in the messages, rather than evidence of actual behavioural change.

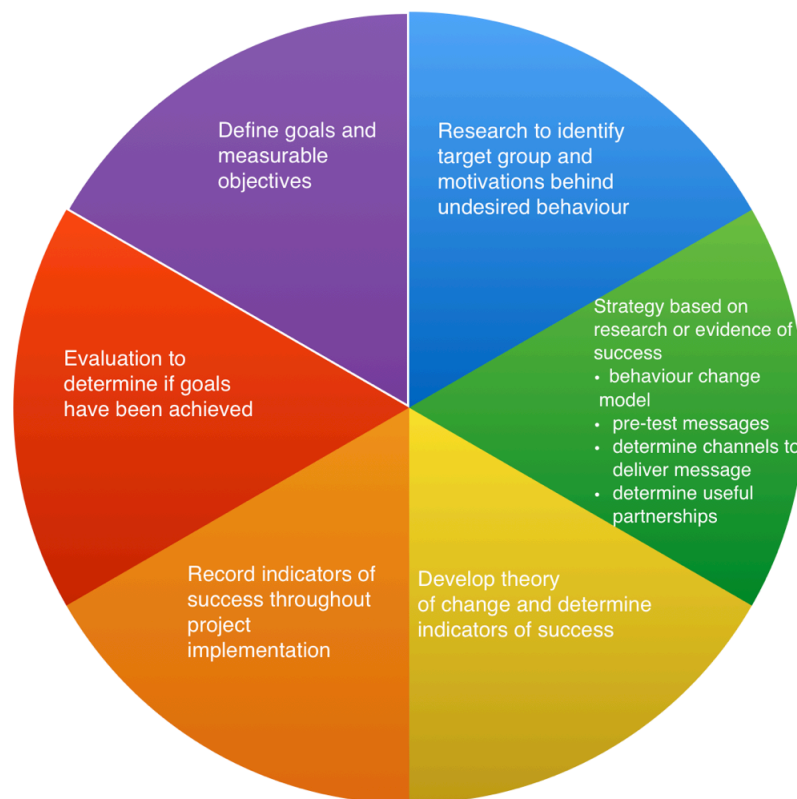


Figure 7. Behaviour change project design wheel developed for the study outlines basic elements of a social marketing intervention

Considerable resources were employed to fund these interventions, and NGOs and other behavioural change stakeholders should increase coordinated effort so that consumer research to test impact of these initiatives maximises the synergies available and improves resource efficiency. The full study⁸ presents lessons and theory that can be applied when designing future behavioural change interventions.

⁸ <http://onlinelibrary.wiley.com/doi/10.1111/conl.12365/abstract>

Gaps identified through the scoping study and in-depth review

- Insight and evidence from other fields and in-country sources

A broader, more integrated insight into what works and what does not in changing consumer choice from local language literature (i.e. Chinese and Vietnamese) was identified as a key gap in knowledge and understanding. Associated with this was a gap in referencing to what works and what does not in changing consumer behaviour in fields beyond conservation. TRAFFIC's paper 'Behaviour change we can believe in' (2013)⁹, produced for the Global Tiger Initiative's First Stocktaking Conference To Review Implementation of the Global Tiger Recovery Programme, New Delhi, 2012, provided a foundation for a 'trans-disciplinary' approach to filling these gaps. It did this by advocating research into the psychological benefits that consumers perceive in buying items, how these consumer groups differ, and what else is already known about the buying decisions of these consumers for other purchases in their lives. Further information regarding the Theoretical Frame of Reference for this, and other aspects of this Research, is available in the section on 'Changing Demand'.

The following areas were highlighted by the study as priorities for potential interdisciplinary collaboration:

Traditional Chinese Medicine sector: e.g. TRAFFIC has a collaboration with the World Federation of Chinese Medicine Societies, as evidenced by the 2014 Forum on rejecting illegal use of endangered species as TCM ingredients—China's TCM Corporate Social Responsibility and Sustainability¹⁰ and the work done to support issuing the statement given at the 2010 World Federation of Chinese Medicine Societies. Further literature has researched the drivers and motivations for use of certain products for medicinal purposes in the past. These sources need to be better integrated into current international understanding of the issue.

Considering work conducted historically; one of the best examples of significant demand reduction for a pachyderm product is the decline of the ivory market in Japan since its height the 1980s. Japan used to be the world's largest market for rhino horn and elephant ivory during the country's economic boom in the 1970s and 1980s, but is smaller today. This was documented in a range of literature including the IUCN African Elephant and Rhino Specialist Group publication Pachyderm and NGO reports (such as 'Setting Suns' Toko and Kitade, 2016¹¹). The evidence suggests that the CITES bans on each commodity (in 1980 for rhino horn and 1989 for ivory) had a powerful effect on demand, with alternatives being substituted for rhino horn by traditional medicine practitioners, and NGO-mediated public awareness campaigns, amplified in the media, creating social pressure and retailers removing offers for sale of ivory products. In both cases, external factors also played a strong role; for rhino horn this included modernisation of the medical system and changes in family structure meaning traditions changed, while for ivory international discourse and interest in the issue, plus the pronounced economic recession in the early 1990s were key factors.

⁹ http://globaltigerinitiative.org/download2/Traffic_Behvaior_Change_We_Can_Believe_In.pdf

¹⁰ <http://www.TRAFFIC.org/home/2014/6/5/top-traditional-medicine-companies-and-doctors-renounce-use.html>

¹¹ <http://www.traffic.org/home/2016/4/25/new-study-casts-light-on-changing-wildlife-consumption-patte.html>

Academic research: taking a cross-sectoral approach, leading academic research carried out both in-country or globally which may be applicable could be further explored with a view to application in this field. Examples of relevant academics whose work has been cited as being applicable include the following: behaviour change and marketing (Jiang Lan, Hong Kong City University), consumer marketing (Xiao Ge, Wilkes University); novel approaches from conservation (Milner-Gulland, Oxford); consumer marketing and brand attachment (Eisingerich, Imperial College Business School); behavioural economics (Nadal, El Colegio de México); and illegal behaviours (Felbab-Brown, Brookings) amongst others.

IGOs: The work of Inter- Governmental Organisations such as: the World Bank (for example on behavioural economics¹²); United Nations Organisation on Drugs and Crime (on tackling criminal behaviours¹³) and UN Environment Programme (on promoting large-scale pro-environmental behaviour¹⁴).

Private sector consultancies or agencies: Examples of relevant work included that produced by the Boston Consulting Group, Fung Global Institute, KPMG, and McKinsey (on consumption trends, sustainable consumption drivers, future-casting, economics-based environmental decision-making) and advertising, marketing, media, P.R. and similar organisations, of which Ogilvy's Red Paper series is an example. Ogilvy has partnered with TRAFFIC and WWF, and examples of communications in this sphere include the 'Vanishing Treasures' video in China, and a rhino horn set of communications in Viet Nam. Other NGOs (such as the Wildlife Conservation Society, WCS) and IGOs have similar arrangements with the private sector.

- **Engagement of luxury brands**

As some types of wildlife products fit within a bracket of luxury items (due to their value and the motivations people have for purchasing them), consumers of some types of illegal products may also be buying legal luxury items. As had been noted elsewhere, consumers could therefore potentially be convinced to buy luxury experiences or sustainably produced goods instead of seeking illegal wildlife products; in order to fulfil motivations such as conspicuous consumption (to demonstrate status or to gain 'face'); for corporate or social gifting, or for investment. The hedonistic pleasure typically associated with acquiring luxury products (such as joy/ happiness), is achieved through a combination of (1) enjoyment, (2) enhanced self-efficacy, and (3) self-esteem (e.g., one's perceived value in a social context); thus these are amongst the emotions which need to be offered by the alternative to wildlife products, if stakeholders are to successfully reduce desire for them.

One group of key stakeholders that has yet to be effectively convened and addressed is the luxury brand sector (within which might be 'Key Opinion Leaders'). To date, global luxury brands have not been systematically engaged in efforts to raise awareness or change behaviour around the consumption of illegal wildlife. However given the substantial and targeted channels through which global luxury brands reach their consumers - lifestyle media, innovative online engagement, consumer data capture,

¹² <http://www.worldbank.org/content/dam/Worldbank/Publications/WDR/WDR%202015/WDR-2015-Full-Report.pdf>

¹³ http://winterschool.org.au/wp-content/uploads/2015/08/Mythologies-and-Realities_IgorKoutsenok.pdf

¹⁴ <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction>

celebrity endorsement - they may have a powerful role to play in influencing consumer behaviour in shaping the attitudes of some consumers of illegal wildlife products. In addition, global luxury brands have access to their client base, as well as to information on consumer trends and purchasing behaviours. Added to this is the wealth of information owned by associated channels such as luxury lifestyle magazines, publishers and websites. There appears to be scope to develop the online channel further. State-of-the-art marketing techniques could be explored, such as those employed by Nike via WeChat and QR codes, or L'Oréal's Rose Beauty by Lancôme, an online community where women in China can exchange beauty tips and seek expert advice. Pioneering effective, large-scale engagement with this sector and its leaders would be a potentially fertile approach to reduction in desire for wildlife products.

- **Using behavioural change models to provide a theoretical foundation for interventions**

A further significant gap was the lack of reference to behavioural science or social science theoretical approaches or strategic foundations. Some of the most fundamental models frequently overlooked include the Theory of Planned Behaviour, the Stages of Change Model, and the Socio-Ecological Model (reinforcing the value of SBCC approaches, as well as those focused purely on BCC). A more detailed section on these theories is in the Changing Demand section of this report, and further consideration is available in Powers of Persuasion (Burgess, 2016). Many of the initiatives being delivered at the moment under a DR heading seem to employ large-scale mass media communications, largely aimed at raising awareness around elephant/rhino protection issues and broader aspects of associated conservation concern. This is important, as, per SBCC ethos and approaches (such as in the C-Change SBCC Toolkit, by FHI360) it sets the tone around what is and what is not socially acceptable behaviour, but it will not necessarily change consumer behaviour. While awareness-raising centres on promoting the visibility or credibility of a message or product within a community or society, providing a potentially catalytic force for change, the goal of behavioural change programmes (as defined by, for example, the World Bank¹⁵) centres on the design and implementation of interventions that specifically produce desired behavioural changes among a known target group. This is an important component of SBCC, that sits alongside advocacy and social mobilisation activities. There is a significant body of knowledge around SBCC and BCC already in existence in other fields of research, providing guidance around aspects, such as social marketing and behavioural science, including through academic research, management consultancy reports, thought-leadership publications and talks. This is now available in www.changewildlifeconsumers.org

Currently, few initiatives make reference to strategic approaches to behavioural change, within SBCC. Greater understanding across the sector in this regard would be beneficial. Through discussion with experts across diverse sectors with experience in influencing consumer choice, in 2011 TRAFFIC developed a five-step process as a relevant theory of change for consumer-focused behavioural change initiatives, in Asia and beyond. This process has been endorsed by the Global Tiger Recovery

¹⁵<http://www.worldbank.org/content/dam/Worldbank/Publications/WDR/WDR%202015/Overview-English.pdf>

Programme and the CITES Rhino Working Group¹⁶, and was used to underpin the rhino horn demand reduction strategy endorsed by the Parties at the 16th Meeting of the Conference of the Parties through CITES Decision 16.85. TRAFFIC also applies the five-step process in its current work in China and Viet Nam.

Broadly, Step 1 involves identifying which behaviours need to be targeted (e.g. corporate or social gifting, rather than the broader grouping of illegal wildlife product consumption); Step 2 involves identifying the motivations, drivers and socio and psycho-demographics of consumers (e.g. successful urban businessmen, typically aged 20-40 purchasing to both receive and give 'face' through a gift); Step 3 involves identifying the most relevant behavioural change theories, models and frameworks that should inform messages and approaches to changing consumer behaviour. These are captured in Step 4, which is the development of a (social) marketing plan. Step 5 involves implementing that plan and monitoring the outcomes and impact, so that messaging, messengers and mechanisms etc., can be refined and honed over time. A core principle is to focus on making a measurable change in consumer behaviour within a targeted group – rather than reaching a number of people with the message. i.e. Resonance, as well as reach.

Social marketing quality assurance frameworks, as a key part of SBCC, are also advocated by TRAFFIC, examples of which include the NSMC Social Marketing Benchmark Criteria. Typically, these recognise the value of a mixed methods approach to influencing behavioural change. Further frameworks are also available, as are a number of behavioural change models and theories of change such as those proposed by Ajzen, Kotler, Vlek, Rogers and Cialdini.

- **Comprehensive monitoring and evaluation**

Monitoring and evaluation of the effectiveness of initiatives should be considered in planning future interventions. Creating and applying consistent measurement tools, including use of the surveys recommended above, may assist in establishing which DR initiatives have been successful, or could be built into future programmes. Once this is established, insights could be shared, and similar techniques could be employed across multiple campaigns or in future campaigns. Models of multi-year, nationally-surveyed awareness raising campaigns and behavioural change initiatives are required. Evaluation methods drawn from other disciplines, for example consumer marketing, may also be of use. Consideration needs to be given to the balance between optimising the scale of funding behind the actual implementation of campaigns in order to achieve effectiveness, and maintaining a focus on monitoring and evaluating the impact of the campaigns to improve future initiatives. It may be that early on, in order to gain the baselines needed, funding needs to be directed more at research and assessment. Then implementation may take the bulk of funding. However, monitoring and evaluation needs to continue in order to learn lessons and capture success stories. Some funders (e.g. the UK government's ESPA programme) recognise that about 10% of funds need to be set aside for monitoring and evaluation.

¹⁶ <https://cites.org/sites/default/files/eng/cop/16/doc/E-CoP16-54-01.pdf>

Project priorities identified in light of these gaps

Although the scoping study had a broad remit and identified a number of important issues, the rest of the research element of the project focussed on a few priority areas. This was due to time and financial constraints. Other issues (such as the collation of a database and sharing of information for joint monitoring) were picked up after the project. Based on the gaps identified, it was agreed that project priorities were:

- **Conduct an evidence and literature review of the Chinese and Vietnamese language literature in order to identify case studies and insight into what works in fields beyond conservation to change behaviour**

A key finding of the scoping study centred on the ongoing cataloguing and evaluation of local-language materials both in the fields of conservation and behavioural change techniques. Initial analysis shows that potentially rich sources of relevant material could support effective campaign-building for future interventions. The aimed to address this gap.

- **Conduct primary research combining novel approaches identified from within brand marketing research, to identify replicability aspects and produce additional insights into demand for wildlife products.**

Based on evidence showing that some consumers of illegal wildlife products are also likely to be those buying legal luxury items, existing research approaches to consumer brand marketing and understanding luxury goods consumption was proposed as a new framework for primary research. A new approach to estimating the prevalence of wildlife consumption (proportion of a given group consuming a wildlife product) was also proposed for trial within a particular demographic group. In addition, ten in-depth interviews were conducted with key informants, who were leading figures from across the spheres of business, celebrity and the brand and communications industry. This research included examining potential links between consumption trends for illegal wildlife products and luxury goods consumption and investment purchases. Rhino horn and elephant ivory in Viet Nam were used as a case study, building on the existing baselines of activity identified in Table 2.

What the Project Team did and discovered under each of these aspects, is captured in the 'Understanding demand' section that follows.

6. UNDERSTANDING DEMAND

6.1 What the project team did

- *Considered the evidence* identified during the project scoping study, as underpinning the DR activities mentioned in Section 4, ‘Mapping demand reduction activities’.
- *Conducted primary research* in order to test innovative approaches to filling gaps evident in the knowledge base revealed through this consideration of the evidence, and improving understanding.

Summary of primary research aims

Conservation interventions which aim to alter human behaviour require insight into what influences buyer behaviour and decision-making. Research conducted by TRAFFIC to provide this insight (TRAFFIC, 2008, 2013, CITES, 2014) suggested that purchasers of illegal wildlife items, such as rhino horn in Viet Nam, do so to demonstrate status, amongst other reasons. Building the evidence around the types of ‘relationships’ consumers form with illegal wildlife products, and increasing understanding around the basis for such relationships, were therefore identified as an ambition for this project. Primary research under the project was designed to test innovative approaches to survey techniques to gather this evidence, and strengthen the application of monitoring and evaluation by those designing and delivering DR activities. As a result of this ambition, it was agreed that it would focus on collecting new data around how motivations for buying, and attitudes towards purchasing rhino horn and elephant ivory, related to consumption of premium and luxury consumer products. In this way, if parallels exist between rhino horn and elephant ivory consumption and luxury consumer product consumption, the primary research could also provide new insights into how influencing buyer behaviour could be achieved. It aimed to explore methodologies that could be developed as a blueprint for future surveys in similar fields.

The primary research focused on demand for two commodities in Viet Nam: rhino horn and elephant ivory. Rhino horn use in Viet Nam is currently one of the best-known illegal wildlife commodities and markets, and thus provided a strong baseline for trying new methods. Whilst previous research effort has identified the relatively wealthy—middle-aged businessmen specifically—as a key group consuming rhino horn in Viet Nam, it has not explored the prevalence of elephant ivory consumption in this group. Given the lack of recent knowledge on demand for ivory among the high-income demographic in Viet Nam, information generated about this commodity was anticipated to support conservation initiatives in future.

Although research for conservation purposes has examined consumer attachment to products in interpersonal contexts, research for brand marketing purposes suggests that consumers can also develop attachments to marketplace ‘entities’; e.g. product brands, celebrities and ‘special’ possessions. Luxury brands, like Rolex or Giorgio Armani, reflect an individual’s aspirations, hopes, and ideal future self. As culture-specific symbols of aspirations or luxury are a result of social learning, it must also be possible to influence peoples’ ideas of aspirations or luxury using ‘marketing measures’;

De Beers' illustrate this concept by their positioning of diamonds as a symbol of love and luxury through advertising and branding. Because of the value these research techniques offer in evaluating attachment/aversion to different products, they were identified as having powerful potential to obtain a deeper understanding of intentions to purchase illegal wildlife products and subsequently how to affect (and reverse) them. By combining the knowledge already gathered through research in conservation and brand marketing, the primary research in this project aimed to test innovative methods whilst improving insights in relation to consumer relationships with products and decision-making in the context of luxury purchase choices. In this manner, it was hoped it might enhance understanding about how to influence consumer behaviour in response to brand communications and marketing stimuli; particularly where the purchase of illegal wildlife products is viewed as a marker of status and/or of an aspirational lifestyle.

Summary of primary research methodological approach

In collectivist cultures, such as China and Viet Nam, purchase decisions are strongly influenced by opinion leaders: the less powerful are likely to emulate the purchase decisions of such people. Previous research¹⁷ has found that, in the context of purchase decisions, Chinese consumers are more sensitive to the brands that influential people buy, than to the relevance of brands to their own self-image. Therefore, the Primary Research focused on increasing understanding around the drivers behind the purchase decisions of influential decision-makers; because of the potential that influencing a change in their behaviour could have over that addressing a broad cross-section of others.

Questions examining the types of relationships consumers form with illegal wildlife products and unearthing the key bases for such relationships were drawn from brand attachment-aversion¹⁸ frameworks and emotional territory mapping¹⁹ techniques.

Brand attachment: Because of its value in evaluating attachment/aversion to illegal wildlife products, this framework was used to obtain a deeper understanding of intentions to purchase and subsequently how to affect (and reverse) them. The illegal wildlife product was the object against which consumers' attachment or aversion was measured.

Two critical factors make up the brand attachment/aversion score: i) brand self-connection; the emotional connection between the brand and the person buying it, and ii) brand prominence—the extent to which positive feelings and memories about the brand are perceived as being at the top of the consumer's mind, and a measure of the 'strength' of the bond connecting the brand with the consumer. In a marketing context, attachment is critical, because it is the bond which connects the consumer to the brand. Prior research has shown that brand attachment accurately predicts actual consumer

¹⁷ <http://journals.ama.org/doi/abs/10.1509/jimk.18.2.64>

¹⁸ Park, C.W., Eisingerich, A.B., Park, J.W. (2013), Attachment-aversion (AA) model of customer-brand relationships, *Journal of Consumer Psychology* 23: 229-248. ISSN:1057-7408.

¹⁹ Woods (2015). Emotional territory mapping, b7 Innovation, <http://b7innovation.com/category/articles/>, accessed 27th June, 2015

behaviours²⁰. These include: i) consumers' intentions to perform difficult behaviours, for example those that use significant resources such as time, money and reputation, ii) actual purchase behaviours; iii) the share of a brand amongst directly competing brands, and iv) the extent to which consumers rely on a brand to address relevant needs.

Emotional territory mapping framework: This framework uses the concept that brand marketing communicates and sells emotional connections and benefits i.e. rather than just products and services. The research approach involved extrapolating from this in order to gain new insights into illegal wildlife product purchase decisions. The methodology is more typically employed by consumer goods marketers as part of the empirical evidence base used to create advertising and marketing campaigns. These aim to understand and better define which 'emotional territory' the sensitive item occupies for the consumer, and maps this against the brands or products he or she self-selects to be most desirable. This can then be expressed as a brief for a number of different marketing activities; for example the construction of advertising campaigns.

The project team also trialled an indirect questioning method, the *unmatched count technique* (UCT) as part of the questionnaire²¹. This is a technique for asking sensitive questions in a way that ensures that the responses of individuals cannot be inferred as an admission that they have used rhino horn and elephant ivory. It enables a population-level estimate of prevalence of consumption of ivory and rhino horn products for different uses (including as an investment, tonic, art work and gift). UCT has been successfully used to calculate the prevalence of illegal activities such as bushmeat hunting in National Parks (e.g. Harrison *et al.* 2015²²), and online purchases of wild orchids²³. The approach entails asking respondents how many from a list of items they have carried out over a given time period (but crucially, not which ones). Respondents are randomly assigned to receive either a list composed entirely of non-sensitive behaviours, or a list that includes the sensitive behaviour of interest. The listed items need to be carefully chosen to match the sensitive item and also need to contain one commonly carried out and one rarely carried out behaviour, so that people very rarely answer none or all of the listed items (thereby giving away whether or not they have done the sensitive activity). The difference in the mean number of behaviours between the control and treatment groups provides an estimate of the overall prevalence of the behaviour. If demographic information is gathered on respondents, then it is also possible to get an estimate of prevalence by sub-group (e.g. age, income, location, employment type, sex). Several sets of questions can be included in one questionnaire, to cover a range of types of product. For example, here are questions from this study asking about ivory purchase for home improvement and rhino tonic use. In each case the sensitive item (which is present on treatment surveys and absent on control surveys) is highlighted for convenience:

²⁰ Park, C.W., MacInnis, D.J., Priester, J. (2010), Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers. *Journal of Marketing* 74: 1-17 ISSN:0022-2429.

²¹ Nuno *et al.*, 2013. A Novel Approach to Assessing the Prevalence and Drivers of Illegal Bushmeat Hunting in the Serengeti. *Conservation Biology* 27(6): 1355–1365. Nuno, A., St John, F.A.V. How to ask sensitive questions in conservation: A review of specialized questioning techniques. *Biological Conservation*. (2014). <http://dx.doi.org/10.1016/j.biocon.2014.09.047>

²² <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12575/full>

²³ <https://kar.kent.ac.uk/54427/>

Please read the list of activities below and count up how many of them you have done in the last 12 months:

My home has undergone renovation

Purchased an item of art for my home

Purchased a piece of a piece of antique or new ivory as an investment

Purchased a piece of antique furniture to display in my home

Employed a cleaner or maid

Please read the list of activities below and count up how many of them you have done in the last 12 months:

A vitamin supplement

Rhino horn to take in order to promote general wellbeing

A visit to a spa

A herbal/plant-based TCM medicine

A gym membership

Summary of primary research data collection process

This research was intended as a methodological pilot, to explore the potential for novel approaches for understanding the illegal wildlife trade. Given the limitations of time and budget, therefore, it was focussed on rhino horn and ivory in Viet Nam, and on a particular target demographic and product use type. The target demographic was relatively well-off urban people, who use online media and who are interested in luxury brands. This demographic group has been highlighted by previous research as potential users of both ivory and rhino horn, particularly as collectible items, but also (for rhino horn) as a tonic or for medicinal use²⁴. The data collection process was completed in two parts:

A quantitative online survey that involved the contribution of one of Viet Nam's most well-established premium publishing companies in providing access to their readership. The research team chose to work with high-end titles targeting 'relatively affluent' segments of the population with a level of disposable income, and featuring celebrities and luxury goods advertising and editorial—this was in order to capture perspectives from a segment of the Vietnamese population affluent enough to purchase rhino horn and ivory products. Questionnaires were conducted online in Vietnamese, because of the high level of internet penetration in the respondent group, because this was a cost effective approach in terms of reaching a large number of individuals (over 100,000) and to provide anonymity in the light of the sensitive nature of the topic. The questionnaire was hosted on the publications' websites and social media sites, and promoted to readers through adverts on their mobile devices. It was associated with a competition to win an iPad mini, on the advice of the publisher, to increase the response rate. The questionnaire is available at Annex 8.1.

Detailed in-depth interviews designed to gather in-depth insights from one-to-one interviews with key informants from across the spheres of business, celebrity and the brand and communications industry. Interviewees were located using the primary

²⁴ <https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/Rhino-horn-consumers--Konsumentenforschung-Nashorn-WWF-TRAFFIC.pdf>

research team's personal contacts within the wealthy segment of Vietnamese society. They were selected for interview for four (non-mutually exclusive) reasons: because previous consumer research conducted in Viet Nam identified this demographic as either a key rhino horn user or influencer group; because of their status as 'opinion-formers' who could influence others; because they could themselves be purchasing these products and therefore could be influenced by messaging; and because of their deep insights into the changing consumer culture of Viet Nam and how to influence it. These in-depth qualitative interviews examined the types of 'relationships' consumers form with (attitudes they have towards) illegal wildlife products and unearthed the key foundations for such relationships. This group of respondents were regarded as well-placed to provide insights and potentially motivate change. The set of participants matched the profile given above and were located either in urban locations, primarily Hanoi or Ho Chi Minh City, or else spent a significant amount of time there whilst also travelling extensively overseas. More details on the qualitative study and its findings are available at Annex 8.1.

The online survey was live between 15th August and 30th September 2015. It was viewed by 800 individuals, and 460 respondents completed the survey over a six-week period. It was partially completed by 133 individuals and fully completed by 327 respondents; this illustrated a 41% completion rate among those who actually viewed the survey, and 71% amongst those who started it, suggesting that it was not too long or sensitive for respondents to complete. The majority of respondents (77%) were female due to the majority of titles owned by the publishing house being aimed at women. Additional luxury lifestyle magazines owned by the publishing house however also comprised titles such as *Esquire*, the men's luxury lifestyle magazine aimed specifically at the demographic identified in previous research as most likely to buy rhino horn. The majority of respondents (68%) were in the 26–45 age bracket, educated to a higher level (79%), had an annual household income lower than USD40,000 (43%) and worked in office-based roles (36%). In the relatively higher income bracket, 14% of respondents earned between USD50–100K per year, with 9% of respondents achieving an annual household income over USD100K. A full summary of respondent demographics is available in Annex 8.1, as are the questionnaire and ethics summary.

The *emotional territory mapping questions* related to both elephant ivory and rhino horn purchase, ownership or usage. In order to reduce questionnaire length and maximise response rates, for the *brand attachment questions* respondents were questioned either about rhino horn or elephant ivory. Unfortunately, the majority of respondents answered specific questions on ivory due to the initial launch of the survey directing them to this version of the survey. The survey's results for this component are therefore more robust for ivory than for rhino horn.

The *UCT questions* were placed early in the questionnaire, in order that they would not be affected by later questions focussed directly on ivory and rhino horn. Unfortunately, a programming error led to an unbalanced sample (with the vast majority of respondents being directed to the ivory treatment survey, rather than to the rhino horn treatment or control surveys). Together with the relatively small sample size, this precluded analysis of the dataset. However, the high completion rate of this part of the questionnaire, and the consistency of the responses with expectations, suggested that the method worked.

The in-depth interviews were held with 10 key informants in September 2015, who were leading figures from across the spheres of business, celebrity and the brand and communications industry (see Annex 8.1 for profiles of the interviewees).

6.2 What the project team discovered

In the scoping study

- The lack of a consistent and coordinated evidence base

Based on an analysis of the existing materials and approaches identified during the scoping study, key gaps in the evidence base for demand reduction interventions were identified. Sources were dispersed and sometimes hard to access. Therefore, establishing one centrally managed, definitive source of reliable data per taxon per country, and promoting coordination between those delivering DR interventions, was noted for the potential to increase impact and efficiency for those planning interventions. It would enable future campaigns to be based on a common foundation of existing knowledge and would also facilitate and enable better monitoring and evaluation of the effectiveness of interventions. Analysis of surveys of wildlife product consumers suggests that a number of existing pieces of research may be drawn upon to provide a baseline for attitudes, values, insights into motivations and drivers, opportunities for purchasing products and the prompts for consumption behaviours. There are also a number of studies that have monitored intervention effectiveness. However, inconsistent methodologies in the consumer surveys undertaken prevents cross-referencing or a much greater sample size—this could be addressed through increased collaboration between those commissioning the surveys.

Given differing methodologies, comparisons between datasets may not be possible and the benefit of sharing these valuable data for use in creating future campaigns may not be always be captured. The approach taken to date may have led to duplication of costs and effort whilst also leading to a lack of accurate long-term trend data for use by all those interested in planning effective campaigns. It was noted that a focus for initial effort could include discussing how to achieve consistent long-term trend datasets, e.g. by asking the same questions of the same demographic at regular intervals—for example every 6–12 months. This may serve the purpose of: i) underpinning the construction of effective campaigns, ii) tracking changes in attitude over the short and long term and, iii) measuring the overall effectiveness of interventions. Cross-referencing consumer attitude survey data with other significant data—for example the volume of product trafficked, as demonstrated at various points along the trade route—would constitute a further framework for monitoring and evaluation.

Creation of a central open-source catalogue of data (where possible), mapping all demand-side surveys and initiatives being undertaken by all actors, would assist in effective planning, efficient resource allocation, fundraising, and minimal duplication of effort. This catalogue of demand-side initiatives, including location, methodology and target demographic, would display information on existing and past campaigns. This would support implementers to share knowledge around successes, conserve resources, target gaps, and/or find partners. It is acknowledged that the various

significant ‘real-world’ barriers (restrictions on publishing data due to intellectual property considerations, commercial in confidence clauses or similar, imposed by the research company or sometimes even governments), to achieving this will need to be overcome.

- Incomplete coverage in the existing body of consumer research

Surveys of consumer attitudes and behaviours towards wildlife products are limited in coverage. Coverage varies between countries, taxa and demographic groups. For example, within the scope of the analysis, the only survey which addressed a younger demographic was the WCS 2013 online survey, which did so by virtue of being a survey addressing Chinese social media users [Weibo user stats: 52% female, 42% are between the age of 25–34, 54% bachelor degree, and most (32%) live in second tier cities]. Of these users, WCS was able to determine that of those who are both Weibo users and consumers of ivory, 2/3 of buyers are female, and c. 50% are from Beijing, Guangdong or the Shanghai area.

At the time of the research, gaps were identified relating to rhino horn consumption in China. Limited surveys have been conducted concerning attitudes to rhino horn use in China to the end of 2015. Trade flows of rhino horn in China were not covered during the study period, though some data exist prior to 2004 (e.g. those collected for WWF by E. Bradley-Martin in the 1970s and 1980s, and T. Milliken in 1987). The surveys shown in Table 3 are of note by virtue of their depth, scope and relevance to this project.

Table 3: Consumer surveys with particular relevance to the Defra demand reduction project

Country	Species	Survey
China	All	TRAFFIC (unpublished), Understanding Consumption Patterns of Threatened Species Products in China
	Ivory	IFOP/NatGeo 2013, Attitudes to Ivory Consumption Survey
	Ivory	IFAW 2011–13, Ivory consumption attitudes/efficacy of campaign material surveys
	Ivory	WCS: China, Online attitudes to Ivory survey, 2013
Viet Nam	Rhino	TRAFFIC 2013, Attitudes towards rhino horn consumption
	Rhino	TRAFFIC 2013, CITES CoP16, survey of attitudes to rhino horn in TCM HSI 2013: Viet Nam Rhino Horn Demand Reduction Campaign initiated August 2013. Hanoi, Vietnam
Thailand	Ivory	TRAFFIC 2013–4; Ivory consumption, Thailand Qualitative and Quantitative studies

Table 4: Summary of evidence base in relation to demand reduction initiatives at the time the assessment was made (late 2014), based on the analysis conducted in the scoping study. Green = subject is well understood; yellow = some progress has been made; red = very little understanding exists. Note: changes have occurred since 2014

	Consumers identified	Baseline survey	Monitoring of trends against a baseline	Measurement of campaign effectiveness
China – elephant ivory	Green	Green	Yellow	Yellow
China – rhino horn	Yellow	Yellow	Red	Red
Viet Nam – elephant ivory	Red	Red	Red	Red
Viet Nam – rhino horn	Green	Green	Red	Red

As Table 4 above, indicates; for ivory there is good baseline knowledge about consumers in China but none in Viet Nam. There has been much less research done measuring the impact of campaigns and on change over time against a baseline, although there is some information for ivory in China. For rhino horn, there is good knowledge of consumers and baseline information in Viet Nam, nothing for Thailand and some knowledge in China. There is very little measurement of campaign effectiveness and impact.

In the primary research

This primary research was methodological in nature, and aimed to trial new approaches from different fields in order to explore their potential for future application in research. The results presented here are to illustrate the types of insights that can be gained from these methods. Because of the relatively small and biased sample from which the results are drawn, generalisations about the attitudes and motivations of the broader Vietnamese population should not be drawn.

It should be noted that overall the findings do not provide in-depth insight into the motivations of actual consumers of illegal wildlife products, since as it was a methodological pilot it was not possible to engage specifically with these groups. The target demographic was relatively well-off urban people, who use online media and who are interested in luxury brands. This group has been highlighted by previous research as potential users of both ivory and rhino horn. The small sample size contributed to the fact that the dataset for the unmatched count technique could not be analysed although the findings suggested that the method had potential.

In further research to inform the development of demand reduction initiatives, the project suggests it will be important to engage directly with actual consumers of illegal wildlife products. The methodological challenges associated with this will require specific consideration.

- **Brand attachment-aversion between luxury brands and illegal wildlife products**

Within the online survey, each respondent was invited to choose their ‘most desirable’ and ‘second most desirable’ products from a list of seven. These included antiques, designer leather goods (e.g. handbags), designer fashions, imported car brands, leading electronic brands, rhino horn products and ivory products. The ‘most desirable’ goods were leading electronics products, the ‘second most desirable’ good was designer fashion, although this was closely followed by designer leather. Two respondents identified rhino horn or ivory as their most desirable good.

Table 5: Number of respondents who identified each product as their most and second most desirable luxury good to own (N=327)

Product	Most desirable		Second most desirable	
	N	%	N	%
Ivory products	1	0%	0	0%
Horn products	1	0%	0	0%
Antiques	5	2%	11	3%
Designer fashion	88	27%	94	29%
Designer leather	33	10%	93	28%
Imported cars	31	9%	42	13%
Leading electronics	168	51%	87	27%

Using the Brand attachment-aversion measure, online survey respondents’ attitudes were captured on a scale ranging from -1 to +1, whereby +1 represented a strong self-identification to a brand, with the brand generating positive feelings such as love, trust, and esteem. At the other end of the spectrum, -1 represented aversion to a brand, whereby the brand aroused strong negative feelings such as hate, distrust, disrespect within an individual. In the centre of the spectrum, 0 could represent either brand indifference (respondent has no interest/does not care) or brand ambivalence (respondent is undecided/has mixed feelings).

Each respondent completed the attachment-aversion questions for their most desirable item and for either ivory or rhino horn (depending which of these products they were randomly assigned to). A brand attachment-aversion (BAA) score was then calculated based on their responses. These scores ranged from -1 to +1, with +1 showing greatest attachment, -1 greatest aversion and 0 showing neutrality. During the survey, a mean of 0.255 was calculated for the most desirable good, showing attachment on average. The mean BAA scores for ivory and rhino horn were -0.082 and -0.069 respectively, showing neutrality or weak aversion on average. Figure 8 shows the distribution of the data for the three surveyed products.

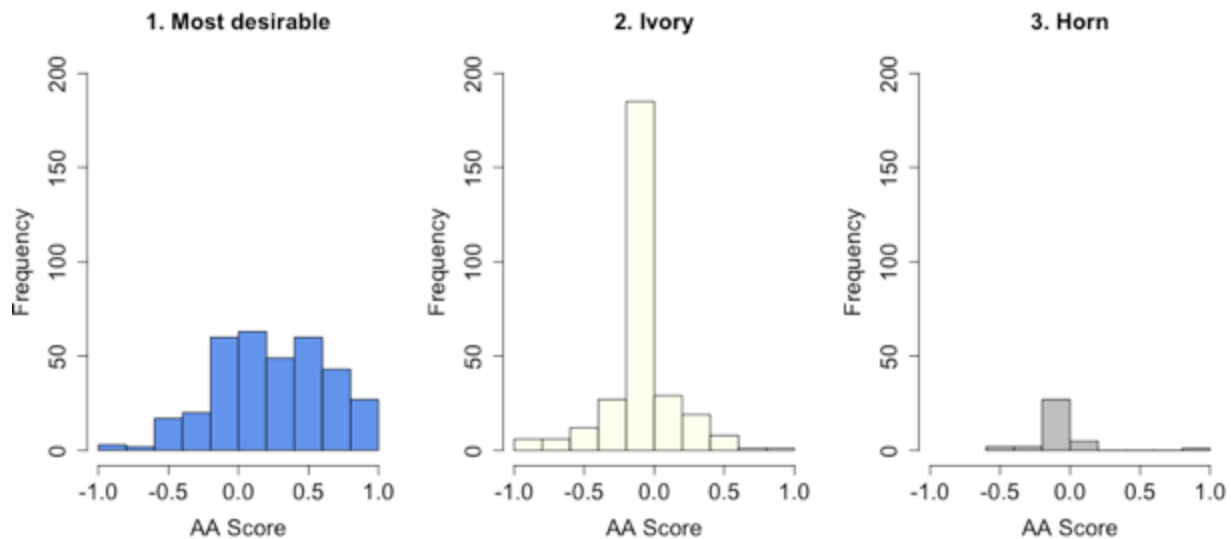


Figure 8. Range & frequency of brand attachment-aversion scores for each product. Sample sizes: most desirable n = 460, ivory n = 404, rhino horn n = 56

There were comparatively high levels of 'neutral' responses for both ivory and horn products, suggesting a large proportion of respondents were either indifferent or ambivalent towards these products. Few respondents were either strongly averted or strongly attached to illegal wildlife products, unlike the most desirable product. When considering their most desirable product, the majority of respondents were more attached than averted, although results also show a clustering of responses around the 'neutral' zone.

Identifying the level of ambivalence compared to indifference within a sample is important. People who are indifferent are unlikely to change their behaviour, however, those that are ambivalent are more likely to be persuadable one way or the other—i.e. to have an impression regarding the perceived values around the attributes of the product, and thus are therefore more likely to be influenced. The proportion of respondents within each of the four attachment-aversion categories was calculated for each product (Figure 9).

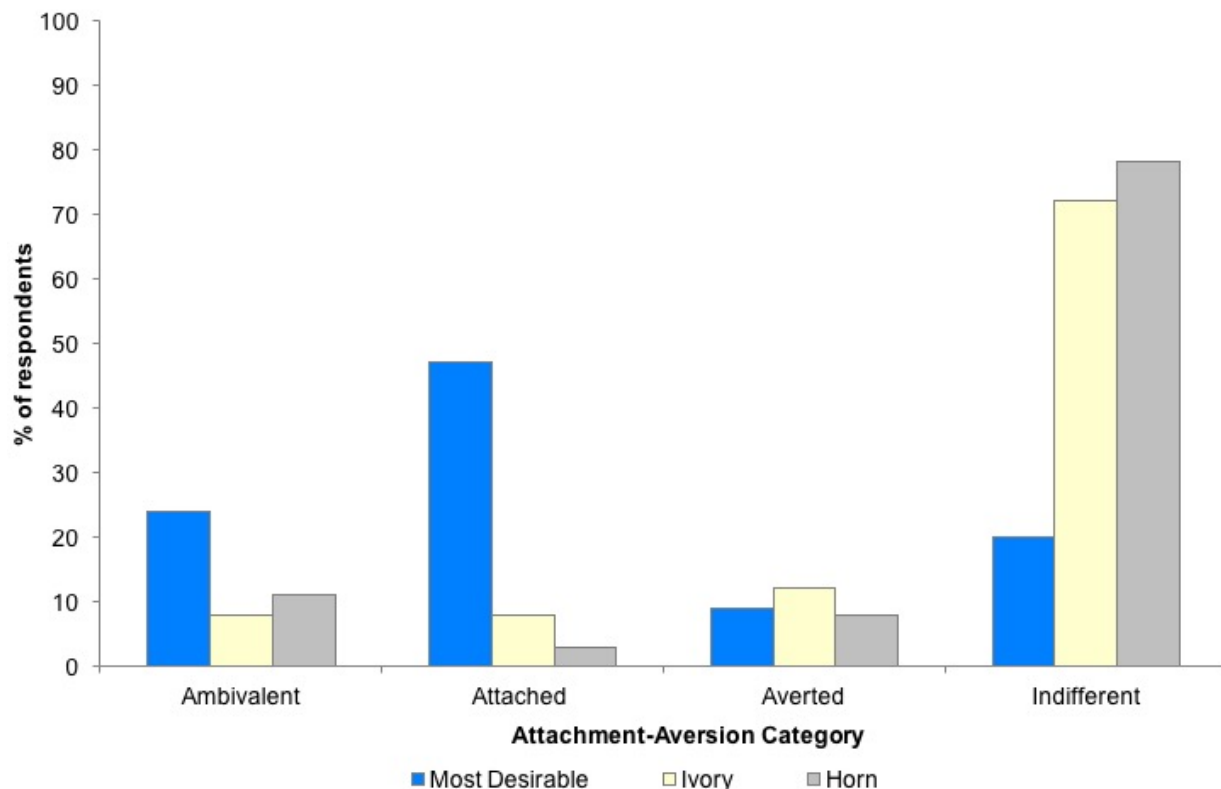


Figure 9. Percentage of respondents in each attachment-aversion category. Sample sizes: most desirable n = 344, ivory n = 294, rhino horn n = 37

For rhino horn and elephant ivory products, the majority (70+%) of respondents were indifferent, however around 10% of respondents were ambivalent towards these products, around 10% were attached to ivory products, and one person in the sample was attached to rhino horn products. All rhino horn results should be considered with caution given the small number of respondents.

Respondent demographics were analysed against BAA scores to determine whether specific variables such as gender, occupation, marital status, age and earnings significantly influenced an individual's brand attachment. However, demographic factors had no significant influence on BAA scores (Annex Table A.4).

A series of factor analyses was conducted to determine which variables were most likely to influence individual purchase decisions through a consumer's attachment or aversion to a given product (see Annex 8.1 for the detailed results). For the 'most desirable items', attachment-aversion was influenced by six different factors:

- *Pleasure*—Desirable products appealed physically to the individual and made them feel safe (protected from risk, not leading to harm) and secure (certain to remain safe and protected). This represented approximately 19% of variation in the data.
- *Identity*—15% of variation was explained by the 'identity' factor, which suggested desirable products helped consumers to build relationships with people they were close to, build a sense of identity and appreciate their heritage.

- *Enabling*—Desirable products improved performance in life or helped to make life easier, represented by 14% of the data variation.
- *Connected*—Desirable products made consumers feel part of a connected group, represented by 10% of the variation.
- *Community*—9% of variation was explained by the ‘community’ factor, whereby respondents felt owning a desirable product was seen as a good thing within their community.
- *Gifting*—6% of the variation was explained by the ‘gifting’ factor, which suggested giving a desirable product as a gift was seen as very prestigious in business circles.

Attachment-aversion towards ivory and rhino horn was influenced by fewer factors than the ‘desirable products’, however, factors were made up of more variables, suggesting preferences to consume rhino horn or ivory products were more complex than those for desirable products. The full results, including factor loadings, can be viewed in Annex 8.1.

- *Identity*—Whether or not products helped individuals to form a sense of identity and appreciate their heritage by being connected and part of a group. This was the strongest factor, accounting for approximately 47% (for horn) & 43% (for ivory) of the variation in the data.
- *Senses*—Whether or not products were physically and emotionally appealing was a factor that represented 22% (horn) and 19% (ivory) of the variation.
- *Prestige*—Whether or not products were seen as prestigious and good to own, in both business and community circles. This accounted for 21% (horn) & 18% (ivory) of the variation.

The impact of each factor on psychological needs varied between attachment-aversion groups and products:

- *Horn*: For rhino horn, there was a significant difference between the psychological needs of ambivalent and indifferent respondents for the first factor ‘identity’. Respondents that were indifferent to rhino horn products strongly disagreed that rhino horn products helped create their sense of identity, whereas for ambivalent respondents, opinions were less strongly averted and more neutral. The small sample size for the Attached category (n=1) prevented comparison between this category and the other attachment-aversion categories. This result suggests that breaking people’s sense of connectedness to a group and associated feelings of self-identity around rhino horn may be an important goal of a targeted campaign.
- *Ivory*: Unlike the most desirable products and rhino horn, for ivory there was a significant difference between the majority of attachment-aversion groups for all three factors. However, there was no significant difference between the responses for ambivalent and attached respondents, suggesting ivory met similar psychological needs for both groups. For all three factors the indifferent group had a significantly lower mean score than the averted group, suggesting the indifferent group strongly disagreed that ivory products fulfilled ‘identity’, ‘senses’ and ‘prestige’ needs. This is surprising as one would expect averted respondents to have stronger opinions against ivory products than respondents who were indifferent, and could suggest respondents were answering strategically rather than honestly. These results



Figure 12. Words most frequently associated with owners of ivory products with the largest words mentioned most often

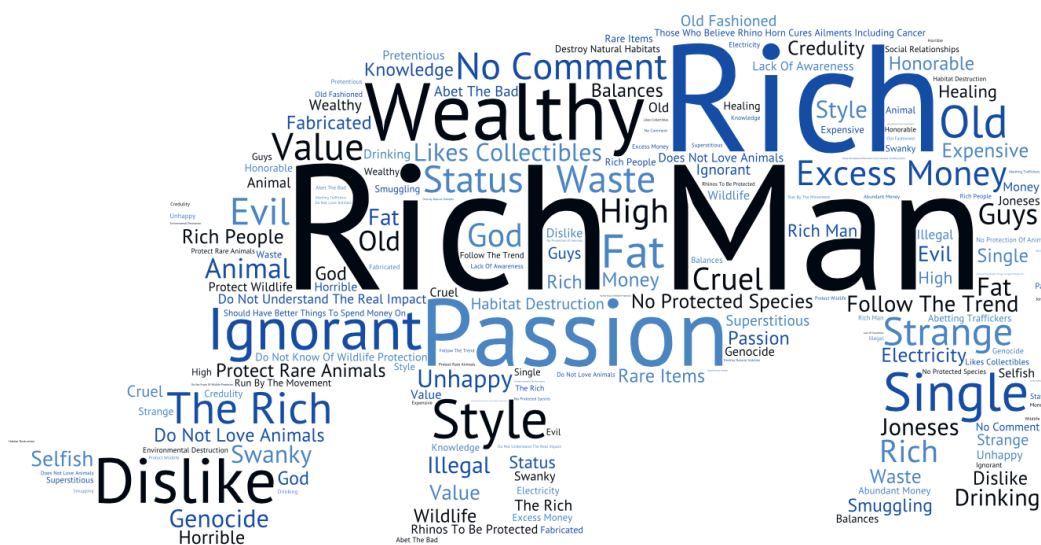


Figure 13. Words most frequently associated with owners of rhino horn products with the largest words mentioned most often

For the most desirable luxury goods, respondents most frequently mentioned different things depending on the goods: luxury, style wealth and trendiness for the electronic goods, and fashion, style and beauty for fashion items. By comparison, two of the strongest themes that came from the rhino horn and elephant ivory data were connotations of wealth—for example associations with high income, money and rich men. In the case of rhino horn and ivory, negative connotations were also mentioned;

for example, non-animal lovers, cruelty, and people that do not care for the environment.

Respondents were asked whether they strongly associated a series of words with their most desirable item and with elephant ivory and rhino horn products (Figure 14).

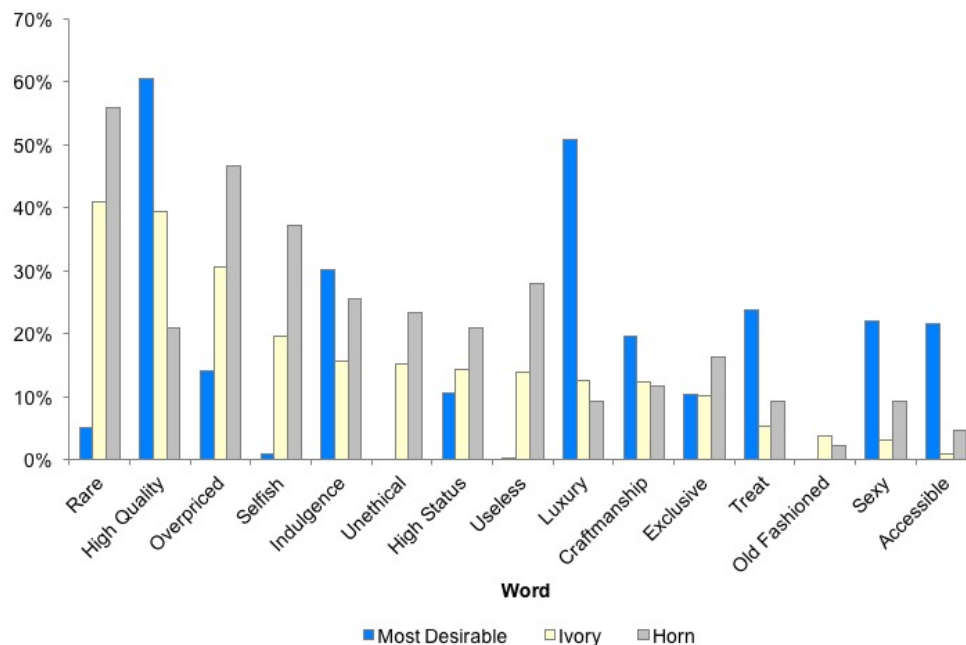
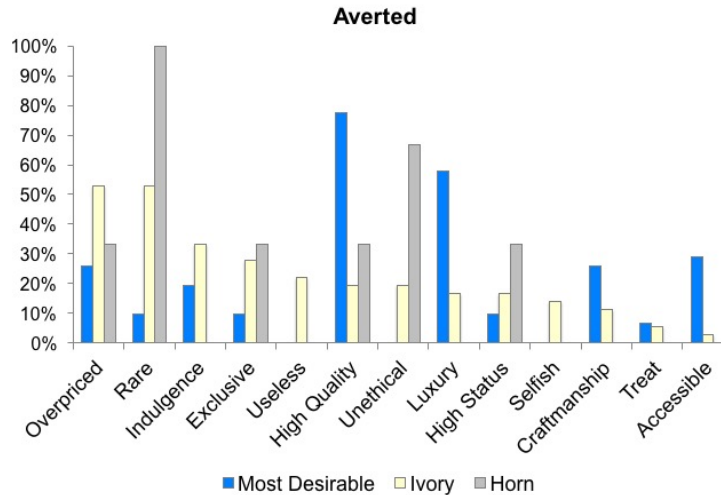
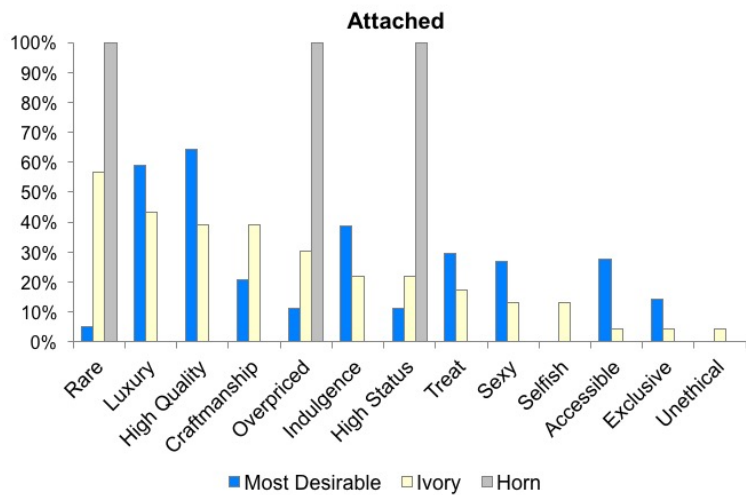
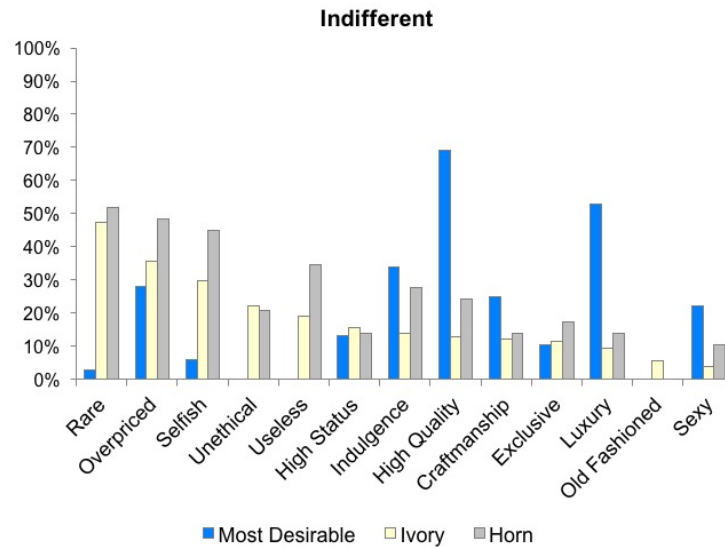
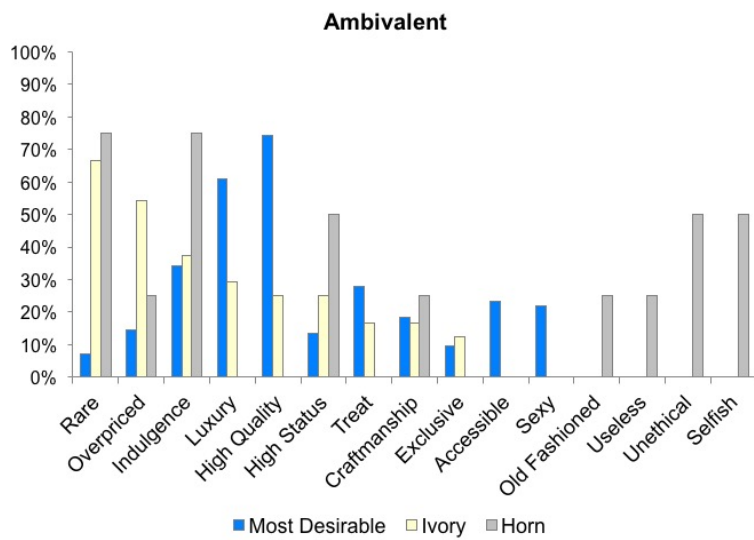


Figure 14. Percentage of respondents that associated each given word with each of three different products, ordered by the response frequency for ivory

Words associated with ivory and horn were quite different to those that respondents associated with their most desirable good. For example, the most desirable good was strongly associated with 'luxury' (50%) and 'high quality' (60%), whereas rhino horn and elephant ivory were most associated with 'rare' (41% for ivory, 56% for horn). There were also differences between ivory and rhino horn. For ivory, 'high quality' was a strongly associated word, whereas for horn, 'over-priced' and 'selfish' were more frequently associated.

Breaking these results down depending on whether people were attached, ambivalent, averted or indifferent to each good, showed that 'rare' was a frequently used word for ivory and horn regardless of attachment category (Figure 15). Horn has only a few associations for the attached person; 'rare, overpriced and high status'. By contrast (and as might be expected given the sample size), ivory had many more associations for attached people. Amongst averted people, horn had a slightly wider range of connotations, with 'unethical' being included, but interestingly there is also a new group of associations around exclusivity ('high quality'; 'exclusive'), and a reduction in 'overpriced' and 'high status' as strong associations. Ivory's connotations are again relatively broad and weak for averted people, and this is true for ambivalent and indifferent people too.

These results suggest that both ivory and rhino horn are strongly associated with wealth; this suggests that a potential aim for a campaign might be to replace that association with a more conservation-friendly wealth association, such as wealth being associated with experience-based elephant and rhino interactions (for example expensive photo-safaris). There is also a need to reduce the goods' associations with rarity and high price; these connotations reinforce the sense of exclusivity in owning these products. However, it should be borne in mind that all these suggestions are based on a small sample size and a very particular demographic group.



In the emotional territory mapping study connotations of ‘wealth’ and ‘negativity’ emerged as common perceptions of consumers of rhino horn and elephant ivory products. Respondents were also asked about different sources of influence for their opinion of these products (whether negatively or positively). These included campaigning organisations, family and friends, work and business contacts, Vietnamese government, national, international and social media and marketing campaigns featuring celebrities.

The response of each participant was tested to see whether there was an association between the sources of influence and a respondent’s perception of a rhino horn or elephant ivory consumer. Being influenced by the media, campaigning organisations, or (less strongly) family and friends was significantly positively associated with individuals who perceived consumers of horn or ivory as ‘wealthy’, suggesting these messages may be given out by these sources of influence (see Annex 8.1 for the full results). There was a significant positive association between respondents who perceived consumers of horn or ivory in a ‘negative’ light and whether they were influenced by campaigning organisations, which is unsurprising considering the context within which wildlife and environmental organisations are raising awareness around the illegality of rhino horn and elephant ivory trade. More interestingly, those who said their views on elephant ivory and rhino horn were influenced by business contacts and work colleagues were significantly less likely to view consumption negatively.

- **Summary of insights arising from the primary research**

The findings from the primary research offered interesting insights into research techniques from brand marketing and psychology that could be adapted and adopted across the conservation community, in order to improve knowledge and understanding and fill knowledge gaps, in relation to the attitudes, motivations, and consumption of wildlife products. A clear finding was that the depth of understanding that can be obtained can be substantially enhanced by combining different elements within a single survey, which can be done in a user-friendly way that does not place an undue cognitive and time burden on respondents. Here, the project team combined an indirect questioning technique to get at prevalence of use, with marketing research approaches (brand attachment and emotional territory mapping), along with demographic information, in a survey that more than 70% of those who started it completed.

The research therefore provides a springboard for using this approach with a larger sample. There is also a need to broaden the survey to include a range of demographic groups, in order better to understand how different uses of rhino horn and ivory products are distributed within the population as a whole; this will enable better identification of appropriate target groups for intervention. The combination of approaches contained within the short questionnaire enables a range of questions to be asked, which to date have not been addressable together (Figure 16). The questionnaire could also be administered in person to target groups which are not comfortable with the internet, for example older age groups.

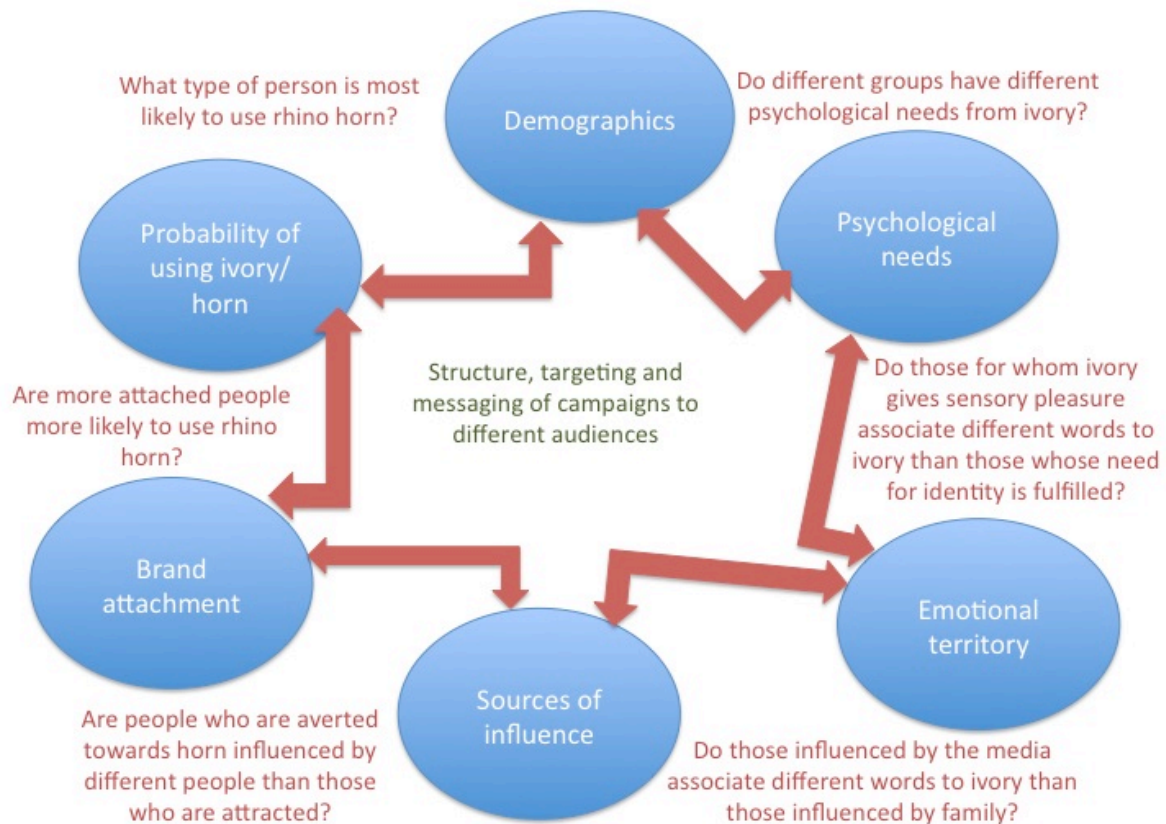


Figure 16. Examples of questions that can be answered by the combination of approaches piloted in the primary research component of the project

7. CHANGING DEMAND

7.1 What the project team did

The team conducted a broad (i.e. rather than systematic) evidence and literature review (ELR) in line with the gap identified through the project scoping study: i.e. to explore what information in Chinese and Vietnamese language literature identified as success factors and lessons learned around influencing consumer behaviour, in fields beyond conservation.

Summary of the methodology employed in the ELR

The ELR focused on online sources, including specific searches on academic e-platforms. Material was selected according to what was available and easy to access within the short time period available in which to conduct the research, and relevance to the research focus. This was judged by two researchers selected specifically for their expertise and insights into the subject matter. Neither were conservation experts, but rather had insight into consumer psychology, social marketing and other facets of SBCC and behavioural change beyond conservation. Expert feedback on draft materials was provided according to the experts' ability to respond within the timeframe available. The following two questions provided a focus for effort:

Question 1: What types of 'behavioural change' have already been demonstrated in Chinese and Vietnamese society? What does the local language literature say about 'behavioural change'? How does it shed light on the pressing issues we try to address?

Question 2: Thinking about fields beyond nature conservation—for example, in relation to Chinese and Vietnamese health and wellbeing behaviours; and/or natural resource efficient and sustainable lifestyles; and/or those relating to luxury product consumption (ranging from jewellery, clothes, shoes, handbags, through to wines, antiques and collectable items); or public safety in terms of better driving campaigns or anti-drink/drive campaigns: What does the local language literature suggest are the most influential factors in changing consumer behaviour?

The research commenced with a consideration of how the topic of behavioural change was characterised or described in the Chinese and Vietnamese languages in general. This provided some insights into how the subsequent research could be framed, within the parameters of attempting to identify some of the most important factors influencing behavioural change based on case studies. Cultural, political and other contextual factors were also considered, and further reference to behavioural change theoretical frameworks was made to ground the work conceptually where possible.

Early on in the process it was observed that slightly different approaches needed to be adopted in the countries studied. For example, in China, it was already known that behavioural change tends to be approached in a more diffuse manner than in Viet Nam; it is often a social agenda driven by the government on a macro level, with an organic process catalysed by a range of cultural and psychological factors on an individual level. Therefore, the macro-level 'Needs Opportunities Abilities (NOA) Model', MINDSPACE

and 4Es' approach, and the individual-level 'Theory of Planned Behaviour' (TPB), were referenced in the case studies. In Viet Nam, it was observed that behavioural change processes tended to take the form of more structured 'social-marketing' (essentially, marketing for a social good) campaigns, using benchmark criteria. Thus, these criteria were also referenced in the case studies. More information regarding the theoretical frame of reference guiding this work, is given below.

The searches for behavioural change initiatives in China were performed through databases and search engines, the website of the State Council of the People's Republic of China and other governmental departments, as well as local academic journals and newspapers. A combination of keywords was used (Table 7).

Table 6: Search terms for the Chinese component of the ELR

Keywords/phrases in Chinese	English translation
中国人	Chinese
行为、习惯、动机	Behaviour, habit, motivation
热潮	Heat, craze
研究、分析	Analysis, study
行为改变理论	Theory of behavioural change
如何改变中国人行为	How to change Chinese behaviour
中国如何形成热潮	How to form a craze/trend in China

The Vietnamese component of the ELR focused on the terms and phrases indicated in Table 8. As with China, priority was given to the Vietnamese language literature (rather than literature more broadly covering behavioural change in Viet Nam). The English language equivalents of these terms and phrases were also used in the search, given that behavioural change initiatives in Viet Nam were often undertaken with funding from, or in partnership with, international development agencies and/or foreign NGOs and English language versions of these studies were available (Truong & Hall, 2013).

Table 7: Search terms for the Vietnamese component of the ELR

Key terms and phrases	English language equivalents
Truyền thông thay đổi hành vi	Behavioural change communications
Can thiệp sức khỏe cộng đồng	Public health interventions
Can thiệp an toàn cộng đồng	Public safety interventions
Rửa tay bằng xà phòng	Handwashing with soap
Giảm thiểu hút thuốc	Reduce smoking
Du lịch bền vững	Sustainable tourism
Mua sắm hàng xa xỉ/hiệu	Luxury/branded product consumption
Sáng kiến, chương trình, dự án	Initiative, programme, campaign, project
Marketing xã hội thay đổi hành vi	Social marketing behavioural change
Dân số và kế hoạch hóa gia đình	Population control and family planning
Việt Nam, Hà Nội, thành phố Hồ Chí Minh, etc.	Vietnam, Hanoi, Ho Chi Minh city, etc.

Case studies from both China and Viet Nam considered, where possible, the mechanism employed (i.e. referencing the theoretical frameworks included below, methods employed (i.e. the communication channels and/or communicators used); and messaging employed (i.e. the quality, tone and approach used in the message—

whether positive or negative, focusing on benefits or barriers to the individual or society as a whole, etc.) in order to achieve changes in consumer behaviour. The project team also attempted to include information on the quantifiable impact achieved where this information was available.

Findings were discussed with experts available in April 2015 in order to identify the relevance to, and implications for, conservation-focused SBCC and behavioural change initiatives aiming to reduce demand for illegal wildlife products. Experts with experience in behavioural sciences, social marketing, social psychology, advertising, marketing, consumer engagement strategies and media/PR, were invited to provide their advice and any additional insights around quality and tone of messaging, the role governments might consider playing in issuing messaging and what the private sector and civil society might be in a good position to do to reinforce or complement this. The insights in the Findings section below reflect these discussions.

Frame of reference for the ELR

As had been reinforced through the scoping study for this project, differences were evident between ‘DR’ campaigns being delivered to raise awareness and change what is socially acceptable, and those aiming to change behaviour. Many approaches fit within a Social and Behavioural Change Communications (SBCC) framework, although the ELR focused more on BCC, rather than broader socio-ecological components. Almost all the initiatives considered in the scoping study seemed to employ large-scale mass media communications, largely aimed at raising awareness around elephant/rhino protection issues and broader aspects of associated conservation concern. As had been previously noted, this approach is important as it ‘sets the tone’ around what is and is not socially acceptable behaviour, but without a complementary approach targeted to change actual consumer behaviour, it will not necessarily deliver the conservation benefit required.

In 2011, project partners TRAFFIC and WWF developed a common frame of reference for what would be effective in changing consumer behaviour, following consultation with experts through a workshop in Hong Kong. Discussion at this workshop explored what principles and approaches should be used in relation to ‘Messaging to reduce consumer demand for tigers and other endangered wildlife species’ in Asia²⁵ (Figure 17).



Figure 17. Considerations in planning behaviour change frameworks

²⁵ <http://www.traffic.org/home/2011/11/25/creative-experts-devise-multi-layered-strategies-to-curtail.html> (accessed 20.06.13) and http://www.traffic.org/general-reports/traffic_pub_gen47.pdf

Experts at that meeting agreed the following principles should apply to any behavioural change intervention:

An objective and science-based approach, based upon the latest available research: Research must be conducted to provide an objective and scientific basis for identifying and prioritizing those target consumer groups, products and drivers of consumption that need to be addressed, and to provide data for designing and developing interventions. Some aspects of this research would be difficult and a sound methodology for such research should be identified, bearing in mind that the consumers to be researched would likely be aware that their activities are illegal.

Targeted solutions aimed at key user groups: Proposed actions will vary for different consumer groups and products. Each of these target groups will have different motivations for using the same product and the strategies needed to address these motivations will be different. Solutions need to prioritize and target those consumer groups that have the most significant influence on illegal consumption.

A wide and comprehensive stakeholder involvement: There are likely to be diverse interests and social groups that need to be represented in any effort to reduce demand for illegal products. These include governmental agencies involved with CITES management, law enforcement, health and public awareness and education; traditional medicine practitioners and their associations; consumer groups; and key 'influencers' who can reach out to consumers. The entire range of stakeholders will need to be involved to confirm that approaches taken are the most appropriate and effective.

Drawing upon diverse expertise: Changing human behaviour is a very complex area of work and there is a wide palette of behavioural sciences that could inform conservation efforts. Research, planning and development will need to involve different partners, agencies, research institutions and other actors to fill knowledge gaps. This should include participants from a wide range of professional and institutional backgrounds, including representatives from various governmental departments, the corporate sector, advertising and marketing companies, universities, social research groups, conservation organisations and inter-governmental organisations. The collaboration of this diverse range of expertise and experience is essential to the success of the process.

Government-led: 'Ownership' and implementation of the process must be led and driven by the governments of the countries concerned, rather than by international or non-governmental organisations. Stakeholder workshops and meetings convened by the government, in partnership with others, will help to ensure successful implementation of consumer behavioural change initiatives. International partners could provide support in the form of coordination and technical expertise and facilitation. High-level support from government would be crucial to success.

The 'Five step approach'

In addition to the above Principles, experts also agreed that the following 'Five Step Approach' to reducing demand for threatened species products was a useful process for behavioural change strategic approaches²⁶;

1. Behavioural identification
2. Audience segmentation
3. Behavioural modelling
4. Marketing framework development
5. Initiative implementation, impact evaluation and iteration

This 'five step approach' therefore provides a primary frame of reference for behavioural change initiatives considered within the project ELR, with references made to specific models and approaches such as TPB, 4Es and MINDSPACE, forming a consideration specific to Step 3. Each of the five steps has been defined in more detail in Box 1. Although they are distinct steps, they are interlinked and act as building blocks to develop effective behavioural change initiatives; for example, if you do not have a clear behaviour, then you cannot identify possible audience segments.

Box 1. The five step approach

- 1. Behaviour identification: Identifying specific behaviours around the provision/purchase/use of illicit products (which include those containing parts and derivatives) from threatened species;*
- 2. Audience segmentation: Identifying psycho-demographic, attitudinal and other aspects of target audience profile, in order to gain insight into the specific triggers and drivers for these behaviours; the population segments to prioritise to ensure greatest impact;*
- 3. Behaviour modelling: Identifying which behavioural change models can be practically applied effectively to tackle these specific triggers and drivers, through precisely targeted SBCC;*
- 4. Marketing framework development: Designing social marketing initiatives/SBCC employing the most effective messages; messengers and mechanisms and a clear set of objectives/baseline;*
- 5. Initiative implementation and impact evaluation/iteration: Deliver the DR initiative, evaluate impact and refine/adapt messaging and approaches for subsequent re-implementation*

Theoretical models underpinning the ELR

Our approach to the ELR drew on several behavioural change models, frameworks and theories, as opposed to simply concentrating upon one. This is due to the fact that they all have their strengths and limitations. For example, behaviour does not arise from static 'one-off' decisions, but rather decisions are made in stages (Schwarzer, '92), so none of the models and frameworks provides a full explanation. However, they try to

26 For example, those included within: UK GSR Behavioural change Knowledge Review. *Practical Guide: An Overview of Behavioural change Models and Their Uses* (Darnton., A. et. al , 2008)

unpack the relative importance of various factors, recognising that what people say is not necessarily a guide to what they will do, and that there are numerous antecedent and situational variables. It was beyond the scope of the ELR to comment on these further, but further consideration is available in *Powers of Persuasion* (Burgess, 2016) and in the contents to be found within the Wildlife Consumer Behaviour Change Toolkit (www.changewildlifeconsumers.org)

The theories, frameworks and models used in the evidence and literature review, to help appraise and contextualise the findings, were:

MINDSPACE and the 4Es

MINDSPACE and the 4Es were both developed as policy frameworks; to highlight the key elements needed in order to achieve sustainable behavioural change. Whilst the 4Es was originally developed by Defra, MINDSPACE was created by the UK Cabinet Office and Institute for Government. MINDSPACE: Influencing behaviour through public policy sets out a 'checklist' against which to assess policy initiatives, using a mnemonic thus; Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitments and Ego. MINDSPACE was not developed as a standalone framework, instead it was designed to build on existing methods of policy-making (such as the 4Es).

The 4Es are four actions which should underpin attempts to change behaviour as this relates to efforts to shape motivation: Enable, Encourage, Engage, and Exemplify (Figure 18). MINDSPACE requires two supporting actions: Explore (which takes place before policies are developed) and Evaluate (which determines the impact of a policy).

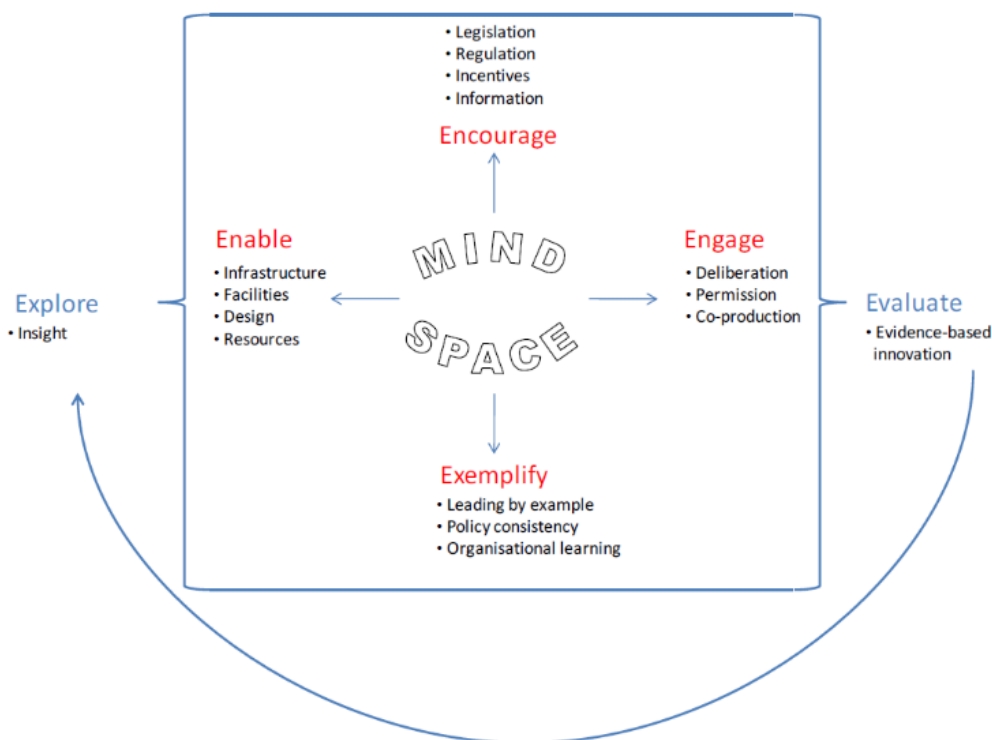


Figure 18. MINDSPACE & 4Es. Source: <http://www.instituteforgovernment.org.uk/sites/default/files/publications/mindspace.pdf>

Theory of planned behaviour

The theory of planned behaviour (TPB: Ajzen, 1985) was especially germane to the Chinese luxury goods consumption case study. This well-known theory captures key cognitive elements of a decision-making process for a particular behaviour (Figure 19). Put simply, according to the TPB, behaviour is dependent on three variables: beliefs, attitudes and subjective norms. These variables combine to form an intention to act.

The strength of each variable in determining intentions varies across cultures (Hagger, 2007). In the literature, the subjective norm is repeatedly found to be an influential factor for the Chinese (Bagozzi *et al.*, 2000). Changing subjective norms may therefore be a powerful approach to effect behavioural change in China. For example, on the issue of curbing illegal ivory trade, China's State Forestry Administration recently issued a press release entitled 'China is willing to create a positive social environment for suppressing illegal ivory trade' (Lu, 2015).

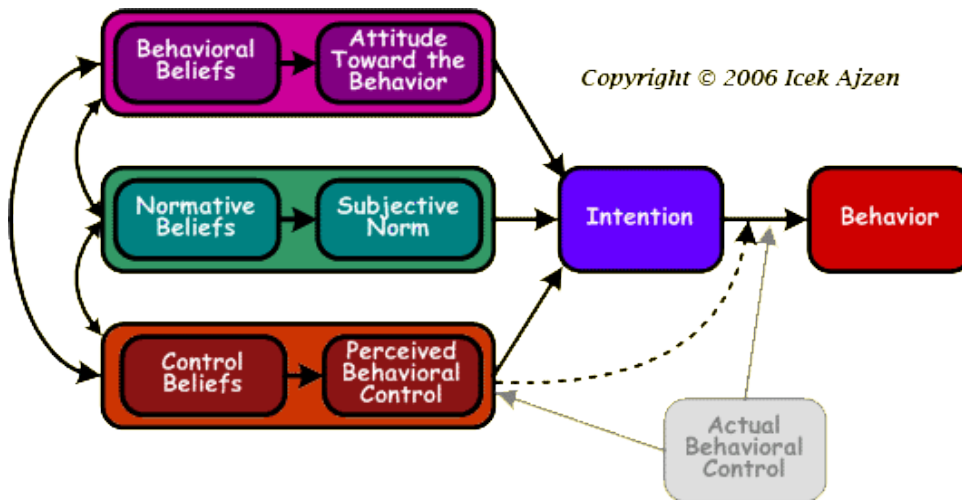


Figure 19. The theory of planned behaviour

In addition to these two theoretical frameworks, two other well established behavioural change models and theories were considered:

Vlek *et al.*'s 'needs opportunities abilities' model: consumers are shown to require a combination of needs (largely emotional motivators), opportunities, and abilities (e.g. adequate discretionary income) in order to purchase a product.

Roger's diffusion of innovation theory: this demonstrates that the first to adopt an innovation (e.g. new behaviour) are 'innovators'. These could have a significant influence on the broader target audience.

Limitations and further research needs

Most of the theories, models and frameworks in the ELR detailed psychological constructs which are fairly intrinsic to human nature and should be stable over time and applicable to a range of cultures. Therefore, there is no reason why they cannot usefully be applied to behavioural change in any country. The ELR only considered a small number of behavioural change models which could be brought to bear on this complex

issue. Further investigation is therefore required to identify which of these psychological constructs can be best applied in any given circumstance, to interpret and represent the motivations and preferences of the Chinese and Vietnamese consumer. Such investigation is beyond the scope of this research, but highlighted there as an important avenue for the future. Ultimately, the conservation sector as a whole would benefit from the development of a framework such as a decision tree, to identify which aspects of behavioural change strategic approaches can be applied in which circumstances, with which specific consumer groups, to achieve which outcome. TRAFFIC is developing this, plus SBCC training materials, accordingly.

7.2. What the project team discovered

Findings in China

China is not new to behaviour change on a national level: The need for consumer behaviour change underlies some of the strategic challenges that many countries, including China, now face. Policy objectives focusing on population control, pollution reduction, shift of economic drivers from investment to consumption, anti-corruption reforms, civil education and so on, are a key government priority which require behaviour change at various levels of society. China fortunately has a long and proven track record of implementing such behavioural change and SBCC approaches, and thus is in a strong position to meet these challenges, and to influence the populace towards changes in the way they act in their personal, social and professional lives. Change in China has previously been achieved through a combination of action at the ‘macro-level’ (e.g. government issuing a policy or new legislation, and then information around the political and cultural ideology driving it) and at the individual level—to shape motivation. The China element of the ELR considered aspects of why some of these were effective at the macro level, but also looked in detail at what worked in shaping consumer motivations at a more individual level. This was to understand more clearly how individual motivations were shaped and consumer behaviour changed, and how it could be applied to reducing demand for illegal wildlife products. A legislative framework for macro-level action to starve the supply of illegal wildlife products into the Chinese market is already in place.

Examples of past campaigns for behavioural change: China has implemented a number of significant social campaigns that required the Chinese people to adopt new behaviours or replace or abandon existing ones. These requirements for behavioural change were based on a set of new values, ideologies or national development plans unilaterally communicated to the people. An example of adopting new behaviours was the call for families to set up backyard furnaces to speed up industrialization and re-orient their lives during the Great Leap Forward of the 1950s and 1960s. The ideology at work was clear—surpassing the industry of the United Kingdom and the United States was a top national priority, and one that every Chinese citizen should participate in order to fulfil this mission. With regard to replacing or abandoning existing behaviours, an example is the one-child policy introduced in 1979, restricting couples to having only one child rather than many offspring in contrast with the traditional wisdom of ‘having fuqi (有福气)’, namely that fertility means fortune and blessings. The new values promoted were

that sustainable development of Chinese society was more important than familial fertility. Interestingly, these past campaign approaches have been very focused on control measures (as opposed to voluntary behavioural change). However, they do fit with the behavioural influence ‘Ego’ in MINDSPACE, as in all these cases of the State advocating behavioural change in China, social interest was placed above individual desires. SBCC approaches were adopted accordingly.

Government leadership: There are some commonalities among major behavioural change campaigns in China. Firstly, from the Mao Zedong era to the present day, they are invariably spearheaded and planned by central government and executed by local government according to top-down guidelines, following the flow of governance power. The desired change was mandatory, not voluntary, and the values undisputable. With social norms established in this manner, the major motivational factor for associated behavioural change was more avoidance of social exclusion or legal prosecution, than pursuit of individual motivations, needs or desires.

Surveys of the Chinese populace in 2012 suggested that Chinese people believe that governments should intervene to change behaviour; China ranked highest out of 24 countries in the surveys, where people from each country were asked whether the government should make unacceptable behaviours more difficult or expensive.

Unlike government-led campaigns, those launched by non-governmental organisations (NGOs) in China face a range of challenges; such as uncertainty of legal status, reliance on the leaders’ personal charisma rather than institutional mechanisms, capacity constraints and limited networking among NGOs (Li, 2011).

Government-led campaigns, considered within the theoretical frame of reference provided by Gatersleben and Vlek’s (1998) ‘needs opportunities abilities’ (NOA) model, typically assert more influence over ‘opportunities and abilities’, than ‘needs’. This is illustrated by Chinese Government’s State Council notice and associated efforts to eliminate the use of thin plastic bags in 2008 (State Council PRC, 2008). The notice lists six measures to be carried out by local governments. Only one out of six measures pertains to changing consumers’ attitudes (Table 9, point 5). This campaign was very effective, successfully eliminating the use of 24 billion such bags in the first three years.

Table 8: Measures required under China’s State Council notice on banning thin plastic bags in 2008

Measures	Targeted stakeholders
1. To ban the production, sales and usage of ultra-thin plastic shopping bags: 禁止生产、销售、使用超薄塑料购物袋	Producers, merchants, users
2. To implement user-pay principle for the use of normal thin plastic bags: 实行塑料购物袋有偿使用制度	Merchants, users
3. To step up supervision and control over use of banned plastic bags: 加强限制销售使用塑料购物袋的监督检查	Producers, merchants
4. To enhance recycling of plastic bags 提高塑料的回收利用水平	Environmental departments of local governments
5. To create a positive environment for limited use of plastic bag	Users

大力□造限□限售限用塑料□物袋的良好氛□	
6. To strengthen responsibilities of relevant governmental departments: 强化地方人民政府和国□院有关部□的□任	Relevant departments of the government

Patriotism: Given the strong role of the government in people's daily lives, an individual's compliance with the government's requirements for behavioural change has been associated with patriotism. Public health issues spanning environmental hygiene, obesity reduction and disease prevention, are managed by the Municipal Patriotic Sanitation Campaign Committees at Provincial, Prefectural, County and Township levels. The work scope and initiatives of all these committees are determined by the State Council of the People's Republic of China (PRC). The State Council issued an 'Opinion Brief on Furthering Patriotic Sanitation during the New Era' on 13th January 2015 (State Council PRC, 2015) that lists all the expected areas of improvement in the sanitation sector, many of which require not only management by administrators, but also change in citizens' behaviour. The term 'patriotic' is used repeatedly by many from the very top level of the political council to the local administrators of the campaigns. Thus within the government's narrative, behavioural change for benefit beyond oneself is recognized as a patriotic act.

The luxury goods market in China: A major factor that has more recently significantly influenced consumer behaviour in China has been the rise of luxury brands. China has become the largest luxury market globally, with US\$19 billion in global sales in 2014. Thirteen million upper-middle-class households can now afford luxury products such as handbags, perfumes, accessories etc., Some wildlife products can be regarded as fitting within a luxury product bracket because some of the key considerations for purchasing these two types of products coincide, such as their use as gifts and preferences for exclusive products and supreme craftsmanship.

Communication channel and engagement method: Luxury brand marketers were found to attract Chinese consumers through a mix of in-store (44%), internet (21%), word of mouth (14%), traditional media (13%) and direct marketing (7%) methods (McKinsey, 2011). The experience consumers have in a store was found to be especially important—e.g. their evaluation of products, conversations with salespeople, demonstrations of products in a store, and their perusal of an in-store catalogue or video display, could all be influential in promoting impulsive purchases. Chinese shoppers are increasingly venturing online also; McKinsey, 2012 found that those who made purchases of luxury items online at least once in the previous year, rose from 2% in 2010 to 8% in 2012. Further, the amount they spent increased from 1% of total luxury spending to 3%. The role of social media and e-commerce in illegal wildlife trade has been extensively reviewed by TRAFFIC²⁷

Messaging: Luxury brand marketing messages were found typically to focus on the primary product attributes consumers sought; including international brand, craftsmanship, good material and innovative design. International brand and craftsmanship were found to be the most important overall. Chinese luxury consumers'

²⁷ <http://www.traffic.org/home/2015/11/24/traffic-and-tencent-sign-agreement-to-tackle-illicit-wildlif.html>

preferences for international brands was associated with the fact that to many of them, the 'made in China' label is associated with poor quality and low price, while foreign brands are perceived to have better design, better quality and attractive brand awareness. This is potentially why international luxury brands preserve western-centric images in their advertisements in China—i.e. to maintain the perception of the international brand and high prestige. Image searches on the Internet did not result in different repertoires of images for Chinese-specific and generic searches. There is only a minimal replacement with Chinese text to convey poetic brand messages, such as the one used by Hermes in 2012 ('Time on your side' translated into Chinese '时光相随'.) illustrated in Figure 20:



Figure 20. Hermes ad. Image credit: Hermes campaign 2012

The other trend observed was a craving for great craftsmanship. This preference of the Chinese consumer may have a historical root—the Cultural Revolution (1966–1976)—as well-crafted cultural products were typically removed from society during this period. Their relative scarcity now therefore, combined with the increasing ability and aspiration to display new wealth, have boosted the demand for such objects and their market value. A blue and white porcelain plum vase with a Qianlong mark (Qianlong was a highly respected emperor of the Qing Dynasty in 1736–95 and such a mark signifies preciousness) was recently sold for USD7.7 million—600 times its reserve price of USD10–15 thousand (Lu, 2013). Chinese-carved ivory is an example of a wildlife product that can be considered within a 'luxury product' bracket and is similarly valued for its craftsmanship.

Psycho-demographics evident for luxury goods consumers: Those aged 20–40 years old constitute the main body of luxury goods consumers in China. Saving face and gifting are believed to be two main motives for luxury buying, which is in contrast with American customers, who use luxury goods to meet personal needs and fulfil their lifestyles (Wang *et al.*, 2011). A potential explanation is that the Chinese have a more interdependent self-concept while Americans have a more independent one. Wang *et al.*

(2011) conducted a factor analysis study that identified six motivating factors for luxury goods purchases: self-actualization, social comparison, others' influence, investment for the future, buying for a special event, celebration and buying out of emotion. Among these, social comparison and others' influence (families, friends, colleagues, etc.) repeatedly come across as Chinese-distinctive characteristics for luxury consumption (Wong & Ahuvia, 1998).

Subjective norm—functional value for mianzi and guanxi: A luxury product, as with all other products, was found to offer three values; hedonic, functional (or utilitarian) and symbolic. A luxury product would typically be considered to provide its owner primarily with hedonic value (e.g. pleasure from owning a well-design product with superb craftsmanship) and symbolic value (ownership of a luxury product is a symbol of wealth and status). Its functional value for the Chinese though was also found to be remarkable, to the extent that it can be regarded as necessity. This is because, within the context of a collectivistic culture, owning a luxury product to many Chinese is a necessary measure to gain or give *mianzi* ('face') as part of building and maintaining *guanxi* ('interpersonal relationships'). Social acceptance is a clear incentive and an important behavioural influence in the MINDSPACE framework. By gifting an important person a luxury good, the giver displays face by being financially capable of the act, and the receiver gains face by being respected or valued enough to be given a precious gift (Ahlstrom, 2009). Related to *mianzi*, luxury consumption has been suggested as useful for leaders in the private sector in order to gain social acceptance in their daily life through the visible use of luxury products.

Is attitude to the behaviour or the subjective norm more important? The expectance of pleasure from fulfilling hedonic, functional and symbolic values relates to the attitudes component of the theory of planned behaviour. However, if the functional value is socially important, the fulfilment of this value would be a form of subjective norm. Gratifying an ever-growing appetite for hedonic pleasure is contradictory to the Chinese traditional virtue of humility and thriftiness. Confucius said in the Analects that 'The gentleman understands what is moral; the small man understands what is profitable' ('君子□于□, 小人□于利'). 'The profitable' is readily associated with luxury goods in contemporary China, and therefore if there is no 'morality' given to those goods, a Chinese person should not care about owning them. Wong and Ahuvia (1998) commented that, 'when one [the Chinese] is seen in possession of luxury goods, one is not labelled a selfish materialist, but rather is seen as an exemplar of social virtues in fulfilling familial obligation [or obligation for other 'in-groups']'. Therefore, the functional value of luxury goods for lubricating Chinese interpersonal relationships may give moral justification to the owning of such goods, despite the arguably 'profitable' attribute which they have. After weighting the relatively small 'profit' against the great 'morality', a consumer can clear their conscience and purchase luxury goods.

Gifting is more than the gift: From this, it follows that the attributes which the luxury purchaser seeks must be recognised by the social group to which they belong – i.e., so that the functional value of the luxury goods can be realised. In the case of gifting, the concerned social group is that of the receiver rather than of the giver, because it is the

perception of that social group that determines the value of the gift.

- **Summary of insights arising from the Chinese component of the ELR**

Material items can be easily transported, but different meanings are given to them across cultures (see for example Brannen, 1996). This general observation applies to luxury good consumption in China, as Chinese consumers perceive, select and utilise luxury goods differently to their Western counterparts. For luxury consumption, the Chinese look for attributes that benefit them in their interpersonal life (e.g. *mianzi*). When applying the lessons learned to wildlife conservation, such a functional value of luxury consumption would require not only a focus on the individual consumer's intention, but more importantly a focus on the consumer's social groups; in line with SBCC approaches. For example, efforts could explore the effectiveness of replacing an undesirable behaviour with a new one, compared to simply abandoning it. This emphasises the value of addressing 'key non-consumers' as well; they are people who affect the intention of the consumers through shaping the subjective norm. There is a need to ensure that the replacement option is preferable in their eyes. Second, when proposing alternatives, the same desirable attributes of luxurious products (brand, craftsmanship, material and design) can be emphasised.

Findings in Viet Nam

Behavioural change in Viet Nam: Behavioural change initiatives have been launched by the Vietnamese government since the 1960s. For example, in the field of family planning, in 1964 the government promoted the two-to-three child policy in the north, which was then launched nationwide after 1975 (Pham, Hill, Hall, & Rao, 2013). In the late 1980s when the country embarked on the Renewal (Đổi Mới) process, this policy was revised, and families were encouraged to have one to two children each. Similarly to China, the Vietnamese government's early initiatives were largely regulatory and sought to impose behavioural control (viz. the government issued legislation and policies which were then followed by the citizens), however, some focus was also placed on changing local people's (cultural) beliefs (i.e. that more children were associated with greater happiness).

Patriotism: The promotion of patriotism among the public in Viet Nam has been through a combination of education and awareness raising activities. This has typically focused on engaging the populous in developing the country economically; examples include the Đổi Mới policy (1986–present), and the 'Study and Follow the Moral Example of Ho Chi Minh' campaign (2007-present), which have sought to preserve the Marxist-Leninist ideology and Ho Chi Minh's thoughts. As Viet Nam was opened to the outside world, in the late 1990s a considerable number of international development agencies and foreign NGOs started operations in the country, and undertook behavioural change initiatives (Sage & Nguyen, 2001; Truong & Hall, 2013).

Case study identification: Behavioural change, as a concept and approach, was therefore identified as having an established track-record in the Vietnamese context. Nineteen initiatives were identified as having an explicit focus on behavioural change,

and included sufficient information to consider for the ELR (Table 10). Of these, four initiatives were selected for case study analysis given that (i) they were undertaken in discrete areas (e.g. public health/pro-social behaviour/sustainable tourism); (ii) they spanned a sufficiently long period of time (from the late 1990s to present); and (iii) they were undertaken in geographically representative regions of Viet Nam (north, central, and south). The four selected case studies (Table 11) were considered using a social marketing lens, as illustrated by Table 6, and informed by the work of Andreason and also Hastings *et al.*, 2000; McDermott, Stead, & Hastings, 2005; Smith & Strand, 2008; Stead *et al.*, 2007; Truong & Hall, 2013.

Table 9: Elements of social marketing considered in the Viet Nam Review

Elements	Description
Behavioural change goal	Programme interventions consider behavioural change as an objective and adopt appropriate measures for evaluation.
Audience research and segmentation	Interventions are designed based on understanding of audience needs and wants. Formative research is conducted to achieve this target. Intervention elements are pretested. The audience is divided into homogenous segments.
Social marketing mix	Interventions use the set of 4Ps in the traditional marketing mix: Product, Price, Place, and Promotion. Interventions that only use the Promotion element are social advertising or communications. Other Ps may include People and Policy. The use of these elements should be flexible.
Exchange	Something the target audience are interested in or want is offered to motivate behavioural change. It may be tangible (financial incentives, rewards) or intangible (emotional satisfaction, community pride).
Upstream targeting	Programme interventions seek to influence other people relating to the target audience (e.g., local authorities, professional organisations, policy makers).
Competition	Competing behaviours are considered by program interventions. They include internal (e.g., the target audience's current behaviour) and/or external factors (e.g. weak policies). Strategies are used to eliminate or minimise these factors.

Adapted from Andreassen (2002); McDermott et al. (2005); Stead et al. (2007); Truong & Hall (2013)

The final evaluation reports of the selected initiatives were used as the primary reference points for production of the *Findings* section. Comparable information was extracted on the initiative's background, rationale, objectives, timeframe, activities, and results achieved. These documents were then analysed against the framework provided in Table 10.

Table 10. Four selected behavioural change initiatives in Viet Nam

Initiatives	Core Approach	Marketing Analysis	Messaging
<p>Name: <i>Handwashing Behavioural Change</i> Location: Hung Yen, Tien Giang, Thanh Hoa provinces Duration: 2006–2007 Sponsors/Partners: Handwashing Initiative, Water and Sanitation Program (WSP), Vietnam's Ministry of Health, local Women's Union References: Chase & Do (2008), WSP (2011)</p>	<p>FOAM (Focus on Opportunity, Ability, and Motivation)</p>	<p>Behavioural change goal: Encourage mothers of children under five to wash hands with soap. Audience research and segmentation: Baseline study conducted in five rural and peri-urban areas of eight provinces, using product trials, interviews, focus groups, observations, and surveys. Marketing mix: Training workshops, technical support, members of local women's union, village health workers, teachers, television, print materials, community events, household visits, market meetings, loudspeaker announcements, cooking contests, club meetings. Exchange: Soap and water made available for washing, sense of being a 'good mother'. Upstream targeting: local Women's Unions, grandparents, caregivers, schoolchildren. Competition: Local mothers' belief that washing hands with water was enough.</p>	<p>- Type: Messages highlighted the importance of using soap to wash hands, and promoted the sense of 'good mothers' (positive); and emphasised the risk of washing hands with water only (negative).</p> <p>Message 1: 'Handwash with soap for the health and development of your children'.</p> <p>Message 2: 'Hands are not clean if you wash only with water, soap is needed'.</p> <p>- Channels: National and local TV, posters, local Women's Unions, grandparents.</p>
<p>Name: <i>Reducing the Social Acceptability of Smoking</i> Location: Thai Binh, Da Nang, and Be Tre provinces Duration: 2005–2008 Sponsors/Partners: Healthbridge Canada, Vietnam Public Health Association (VPHA) References: Healthbridge (2014a, 2014b), VPHA (2009)</p>	<p>Public Communications</p>	<p>Behavioural change goal: Reduce smoking behaviours amongst smokers; Promote confidence amongst non-smokers in asking smokers to stop smoking in their presence (target audience: male smokers aged 20–60 living with non-smokers, and non-smoking females aged 18–55). Audience research and segmentation: Formative research and baseline surveys conducted to inform the development of materials and the design of a media campaign. Marketing mix: media campaign, community education program, Women without smoking</p>	<p>Type: Messages urged the audience to speak up for their own health, their loved ones and surroundings (positive); and emphasised the danger of smoking (negative).</p> <p>Message 1 (for non-smokers): 'Speak up for your health and your beloved' and 'Speak up for your health and surroundings'.</p> <p>Message 2 (targeting smokers): 'Every cigarette kills'</p>

Initiatives	Core Approach	Marketing Analysis	Messaging
		<p>relatives club, national and local TV and radio channels, print materials, training workshops, local newspapers, Women's Unions, schoolchildren and teachers.</p> <p>Exchange: Smoke-free areas established in local communities.</p> <p>Upstream targeting: Members of local Women's Union and Department of Education and Training.</p> <p>Competition: Public acceptance of smoking, and unawareness of the impact of active and passive smoking; difficulties in implementing smoking prevention policies.</p>	<p>Channels: TV, radio, poster, leaflets, talk shows, training workshops, newspapers and magazines, local Women's Unions, schoolchildren and teachers.</p>
<p>Name: <i>Forest Protection and Rural Development</i></p> <p>Location: Cat Tien NP and Chu Mom Ray NR</p> <p>Duration: 1998–2004</p> <p>Sponsors/Partners: World Bank (WB), Dutch Government, Vietnam Ministry of Agriculture and Rural Development</p> <p>Reference: WB (1997, 2007)</p>	<p>Integrated conservation and development</p>	<p>Behavioural change goal: Prevent illegal harvesting and transport of forest products, reduce forest fire, reduce local people's dependence on forest resources (target audience: poor ethnic minorities living within the buffer zones of the National Park and Nature Reserve).</p> <p>Customer research and segmentation: participatory rural appraisal, community consultation, socioeconomic and biodiversity baseline surveys conducted.</p> <p>Marketing mix: ecotourism programs, awareness campaigns for community members and school pupils, staff training, community advisory and working groups, commune forest protection groups, management regulations.</p> <p>Exchange: diversified livelihood options (new farming techniques, crops, livestock, farm management skills), ecotourism benefits.</p> <p>Upstream targeting: provincial and district authorities, social and cultural institutions.</p> <p>Competition: poor perception of conservation</p>	<p>- Type: Messages sought to develop an appreciation of benefits and support for conservation activities, and to promote interactions between protected areas and buffer zone communities (positive) by engaging local ethnic minorities in land-use planning, receiving forest protection contracts, and signing and following conservation agreements;</p> <p>- Channels: Local civil organisations (community working groups, community advisory groups), local school curriculum, poster design competition, community events.</p>

Initiatives	Core Approach	Marketing Analysis	Messaging
<p>Name: <i>Vietnamese people use Vietnamese goods</i></p> <p>Location: Nationwide</p> <p>Duration: 2009–present</p> <p>Sponsors/Partners: Viet Nam’s Politburo</p> <p>Reference: Viet Nam’s Fatherland Front Central Committee (2015)</p>	<p>Public Propaganda</p>	<p>needs, population growth and migration, expansion of arable land.</p> <p>Behavioural change goal: Encourage Vietnamese consumers to use made-in-Viet Nam products, including luxury items.</p> <p>Audience research and segmentation: Market surveys conducted to understand consumer wants and needs, and distribution networks.</p> <p>Marketing mix: A number of programmes established such as ‘The Smart Consumer’, ‘The Hidden Window’, ‘Favourite Vietnamese Goods’ poll, ‘Vietnamese people give priority to Vietnamese goods online’ campaign, ‘Improving the productivity and quality of Vietnamese goods to 2020’ campaign; national and local TV channels, radios, newspapers, magazines, consumer forums, websites, marketing events, conferences, workshops.</p> <p>Exchange: A diverse range of locally made products with reasonable quality and prices; the sense of national pride amongst local people.</p> <p>Upstream marketing: Support for local producers; consumer protection law issued.</p> <p>Competition: Vietnamese people’s preference for foreign-made, branded products, perceived relatively poor quality of locally made products.</p>	<p>- Type: Messages did not focus on the design, quality or pricing advantages of Vietnamese products. Instead, they primarily emphasise the pride of Vietnamese people being able to produce and consume their own goods, and the sense of national resilience.</p> <p>Message 1: ‘Proud of Vietnamese goods’.</p> <p>Message 2: ‘Vietnamese people give priority to Vietnamese goods’.</p> <p>- Channels: National and local media (TV, radio, newspapers, magazines), political and civil society organisations (Central People Mobilisation Committee, Vietnamese Farmers’ Association, Women’s Union, Vietnamese War Veterans’ Association, Viet Nam’s Association for Consumer Protection), as well as relevant ministries.</p>

Case study introduction: As Table 11 indicates, the initiatives differed by location, objectives, duration and funding sources. Three were implemented on a large scale: The *Handwashing Behavioural Change* and *Reducing the Social Acceptability of Smoking* initiatives were implemented in three provinces that geographically represented three main regions of Viet Nam (north, central, and south). The *Vietnamese People Use Vietnamese Products* campaign was carried out nationwide. The *Forest Protection and Rural Development* programme was implemented on a smaller scale, covering only Cat Tien National Park and Chu Mom Ray Nature Reserve. Three were undertaken with funding from or in partnership with international development agencies and/or foreign NGOs (*Handwashing Behavioural change*, *Reducing the Social Acceptability of Smoking*, *Forest Protection and Rural Development*). Only the *Vietnamese People Use Vietnamese Products* campaign was funded entirely by government. All four initiatives conducted baseline studies to understand the target audience's needs and wants, and to develop appropriate interventions. The most popular competing factors identified were the target audience's perceptions, beliefs and preferences (i.e., handwashing with water only is enough; foreign-made, branded products are of higher quality than locally made products; environmental conservation may not be important; smoking is an acceptable behaviour).

Case study overview: In order to achieve behavioural change, something that the target audience are really interested in needs to be offered. With respect to this element, tangible incentives were offered by two initiatives (the establishment of smoke-free areas by the *Reducing the Social Acceptability of Smoking* initiative and the offering of alternative livelihoods (e.g., tourism development) by the *Forest Protection and Rural Development* campaign). Meanwhile, the other two initiatives combined both tangible and intangible incentives as a means to encourage behavioural change in their target audience. The *Handwashing Behavioural Change* initiative promoted the sense of being a 'good mother', in addition to providing soap to mothers of children under five. Besides improving the quantity and quality of locally made products, the *Vietnamese People Use Vietnamese Products* campaign promoted the sense of national pride to encourage local consumers to purchase products made by local producers. While the offering of tangible incentives seemed to have a direct impact on the target audience (individuals), the use of intangible incentives was considered potentially to lead to behavioural effectiveness on a broader scale. For example, the *Vietnamese People Use Vietnamese Products* campaign's promotion of national pride aimed to lead to local consumers' interest in and preference for locally made products throughout the country—thus reducing their preference for foreign-made, branded goods. This campaign in particular seems to have good potential as a model for an illegal wildlife product campaign, given its appeal to social norms and sense of identity and collective pride (which also ties in with the results of the primary research on brand attachment on the importance of identity in determining attachment-aversion to rhino horn and ivory).

Case study evaluation methods: The initiatives drew upon the pre- and post-intervention model of effect (Doner, 2003), where self-completion surveys were conducted to measure changes in knowledge, attitude, and behaviour of the target audience (Table 12). Positive behavioural change outcomes were reported by three. Very modest behavioural change was achieved by the *Handwashing Behavioural Change*. None of the examined initiatives compared behavioural change between the target audience and a non-target audience (i.e. there were not control groups). In addition, outcomes that were based on research not conducted by an independent third party, or direct observations that were not investigated, could influence the validity of the reported behavioural change (Truong, 2014b).

Table 11. Evaluation methods used in the behavioural change initiatives and reported impacts

Initiatives	Evaluation method	Impact
Handwashing Behavioural Change	Surveys carried out before, during, and after interventions.	- Increased knowledge found about some key times for handwashing; little differential effect found on already high access to soap and water in households and only modest effects on the self-reported handwashing behaviour of mothers of children under five. Overall no improvements observed in child health or caregiver productivity gains.
Reducing the Social Acceptability of Smoking	Pre- and post-intervention surveys conducted.	- Proportion of male smokers stopping smoking in the last seven days increased from 1% (2005) to 11% (2007) in Thai Binh province; those not smoking in the presence of their spouse increased from 11% to 18%; those not smoking in the presence of their colleagues increased from 16% to 29%; substantial increase in number of male smokers not smoking in presence of young children; - The proportion of women reporting interaction with their close relatives when they smoked increased from 88% to 91%; of these, the proportion of women requesting smokers to stop smoking in front of them increased from 27% (2005) to 35% (2007). This result is attributable to the effect of message one that promotes the confidence of non-smoking women in speaking up. - The proportion of women requesting their colleagues stop smoking increased from 28% (2005) to 46% (2007).
Forest Protection and Rural Development	Pre- and post-intervention surveys.	- In 1998, 250-300 violations were reported in Cat Tien NP and 250-300 cases in Chu Mom Ray NR. Violations in 2005 in Cat Tien NP were 239 cases and in Chu Mom Ray NR were 6 cases; Violations were reported to be 0.7% in the buffer zone of Cat Tien NP and 0.6% in the buffer zone of Chu Mom Ray NR. - No conservation agreements existed before intervention. Local communes signed conservation agreements with local authorities; - There was a low level of awareness of conservation values prior to the intervention. In the project communes, 100% of government staff, over 70% of farmer households, and 80% of youth/students improved their awareness of conservation values.
Vietnamese People Use Vietnamese Products	Pre- and post-intervention surveys.	- 92% of local consumers were 'very interested' or 'interested' in the campaign; - 63% of local consumers gave priority to locally made products when shopping; - 54% of local consumers advised their relatives and friends to use locally made products; - 80% of local consumers favoured local shoes and other leather-made products - 58% of local consumers favoured local vegetables and fruit.

Messaging employed: The initiatives utilised more than one message during the course of implementation. Positive messages appeared to be used more frequently than negative ones. These messages often highlighted the (tangible) benefits of the proposed behaviour. For example, the *Handwashing Behavioural Change* initiative focused on the health of mothers (target audience) and that of their children (Figure 21a). The *Reducing the Social Acceptability of Smoking* campaign urged the target audience (non-smoking females) to ‘speak up’ for their health and that of their loved ones. As a result, the proportion of women who reported interaction with their close relatives when they smoked increased from 88% in 2005 to 91% in 2007. Of these, the proportion of women requesting smokers to stop smoking in front of them increased to 35% in 2007 as compared to 27% in 2005.

These two initiatives also utilised negative messages to highlight the health risk of the current behaviour. The *Reducing the Social Acceptability of Smoking* campaign emphasised that smoking ‘is damaging you and your child from inside’ (Figure 21b), while the *Handwashing Behavioural Change* initiative urged its target audience to wash their hands with soap because using water only would not be sufficient to get rid of germs. However, it appeared that these negative messages did not lead to the desired behavioural change in the target audience, particularly when they were delivered by local health workers and women who tended to overemphasise the risk of not washing your hands with soap (Chase & Do, 2012).



Figure 21. A) The message reads, ‘handwash with soap for the health and development of your children’. Source: WSP (2011). B) The message reads, ‘cigarettes are damaging your body and your child from inside – stop smoking today’. Source: www.worldlungfoundation.org (retrieved March 2015). C) ‘Proud of Vietnamese goods’. Source: www.tuhaohangvietnam.com (retrieved March 2015)

The 'Vietnamese People Use Vietnamese Products' campaign's messages aimed at psychological satisfaction in the target audience (Figure 21c). Similar to some Chinese government-led behavioural change initiatives discussed above, this campaign aimed to promote patriotism and national pride among the local consumers and it appeared to be effective given the substantial increases in the proportion of local consumers favouring local products. This initiative differed from the other three, in that it achieved behavioural change on a society-wide level, instead of a regional level, although it is worth noting that all initiatives were individual in their foundation.

Although each of the initiatives utilised several messages to encourage behavioural change in its target audience, it appeared that these messages remained unchanged over the entire course of implementation (several years) and over all the intervention locations (several provinces or the entire country). For instance, the *Handwashing Behavioural Change* campaign covered three provinces in three regions of Viet Nam, but there was no difference in the messages used in these provinces. In addition, the messages were not only aimed at mothers of children under five (target audience) but also caregivers, grandparents, and the public at large (when the messages were distributed over national TV channels). The evidence suggests that in all cases, the lack of a targeted messaging plan, outlining a specific message for specific distribution at a specific location and for a sufficient duration, may be a weakness.

Communication channels: Diverse communication channels were employed to disseminate the examined initiatives' messages. Mass media (TV, radio, newspapers, magazines) was the main channel through which the messages of the *Handwashing Behavioural Change* and *Reducing the Social Acceptability of Smoking* campaigns were disseminated. These were implemented in provinces where a majority of the locals had access to these media. However, these media were not as appropriate to the target audience of the *Forest Protection and Rural Development* programme, who reside in the buffer zones of Cat Tien NP and Chu Mom Ray NR, as these are remote and hard-to-reach. Print materials (e.g. posters, guidebooks) were not appropriately tailored, given that those residing in these areas are ethnic minorities and often lack formal education, particularly amongst the older generations (Truong & Hall, 2013; Truong, Hall, & Garry, 2014). As a result, local organisations, such as the Women's Union, played a very important role in acting as messengers; providing campaign information, disseminating messages, and encouraging behavioural change in the target audience. The local Women's Unions are established and funded by the local government (Truong *et al.*, 2014). At the local level, they provide support to commune and village leaders for community organisation and mobilisation. They are therefore very helpful in working with local residents and are an important behavioural change agent. Community events (e.g. cooking contests, festivals) may also be a useful tool to bring campaign messages to the attention of local people (Truong & Hall, 2013).

Caution should however be taken in using members of local community organisations to disseminate campaign messages overall. The *Handwashing Behavioural Change* initiative demonstrated that although knowledge and access to soap were not the constraints, extremely modest changes were reported in the washing behaviours of

mothers of children under five across the three provinces. This was in part because local health workers and members of the local Women's Union overemphasised health messages and the risk of not washing hands with soap, and tended to deliver the messages in a didactic manner (Chase & Do, 2012).

As the *Vietnamese People Use Vietnamese Products* campaign was launched and implemented by the Vietnamese government, a wide range of channels was used to encourage local consumers to purchase locally made products, at national and local levels. These include national and local media (TV, radio, newspapers, magazines), political and civil society organisations (Central People Mobilisation Committee, Vietnamese Farmers' Association, Women's Union, Vietnamese War Veterans' Association, Vietnam's Association for Consumer Protection), as well as relevant ministries.

The four selected behavioural change initiatives differed by location, duration and funding source. However, they all placed an explicit focus on behavioural change for the benefit of both individuals and the society of which they are a part. Different types of message (positive and negative) and channels of messaging were utilised and varying degrees of behavioural change outcomes reported.

- **Summary of insights arising from Vietnamese component of the ELR**

First, the target audience should be offered something they really need, to entice them voluntarily to adopt the proposed behaviour. The four case studies identified important barriers to behavioural change including people's awareness, beliefs and preferences (i.e. they believed that washing only with water is enough, they tended to accept smoking behaviours, their perception of forest protection was relatively low, they perceived local products as being of poor quality). Both tangible benefits (e.g. tourism benefits) and intangible benefits (e.g. national pride) were offered in the behavioural change communications. Messages that were positive and highlighted the benefits of the proposed new behaviour, seemed to be the most useful tools in promoting behavioural change in Viet Nam.

Second, three of the initiatives were implemented on a large scale. Therefore, they often relied on organisations with huge outreach working in partnership with government agencies to deliver programme interventions. This resulted in limited control by the programme implementing teams. For instance, the *Handwashing Behavioural Change* campaign was carried out in Hung Yen, Tien Giang, and Thanh Hoa provinces, where the campaign implementing team had little control over local health workers and Women's Union members. These were, however, the people disseminating campaign messages at the commune and village level. It appeared that they overemphasised the risk of not washing hands with soap, and thus largely failed to convince local mothers and caregivers (Chase & Do, 2012). This suggests that appropriate control by the campaign implementing teams should be considered in order to ensure messages are delivered properly when it is delegated to others to do so.

Third, the examined initiatives utilised more than one message over the course of implementation. Further research would be required in order to specify which has been more effective in achieving behavioural change. Messages typically remained unchanged when delivered to different audience groups (e.g. mothers of children under five vs. the public at large), by different channels (TV vs. Women's Union), and at different stages of campaign implementation, which may have reduced campaign effectiveness. The *Vietnamese People Use Vietnamese Products* campaign differed, in utilising diverse messages and communication channels (Viet Nam's Fatherland Front Central Committee, 2015).

Fourth, the initiatives all drew on the pre- and post-intervention model of effect, where self-completion surveys were carried out to measure changes in knowledge, attitude, and practice (KAP) (i.e. behaviour) of the target audience. Although self-completion surveys are among the most widely used methods of evaluating behavioural campaign effectiveness (Tabanico & Schultz, 2007), there may be differences between what the target audience report and what they actually do, and hence self-reported data may not always be reliable (Truong, 2014b). Therefore, it may be necessary to consider other methods, such as direct observations, to complement self-completion survey results (Truong, 2014b), thereby better demonstrating the effectiveness of behavioural change initiatives. It would also be helpful to consider having proper controls, so that any change in behaviour can be properly attributed to the intervention rather than other societal changes.

- **Summary of insights arising from both China and Viet Nam in the ELR**

Messengers: Despite the differences between who/what was observed to influence consumers the most, government was still observed to have a significant role to play in both countries. The findings in both China and Viet Nam also reinforced the extent to which consumers are strongly influenced by those within their social groups; peers, colleagues, family and friends. This suggests such groups could potentially be most influential with messaging to change behaviour, e.g. a colleague or professional peer, rather than a celebrity, sports star, singer or other 'famous' figure, who the consumer knows less directly.

Quality and tone of messages: Although evidence from behavioural change frameworks such as MINDSPACE shows that people are motivated by positive messages and try to avoid losses, the findings showed that Chinese and Vietnamese government messaging has historically focused on using an authoritative tone to impose behavioural control; i.e. rather than promote voluntary behavioural change to shape motivation through association with a positive experience. In the private sector and civic society however, positive messages have more often been adopted. The case studies in China have demonstrated that the dramatic growth of the luxury goods market in the past decade has been driven by positive hedonistic motivations (for the individuals and arguably for the concerned social group)—i.e. rather than by avoidance of being perceived as 'luxury-deprived'. With the declining effectiveness of the unilateral authoritative narrative, the Chinese and Vietnamese governments have also begun using positive messages more frequently to promote desirable behavioural changes.

For example in China, municipal governments promote pro-social tourist behaviour with advertisements that recognise people's social awareness and pride in being a well-behaved Chinese citizen.

For negative messages, conventional wisdom is that there is a ceiling to discomfort or disgust. Overly uncomfortable messages cause the audience to turn away from the message altogether for emotional regulation—in real terms, 'this is so terrible it can't possibly be something to do with me, as inherently, I believe I am a good person'. Similarly, messaging appealing for empathy for animals' plight risks running into something akin to 'compassion fatigue'. This is particularly true if the messaging is in relation to animals of which consumers have little direct experience; either because populations live very far away or because they do not often feature in nature documentaries, which illustrate the emotional lives of the animals concerned. Thus, using messaging that shows these animals suffering significant pain, destruction of social groups, herd decimation or death as a result of poaching, may not have the scale of impact required with consumer audiences.

Positive messaging is generally viewed as better, but not all positive messages serve behavioural change well. As previously noted, the need for context and culturally specific influences is clear: some evidence exists to suggest that one-sided messages (e.g. those with a purely positive focus) may seem misleading to non-Western audiences, and appeals containing both positive and negative messages may be more persuasive (Williams & Aaker 2002) in Confucianist societies. Further, messages specifically about the large numbers of animals one can save by refusing to consume wildlife products could result in the 'psychic numbing effect'. This is a tendency for people to be more willing to aid identified individuals (or animals) than unidentified or statistical victims; i.e. the more animals people are asked to save, the less action they take. Kogut and Ritov (2005a,b) conducted an experiment in which two groups of subjects were asked how much they were willing to pay to save one child and eight children respectively by treating their cancer. It was found that people would be willing to pay around USD100,000 for one child. But when asked about donations to eight children, not only were they unwilling to pay USD800,000, but they were not even willing to pay the amount they had been willing to pay to save one child.

Relational identity and social norms: Relational identity within Chinese and Vietnamese cultures was found to be an important characteristic to consider in shaping the quality and tone of messaging. People in these two countries identified themselves in strong relation to a social group to which they belong, such as family, company or other sorts of organisation. The views of these groups greatly influence individual decision-making, particularly when such views converge to constitute a social norm. The findings illustrated that often Chinese and Vietnamese government interventions were characterised by attempts to create a social norm through; firstly, by promoting messaging about behavioural control to a large audience, and then secondly, by saturating the populous with that message for a sustained period to exert social pressure on individuals. For luxury goods in China, social pressure comes by means of social comparison.

The nature of the inter-personal relationships in Chinese and Vietnamese society is likely to remain the same in the foreseeable future. The challenge for governments and other demand reduction stakeholders is how to make use of this to create or shape a new social norm. With the advent and rise of social media, governments may find it increasingly difficult to create such a norm with a unilateral narrative. The public now has a greater say and is becoming a stronger influence in forming social norms, reframing the relationship between the ‘advocacy’ and ‘social mobilisation’ components of any SBCC approach. During the 2014 APEC Economic Leaders’ Meeting in Beijing, the government administered multiple measures including limited use of fossil fuel to curb gas emission. The measures were followed and air quality improved. However, there was not a social norm as the people’s cooperation was not voluntary and had little to do with others’ perception of a person. This again reinforces the importance of the socio-ecological context model, and related SBCC considerations. It is unlikely that the changes observed in air quality would have been sustained for a reasonable duration without greater consideration of this—i.e. to deliver a transformative and lasting, rather than transient, behavioural change.

On creating a social norm, an experiment conducted in the U.S. (Coleman, 1996) found that a message that used the social norms approach (e.g. the majority of taxpayers file their returns accurately and punctually) had a greater positive effect on the taxpayers compared to the ‘control message’. Sometimes marketers might avoid correcting myths because mentioning the myth at all can intensify it as a social norm. For this reason ‘do that’ (the substitute act) may be more preferable than ‘don’t do this’ (the original act). This also reinforces the value of promoting small-scale behavioural change, using positive messaging within the behavioural change communications element of any SBCC approach; providing a clear sense of the tangible benefits that will be gained by the individual from a new behaviour. In the Chinese and Vietnamese context, referencing how the new behaviour might improve perceptions of someone’s reputation and standing amongst their immediate familial, peer, professional or social circles, may be as powerful a message, as one focussed on direct benefits (e.g. hedonistic or health benefits) to themselves.

Further, the power of messaging that aligns with a patriotism narrative suggests that benefits to the country overall, based on a strong desire to conform and adhere to strong political philosophies and pride in the collectivist identity, may also be strong motivators for behavioural change. This provides a useful segue into a more in-depth consideration of the socio-political context.

- **The importance of the socio-political context**

Role of governments broadly, and shifting dynamics in their ability to impose behavioural control due to the rise of social media: Chinese and Vietnamese governments have launched a range of national and regional campaigns (again illustrating adherence to the socio-ecological model through SBCC strategic approaches—i.e. advocacy; messaging for social mobilisation and behavioural change communications). In the past few decades the Chinese government has pushed for

change primarily through policy, regulatory and law enforcement measures, or those in line with ‘track one’ in the ‘twin track approach’ to behaviour change—those imposing a societal behavioural control or restricting consumer choice. Recent announcements regarding a domestic ivory trade ban are a powerful example of this in specific relation to illegal wildlife product consumption. The Vietnamese government has also undertaken measures to impose societal behavioural controls in the case studies considered in the ELR, whilst also engaging NGOs and other local organisations to disseminate messaging that complements these.

In relation to messaging to shape individual motivation: The prominence of ‘netizens’ in modern China and Viet Nam may affect governmental influence, or their dominance of the social narrative. Information from government is a powerful influencer for behavioural change, but social media now has a pervasive influence on society’s views, and it is increasingly hard to impose desirable messages and block undesirable ones. Governments around the world tend to be reactive rather than proactive in dealing with the content of social media—i.e. in contrast to other traditional media such as print, TV and radio. This may mean that in the future, governments maintain the power but may not be able to maintain the narrative leadership. Viet Nam’s then Prime Minister Nguyen Tan Dung conceded in January 2015 that banning social media is not possible for government. As a result, he urged officials to make use of social media websites such as Facebook to spread government messaging (i.e. generically, rather than specific to any one issue).

‘Hooks’ available for messaging to shape motivation: There are several examples of social campaigns in China that required citizens to adopt a new behaviour/replace or abandon new behaviour. A common requirement was that the government provided a set of new values, ideologies or national development plans to justify the adoption of these behaviours. These values were also used to inspire a sense of patriotism—associating an individual’s behavioural change with conducting a patriotic act. A relevant and current political philosophy in China, which could provide a new set of values within which behavioural change messaging can be placed to complement legal controls in tackling illegal wildlife product consumption, is ‘ecological progress’. This concept was first announced at the 17th National Congress of the Communist Party (NCCP) in 2007, before being fully incorporated into national development planning at the 18th NCCP in 2012. The concept represents the evolution of the government’s theory on ‘sustainability with Chinese characteristics’ and guides China’s 13th Five-Year Plan 2016–2020 that was approved by the National People’s Congress in March 2016. The term ‘ecological progress’ has been understood by some to focus specifically on environmental issues that directly affect the lives of China’s citizens, such as the impact of pollution from industrialisation. However, the ecological progress concept goes well beyond pollution. Speaking at the 18th National Congress of the Communist Party of China (CPC) in 2012, then Chinese president Hu Jintao highlighted consumption as one of the issues to be addressed, with the need to ‘foster a social atmosphere of practicing moderate consumption and cherishing the ecological environment’.

‘To build a beautiful country’ is another of the aims stated in that speech and, while in reference to China, there is a strong link to how consumption of wildlife resources in China affects the ‘beauty’ of other countries as well—the speech also referred to China contributing its share to global ecological security. In a speech announcing USD10 million in aid for cooperation in wildlife protection during his visit to Africa in May 2014, Premier Li Keqiang noted that ‘Africa’s distinctive ecosystem rekindles our collective memory of mankind’s past and arouses our aspiration for a better homeland’.

Further developments in the implementation of the ecological progress concept in China, was the publication on 25th April 2015 of the *Decree on Opinions on Further Promoting the Development of Ecological Civilization*. Issued jointly by the Central Committee of the Chinese Communist Party and China’s State Council, it presents a 32-point plan of options for advancing *Ecological Civilization*. One of the basic principles identified, was cultivating an ecological culture and strengthening publication and education of an ecological culture. Embedded within this, advocacy centres around ‘civilized and healthy lifestyles and consumption patterns’, and raising social awareness of ecological civilization. It identifies one main objective as mainstreaming these values in society as a whole, including adapting social goals. The Decree is also quite specific on a ‘zero-tolerance for all kinds of violations of environmental law’ and to ‘severely punish illegal behaviour’.

The Decree specifically covers area of relevance to illegal wildlife trade, such as wildlife law protection and preventing the loss of species, and this was further reinforced when China’s Minister of the State Forestry Administration, Zhao Shucong, made reference to the Decree in his speech at a ceremony marking the public destruction of 662 kg of seized ivory on 29th May 2015. Zhao also stressed that ‘the Chinese government attaches great importance to the development of Ecological Civilization’ and noted that ‘President Xi Jinping and Premier Li Keqiang have made important instructions on how to better conserve wildlife, including elephants.’ Zhao also noted how these steps will be implemented within the framework of China’s 13th Five-Year Plan, including ‘strengthening the publicity efforts ... to improve public awareness of protecting wildlife.’ The Minister’s speech further announced China’s plan eventually to halt the commercial processing and sale of ivory and its products in China—further highlighting the significance of these developments. Making reducing demand for illicit wildlife a national priority in such a manner would also ensure that it is not just a priority of one arm of China’s government; i.e. the State Forestry Administration, SFA. It would become a priority for other Ministries and governmental departments. This would allow behavioural change efforts to deliver DR messaging at the scale, frequency and duration necessary for significant long-term impact, as well as diversifying their messages and the channels through which these messages are disseminated.

Cracking down on the ‘tigers and flies’: Indisputable and mandatory values are also part of China’s anti-corruption drive. This was launched in late 2012 and President Xi Jinping pledged to strike both ‘tigers’ and ‘flies’—powerful leaders and lowly officials. While there have been similar anti-corruption drives by the CPC in the past, this current campaign has been unprecedented in its scale and reach, sweeping up both senior

figures in the establishment as well as over 63,000 mid-ranking and junior officials across the country and from various government and commercial sectors (Horta, 2014).

The potential impact of the anti-corruption drive on reducing demand for illegal wildlife products is very strong. The ongoing campaign strikes at the root of the concepts of '*mianzi*' and '*guanxi*', causing a re-evaluation among consumers of conspicuous luxury products such as artwork, jewellery and alcohol. It also prompts questioning and reflection on the potential benefits and pitfalls of the current gifting culture in maintaining 'face', status and inter-personal relationships. Bain and Company states that the mainland's luxury market grew a mere 2% in 2013 (compared to double digit growth in previous years), while a recent Yale University study indicates that China's current national anti-corruption policy has reduced the imports of conspicuously consumed luxury goods by approximately 55% (Qian and Wen, 2015).

The impact of the anti-corruption drive on luxury goods derived from animal species is already evident. The price for Hairy Crab, a high-end delicacy frequently provided in gift hampers to officials during the mid-Autumn festival, was cut for the first time in 12 years in September 2014, and sales plummeted by 30 per cent.

A study conducted by the Social Research Centre at the University of Hong Kong and released in April 2015 suggested that 70% of consumers surveyed in Hong Kong reduced their consumption of shark fin (Bloom Association (Hong Kong)/Social Research Centre at the University of Hong Kong, 2015). This reduction was linked to a Communist Party's Central Committee and State Council decree in 2013. This banned shark fin soup from the menu of official government banquets and forbid the serving of expensive alcohol in a clampdown on extravagant luxuries and waste.

Anti-corruption reform has also increased the import of cheaper foods—poultry and staple grains—which suggests that officials responded to the reform by substituting expensive products such as shark fin with less expensive food, possibly in conjunction with reducing the overall number of banquets. The impact of such policy changes directives to all levels of government—and its impact beyond governmental circles—has been almost immediate. This clearly shows the value of SBCC and strategic approaches, which include advocacy and social mobilisation alongside behavioural change messaging. Significant potential for similar impacts on the consumption of luxury items derived from threatened and endangered species arises. More therefore needs to be done to see how such policy changes can be targeted to support demand reduction efforts for those species, and to consider the value of SBCC and Strategic Approaches.

8. CONCLUSIONS AND KEY SUGGESTIONS FOR NEXT STEPS

8.1 Conclusions

This Project explored a number of issues in relation to initiatives to reduce the demand for pachyderm (e.g. elephant and rhino) products in Asia. It did this by investigating and mapping the current scope of interventions to reduce demand for illegally traded wildlife species and the evidence base being employed to inform these interventions.

It also identified gaps in approaches and knowledge about demand for these products, and sought to fill some of those gaps by trialling innovative methods in primary research, as well as reviewing the evidence for what works and what does not in influencing consumer choice. This review covered both the Chinese and Vietnamese language literature (including peer reviewed and grey literature) and experience from fields beyond conservation. The draft results were presented at a workshop on 'Changing Behaviour to Reduce Demand for Illegal Wildlife Products', held in Hong Kong (7–9th March, 2016)²⁸. This workshop, supported by several donors in addition to Defra, was attended by around 100 delegates from 60 organisations, representing a diverse set of individuals and institutions with a stake, passion, interest or mandate in delivering behaviour change in demand reduction interventions. Workshop discussion has informed the finalisation of this report.

The research extended the current state of knowledge around who is doing what and where in relation to DR initiatives, the nature of demand for wildlife products with specific demographics, and built insights into effective ways to change behaviour to reduce this.

The conclusions and key suggestions for next steps are derived from previous evidence, knowledge and experience as well as new findings from this research.

Mapping demand reduction activities

In relation to who is doing what and where, the project identified a significant proliferation in the number of initiatives roughly aligned with a demand reduction heading in 2014, but very few that went beyond broad awareness-raising campaigns aimed at the general public to more targeted behavioural change communications; i.e. that employed all three elements of SBCC, and focused adequately on behavioural change communications (BCC), in addition to advocacy and social mobilisation. Awareness raising communications aim to generate knowledge and understanding of an issue, while BCC aim to change purchasing preferences specifically. Advocacy and social mobilisation alongside all remain key.

²⁸ <http://www.traffic.org/home/2016/3/11/changing-consumer-choice-experts-gather-to-ensure-a-future-f.html>

The important role of the government in promoting successful behavioural change was reinforced in the evidence and literature review and aspects of the workshop discussion. Illustrations of this were evident in campaigns promoting handwashing and reducing exposure to passive smoking in Viet Nam; and in communications encouraging adherence to government policy such as China's one child policy, or to a core social value system aligned with broad political philosophies in China. In general, providing a set of new values, ideologies or national development plans to justify the adoption of the new or desirable behaviours, was considered influential in catalysing behavioural change. These values were also used to inspire a sense of pride, so that an individual's behavioural change was akin to conducting a patriotic act, with clear benefit to broader society. Pride in the collectivist identity and a strong desire to conform were also seen to be strong enablers for behavioural change. In some instances, the importance of legal enforcement of associated policies, legislation or penalties for non-compliance, was also noted (e.g. wearing helmets when riding motorbikes in Viet Nam).

The project team had prior experience that government messaging in the past has tended to use an authoritative quality and focus (e.g. raising awareness of the law), employing either a neutral tone or negative framing. It is clear this remains important. It was observed, however, that the Chinese and Vietnamese governments have recently also begun using more positive messaging to promote desirable behaviour changes; potentially in recognition of the influence of social media on popular lifestyle choices and day-to-day behaviours. In the private sector and civic society on the other hand, positive messaging has consistently appeared more commonplace; showcasing an aspirational lifestyle towards which people can be drawn.

Within the conservation arena, less behavioural change experience (i.e. the BCC within SBCC), was evident. The detailed case study of rhino horn demand reduction interventions in Viet Nam showed that the majority lacked grounding in theories of behavioural change. In addition, there was poor monitoring or evaluation of the outcomes and impact of the interventions. Indeed, for all but one intervention, establishing impact in behavioural change terms will be difficult. Target groups were in the main poorly identified and baseline research was limited in most cases. All of the interventions carried out some of the steps of the behavioural change process, but only one was carrying out all of them. Thus, it was noted that increased rigour in target group identification, baseline research, monitoring and evaluation would be beneficial, to ensure the interventions achieve enduring behavioural change amongst consumer and 'intender' groups, and thus, conservation impact.

Understanding demand

Building on this set of insights, the primary research sought to test a new set of methods and approaches from luxury brand marketing and psychology that could support those aiming to deliver against all steps of the behaviour change process. The primary research also attempted to gain new insights into the identity and motivations of rhino horn and ivory consumers in Viet Nam, although as it was a pilot, the sample size was too small to draw firm conclusions, but rather suggested candidate areas for further investigation.

The methods themselves proved promising in both the quality of insights gained and scalability of the survey application. There were two elements to the methodological testing; trialling an indirect questioning technique that should produce more honest answers to questions about sensitive or illegal activities, and applying concepts from luxury brands research to wildlife products, specifically brand attachment and emotional territory mapping. Methodologically, both types of approach worked well, and show promise for future wider application. The relatively small sample sizes, and the specific demographic group accessed, made the results preliminary in nature, and not applicable beyond the demographic group (predominately younger women with relatively high incomes), but interesting patterns emerged that warrant further investigation.

When asked to attach specific words to goods, rarity, selfishness and 'overpriced' were words attached to elephant ivory and rhino horn, and less so to consumers' most desirable product (which was more associated with 'high quality' and luxury). When asked to free list words they associated with ivory, the main response was 'rich', and with rhino horn 'rich' and 'man'. This suggests very clear connotations of wealth, and some negativity towards these products, compared to respondents' self-defined desirable goods (electronic goods and fashion). People's feelings towards elephant ivory and rhino horn were very different to those towards their most desirable product. High levels of indifference towards ivory and horn were observed, with few people attached, averted or ambiguous. Those influenced by campaigning NGOs, the media and family and friends felt that the products were for the wealthy, while those more influenced by work colleagues were less likely to express negative feelings towards the products. These types of insights are useful in helping to inform the design of interventions to change behaviour, in particular, the types of messaging, messengers and mechanisms likely to be effective.

In-depth interviews with influencers in Viet Nam revealed a high level of negativity towards the use of illegal wildlife products, yet all of the respondents reported personal contact with people using rhino horn and ivory. The role of the organic movement and the memorable nature of campaigns such as Earth Hour (effective in engaging the public and promoting positive attitudes towards environmental issues) gave some ideas for 'hooks' to explore in future.

Changing demand

The evidence and literature review (ELR) demonstrated that broad behavioural change approaches within an SBCC framework have been effective before in China and Viet Nam, and there has been some evaluation of what does and does not work. This foundation gives culturally specific insights which could inform future social engagement and SBCC intervention design. In the project team's knowledge and experience, backed up by insight in the ELR and workshop discussions, some of the most successful examples of changing societal behaviour exhibit a 'twin-track' approach; one track involves efforts, activities and communications around implementing a societal behavioural control (e.g. ensuring the laws are appropriate, perceived to be an adequate deterrent and effectively enforced) and restricting consumer choice (i.e. by retailers removing products from sale, or manufacturers using alternatives). The other track involves influential individuals, who can shape the attitudes and social norms of consumer groups and other target audiences, issuing messaging to help inspire and shape individual motivation. When attempting to change a consumption behaviour in particular, both the ELR and workshop discussion suggested that in order to be successful, behavioural change communications should be informed by an understanding of what makes a product desirable. This can then inform the provision of equivalent and attractive alternatives for consumers. It is also important to understand the use for which the product was being purchased; for example, whether the product was purchased more for the social gain it might enable rather than for personal pleasure.

Draft results from the primary research, amongst additional insights, were discussed at the workshop on 'Changing Behaviour to Reduce Demand for Illegal Wildlife Products', held in Hong Kong (7–9th March 2016)²⁹, supported by several donors, including the German Polifund project, implemented by GIZ on behalf of BMZ and BMUB, and Defra. Day 1 of the proceedings focused on evidence. The event was attended by around 100 delegates from 60 organisations, representing a diverse set of individuals and institutions with a stake, passion, interest or mandate in behaviour change/delivering DR interventions. Workshop discussion reinforced that investigating the following may be useful in the future:

- **Whether there are particular products DR initiatives should target first, in order to achieve the greatest conservation impact;** e.g. Ivory chopsticks or statuettes? The answer may depend on considerations such as the durability of each product; the volume of source material used to produce it; frequency of purchase choice; how many people purchase; and how easy it is to change their behaviour (it may be easier to persuade people to alter one-off/opportunistic purchases, rather than more regular/habitual or deterministic ones).

²⁹ <http://www.traffic.org/home/2016/3/11/changing-consumer-choice-experts-gather-to-ensure-a-future-f.html>

- **Who the most willing/able to act are in any one population/attitudinal segment;** and how should SBCC messages, messengers and mechanisms be adapted accordingly?
- **What the economic determinants of behavior are:** for example, what utility do people attach to products, and how does this fluctuate over time/with different pricing? How do reported drops or increases in price influence the desire to purchase? How does a perceived increase in a reduced supply of goods in the market change consumer choice?
- **What the ‘gateway’ behaviours/triggers for purchase of illegal wildlife products are;** do consumers tend to buy small pieces first and then move on to larger one-off pieces after this? What prompts their first time purchase? How can this best be influenced?
- **What is the ‘behavioural journey’ consumers go through when buying an illegal product?** At what point should messaging be delivered to disrupt the journey/change their behaviour most effectively? What are the measures that should be applied most effectively in order to impose societal behavioural control and restrict consumer choice, alongside messaging to shape motivation?

Workshop discussion also recognised some specific questions that would be useful to address in relation to demand around particular use types, specifically the use of illegal wildlife products for speculation and investment purposes;

- What is the specific market and channels of speculation/investment?
- Who advises investors on their choices?
- How do fluctuations in price affect demand?
- How do perceptions of future availability of products affect investor demand? i.e. how do stockpile destruction events and announcements of future trade bans impact on the use of products for speculation and investment?

These and other aspects of Workshop discussion (including presentations, speaker videos/interviews, and a ‘community of practice’ information hub), are captured in the workshop proceedings, and are available alongside many other relevant materials, in a ‘Wildlife Consumer Behaviour Change Toolkit’ (www.changewildlifeconsumers.org). This was developed using other donor funding, for the Community of Practice delivering DR interventions.

Overall: This project explored a number of issues in relation to initiatives to reduce the demand for pachyderm (e.g. elephant and rhino) products in Asia. It did this by investigating and mapping the current scope of interventions to reduce demand for illegally traded wildlife species, and the evidence base being employed to inform these interventions. It also identified gaps in approaches and knowledge about demand for these products, and sought to fill some of those gaps by trialling innovative methods in primary research, as well as reviewing the evidence for what works and what does not in influencing consumer choice, both through the ELR and in the project workshop.

8.2 Key suggestions for next steps

As a consequence of all these activities, the following suggestions for next steps are made to those designing, developing and delivering DR initiatives, SBCC approaches and associated behaviour change interventions:

1. Employ an evidence-based and insight-led approach to targeted SBCC interventions.

Building on previous knowledge/experience, but supported by project specific elements: scoping study/evidence and literature review/workshop

Gaining a clear understanding of the specific behaviours and audiences to target has been emphasised elsewhere prior to this project, but was nevertheless reinforced as critical in several elements of the ELR and in the workshop discussion. There remains a strong need for more evidence-based interventions, using best practice in SBCC, informed by e.g. behavioural economics principles and utilising social marketing/psychological methods. These methods and approaches, and the expertise required, will come from a range of different disciplines within social science, as well as from conservation science. These will include more qualitatively orientated fields such as social anthropology, as well as more quantitatively-orientated fields such as behavioural economics. Being able to demonstrate sound scientific insight and statistically representative findings is important in increasing government and others' confidence around different types of DR approaches. The project team identified that few DR initiatives in Viet Nam are able to compare progress against a behavioural baseline—progress is often characterised through outreach instead. Reach is not the same as resonance, however, and being able to assess actual behavioural change is critical in assessing whether the significant investment of conservation resources in DR interventions is achieving what it needs to for threatened species. Baseline assessments are crucial in order to measure impact, and need to be followed up with appropriately designed post-intervention surveys, and attribution of impact should be based on appropriate evaluation methods (e.g. against a meaningful control).

2. Ensure that DR initiatives have a foundation in behavioural science, so that they use efficient and effective approaches to influence consumer choice.

Building on previous knowledge/experience, but supported by project-specific elements: scoping study/workshop

The project team's research identified the significant lack of initiatives using a behavioural change theoretical foundation. The in-depth-review of current DR campaigns for rhino horn in Viet Nam, suggested most initiatives are not using theoretical frameworks to inform or structure their communications. High quality research is needed in order to understand the motivations and behaviours of people in key target groups, using appropriate methods; for example, including indirect questioning techniques that improve estimates of the prevalence of illegal

wildlife use. Although the target group whose behaviours and motivations need to be understood depends on the aim of the intervention, often it will be actual wildlife product consumers. It is challenging to access these people, particularly when their characteristics are not well known, and methods from social science and anthropology may be required. There is a significant suite of theories, models, frameworks and processes available to draw insights from when designing interventions to change behaviour. Fields such as behavioural economics, social psychology, social marketing and those related to broader aspects of SBCC, should form a core point of reference in this regard³⁰.

3. Consider employing new approaches from luxury brand marketing, consumer research and other fields, when conducting research to understand demand for wildlife products.

From: primary research

The primary research component of the project trialled several new approaches to understanding demand for wildlife products, typical in luxury brands marketing. These included 'emotional territory mapping'; 'brand attachment surveys' and 'unmatched count technique'. Although the actual results are preliminary and limited to the particular demographic group, the project team found that these methods showed promise for further implementation. A wide number of other fields (such as public health, development and psychology) could also provide methodological insights relevant to DR around illegal wildlife products. For example, public health and development have a range of methods for designing and carrying out robust impact assessments which build on the randomised control trial approach, and which could be adapted for behavioural change intervention, while psychology has useful frameworks for designing surveys to understand motivations (such as the theory of planned behaviour).

4. Identify a suite of promising research approaches to inform intervention design, and pool data between implementing organisations.

Building on previous knowledge/experience, but supported by project-specific elements: scoping study/workshop

Although it may not be possible to harmonise data collection methods between different products, consumer groups and countries, efforts to make data collection protocols and methodologies comparable should be made. This would expand datasets and enable knowledge and understanding to accrue over time. Establishing or identifying a central open-source catalogue of data, featuring all surveys being undertaken by all actors (both the protocols and the results), may assist in ensuring effective planning, efficient resource allocation, fundraising, and minimal duplication of effort. A repository of methodologies and frameworks that can be used in DR, including insights and approaches from other fields, is in itself

³⁰ Further information is available in the Wildlife Consumer Behavioural Change Toolkit (www.changewildlifeconsumers.org)

useful. Even if detailed methods and datasets cannot be shared, it would be a major improvement on the status quo if final reports from research studies and conservation projects could be shared in an open access repository; the Wildlife Consumer Behaviour Change Toolkit (www.changewildlifeconsumers.org) has already begun to provide this. An analysis of benefits and barriers to doing this, and subsequent identification of ways of overcoming these barriers, formed a core part of the workshop discussion.

- 5. Ensure government buy-in and multi-stakeholder partnerships, as part of a twin-track approach: track one using mechanisms to impose a societal control or restrict consumer choice; track two using messaging and influencers to shape individual motivation.**

Building on previous knowledge/experience, but supported by project-specific elements: evidence and literature review/workshop

As highlighted in the ELR and in the workshop discussion, governments have a central role to play in reducing demand for wildlife products within multi-stakeholder partnerships and collaborative approaches. In some countries, including China and Viet Nam, research shows the populace expects their government to take a leadership role in influencing collective choices towards 'better' behaviour. The 'twin-track approach' is a useful point of reference for demonstrating the dual areas where governments (and others) can do this. In practical terms, governments are also one of the few entities able to deliver messaging for a sustained period and at the level of market saturation required in order to achieve a 'transformative' or enduring effect, rather than transient change. Ministries of Communications, Education and Public Health have for many decades delivered messages that reach across countries' entire populations—thus, they are likely to have established the infrastructure and outreach channels through which to continue to do this, whatever the nature of the message. Whether particular types of messages will adequately resonate through all of these channels at all times, needs to be explored further.

- 6. Mainstream DR action where possible and explore whether it can be embedded within existing culturally appropriate context-specific communications.**

Building on previous knowledge/experience, but supported by project-specific elements: evidence and literature review/workshop

Building on previous insights, the ELR and workshop discussions recognised the value of, and potential to amplify impact through, integrating DR messaging within other existing successful communications. Related to this was discussion in the project workshop, which reinforced that conservation NGOs should consider whether they are always best placed to influence consumer choice directly. Alternatives were considered of using a 'brand' that avoids overt association with animal protection values. In relation to governments, the potential to embed messaging within communications being led by e.g. Ministries and Departments of Commerce; Health; Foreign Affairs; Tourism; Public Communications and Education, was noted. In relation to private sector messaging, this could include that

around corporate social responsibility, but also broader brand building and reputational risk management. Opportunities to align with these communications and complementary others issued by civil society, should be considered further.

7. Employ creative communications and make lateral connections.

Building on previous knowledge/experience, but supported by project-specific elements: workshop

Workshop discussion reinforced the value of thinking laterally and being more creative with messaging aiming to change consumer choice. Examples include recognition that although public support for the law and adhering to it is important and often features strongly in consumer research responses, what actually influences consumption choice can be less rational and much more complex. Examples of some of the more successful SBCC considered in the workshop exhibited principles such as using humour, promoting a positive behaviour rather than discouraging a negative one, and making lateral connections such as to national pride—rather than emphasising moral obligations to oneself, broader society or threatened species specifically.

8. Understand the barriers to changing behaviour and ensure that these are removed

Building on previous knowledge/experience, but supported by project-specific elements: primary research and workshop

Workshop discussion also reinforced the fact that people need to want to, and feel able to, shift consumption from the objects of interest (elephant ivory, rhino horn, etc.). Often this may mean providing an alternative with similarly desirable attributes to the objects and behaviours you are trying to replace. This requires a clear understanding of the category of products the illegal wildlife product is compared to from the consumers' perspective (see recommendation on using methods from brand marketing research). It also requires gaining a clear insight into the specific behaviours and audiences to target, per the foundation of any DR initiative. For example, promoting 'experiences' related to wildlife—such as safaris or personal encounters with animals, luxury items or artworks—rather than wildlife products. In order for these alternatives to be adopted, it may need to be simple for people to take them up, without changing their lifestyles dramatically. Social marketing approaches would usually employ a 'benefits and barriers' assessment to inform this, and the Viet Nam specific case studies in the ELR, emphasised the importance of celebrating the benefits of the new behaviour in achieving the desired change alongside this.

9. Adopt multiple ways of reaching the target audience to reinforce the message over time

Building on previous knowledge/experience, but supported by project-specific elements: workshop

An established principle in behavioural science and commercial marketing, reinforced at the workshop, is the need to reach the audience you are trying to influence through a variety of different mechanisms. The value of ensuring an element of face to face reinforcement of the message by ‘messengers’ that were peers, colleagues, family or friends, was also recognised. This should complement less personal approaches (such as posters or LCD displays). Novelty is important to keep campaigns fresh and impactful over time.

10. Adopt an iterative, adaptive and dynamic approach to DR intervention design, implementation and learning.

Building on previous knowledge/experience, but reinforced through project-specific elements: workshop

Good practice approaches to changing behaviour are adaptive; assessments of initial impact should be used to refine the message/messengers/mechanisms, according to success factors and lessons learned. Regular monitoring and evaluation is required in order to test the impact of different approaches, feeding through into an adaptive management approach. This is in line with step 5 of TRAFFIC’s five step process to behaviour change, and the ‘intervention design cycle’ evident in the 2015 World Development Report: *Mind, Society and Behaviour*. Adopting good practice approaches such as these will ensure efficient and effective use of conservation resources moving forward, and should be pursued as standard where possible, and where donor requirements allow it.

9. ANNEXES

9.1. Primary research methodology, analysis and detailed results

Ethics

The team obtained approval from the Imperial College Research Ethics Committee [ICREC] for the primary research (all three elements; the analysis of existing demand reduction initiatives, the online survey and the key informant interviews). An overview of the main ethical considerations follows.

Given that this research was undertaken outside the UK, the research team made themselves fully aware of any sensitivities and the social, political and cultural context in which they were working. Because of this, the research team consulted NGOs and individuals who have established long-term relationships in the country, in this case TRAFFIC and WWF, and followed the advice and guidance of their teams throughout the duration of the fieldwork.

In negotiating access to interview participants, there was a full disclosure of the expected outcomes of the research, the methods to be employed, and the use of the information. The research only proceeded if voluntary and informed consent of the proposed subjects had been obtained; no data was collected if consent was not given.

Given that this research was of a personal nature and addressed impacts of the behaviours in questions on individuals, the team was aware that for some people the topics discussed were of a sensitive nature. Effort was made to demonstrate confidentiality in how the data were recorded and sensitively managed to preserve anonymity, by using respondent codes to identify interviewees. The researchers also made it clear that the subject had the right to refuse to answer questions and withdraw from the interview/discussions at any point. For the online survey, upon clicking through to begin via the link provided, respondents were first presented with a screen where a statement informing them of the nature and confidentiality of participating in the survey was shown. This was shown before any questions for the survey were visible. Only if they agreed to click through to commence would permission be granted for the research to proceed and the data collection commence.

For the key informants, prior to individual interviews a statement was read aloud to all participants in English if the respondent was fluent in this language and in local language by an interpreter if the respondent was not fluent in English. Each participant was required to give verbal consent before the interview proceeded. Following the interview the respondent was asked to give their agreement on accuracy and their consent to usage before it could be used as part of the dataset. They were also afforded the opportunity to change or amend their statements. Any further questions regarding the research that participants had were also discussed.

Prior to the commencement of any interview, participants were given time to consider their decision to be involved in the research and were informed that they were entitled to revoke consent at any time. Data concerning these participants were used up to the point of withdrawal, and will remain anonymous at all times. They were politely thanked for their time and co-operation before the researchers or the participant finished the survey or interview. These participants were informed that neither they, nor any other member of their household, would be approached for further interviews or comment at any other stage during the data collection. Their refusal to answer questions or desire to withdraw from the study would not be discussed with any other party and their identity would remain confidential. Only the field researcher and translator had knowledge of the identity of research participants. The recorded transcripts were stored in a password-protected repository. Access to the data from individual responses was restricted to A Eisingerich, E.J. Milner-Gulland and Harriet Ibbett, but did not contain the respondent's personal information (name, gender or year of birth). All parties with access to the data committed to ensuring that the confidentiality of the research was maintained. Data were not passed to anyone responsible for law enforcement.

Critically, for the online survey, data were entirely anonymised, both because of the way the survey was administered and as no information about the identity of respondents was available. No specific names, addresses, or years of birth were solicited. The responses for the quantitative surveys were recorded on the online survey software that was password protected. These raw data were transferred and translated into English by a research assistant using a personal computer that was password protected. The passwords were only known to the research team. The electronic data were backed up both online in the survey software portal and on a hard drive. Upon completion of the project, the data were removed from all email accounts and ODK aggregate. No paper or electronic copies of any of the data remain in any of the research assistants' possession.

Questionnaire respondent demographics

Table A1. Number of respondents for each demographic variable for respondents who semi-completed or completed the online questionnaire.

Demographic Variable		n	%	Summary Stats (mode)
Gender	Male	104	23%	Female
	Female	356	77%	
Age	18-25 years	127	28%	26-45years
	26-45 years	313	68%	
	46-65 years	20	4%	
Nationality	Vietnamese	369	80%	Vietnamese
	Australian	1	0%	
	Laos	1	0%	
	Taiwanese	1	0%	

	South Korean	1	0%	
	American	3	1%	
	Unspecified	84	18%	
Education	None	10	2%	Higher
	Primary	1	0%	
	Secondary	87	19%	
	Higher	362	79%	
Household Income	<USD20K	102	22%	<USD20K per year
	USD21-USD30K	62	13%	
	USD31-USD40K	32	7%	
	USD41-USD50K	23	5%	
	USD51-USD60K	19	4%	
	USD61-USD70K	18	4%	
	USD71-USD80K	12	3%	
	USD81-USD90K	8	2%	
	USD91-USD100K	9	2%	
	>USD100K	42	9%	
Occupation	Academic	4	1%	Officer worker
	Blue collar	18	4%	
	Business owner	12	3%	
	Doctor/Lawyer	12	3%	
	Freelance/Consultant	63	14%	
	Government Officer	36	8%	
	Homemaker	27	6%	
	Management	13	3%	
	Officer worker	167	36%	
	Other	33	7%	
	Retiree	3	1%	
	Student	49	11%	
	Teacher	23	5%	
City of residence	Hanoi	45	10%	Ho Chi Minh City
	Ho Chi Minh City	261	57%	
	Other	154	33%	

Questionnaire for the online survey

Each respondent was randomly assigned to one of four categories on commencement of their survey: a control or treatment group with respect to the unmatched count technique questions (section 3) and referring to either ivory or rhino horn as the sensitive good. The questionnaire here is the one given to the **ivory treatment group**. The questionnaire was in an online format to make it smooth to navigate on both a computer and mobile device, and was translated into Vietnamese.

Programmer note:

Capture date: _____

Capture respondent Number: _____

We are conducting a short survey about the views of people in Vietnam about lifestyle, brands, and product purchases. The questionnaire will only take around 5 minutes to complete.

If you choose to take part in the questionnaire, all your answers will be completely anonymous and cannot be traced back to you.

Section 1: About you

1.1) Gender: Male/Female

1.2) Age: 18-25 _____ 26-45 _____ 46-65 _____ 66+ _____

1.3) Level of education [tick one]

- a) Primary
- b) Secondary
- c) University degree/higher education
- d) None

1.4) What is your occupation (*tick as appropriate*)?

- a) Freelance /consultant
- b) Office worker
- c) Blue collar - unskilled/skilled
- d) Homemaker
- e) Business owner
- f) Government officer
- g) Student
- h) Management
- j) Retiree
- k) Professor/academic
- l) Doctor/Lawyer
- m) Teacher
- n) Other

Please specify.....

1.5) Location of your residence: City/Region?

Section 2) General opinion of lifestyle, brands, and product purchases

Below are a number of things other people have said about their attitude to lifestyle, brands and other product purchases. Please indicate your level of agreement with each statement using a scale from 1 to 9, where 1 means you don't agree at all and 9 means you agree completely.

j) It is important to me to be able to own luxury goods	1 2 3 4 5 6 7 8 9
k) The approval of my family and friends is important to me	1 2 3 4 5 6 7 8 9
l) It is important to me to be able to buy branded or premium goods for business contacts and colleagues	1 2 3 4 5 6 7 8 9
m) The majority of my friends don't enjoy buying branded and lifestyle items	1 2 3 4 5 6 7 8 9

Section 3) Lifestyle and product purchases

This section is about products you may have bought or activities you may have carried out in the last 12 months.

3.1) Please read the list of activities below and count up how many of them you have done in the last 12 months. Choose the number from the drop down list.

- a) My home has undergone renovation
- b) Purchased an item of art for my home
- c) Purchased a piece of a piece of antique or new ivory as an investment
- d) Purchased a piece of antique furniture to display in my home
- a) Employed a cleaner or maid

3.2) Please indicate how many of the following you have done in the last 12 months. Choose the number from the drop down list.

- a) I have invested in real estate or another property
- b) I have invested in vintage wine or liquor
- c) I have bought ivory, for example a carved item, as an investment
- d) I have made investments on the stock market
- e) I have bought gold as an investment

3.3) Please indicate how many of the following you have bought for yourself in the last 12 months. Choose the number from the drop down list.

- a) a new motorcycle
- b) a new car made by an international car maker
- c) designer perfume or aftershave
- d) a trinket or keepsake made from ivory, for example chopsticks, figurines
- e) a new mobile phone

3.4) Please indicate how many of the following you have bought as a gift for a personal friend or family member in the last 12 months. Choose the number from the drop down list.

- a) designer perfume or aftershave as a gift
- b) taken them out for a meal or drinks
- c) an electronic item, for example a tablet or iphone, as a gift
- d) a gift item made from ivory, for example a carving, ornament, figurine, pendant, chopsticks
- e) a designer branded item such as a purse, wallet, or handbag as a gift

3.5a) Have you bought a gift for a colleague or superior over the last 12 months? Y/N

Programmer note: If Y, go to part (b), if N, skip directly to the next question.

3.5b) Please indicate how many of the following you have bought as a gift for a colleague or superior over the last 12 months. Choose the number from the drop down list.

- a) a premium liquor
- b) an antique vase or ceramic object
- c) taken them out for a meal or drinks
- d) an item made from ivory as a gift, for example a carved piece, ornament, figurine, pendant, chopsticks
- e) a designer branded item such as a purse, wallet, or handbag as a gift

Section 4) General opinion on lifestyle, brands, and product purchases

4.1a) From the list of items below, which would you say is the most desirable to people you know? Pick one only

4.1b) Which is the second most desirable? Pick one only

	Most Desirable	Second Most Desirable
a) Designer leather goods e.g. handbags, wallets		
f) Designer fashions		
g) Products made from rhino horn		

h) Imported car brands		
i) Leading electronic brands (e.g. ipad, iphone)		
c) Ivory products		
k) Antiques		

4.2a) Why do you think **(insert item chosen at 4.1a)** is the most desired? Please write answer below

4.2b) What are the first words that come to mind when you think of the type of person who owns **(insert item chosen at 4.1a)**? Please write answer below

4.3a) You chose **(insert item chosen at 4.1b)** as the second most desirable, why do you think these items are desired? Please write answer below

If ivory not mentioned at Q4.1a, Ask:

4.3b) What are the first words that come to mind when you think of the type of person who owns ivory products? Please write answer below

Section 5) Your opinion on selected products

5.1) Which, if any, of the following words do you strongly associate with **(insert item chosen at 4.1a – if ivory chosen at 4.1a then replace with item chosen at 4.1b)**? You can select as many or as few as appropriate

- a) Craftsmanship
- b) High quality
- c) Selfish
- d) Treat
- e) Unethical
- f) Indulgence

- g) Over priced
- h) Rare
- i) Luxury
- j) Sexy
- k) High Status
- l) Exclusive
- m) Old fashioned
- n) Accessible
- o) Useless
- p) None of these words

Do any other words come to mind? If so write them here: _____

5.2) Which, if any, of the following words do you strongly associate with ivory? You can select as many or as few as appropriate.

- a) Craftsmanship
- b) High quality
- c) Selfish
- d) Treat
- e) Unethical
- f) Indulgence
- g) Over priced
- h) Rare
- i) Luxury
- j) Sexy
- k) High Status
- l) Exclusive
- m) Old fashioned
- n) Accessible
- o) Useless
- p) None of these words

Do any other words come to mind? If so write them here: _____

5.3) Please consider how you feel about and what you associate with *(insert item chosen at 4.1a – if ivory chosen at 4.1a then replace with item chosen at 4.1b)* and for each of the statements below rate your level of agreement. Using a scale from 1 to 9, where 1 means you don't agree at all and 9 means you agree completely.

Programming – please insert item chosen at 4.1a where XX is in all statements below – if ivory chosen at 4.1a then replace with item chosen at 4.1b.

XX are appealing and attractive to me	1 2 3 4 5 6 7 8 9
XX give me sensory pleasure (e.g. feel good to touch, look at)	1 2 3 4 5 6 7 8 9
XX connect to me emotionally	1 2 3 4 5 6 7 8 9

XX help me feel safe and secure	1 2 3 4 5 6 7 8 9
XX help me feel part of a connected group	1 2 3 4 5 6 7 8 9
XX help enhance my relationships with those I am close to	1 2 3 4 5 6 7 8 9
XX help express my identity	1 2 3 4 5 6 7 8 9
XX help me appreciate my heritage and where I am from	1 2 3 4 5 6 7 8 9
XX improves the quality of my life with their performance	1 2 3 4 5 6 7 8 9
XX helps make my daily life easier	1 2 3 4 5 6 7 8 9
The majority of people in my business circle think that XX is a prestigious gift	1 2 3 4 5 6 7 8 9
Most people in my community believe that buying XX is a good thing	1 2 3 4 5 6 7 8 9

5.4) Now please consider how you feel about and what you associate with ivory products (e.g. carved, wellness, medicinal use, other decorative objects) and for each of the statements below rate your level of agreement. Using a scale from 1 to 9, where 1 means you don't agree at all and 9 means you agree completely.

Ivory products are appealing and attractive to me	1 2 3 4 5 6 7 8 9
Ivory products give me sensory pleasure (e.g. feel good to touch, look at)	1 2 3 4 5 6 7 8 9
Ivory products connect to me emotionally	1 2 3 4 5 6 7 8 9
Ivory products help me feel safe and secure	1 2 3 4 5 6 7 8 9
Ivory products help me feel part of a	1 2 3 4 5 6 7 8 9

connected group	
Ivory products help enhance my relationships with those I am close to	1 2 3 4 5 6 7 8 9
Ivory products help express my identity	1 2 3 4 5 6 7 8 9
Ivory products help me appreciate my heritage and where I am from	1 2 3 4 5 6 7 8 9
Ivory products improve the quality of my life with their performance	1 2 3 4 5 6 7 8 9
Ivory products help make my daily life easier	1 2 3 4 5 6 7 8 9
The majority of people in my business circle think that ivory products are a prestigious gift	1 2 3 4 5 6 7 8 9
Most people in my community believe that buying ivory products is a good thing	1 2 3 4 5 6 7 8 9

5.5) With [insert item selected at 4.1a - if ivory chosen, insert item chosen at 4.1b] in mind, please answer the following questions:

a) I feel personally disconnected from [item chosen at 4.1a/4.1b] 4.1a/4.1b I feel personally connected to [item chosen at 4.1a/4.1b]

-4 -3 -2 -1 0 1 2 3 4

b) [Item chosen at 4.1a/b] IS NOT a part of me and who I am [Item chosen at 4.1a/b] IS a part of me and who I am

-4 -3 -2 -1 0 1 2 3 4

c) With items made from ivory in mind, please answer the following questions:

I feel personally connected to from ivory products I feel personally disconnected from ivory products

-4 -3 -2 -1 0 1 2 3 4

d) Ivory products ARE NOT a part of me
who I am
am

Ivory products ARE a part of me and
and who I

-4 -3 -2 -1 0 1 2 3 4

5.6a) For each of the statements below regarding [Item selected at 4.1a, if ivory selected, insert item selected at 4.1b] please rate your level of agreement using a scale from 1 to 9, where 1 means you don't agree at all **and 9 means you agree completely.**

X says something to other people about who I am	1 2 3 4 5 6 7 8 9
My thoughts and feelings toward X are often automatic, coming to mind seemingly on their own	1 2 3 4 5 6 7 8 9
My thoughts about X come to mind naturally and instantly	1 2 3 4 5 6 7 8 9
I would be distressed if X were not available	1 2 3 4 5 6 7 8 9

5.6b) For each of the statements below regarding ivory products please rate your level of agreement using a scale from 1 to 9, where 1 means you don't agree at all **and 9 means you agree completely.**

Ivory products say something to other people about who I am	1 2 3 4 5 6 7 8 9
My thoughts and feelings toward rhino born products are often automatic, coming to mind seemingly on their own	1 2 3 4 5 6 7 8 9
My thoughts about ivory products come to mind naturally and instantly	1 2 3 4 5 6 7 8 9
I would be distressed if ivory products were not available	1 2 3 4 5 6 7 8 9

5.6c) Which, if any, of the following groups, organisations or sources influence your opinion of [insert item chosen at 4.1a, if item at 4.1a was ivory, insert item chosen at 4.1b]?

- a) Friends
- b) Family
- c) Business contacts
- d) Colleagues
- e) Government
- f) Vietnamese media
- g) International media
- h) Social Media
- i) Advertising
- j) Celebrities

5.6d) Which, if any, of the following groups, organisations or sources influence your opinion of ivory products?

- a) Friends
- b) Family
- c) Business contacts
- d) Colleagues
- e) Government
- f) Vietnamese media
- g) International media
- h) Social Media
- i) Advertising
- j) Celebrities
- k) Campaigning organisations (e.g. wildlife organisations)

Section 6) About your household

6.1) What is your household's annual income?

6.2) Do you own a car YES/NO If yes, what model?

6.3) Do you belong to any exclusive members' clubs (e.g. golf club)... YES/NO

6.4) Are you:

Single_____ Married_____ Have children_____ Other_____

Thank you very much for your cooperation in responding to this questionnaire.

Do you have any further comments on the questions covered? If so, please write them here_____

Protocol for the key informant interviews

This part of the data collection was qualitative, gathered through a semi-structured survey designed to gather in-depth insights from one-on-one interviews with key informants. Ten opinion-forming individuals from across the spheres of business, celebrity and the brand and communications industry were included in the study. Their inclusion was based upon their ability to provide insights never previously documented in the course of our insights into illegal wildlife consumption and from a group perhaps best placed to motivate change. This includes examining their attitudes to illegal wildlife products, purchasing motivations, prevalence and drivers of buying, and recall and efficacy of previous interventions. The interviews examined the types of relationships consumers form with illegal wildlife products and unearthing the key bases for such relationships. This demographic is uniquely placed to provide insights never previously documented in the course of our insights into illegal wildlife consumption and from a group perhaps best placed to motivate change.

Some of the interviewees had had prior business or friendly interactions with the field researcher, while others were approached via snowball sampling. Due to confidentiality issues, the nature of these interactions cannot be given, but the interviewees were not very close to the field researcher, so that suitable levels of distance and neutrality could be maintained.

Questions were given in English and recorded. An interpreter was present if the subject was not fluent in English. All interviews were carried out with participants in Viet Nam by videoconference or telephone from London by Vian Sharif (field researcher). During the data collection period, information from the participant information sheet was entered into digital format on a personal computer and password protected. Only the field researcher and translator had knowledge of the identity of research participants.

Prior to individual interviews, a statement was read out aloud. Each participant was required to give verbal consent before the interview proceeded and this was recorded.

At the end of the interview the participants were asked if they had any further comments or questions. The participants were thanked and told that the interview had finished. If the participant wished to withdraw from the interview part-way through, they were politely thanked for their time and co-operation. These participants, or any other member of their household, will not be approached for further interviews or comment at any other stage during the data collection. Their refusal to answer questions or desire to withdraw from the study will not be discussed with any other parties and will remain confidential.

The respondent was asked to give their agreement on accuracy and their consent to usage before the transcript was used as part of the dataset. They were also afforded the opportunity to change or amend their statements. Any further questions regarding the research that participants had were also discussed.

Key informant interview questions

- 1) What is your view of the changing meaning of 'luxury' and a 'luxury lifestyle' in Vietnamese society?
 - What does it mean to to you to live a 'luxury lifestyle'?
 - How do you think the meaning of 'luxury lifestyle' has changed in recent years?
 - Why do you think it is going in that direction?

- 2) What are your thoughts on how different segments of society engage with luxury brands
-
- Why do they consume luxury brands?
 - What do they try to 'achieve' with such consumption?
 - How do they use luxury brands in daily life? Which role, if any, do luxury brands play in people's daily life?
 - role of age, gender, educational background, traditional vs. liberal outlook, etc.
- 3) What are your thoughts on 'aspirational brands' and their role as part of perceived 'luxury' and 'luxury lifestyle' in Vietnamese society?
- How are these brands different from other luxury brands?
- 4) Are there any brands you feel stand out as particularly influential?
- Why?
 - Why don't others?
 - What did they do?
 - How did they accomplish this?
- 5) Are there any trends, changes in traditional Vietnamese social norms, and examples of how you have seen society changing?
- 6) What is your view on the role of business and different companies influencing a desired lifestyle and consumer behaviour in order to sell their products/services?
- What examples are there that come to mind for you?
 - Why were they successful?
 - How did they accomplish this?
- 7) What is your view on the role of social media, celebrity and opinion formers or role models in Vietnamese society?
- 8) Who is it that you listen to when thinking of your own purchasing behavior or habits?
- Why? Why not another source?
 - What form does this take?
 - How do they buy/enact this behavior?
- 9) How do different influencers act to change a desired lifestyle people aspire to, beliefs, attitudes and social norms among different consumer segments (age, gender, income, educational background, urban vs rural, etc.)
- What has been an example of this in your view?
 - Why was this successful? Why not another initiative?
 - How did they do it?

- 10) When it comes to social issues like caring about the environment, charity, wildlife for example, how does this fit within this societal landscape:
- What are the social norms around these? Why? What do they do? How?
 - In terms of luxury brands – could they make it aspirational?
- 11) For example, moving on to rhino horn and ivory, how are these similar or different from other types of wildlife product? And which sectors of society use them for different purposes. What are these purposes? Why do members of society use them in different ways?
- Why? Why not?
 - What is it that makes them different/the same?
 - How?
- 12) Ultimately, given what they have seen, heard, etc. what can be done to influence consumers' desire to own such products?
- 13) To what extent can different 'role models' (actresses, actors, entertainers, business people, etc.) play their part in such initiatives?
- Why do you think that is?
 - What would make that effective?
 - How could it be done?

Factor analysis results

These tables show the factor loadings, uniqueness score (extent of association of a given statement with a particular factor) and the proportion of variation explained by each factor for the most desirable product, rhino horn and ivory factor analyses. Factor names are devised based upon the combinations of statements which are most heavily loaded onto the factor. In the survey, respondents were asked to indicate their strength of agreement with each statement.

Table A2a. Most desirable product (n = 335)

Statement:	Uniqueness	Factor					
		1	2	3	4	5	6
Appealing & attractive to me	0.236	0.750		0.209	0.167	0.168	0.303
Give me sensory pleasure	0.272	0.775	0.254	0.205		0.112	
Make me feel safe and secure	0.503	0.516	0.232	0.198	0.162	0.277	0.185
Help me feel part of a connected group	0.005	0.206	0.359	0.208	0.871	0.111	0.101
Help enhance my relationship with those I am close to	0.388	0.345	0.499	0.331	0.329	0.159	
Help express my identity	0.355	0.330	0.644	0.246	0.134	0.172	0.117
Helps me appreciate my heritage and where I am from	0.393		0.674	0.130	0.256	0.150	0.196
Improves the quality of my life with their performance	0.333	0.281	0.350	0.570	0.204		0.300
Helps make my daily life easier	0.005	0.295	0.212	0.873	0.163	0.257	
Majority of those in my business circle think this is a prestigious gift	0.326	0.302	0.278	0.188		0.307	0.605
Most people in my community believe buying this is a good thing	0.062	0.287	0.254	0.252	0.120	0.813	0.230

	Factor1	Factor2	Factor3	Factor4	Factor 5	Factor 6
Factor name:	Pleasure	Identity	Enabling	Connected	Community	Gift
SS loadings	2.050	1.682	1.541	1.103	1.037	0.707
Proportion Variable	0.186	0.153	0.140	0.100	0.094	0.064
Cumulative Variable	0.186	0.339	0.479	0.580	0.674	0.738

The chi square statistic is 12.2 on 4 degrees of freedom. The p-value is 0.0159

Table A2b. Rhino Horn (n = 35)

Variable:	Uniqueness	Factor 1	2	3
Appealing & attractive to me	0.120	0.450	0.723	0.394
Give me sensory pleasure	0.033	0.488	0.805	0.285
Make me feel safe and secure	0.144	0.764	0.426	0.302
Help me feel part of a connected group	0.048	0.852	0.418	0.227
Help enhance my relationship with those I am close to	0.083	0.840	0.398	0.233
Helps me appreciate my heritage and where I am from	0.082	0.825	0.375	0.311
Improves the quality of my life with their performance	0.124	0.738	0.327	0.474
Helps make my daily life easier	0.111	0.811	0.324	0.355
Majority of those in my business circle think this is a prestigious gift	0.114	0.203	0.402	0.826
Most people in my community believe buying this is a good thing	0.055	0.636	0.125	0.724

Factor name:	Identity	Senses	Opinion
SS loadings	4.783	2.215	2.088
Proportion Variable	0.478	0.222	0.209
Cumulative Variable	0.478	0.700	0.909

The chi square statistic is 45.21 on 18 degrees of freedom. The p-value is 0.000387

Table A2c. Ivory (n = 285)

Variable:	Uniquene ss	Factor		
		1	2	3
Appealing & attractive to me	0.311	0.408	0.627	0.359
Give me sensory pleasure	0.005	0.413	0.865	0.278
Make me feel safe and secure	0.189	0.741	0.450	0.244
Help me feel part of a connected group	0.219	0.786	0.352	0.198
Help enhance my relationship with those I am close to	0.129	0.858	0.269	0.252
Help express my identity	0.250	0.711	0.340	0.360
Helps me appreciate my heritage and where I am from	0.216	0.724	0.364	0.357
Improves the quality of my life with their performance	0.216	0.718	0.309	0.416
Helps make my daily life easier	0.151	0.822	0.282	0.306
Majority of those in my business circle think this is a prestigious gift	0.190	0.215	0.243	0.840
Most people in my community believe buying this is a good thing	0.255	0.490	0.258	0.662
Factor name:		Identity	Sens es	Opinion s
SS loadings		4.745	2.088	2.035
Proportion Variable		0.431	0.190	0.185
Cumulative Variable		0.431	0.621	0.806

The chi square statistic is 136.45 on 25 degrees of freedom. The p-value is 2.53e-17

Comparison of factor means between different attachment–aversion categories for ivory, using Welch’s two-sample t-tests.

These tests look at whether different levels of attachment or aversion have different relationships to ivory. The results for rhino horn are not shown because of the small sample size. For example, the first line of the first table tests whether people who state that they are ambivalent to ivory relate to it in terms of their identity significantly differently to the way in which indifferent people relate to ivory. In this case, the test result shows that how ambivalent people relate to ivory is significantly different to indifferent people. Where ambivalent people are neutral or undecided (mean factor loading = 5.32, based on a Likert scale of 1 to 9, where 1 = strongly disagree, 5 = neutral and 9 = strongly agree), indifferent people strongly disagree that identity influences their ivory purchasing decisions (mean factor loading = 2.00). Ambivalent and attached people both feel relatively neutral or undecided that ivory is part of their identity, and there is no significant difference between their means. For all three factors, ambivalent and attached people have similar results, with the next strongest relationship to the factors being from the averted group, and finally the indifferent group having much less strong links between ivory and their identity, senses and prestige. It is interesting to note that none of the four attachment groups shows a strong level of agreement with any of the factors. These results suggest some degree of strategic bias,

with people perhaps self-identifying as ambivalent when they are attached, and giving more extremely negative answers than expected when self-identifying as indifferent.

Table A3. Factor loadings for ivory. Sample sizes: Ambivalent = 24, Indifferent = 211, Attached = 23, Averted = 36.

Factor 1		Identity					
X	Y	X Mean	Y Mean	t	DoF	P-value	Sig
Ambivalent	Indifferent	5.321	1.999	8.73 5	27.59	0.000	***
Ambivalent	Attached	5.321	5.722	0.69 2	42.62	0.493	
Ambivalent	Averted	5.321	3.747	2.83 9	57.74	0.006	***
Indifferent	Attached	1.999	5.722	8.00 1	24.80	0.000	***
Indifferent	Averted	1.999	3.747	4.03 3	40.20	0.000	***
Averted	Attached	3.747	5.722	3.20 7	51.96	0.002	***
Factor 2		Senses					
X	Y	X Mean	Y Mean	t	DoF	P-value	Sig
Ambivalent	Indifferent	6.354	2.590	9.35 5	29.57	0.000	***
Ambivalent	Attached	6.354	6.022	0.53 0	41.36	0.599	
Ambivalent	Averted	6.354	4.257	3.69 7	56.63	0.000	***
Indifferent	Attached	2.590	6.022	6.60 8	25.50	0.000	***
Indifferent	Averted	2.590	4.257	3.74 3	41.62	0.001	***
Averted	Attached	4.257	6.022	2.69 2	48.63	0.010	***
Factor 3		Prestige					

X	Y	X Mean	Y Mean	t	DoF	P-value	Sig
Ambivalent	Indifferent	6.630	3.361	8.68	34.99	2.95E-10	***
Ambivalent	Attached	6.630	6.065	0.80	33.82	0.4276	
Ambivalent	Averted	6.630	4.957	3.22	55.89	0.002	***
Indifferent	Attached	3.361	6.065	4.20	25.53	0.000	***
Indifferent	Averted	3.361	4.957	3.68	47.75	0.001	***
Averted	Attached	4.957	6.065	1.50	39.49	0.14	

Significance values: * '0.1', ** '0.05', *** '0.01'

Table A.4. Pearson correlation coefficients between attachment-aversion scores (designated aa) and demographic characteristics of the respondents (age, gender, city). None of the coefficients were significant. N=192.

		aa	age	gender	city
Pearson Correlation	aa	1.000	-.102	-.049	-.050
	age	-.102	1.000	-.037	.011
	gender	-.049	-.037	1.000	.050
	city	-.050	.011	.050	1.000
Sig. (1-tailed)	aa	.	.079	.250	.245
	age	.079	.	.306	.441
	gender	.250	.306	.	.247
	city	.245	.441	.247	.

Sources of influence

Generalised linear models (GLMs) were used to test whether someone mentioning words which related to wealth, or which were negative, was associated with them saying that they were influenced by a given source. People who mentioned words associated with wealth were much more likely than average to have been influenced by the media, and somewhat more likely to have been influenced by campaigning organisations and family/friends. People who mentioned negative words were much more likely than average to have been influenced by campaigning organisations, and somewhat less likely to have been influenced by people at work. The tests are run for ivory and rhino horn combined.

Table A.5. Binomial GLMs testing whether ‘rich’ & ‘negative’ words mentioned by respondents were influenced by specific sources. Standard Errors are given in brackets.

Independent variable: Source of Influence	Dependent variable: 1=Yes, 0=No	
	Wealth	Negative
Campaigning Orgs	0.756 (0.297) **	0.813 (0.300) ***
Family & Friends	0.544 (0.316) *	0.144 (0.350)
Work	0.039 (0.366)	-0.974 (0.492) **
Vietnamese Government	-0.302 (0.420)	0.622 (0.422)
Media	0.912 (0.325)***	0.544 (0.367)
Marketing	-0.485 (0.420)	-0.308 (0.447)
Intercept	-1.667 (0.233) ***	-1.657 (0.238) ***
Number of Observations	422	422

Significance values: * ‘0.1’, ** ‘0.05’, *** ‘0.01’

In-depth interviews

Profiles of interviewees

Male, age bracket 46-65: High net worth individual, international business owner. Owns a number of houses. Lives in Ho Chi Minh City and travels widely. Global elite.

Female, age bracket 46-65: Widely acknowledged to be at the forefront of the lifestyle publishing industry in VN. Lives in Ho Chi Minh where she has a house. Lifestyle icon and opinion former.

Male, age bracket 26-45: Professional, managerial level. Lives in Ho Chi Minh City where he owns a property, does not travel widely, but has a keen sense of fashion and lifestyle issues.

Female, age bracket 26-45: Widely acknowledged to be at the forefront of the entertainment and celebrity industry in VN. Large following on social media locally. Lifestyle icon.

Female, age bracket 26-45: One of VN's top young celebrities. Large following on social media locally. Lifestyle icon. Lives in Ho Chi Minh City. Limited international travel.

Male, age bracket 26-45: One of VN's top young celebrities. Large following on social media locally. Lifestyle icon. Limited international travel.

Female, age bracket 26-45 x 2: Young professional, works in the Vietnamese branch of a global PR agency on campaigns for globally recognised brands such as soft drinks, FMCG and lifestyle brands as well as top tier local brands. Speaks fluent English, lives in Ho Chi Minh city.

Male, age bracket 26-45 x 2: Young professional, works in the Vietnamese branch of a global PR agency on campaigns for globally recognised brands such as soft drinks, FMCG and lifestyle brands as well as top tier local brands. Lives in Ho Chi Minh city.

Insights arising

The insights resulting from the in-depth interviews with influential individuals from across the spheres of business, celebrity and the brand and communications industry are summarised by theme in Table A.6, and examined in more depth below. The interviews were conducted by one of the project team (Vian Sharif) and where the individual interviewee did not speak English an interpreter was present.

Table A.6. thematic insights from opinion former research—summary of qualitative research findings. Each insight is illustrated with representative quotations to demonstrate the range of views expressed.

Insight	Example quotes given by respondents		
Attitudes consumers buying illegal wildlife products largely negative, perceptions focused around user groups	‘I couldn’t believe it when an educated scientist who should have known better pulled out a piece of rhino horn.’	‘We all know people who buy these things, but we have never bought. They are not aware.’	‘There are two main groups of users. Government officials and the very rich.’
Drivers and motivations of purchase – deeply rooted traditional beliefs, a cure for cancer, and status	‘The Vietnamese market seems to be to buy primarily for medicinal purposes...whole horns or pieces of horn. ‘ ‘There is an old saying, that rhino horn is good for your health, [it’s] from a majestic animal. People think it’s a cure for cancer’.	‘The market seems to be to buy for medicinal purposes...whole horns or pieces of horn. Most people have never seen these animals, not even in a zoo. So there’s that disconnect...for example when you buy a bone carving, do you really think about where that bone came from?’	‘Carving...the artefacts market seems to be primarily Chinese. Carved rhino ornaments are unique to the Chinese market. The offcuts are used This taps into the China ivory side of things. There was probably a nascent market all along...but now collectors seem to be buying.’
Celebrities have a voice, but opinions mixed on credible ambassadors for effecting change	‘[Thu Minh’s campaign was] trending on Facebook and social media. People [were] talking about it. [It] even had an impact on the younger generation.’	‘Some of the singers do charity all the time. Yes, they do have impact, but people must be educated first.’	People with credibility [need to deliver the message], doctors, scientists...people that matter to them...people trust in expertise’.
Recall of previous interventions was good—both for wildlife issues and beyond	‘There was lots of messaging on the internet and news, in music shows, all featuring the Earth	‘My son told me about the Earth Hour campaign, and we went out and bought	‘I asked a little boy what he would do if he saw his father using horn again. He said I would tell

	hour campaign, an entire campaign for schools, universities, and a competition between [schools] in different provinces.'	candles'.	him 'NO! Don't do it. This is wrong!'
Some international brands have iconic status, and this status influences purchase decisions	'Apple is a star. For Vietnamese people [and] branding...we like attention. Something that proves we are trendy, fashionable. The way that iPhone brands itself as a fashion item, and an icon, not as a phone.'	'Organic is a big trend, going on for over a year—since last year's scandal about animal testing. Also Asians value everything organic.'	'Why Topshop? [It's] middle range. Not too overpriced, but suitable for affordability and still fashionable.'
The new generation is key to effecting change	'Educate kids at school—they are the new generation, teenagers. It's already taught at school. There should be lessons about this.'	'It's easier to make an impact [on 25-40 year olds] because they already understand the problem. Motivate them to do something. It's harder to if you don't have that kind of knowledge'.	'Who's going to change the behaviour of a 40-50 year-old man? It's children who can say the uncomfortable things.'
Opinions on effective tools for change: Use the media & social media as a tool	'The first way is that you have to use media, magazines, newspapers, TV, to teach the viewers, repeat and repeat.' Replication was also key. 'Every channel, every hour, every show. A catchy song – people surely will remember it'.	'People who come with stereotypes are misguided. Some of the campaigns out there are patronising and you have to be careful about that.'	'We're increasingly seeing products and brands paying celebrities to endorse them on social media.'

Attitudes towards consumers buying illegal wildlife products were largely negative: Respondents recognised that there was a market for rhino horn and elephant ivory. For rhino horn, every interviewee said they knew someone who had either used or bought the item, or had been offered it themselves, but were not users. The prevailing attitude with no exceptions was that purchasing rhino horn was negative.

Recall of previous conservation themed communications and brand attachment: WWF's Earth Hour campaign was recalled by three respondents as one of the biggest, most memorable and 'successful' campaigns (fashion campaigns were included in this line of questioning, but were eclipsed). This campaign urged people simultaneously to turn off their lights for an hour at a given time and date. Interviewees cited reasons for the 'success' of the campaign as its unusual nature and the quantity of support it achieved through different communications channels; i.e. rather than perceptions around the extent of behaviour change around energy use. Every respondent cited popstar Thu Minh's campaign on rhino horn and wildlife, with some remembering her fellow celebrity Than Bui's involvement.

It also appears that the 'organic' trend, with the Body Shop as a leader, Apple's style iconography, Dove's 'real women' campaign have also penetrated the consciousness of these consumers.

Celebrities have a voice, but opinions were mixed on whether they are the most credible 'opinion leaders' for effecting change: Famous brands use celebrities in their advertisements, but no one celebrity could be named or cited as particularly influential (or in fact recalled at all). Local celebrity recall was higher with a number of names being cited. Whilst some respondents agreed that celebrities had a voice in raising awareness, for others their credibility was in doubt. In terms of others with credibility, Doctors, scientists (both Vietnamese and international) were cited, as well as other professional groups with recognised expertise.

Some international brands have iconic status, and this status influences purchase decisions:

- *International brands, Apple 'a star':* All respondents commented on the brand presence of Apple in a positive light. Starbucks was a further international brand that was cited as iconic. Unilever brands like Dove were also cited, along with Coca Cola. One opinion was that the Vietnamese consumer likes foreign items.
- *Fashion-designer & mid-market:* The fashion brands that most frequently came to mind were Louis Vuitton (referred to simply as 'LV', perhaps demonstrating how it has entered the vernacular) Chanel, Dior, Hermes, Burberry. It was said that fakes of these items were common. Local designers and international mid-market brands were preferred by some to designer brands, with the examples of Topshop and Zara being given in this context as successful brands. The trend towards experiences rather than material goods was also brought up.
- *Wellness:* In cosmetics and wellness, the trend towards organic products was cited. The Body Shop was a brand mentioned as a leader. Korean and Japanese beauty brands were mentioned as trusted, with Shiseido also being mentioned in a positive light. In terms of lifestyle habits, taking vitamins and awareness of

exercise on a regular basis was mentioned as a growing trend, as was yoga and going to spas.

The new generation is key to effecting change: The role of children and youth—and their education process – in influencing adults to change their behaviour, was raised by all respondents. For the older demographic of 25–40, it was felt that motivation was important, because they already understood the problem.

Use the media & social media as a tool: Replication was highlighted as key to success. Awareness around the environment in general was cited as growing by half the respondents. This was attributed in part to the fact that it was felt that this issue is timely, because Viet Nam has been the location of extreme, unusual weather—hurricanes and floods which have affected people's day to day lives. There seems to be a growing awareness that man's impact on the environment needs to be addressed, and that it has come home to the individual who is now personally affected. The rising importance of social media as a tool for sharing of information and supporting 'movements' of larger groups of people around opinions and issues was cited by one interviewee. Facebook and sharable video content is playing an increasingly valuable role in the dissemination of information, views, behavioural change efforts and supporting consumer trends. The practice of brands and products paying to have celebrities endorse their campaigns on social media sites—primarily Facebook—is prevalent and growing.

The value of enforcement action: One respondent commented that a high level of punishment is needed first before behavioural change campaigns can work. One respondent cited the successful example of a Chinese government 'crack-down' [sic.] on rhino horn use in official State traditional medicine in the early '90s, possibly referring to the ban imposed by the Chinese government in 1993 on the use of rhino horn and Tiger bone in the TCM pharmacopeia. This affected State-approved Traditional Medicine texts.

Insights into the respondents' mindsets and the nature of their relationships with both desirable luxury goods and rhino horn and ivory products: While a majority of respondents in the primary research sample claimed to be indifferent about illegal wildlife products, some had an ambivalent stance. Only a minority expressed either aversion or attachment towards illegal wildlife products. Illegal wildlife products have been noted in other studies as bringing 'enjoyment' to consumers' lives, to make them feel secure, and enhance their perceived self-worth in a social context. However our respondents expressed predominately negative emotions with respect to these goods, and associated them with rich people and men. They did also associate the products with luxury, as well as high quality and high price, suggesting that some of the themes picked up in previous studies resonate with this group. Bearing in mind that the sample consists primarily of well-off younger women, it may be that this particular demographic group is less engaged with wildlife product use than other demographics, such as older men.

A strong trend of demand for organic products in Asia was also noted. In the context of cosmetics and 'wellness', organic brands have been noted as being trusted and seen as valuable by consumers. There seems to be a growing awareness that human impact on the environment needs to be addressed, and that it has come home to individuals who are now personally affected. DR initiatives could potentially build on these trends. This is one example of where messaging to tackle illegal wildlife product consumption could be embedded within other existing successful messages (explored further in Section 6). Social media communications channels also seem to be taking on significance within Vietnamese society. In particular, Facebook and sharable video content is playing an increasingly valuable role in the dissemination of information and views, and supporting consumer trends.

9.2: References for the evidence and literature review

- Ajzen, I. (1985). From intentions to action: A theory of planned behaviour. In J. Kuhl & J. Beckman (Eds.) *Action-control: From cognition to behaviour*, Heidelberg: Springer, 11-39.
- Ajzen, I. (2006). Constructing a TpB questionnaire: Conceptual and methodological considerations, Retrieved March 25, 2015, from <http://www.people.mass.edu/aizen/tpb.html>.
- Andreasen, A.R. (2002). Marketing social marketing in the social change marketplace. *Journal of Public Policy & Marketing*, 21(1), 3-13.
- Bagozzi R, Wong N, Abe S. (2000). Cultural and situational contingencies and the theory of reasoned action; Application to fast food restaurant consumption. *Journal of Consumer Psychology*, 9(2), 97-106.
- Barboza, D., Bowley, G., Cox A, (2013). 'Forging an art market in China' New York Times
- Bloom Association (Hong Kong) in collaboration with the Social Research Centre at the University of Hong Kong, April 2015. 'Survey on Shark Consumption Habits and Attitudes in Hong Kong',
- Brannen, M.Y. (1996). Transferring core competencies abroad in people-dependent industries: A lesson in transcultural materialism from the Walt Disney Corporation. *CEMS Business Review*, 1, 97–110.
- Chase, C. & Do, Q.T. (2012). *Thay đổi hành vi rửa tay trên quy mô lớn: Bằng chứng từ đánh giá ngẫu nhiên ở Việt Nam*, and *Handwashing behaviour at scale: Evidence from a randomized evaluation in Vietnam*. Policy Research Working Paper 6207. World Bank: The World Bank Sustainable Development Network Water and Sanitation Program & Development Research Group Poverty and Inequality Team.
- Cialdini et al: managing Social Norms for Persuasive Impact. *SOCIAL INFLUENCE*, 2006, 1 (1), 3–15
- Communist Party of China Central Committee, State Council of China. (2015). *Opinions of the CPC Central Committee and the State Council on Further Promoting the Development of Ecological Civilization*
- Coleman, S. (1996). The Minnesota Income Tax Compliance Experiment State Tax Result. Minnesota Department of Revenue. Retrieved from http://www.revenue.state.mn.us/research_stats/research_reports/19xx/research_reports_content_complnce.pdf
- Doner, L. (2003). Approaches to evaluating social marketing programs. *Social Marketing Quarterly*, 9(3), 18-26.
- Gatersleben, B. & Vlek. C. (1998). *Household Consumption, Quality of Life and Environmental Impacts*. In Noorman, KJ and AJM Schoot-Uiterkamp (eds.) *Green Households? Domestic Consumers, Environment and Sustainability*. London: Earthscan, 141-183.
- Government Social Research Unit. (2008). Practical Guide: An overview of behaviour change models and their uses. Retrieved March 2015, from http://www.civilservice.gov.uk/wp-content/uploads/2011/09/Behaviour-change_practical_guide_tcm6-9696.pdf.

- Hagger, M. et al. (2007). Cross-cultural generalizability of the theory of planned behaviour among young people in a physical activity context. *Journal of Sport Exercise Psychology*, 29(1), 2-20.
- Hastings, G., MacFadyen, L., & Anderson, S. (2000). Whose behaviour is it anyway? The broader potential of social marketing. *Social Marketing Quarterly*, 6(2), 46-58.
- Healthbridge (2014a). *Evaluation report: Reducing the Social Acceptability of Smoking in Vietnam*. Retrieved March 2015, from www.healthbridge.org.
- Healthbridge (2014b). *Final project report: Reducing the Social Acceptability of Smoking in Vietnam*. Retrieved March 2015, from www.healthbridge.org.
- Loro Horta, RSIS Commentary No. 238, December 2014, S Rajaratnam School of International Studies, Nanyang Technology University. 'China's Anti-Corruption Campaign: Understanding the Rationale',
- Ipsos MORI Social Research Institute. (2012). *Acceptable Behaviour? Public Opinion on Behaviour Change Policy*, 16.
- Kogut, T., Ritov, I. (2005a). The 'Identified Victim' effect: An identified group, or just a single individual? *Journal of Behavioural Decision Making*, 18, 157-167.
- Kogut, T., Ritov, I. (2005b). The singularity of identified victims in separate and joint evaluations. *Organizational Behaviour and Human Decision Processes*, 97, 106-116.
- Li, Y. (ed.). (2011). *NGOs in China and Europe: Comparisons and Contrasts*. pp.90-91. The Netherlands: Erasmus University Rotterdam.
- Lu, Q. (2015). China is willing to create a positive social environment for suppressing illegal ivory trade ('林业局：中国愿为遏制非法象牙需求营造良好社会环境'). Retrieved from http://www.gov.cn/xinwen/2015-01/30/content_2812133.htm
- Lu, X. (2013). Luxury is a necessity in People's Republic of China: Social Rejection of New Wealth in the Socialist Market Economy. *The European Business Review*. Retrieved March 2015, from <http://www.europeanbusinessreview.com/?p=2098>
- McDermott, L., Stead, M., Hastings, G. (2005). What is and what is not social marketing: The challenge of reviewing the evidence. *Journal of Marketing Management*, 21(5-6), 545-553.
- McKinsey & Co. (2011a). Understanding China's Growing Love for Luxury. Retrieved from <http://mckinseyonmarketingandsales.com/understanding-chinas-growing-love-for-luxury>
- McKinsey & Co. (2011b). Tapping China's luxury-goods market. Retrieved in March, from http://www.mckinsey.com/insights/marketing_sales/tapping_chinas_luxury-goods_market
- McKinsey & Co. (2012). Luxury Without Borders: China's New Class of Shoppers Take on the World. Retrieved in March, from <https://solutions.mckinsey.com/insightschina/>
- McKenzie-Mohr, D., Schultz, W.P., Lee, N.R., Kotler, P. (2012). *Social Marketing to Protect the Environment: What Works*. Thousand Oaks, CA: Sage.
- Pew Research Center. Pew Global Attitudes 2013 Survey
- Pham, B.N, Hill, P.S., Hall, W., & Rao, C. (2013). The evolution of population policy in Vietnam. *Asia-Pacific Population Journal*, 27(2), 61-75.
- Qian N., Wen J, Yale University, April 20, 2015. 'The Impact of Xi Jinping's Anti-Corruption Campaign on Luxury Imports in China (Preliminary Draft)'.

- Sage, N., Nguyen, C. (2001). *Analysis of Constraints and Enabling Factors of ICDPs in Vietnam*. Discussion Paper, ICDP Working Group, Hanoi, Vietnam.
- Schwarzer, R. (1992). Self-efficacy in the adoption and maintenance of health behaviors: Theoretical approaches and a new model. In *Self-efficacy: Thought control of action*. (eds Schwarzer R.), pp. 217-242. Washington, D.C.: Hemisphere
- Smith, W.A., Strand, J. (2008). *Social Marketing: A Resource Guide for Social Change Professionals*. Washington, D.C: Academy for Educational Development.
- State Council PRC. (2008). State Council's notice on banning of thin plastic bags ('国务院办公厅关于限制生产销售使用塑料购物袋的通知'). Retrieved in March 2015, from http://www.gov.cn/zwggk/2008-01/08/content_852879.htm
- State Council PRC. (2014). State Council's opinion on stepping up patriotic janitorial work in new era. ('国务院关于进一步加强新时期爱国卫生工作的意见'). Retrieved in March 2015, from http://www.gov.cn/zhengce/content/2015-01/13/content_9388.htm
- Stead, M., Gordon, R., Angus, K., McDermott, L. (2007). A systematic review of social marketing effectiveness. *Health Education*, 107(2), 126-191.
- The Climate Group, March 2015. 'Ecological progress': *Understanding China's New Framework For Sustainable Development*
- The Conversation. (2015). The media fuels vaccination myths – by trying to correct them. Retrieved March 2015, from <http://theconversation.com/the-media-fuels-vaccination-myths-by-trying-to-correct-them-38084>
- The Guardian. (2015). British minister in cultural gaffe after giving Taipei mayor 'taboo' watch. Retrieved March 2015, from <http://www.theguardian.com/world/2015/jan/27/british-minister-cultural-gaffe-taipei-mayor-taboo-watch>
- Tabanico, J.J., Schultz, P.W. (2007). Community-based social marketing. *BioCycle*, 8, 41-47.
- Truong, V.D. (2014a). Pro-poor tourism: Looking backward as we move forward. *Tourism Planning & Development*, 11(2), 228-242.
- Truong, V.D. (2014b). Social marketing: A systematic review of research 1998-2012. *Social Marketing Quarterly*, 20(1), 15-34.
- Truong, V.D., Hall, C.M. (2013). Social marketing and tourism: What's the evidence? *Social Marketing Quarterly*, 19(2), 110-135.
- Truong, V.D., Hall, C.M., Garry, T. (2014). Tourism and poverty alleviation: Perceptions and experiences of poor people in Sapa, Vietnam. *Journal of Sustainable Tourism*, 22(7), 1071–1089.
- Vietnam's Fatherland Front Central Committee (2015). *Tổng kết 5 năm thực hiện cuộc vận động Người Việt Nam dùng hàng Việt Nam* (Progress report on the 5 years of the 'Vietnamese People Use Vietnamese Products' campaign). Retrieved March 2015, from www.mattran.org.vn.
- Vietnam Public Health Association (VPHA). (2009). *Giảm sự chấp nhận của xã hội đối với hành vi hút thuốc lá ở Việt Nam* (Reducing the social acceptability of smoking in Vietnam). Retrieved March 2010, from www.vpha.org.vn.
- Wang, Y., Sun, S.J., Song, Y.P. (2011). Chinese Luxury Consumers: Motivation, Attitude and Behaviour. *Journal of Promotion Management*, 17, 345–359.

- Water and Sanitation Program (WSP). (2011). *Vietnam: A handwashing behaviour change journey for caretakers' program*. Retrieved March 2015, from www.wsp.org.
- Wong, Y., Ahuvia, C. (1998). Personal Taste and Family Face: Luxury Consumption in Confucian and Western Societies. *Psychology and Marketing*. 15(5), 423–441.
- World Bank (WB). (1997). *Forest Protection and Rural Development Staff Appraisal Report*. Retrieved March 2015, from www.worldbank.org.
- World Bank (WB). (2005). *Going, Going, Gone...The Illegal Trade in Wildlife in East and Southeast Asia*. Retrieved March 2015, from www.worldbank.org.
- World Bank (WB). (2007). *Forest Protection and Rural Development Implementation Completion and Re Advances in Psychological Science results Report*. Retrieved May 2012, from www.worldbank.org.
- Zhao Shucong. (2015). *Remarks at China Confiscated Ivory Destruction Ceremony by Zhao Shucong, Minister of the State Forestry Administration (May 29, 2015)*.
- Zhou, M, Zhang J. (2007). Social Development and the Changes of Chinese People's Personalities. *Advances in Psychological Science*, 15(2), 203–210.

