

Chapter Four

‘When the Buying Stops, the Killing Can, too’: Wildlife Trafficking and Demand Reduction

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Demand reduction campaigns are a relatively new way of stemming instances of wildlife trafficking. Such campaigns involve attempting to decrease the desire to purchase trafficked products, and to achieve an actual shift in buyer behaviour away from these products. Where they are successful, they effect dramatic decreases in consumer markets. This chapter discusses the main drivers of consumer demand, the strategies employed to target them and where they have been successful, before identifying best practice methodologies and areas for future research.

Table of Contents

I. Introduction	94
II. Drivers of demand	96
1. Social status	96
1.1. Expense	97
1.2. Rarity	98
1.3. Illegality	99
2. Medicine	99
3. Other drivers	101
3.1. Cultural tradition and religion	101
3.2. Food and necessity	101
3.3. Speculation	102
III. Strategies	103
1. Behavioural change campaigns	103
1.1. Awareness campaigns	103
1.2. Education campaigns	104
1.3. Community initiatives	106
2. Criminalisation, regulation, and enforcement	107
3. Substitution	109
IV. Successes	111
1. Shark fin in China	111
2. Ivory in China	112

3. Rhinoceros horn in Vietnam	113
V. Challenges	114
1. Inconsistent research methodologies	114
2. Research gaps	115
3. Lack of campaign analysis	116
VI. Opportunities	116
1. Learning from best practice	116
2. Central data repository	118
VII. Conclusion	119
Bibliography	120

I. Introduction

For decades, stakeholders have been trying to stem wildlife trafficking, one species at a time. Occasionally, this has yielded some success; many times, it resulted in failure. To this day, most anti-wildlife trafficking efforts aim to deter suppliers: the poachers, who carry out the killing; the traffickers, who smuggle carcasses and animal derivatives into consumption markets; and the retailers, who profit from the foregoing. Campaigns targeting a change in consumer behaviour have been a secondary consideration, if that.¹ This is slowly changing. There is now an increased focus on reducing demand for trafficked wildlife in order to hamper trade and lower the incentive to pilfer wildlife populations for profit.²

Utilising demand reduction campaigns in conjunction with implementing punitive measures – referred to as the ‘twin-track approach’ – is now widely recognised as the favoured strategy when aiming to reduce the wildlife trafficking.³ For example, a 2017 United Nations General Assembly resolution urged Member States to reduce demand for trafficked wildlife by ‘using targeted and evidence-based strategies in order to influence

1 As at 2018, less than 250 campaigns to reduce demand for trafficked wildlife had been recorded. See Diogo Verissimo and Anita K Y Wan, ‘Characterizing efforts to reduce demand for wildlife products’ (2019) 33(3) *Conservation Biology* 623, 626; but see Gayle Burgess et al, *Reducing Demand for Illegal Wildlife Products: Research Analysis on Strategies to Change Illegal Wildlife Product Consumer Behaviour* (September 2018) 7.

2 Verissimo and Wan (n 1) 626; Daniel W S Challender and Douglas C MacMillan, ‘Poaching is more than an Enforcement Problem’ (2014) 7(5) *Conservation Letters* 484, 490.

3 Burgess et al (n 1) 16; UN General Assembly, *Tackling Illicit Trafficking in Wildlife*, UN Doc A/RES/69/314 (19 August 2015) 4.

consumer behaviour and create greater awareness of laws prohibiting illegal trade in wildlife and associated penalties'.⁴

Reducing demand for trafficked wildlife (which, unless stated otherwise includes animals, alive or dead, animal parts, products, and derivatives) is a two-step process.⁵ The first step is to decrease consumer intent to purchase products. The second is to achieve an actual shift in buyer behaviour away from such products. Campaigns to reach this goal have therefore been defined as 'outreach interventions aimed to voluntarily change actual behaviour of current or potential consumers of wildlife products or their derivatives'.⁶ Coaxing voluntary behaviour change is no easy task. There are myriad of reasons why consumers are driven to purchase trafficked wildlife. Without a thorough understanding of these drivers, change is not possible. When demand reduction campaigns are executed in accordance with best practice, they can return remarkable results; when they are not, they can be a waste of precious time, money, and resources.

This chapter first examines and categorises the main drivers of demand for trafficked wildlife, and how they influence purchasing behaviour. Current demand reduction techniques are then analysed, pairing them with the relevant drivers to ensure they are most effective. Successful campaigns are discussed, and by identifying the reasons for their success, a best practice approach is identified. Recommendations are made for the next step in demand reduction, including highlighting current knowledge gaps, and building on the idea of a central repository of data so that future campaigns have a better chance at creating change, and saving the planet's most vulnerable species.

4 UN General Assembly, *Tackling Illicit Trafficking in Wildlife*, UN Doc A/71/L.88 (5 September 2017) 5.

5 Gayle Burgess, 'Powers of Persuasion? Conservation Communications, Behavioural Change and Reducing Demand for Illegal Wildlife Products' (2016) 28(2) *TRAFFIC Bulletin* 65, 66.

6 Verissimo and Wan (n 1) 625.

II. Drivers of demand

Successful demand reduction campaigns require an understanding of the factors driving the purchase of trafficked wildlife. Demand is highly nuanced; the impulses that drive a decision to purchase wildlife commodities vary greatly with respect to, inter alia, species, product, and consumer demographic. While many attempts to categorise these drivers have been made, some more complex than others, the body of research reveals the prevalence of two main drivers in the vast majority of purchases: (1) a desire to increase one's social status among their peers; and (2) the desire to use trafficked wildlife for medicinal purposes.⁷ These drivers are not mutually exclusive, nor are they exhaustive. Many other reasons for consumption also exist, including cultural tradition and religion, food and necessity, and speculation.

1. Social status

For many products, a desire to improve social status is the main reason for purchase, particularly in East Asia, the world's biggest consumer market for trafficked wildlife.⁸ With the continuing rise of the wealthy younger generation – a particularly status-conscious demographic – status-related purchases may increase substantially, making an understanding of this driver vital to the future success of demand reduction campaigns.⁹

The desire is so powerful, some retailers suffering declines in sales now market their wildlife products as status items, and they do so with success.¹⁰ Products bought for this reason are often statement pieces, and

7 See, for example, Laura A Thomas-Walters, *Mapping Motivations: Combatting consumption of illegal wildlife in Viet Nam* (December 2017) 3; USAID Wildlife Asia, *What Drives Demand for Wildlife? A Situation Analysis of Consumer Demand for Wildlife Parts and Products in China, Thailand and Vietnam based on a Literature Review*, Situation Analysis (2017) 8.

8 Challender and MacMillan (n 2) 486; USAID Wildlife Asia (n 7) 2.

9 Wander Meijer et al, *Demand under the Ban: China Ivory Consumption Post-Ban 2018* (September 2018) 66.

10 Steven Broad and Richard Damania, *Competing demands: Understanding and addressing the socio-economic forces that work for and against tiger conservation*, Global Tiger Initiative Thematic & Working Paper Series (April 2010) 5 – 6.

include curios, fashion items, and gifts, the latter reflecting positively on both the recipient and the purchaser.¹¹ Status-related purchases often invoke feelings of pride, confidence, and empowerment.¹² These are hedonistic transactions, often conferring no tangible benefit on the buyer outside the psychological; in other words, they are purely discretionary purchases.¹³ Common factors that enhance the desirability are the product's expense, rarity, and, in some markets, illegality.

1.1. Expense

For a product to enhance status, it is usually predicated on some form of exclusivity; products of greater cost correlate strongly with purchases for reasons of social status.¹⁴ As prices rise, the available market contracts, thereby increasing a product's exclusivity and status-enhancing properties. This is especially true of the trade in endangered living animals and has been seen in the turtle, snake, and sturgeon trade.¹⁵

Food that is consumed to confer status usually comes at a high cost to consumers. For example, meat of the pangolin, a small, scaly animal native to Africa and Asia and considered the world's most trafficked mammal, is often eaten for status reasons.¹⁶ Consumers are usually

11 USAID Wildlife Asia (n 7) 8; GlobeScan, *Reducing Demand for Ivory: An International Study* (August 2015) 12; Meijer et al (n 9) 29.

12 GlobeScan (n 11) 12.

13 Thomas-Walters (n 7) 4; GlobeScan (n 11) 15.

14 Rebecca Drury, 'Hungry for Success: Urban Consumer Demand for Wild Animal Products in Vietnam' (2011) 9(3) *Conservation and Society* 247, 250; Broad and Damania (n 10) 6; Daniel Challender et al, 'Understanding Markets to Conserve Trade-Threatened Species in CITES' (2015) 187 *Biological Conservation* 249, 256.

15 Yik-Hei Sung and Johnathan J Fong, 'Assessing Consumer Trends and Illegal Activity by Monitoring the Online Wildlife Trade' (2018) 227 *Biological Conservation* 219, 223; Agnès Gault, Yves Meinard and Franck Courchamp, 'Consumers' Taste for Rarity Drives Sturgeons to Extinction' (2008) 1 *Conservation Letters* 199, 203.

16 Sarah Heinrich et al, *The Global Trafficking of Pangolins: A Comprehensive Summary of Seizures and Trafficking Routes from 2010 – 2015*, TRAFFIC Report (December 2017) vi; Alex Aisher, 'Scarcity, Alterity and Value: Decline of the Pangolin, the World's Most Trafficked Mammal' (2016) 14(4) *Conservation and Society* 317, 320; Daniel W S Challender, Carly Waterman and Jonathan E M Baillie, *Scaling Up Pangolin Conservation: IUCN SSC Pangolin Specialist Group Conservation Action Plan* (July 2014) 16.

businessmen and women seeking to impress existing or prospective clients. Consumption arouses feelings of importance and prestige due to its perception as an ‘expensive status symbol’.¹⁷ A 2017 study found that consumers of pangolin meat in Vietnam were high or upper middle income earners, and chose the product in part due to its high price, which conveys prestige among peers.¹⁸

1.2. Rarity

Product rarity is another prominent driver of demand and can be linked to expense and exclusivity. The fewer consumers that have access to a product, whether by financial inaccessibility, scarcity, or otherwise, the more exclusive the product; the more exclusive the product, the more attractive it becomes for wealthy consumers.¹⁹ A 2008 publication found that apparent rarity even affects taste: where respondents were offered two identical samples of caviar, one from a ‘common’ species and one from a ‘rare’ species, the latter was preferred, regardless of whether the respondent was a novice or regular caviar consumer.²⁰ These findings were supported by other research that found similar perceptions about pangolin meat.²¹

Occasionally, rare pets are more sought-after than captive-bred alternatives. While fish and amphibians for pets are mostly drawn from sustainable sources, a preference for illegally-caught, rarer specimens has been exhibited in birds and reptiles.²²

Typically, the fiscal relationship between supply and demand theorises that when supply dwindles, prices increase, thereby reducing demand to the point where goods become prohibitively expensive to source: a

17 Challender et al (n 14) 255; Christina Vallianos, *Pangolins on the Brink* (2017) 21.

18 USAID Wildlife Asia (n 7) 13.

19 Data is scarce but see, for example, Franck Courchamp et al, ‘Rarity Value and Species Extinction: The Anthropogenic Allee Effect’ (2006) 4(12) *PLoS ONE*: e415 [s.p.]; Sung and Fong (n 15) 223.

20 Gault, Meinard and Courchamp (n 15) 203.

21 Challender et al (n 14) 255.

22 Michael Harfoot et al, ‘Unveiling the Patterns and Trends in 40 years of Global Trade in CITES-listed Wildlife’ (2018) 223 *Biological Conservation* 47, 50; Jessica A Lyons and Daniel J D Natush, ‘Effects of Consumer Preferences for Rarity on the Harvest of Wild Populations Within a Species’ (2013) 93 *Ecological Economics* 278.

phenomenon called the ‘bionomic equilibrium’.²³ Theoretically, this hypothesis should protect species from extinction: if a commodity becomes too expensive to purchase, demand should decrease to the point where garnering supply is no longer commercially viable. This has not been the case with respect to the consumption of trafficked wildlife.²⁴ The willingness of wealthy consumers to pay exorbitant prices for trafficked wildlife outweighs the costs of sourcing, and risk of poaching, for suppliers.²⁵

1.3. Illegality

Examples exist of demand that is driven by the allure of a product’s illegality. The retail and consumption of wildmeat (meat processed from animals killed outside commercial harvesting),²⁶ including tiger and pangolin, can be driven by the exclusivity that results from the unlawful consumption, or a recalcitrant attitude towards the law.²⁷ In Indonesia, illegal ownership of protected birds can denote power and status: a person owning the animal illegally is seen as being ‘above the law’.²⁸

2. Medicine

The use of wildlife for medicinal purposes is a practice that dates back centuries—particularly in China, Japan, the Korean peninsula, and

23 See Colin W Clark, *Mathematical Bioeconomics: The Mathematics of Conservation* (3rd ed, 2010) 16.

24 Ibid.

25 Matthew Holden and Eve McDonald-Madden, ‘High Prices for Rare Species Can Drive Large Populations Extinct: The Anthropogenic Allee Effect Revisited’ (2017) 429 *Journal of Theoretical Biology* 170, 170–171.

26 Margaretha Pangau-Adam, Richard Noske and Michael Muehlenberg, ‘Wildmeat or Bushmeat? Subsistence Hunting and Commercial Harvesting in Papua (West New Guinea), Indonesia’ (2012) 40 *Human Ecology* 611, 612. This paper uses the term ‘wildmeat’, as ‘bushmeat’ impliedly ignores aquatic animals. ‘Bushmeat’ has also been used to denote meat killed for local consumption, which does not raise the specific issue of trafficking, see, for example, UNODC, *Wildlife and Forest Crime Analytic Toolkit* (rev ed, 2012) 146.

27 See, for example, Broad and Damania (n 10) 7; Vallianos (n 17) 20.

28 Vanda Felbab-Brown, *The Extinction Market: Wildlife Trafficking and How to Counter It* (2017) 222–223.

Vietnam—and continues today.²⁹ Common present-day examples are seen in the use of Traditional Chinese Medicine, which includes consuming rhinoceros horn to treat rheumatism, cancer, impotence, and effects of a stroke, tiger parts to ease bone-related pain and arthritis, pangolin to treat skin diseases, wound infections, and cancer; and shark liver oil to boost the immune system and fight cancer.³⁰

Traditional Chinese medicine is not only used for specific ailments. Tonics are ingested to benefit the consumer with qualities commonly associated with the animal. For example, tiger bone is added to wine to be consumed as a tonic, while tiger penis is often used for to promote virility.³¹ Similarly, rhinoceros horn is ground up and mixed with water for this purpose, and pangolin scales were once used to treat nervousness in children.³²

There are some traditional medicine products that are recognised drugs in both Western and traditional Chinese medicine. The active ingredient in bear bile, ursodeoxycholic acid, is possibly effective in preventing or managing liver cirrhosis, colon cancer, and gallstones.³³ A synthetic form of ursodeoxycholic acid is used in Western medicine. Consumers of traditional Chinese medicine, on the other hand, have a strong preference for wild bear bile than the synthetic alternative.³⁴ Consumers of traditional Chinese medicine, however, do not wholly discount Western alternatives. Instead, they are used for different purposes: Western medicine is often preferred for faster action, while traditional Chinese medicine is preferred due to the perceived lack of side effects.³⁵

29 Broad and Damania (n 10) 7.

30 Viet Nam CITES Management Authority, *Viet Nam Rhino Horn Demand Reduction Campaign: Campaign Report 2013 – 2016* (c 2017) 1; USAID Wildlife Asia (n 7) 10; Vallianos (n 17) 10; Christina Vallianos et al, *Sharks in Crisis: Evidence of Positive Behavioural Change in China as New Threats Emerge* (2018) 17.

31 Broad and Damania (n 10) 7.

32 Alex Kennaugh, *Rhino Rage: What is Driving Illegal Consumer Demand for Rhino Horn* (March 2016) 9; Vallianos (n 17) 10.

33 Adam J Dutton, Cameron Hepburn and David W Macdonald, 'A Stated Preference into the Chinese Demand for Farmed v Wild Bear Bile' (2011) 6(7) *PLoS ONE*: e21243 [s.p.].

34 Ibid; UNODC, *World Wildlife Crime Report: Trafficking in Protected Species* (2016) 65.

35 Kennaugh (n 32) 9; Vallianos (n 17) 10; V Dao Truong, V H Dang and C Michael Hall, 'The Marketplace Management of Illegal Elixirs: Illicit Consumption of Rhino Horn' (2016) 19(4) *Consumption Markets & Culture* 353, 362.

3. Other drivers

Alongside purchases relating to status or medicine, other drivers can operate either as subsidiary motivations, or as primary drivers in their own right. While it is impossible to list every conceivable demand driver, three are discussed often in the research: cultural tradition and religion; food and necessity; and speculation.

3.1. Cultural tradition and religion

Links to cultural tradition and religion are often ingrained in custom. For example, the manufacturing and wearing of Shahtoosh shawls has persisted for centuries.³⁶ Made from the wool of the Tibetan antelope, or chiru, demand for these shawls placed strain on the chiru population sufficient to endanger the species. In Yemen, the use of jambiyas, a traditional dagger used to demonstrate masculinity, generated demand for rhino horn to use as the dagger's handle. At a time, rhinoceros horn was so popular in Yemen that the country (then bifurcated into North Yemen and South Yemen) was the world's biggest rhinoceros horn market.³⁷

Despite these examples, purchases for cultural reasons rarely drive demand in isolation. In fact, transactions for cultural reasons may be overrepresented in research data: as cultural phenomena often operate as trends, consumers who purchase products ostensibly for reasons of cultural tradition may actually have little affinity with traditional culture, and actually purchase for statements of wealth or status.³⁸

3.2. Food and necessity

Not all consumption of trafficked wildlife is discretionary. There are many demographics, in regions across the world, that consume wildmeat because it is affordable (and alternatives are not) or other protein is

36 Saloni Gupta, *Contesting Conservation: Shahtoosh Trade and Forest Management in Jammu and Kashmir, India* (2018) 40.

37 Lucy Vigne and Esmond Bradley Martin, 'Closing Down the Illegal Trade in Rhino Horn in Yemen' (2001) 30 *Pachyderm* 87, 87–88.

38 USAID Wildlife Asia (n 7) 8.

unavailable. Such consumption is seen in parts of Asia, Central and West Africa, and South America.³⁹

The world's biggest importers of shark meat are Uruguay and Brazil, with the latter experiencing an 800 % increase in consumption from 2000 to 2011.⁴⁰ The meat is eaten because it is a cheap source of protein. Juvenile eels, called 'glass eels' due to their transparency during infancy, are one of the most trafficked animals in the world.⁴¹ Difficulties in captive harvest has forced suppliers to source specimens from the wild, placing significant strain on populations. As a result, the Japanese eel is now endangered, the European eel critically so.⁴²

3.3. Speculation

Speculation, the practice of purchasing non-perishable products in the expectation that future prices will increase, occurs but is not well studied in the context of wildlife. It occurs when products are anticipated to become rarer, more costly, and harder to acquire. Crucially, increasing awareness of a product's rarity may catalyse this purchasing behaviour. A 2010 paper outlines concerns that news of upcoming regulations 'may encourage risk-taking and increased speculation and stockpiling by illegal traders gambling on [the] possibility of windfall gains'.⁴³ The knowledge of impending difficulty in obtaining ivory has been considered a driver of consumption in China.⁴⁴ As of 2016, no demand reduction campaigns were known to specifically target this driving force, suggesting that it is either a comparatively minor reason for purchase, or the strategies to combat it are, as yet, unknown.⁴⁵

39 Drury (n 14) 247, 249; Felbab-Brown (n 28) 228; Vallianos et al (n 30) 16.

40 Vallianos et al (n 30) 16.

41 UNODC (n 34) 86.

42 Ibid.

43 Broad and Damania (n 10) 7 – 9.

44 GlobeScan (n 11) 19.

45 CITES, *Demand Reduction Strategies to Combat Illegal Trade in CITES-Listed Species*, Seventeenth meeting of the Conference of the Parties, Johannesburg 24 September–5 October 2016, CoP17 Doc 18.1, 3.

III. Strategies

Understanding the most common drivers of trafficked wildlife purchases allows demand reduction strategies to be better tailored towards consumption behaviour. This is infinitely more difficult than it appears, and strategies must take into account the inherent difficulty in effecting behavioural change. Not only do drivers of demand differ between individual consumers, reduction approaches must incorporate the ‘twin-track’ approach: behavioural change campaigns that address the infinite number of reasons people purchase, complemented by laws and regulation that are known and enforced.⁴⁶ Where simply ending the purchasing behaviour cannot be achieved, sustainable substitutes must be available to facilitate a transition away from consuming trafficked wildlife.

1. Behavioural change campaigns

Demand reduction strategies are, in essence, behavioural change campaigns. The focus here is on changing behaviour through awareness, education, and community initiatives. Awareness campaigns and education campaigns are often not distinguished.⁴⁷ Awareness campaigns should be considered as the first step in shedding light on an issue, while education campaigns seek to inform consumers of the threat their consumption poses to wildlife. Community initiatives are additional processes that pursue behavioural change through provoked shifts in societal standards.

1.1. Awareness campaigns

For a demand reduction strategy to be successful, there must be a baseline understanding that a problem exists. To that end, awareness campaigns are a necessary, though alone insufficient, element of a wider approach to behavioural change. For example, ignorance about the existential threat to elephants needs addressing, but knowledge of their status as an

⁴⁶ Burgess et al (n 1) 17.

⁴⁷ See, for example, Kenneth Wallen and Elizabeth F Daut, ‘The Challenge and Opportunity of Behaviour Change Methods and Frameworks to Reduce Demand for Illegal Wildlife’ (2018) 26 *Nature Conservation* 55, 58.

endangered species may not dissuade a buyer from purchasing a small ivory curio, if they believe the purchase will have little impact on the species' future.

Researched examples include: a misunderstanding of the origins of ivory; an ignorance that pangolins are regularly poached; an unawareness about the laws prohibiting rhinoceros horn consumption; and accidental consumption of shark meat sold as alternative products.⁴⁸ It also not understood why demand for pangolin in the United States, the world's second biggest market, is so strong.⁴⁹

A 2015 study carried out by USAID found that awareness of wildlife issues in China, and Southeast and Eastern Asia is low.⁵⁰ Anthropocentrism is a pervasive view, with wildlife placed as existing to serve human needs; the more utilitarian the respondent's attitude towards animals, the more likely the respondent to purchase trafficked wildlife.⁵¹ In some cases, there is even a negative image of animals. They are seen to be a danger to local humans, and need to be killed.⁵² This view is supplemented by the erroneous belief that trafficked species are in no danger of becoming extinct, due to a perceived abundance of animals in source countries.⁵³

Without suggesting that effective awareness campaigns will wholly eliminate trafficking of wildlife, it is important for consumers to have an accurate understanding of the origin of the products they purchase. Ignorance of these facts may preclude consumers from making conscious informed decisions about whether to consume trafficked wildlife.

1.2. Education campaigns

Education campaigns go further than merely spreading information of environmental issues: they provide reasons why the problem is a problem,

48 Christina Vallianos, *Ivory Demand in Thailand* (2015) 5; Vallianos (n 17) 20; Kennaugh (n 32) 13; Hugo Bornatowski et al, "Buying a Pig in a Poke": The Problem of Elasmobranch Meat Consumption in Southern Brazil' (2015) 6(1) *Ethnobiology Letters* 196, 197.

49 See, for example, Heinrich et al (n 16) 10, 25.

50 USAID Wildlife Asia (n 7) 15.

51 Felbab-Brown (n 28) 222; GlobeScan (n 11) 7.

52 GlobeScan (n 11) 7.

53 Ibid 23.

either for the survival of the species, or for the broader impact to the environment and even humans themselves. They also serve to dispel myths about the nature of the product. For example, an awareness campaign may highlight the plight of the rhinoceros species in the face of poaching; an education program will inform that rhinoceros horn has no medicinal value and is therefore a waste of money.⁵⁴

The focus of an educational campaign can be sometimes confused by differing opinions about what changes human behaviour. For example, some argue that appealing to altruism is not an effective strategy because selfish impulses prevail over self-control.⁵⁵ Instead it is suggested that campaigns are most effective when individuals feel there is a direct threat to their own safety, health, or wellbeing, and an opportunity to avoid that threat is available to them.⁵⁶

One example of a such a threat was conveyed in a WildAid campaign to reduce shark fin consumption in China. Methylmercury, a neurotoxic compound highly poisonous to humans, is found in shark meat. Low-level heterotrophs metabolise mercury pollution into methylmercury, and through a process called bioaccumulation, the compound builds up in the flesh of sharks to a level dangerous to humans.⁵⁷ This health threat formed part of the WildAid campaign, and was listed by one in three consumers as a reason to avoid shark fin.⁵⁸

Research led by Gayle Burgess et al following China's ban on the trade of ivory found that support for government regulation was predicated on the knowledge that elephant populations are in decline due to poaching, and that the killing of adult elephants impair the survival chances of baby elephants.⁵⁹ While some argue that campaign messaging should be positive, and not seek to shock the targeted audience, overall it was images of poached elephants that were considered by Chinese viewers to be the most 'impressive' elements of the campaign against ivory use.⁶⁰

54 See, for example, Viet Nam CITES Management Authority (n 30) 5.

55 Felbab-Brown (n 28) 224.

56 Ibid 225.

57 Vallianos et al (n 30) 18.

58 S Whitcraft et al, *Evidence of Declines in Shark Fin Demand, China* (2014) 27.

59 Meijer et al (n 9) 11.

60 Burgess (n 12) 69; Meijer et al (n 9) 61.

For buyers of ivory in the so-called ‘diehard’ category, however, it was celebrities such as basketball star Yao Ming and actress Li Bingbing, that were most influential. Celebrities may therefore appeal to consumers concerned with their social perception. Other research suggests that celebrities should only be used as a communication tool where appropriate, in order to prevent consumers succumbing to celebrity fatigue.⁶¹

Overall, the studies referred to highlight that a ‘one-size-fits-all’ message is impossible to achieve. Ultimately, it is vital to remember that campaign messaging appropriate for one demographic may not be appropriate for its target: the consumer. It is the consumer, and the messaging that works best at changing their behaviour, that should be the focus of any demand reduction campaign.

1.3. Community initiatives

Community initiatives involve a community-based program incorporating awareness, education, and prevention, targeting societal pressures to conform.⁶² This is an avenue that does not appear to have been well explored. Potential reasons for this may be that such initiatives fall outside established demand reduction strategies, and there is a dearth of research from which to build upon. There are very few studies on general community-based prevention in Asia, and even fewer relating to the reduction of trafficked wildlife consumption.⁶³

Some examples do exist. The Animals Asia Foundation has entered classrooms in Vietnam to educate children on the cruelty of bear bile farming; the Indonesian Council of Ulema declared a *fatwa* — a religious ruling — against wildlife trafficking; and various other religious organisations have voiced concerns.⁶⁴

61 See, for example, Whitcraft et al (n 58) 23–24; Meijer et al (n 9) 61; Elaine Jeffreys, ‘Translocal Celebrity Activism: Shark-Protection Campaigns in Mainland China’ (2016) 10(6) *Environmental Communication* 763, 764; Elizabeth Duthie et al, ‘The Effectiveness of Celebrities in Conservation Marketing’ (2017) 12(7) *PLoS ONE*: e0180027 [s.p.].

62 See, for example, Wallen and Daut (n 47) 61.

63 UNODC, *International Standards on Drug Use Prevention* (2015) 27.

64 Julie Ayling, *A regulatory approach to demand reduction in the illegal wildlife market*, RegNet Research Papers No 82 (2015) 12.

One example of a strategy that broadened its focus beyond the immediate consumer demographic, is the partnership between the Humane Society International and the Vietnam CITES Management Authority to reduce rhino horn consumption in Vietnam. Outside the campaign's target audience, the strategy included working with children, women's associations, university students, businesses, and the Vietnam Union of Science and Technology Associations.⁶⁵ Not all of these groups contribute to demand for rhino horn. Instead, workshops and education programs targeted a broad cross-section of the community in an attempt to shift cultural and societal norms, such that anti-consumption behaviour can be reinforced by these groups. For example, one animated video about rhino horn, made for children, was viewed by more than 2.6 million people.⁶⁶ Of those that viewed the cartoon, 100% said they would not consider purchasing rhino horn, a promising result even if a small proportion do change their intentions as they age.⁶⁷

This use of education programs in the school classroom is a practice that should be explored further. It involves educating school-aged children about the effects of trafficking on species survival, and gives them tools to avoid consuming such products, either by negotiating their way out of peer pressure, or by enhancing a culture where the consumption of trafficked animals is looked down upon. While the results of such an investment may not be realised immediately, the United Nations Office on Drugs and Crime has found that such campaigns enhance critical thinking, which may increase the effectiveness of education and awareness campaigns as children enter consumption demographics.⁶⁸

2. Criminalisation, regulation, and enforcement

As the counterpart to behavioural change campaigns, criminalisation is a necessary step in fighting wildlife trafficking.⁶⁹ Laws ought to ban egregious forms of wildlife exploitation, and regulations should provide a

65 Vietnam, CITES Management Authority (n 30) 3–5.

66 Ibid 6.

67 Ibid.

68 UNODC, *World Drug Report 2015* (2015) 24.

69 Anita Sundari Akella and Crawford Allan, *Dismantling Wildlife Crime: Executive Summary* (November 2012) 6.

framework within which trade can continue sustainably. To be effective, bans must be also be enforced and seen to be enforced. There must also be widespread awareness by the public of the legislative requirements expected of them.

The enforcement of existing laws remains a problem in a number of markets, including countries where seizure rates are low despite being a known trafficking route, such as Laos in the trafficking of ivory and pangolin.⁷⁰ Restaurants in Vietnam rarely face tough penalties for serving pangolin meat and there is a pervasive view that the risk of arrest for buying rhino horn in China is average to low.⁷¹ Stronger enforcement of laws serves as both a general deterrence to the wider community, and a specific deterrence to potential customers. It may also lead to collection of better data about source countries of trafficked wildlife, in turn facilitating better research into these regions and allowing more effective demand reduction campaigns.

Paradoxically, one study in China found that 67 % of those likely to purchase ivory actually support the recent ban on trade, saying that even stronger regulations would prevent them from purchasing.⁷² This response was found in the world's five biggest ivory markets: China, the United States, Philippines, Vietnam, and Thailand. Many also support an international treaty banning the ivory trade.⁷³ Another example of this attitude can be seen in the consumption of shark fin. While it remains a 'popular' dish at weddings and events, many do not wish to consume it, and only do so due to pressure from their peers.⁷⁴

Awareness of bans is another issue. Despite having some of the most severe sentencing for wildlife crimes, one quarter of surveyed respondents in China were unaware that consuming rhino horn is illegal, a figure that pales in comparison to Vietnam, where an estimated 90 % of respondents were unaware of the laws against rhino horn trade in their country.⁷⁵ While regulators must understand legislative requirements and the punishment

70 Lucy Vigne and Esmond Martin, *The Ivory of Laos: Now the Fastest Growing in the World* (2017) 7; Heinrich et al (n 16) 28.

71 Vallianos (n 17) 22; Kennaugh (n 32) 13.

72 GlobeScan (n 11) 19.

73 Ibid 20.

74 Felbab-Brown (n 28) 222.

75 Kennaugh (n 32) 13; Truong, Dang and Hall (n 35) 362.

for non-compliance, the general public too must have a clear understanding of wildlife trafficking laws, and the consequences of breaching them.⁷⁶

Like awareness campaigns, merely enacting legislation or implementing regulatory frameworks in isolation is insufficient to entirely reduce demand for trafficked wildlife, and even those who advocate for greater focus on regulation accept that enforcement alone is not enough to reduce demand.⁷⁷ To be successful, they must complement other strategies, such as behavioural change campaigns, and an overall reduction of demand may also make the enforcement of bans an easier task.⁷⁸

3. Substitution

Behavioural change campaigns and criminalisation can be supported by the availability of sustainable alternatives to trafficked wildlife. This may be in the form of a legal, sustainable option, such as captive bred wildlife, or, where the product is for practical use, an affordable, fit-for-purpose alternative.⁷⁹ Substituting trafficked wildlife for sustainable alternatives has, in some cases, proven to be an effective tool in the fight against trafficked wildlife consumption, though studies into their potential success are scarce.⁸⁰

The alternative must be sustainable, and should not replace one environmental concern with another. Perhaps the most glaring example of an unsuitable substitute is the plight of the saiga antelope. The market for rhinoceros horn in Japan, at one time one of the biggest in the world, is now negligible.⁸¹ This reduction was driven, in part, by the use of saiga antelope horn as a substitute to rhinoceros horn for medicinal use. The

76 UNODC (n 26) 165.

77 Elizabeth L Bennett, 'Another Inconvenient Truth: The Failure of Enforcement Systems to Save Charismatic Species' (2011) 45(4) *Oryx* 476, 476 – 477; Ayling (n 64) 15.

78 Akella and Allan (n 69) 6; Felbab-Brown (n 28) 219.

79 See, for example, Tamsin E Lee and David L Roberts, 'Devaluing Rhino Horn as a Theoretical Game' (2016) 337 *Ecological Modelling* 73, 78.

80 Jacob Phelps, L Roman Carrasco and Edward L Webb, 'A Framework for Assessing Supply-Side Wildlife Conservation' (2014) 28(1) *Conservation Biology* 244, 245; cited in A Nuno et al, 'Understanding Implications of Consumer Behaviour for Wildlife Farming and Sustainable Wildlife Trade' (2017) 32(2) *Conservation Biology* 390, 391.

81 Tomomi Kitade and Ayako Toko, *Setting Suns: The Historical Decline of Ivory and Rhino Horn Markets in Japan*, TRAFFIC Report (April 2016) 2.

strain on the antelope population was so great, it is now considered to be critically endangered.⁸² Another product that is unable to be marketed as a suitable alternative is jade. It may be a fitting replacement for ivory, but human rights abuses involved in its extraction make it inappropriate to market the mineral as such.⁸³

Alternate products are also less likely to be pursued when the trafficked wildlife is consumed because it is wild. Bear bile is one of many examples. The active ingredient, ursodeoxycholic acid, has been artificially replicated in laboratories, yet users of bear bile favour products from wild bears, even preferring them over captive bears.⁸⁴ Other studies have demonstrated this mindset towards tiger products and wildmeat such as turtle.⁸⁵ Attempts in Africa to replace consumption of wildmeat with consumption of chicken and goat meat have also been unsuccessful, with the change in eating habits considered by consumers to be too drastic.⁸⁶

In many cases, alternative products will not only need to be sustainable, they may also need to provide economic incentives to suppliers. Where a retailer has an option to sell either trafficked wildlife or a sustainable alternative, the most profitable product is likely to be chosen in the absence of harsh penalties or social exclusion. Where trafficked products are cheaper to source, they may also be cheaper for the final consumer than a sustainable alternative.⁸⁷ This should not be confused with an effort to alleviate poverty as a strategy to reduce demand, as research has shown that such a strategy, while perhaps effective in general conservation, is unlikely to deter wildlife crime and consumption.⁸⁸

82 Ibid 23 – 24.

83 Burgess (n 12) 66.

84 Dutton, Hepburn and Macdonald (n 33) [s.p.]; Sung and Fong (n 15) 223.

85 Brian Gratwicke et al, 'Attitudes Toward Consumption and Conservation of Tigers in China' (2008) 3 (7) *PLoS ONE*: e2544 [s.p.]; Nuno et al (n 80) 398.

86 Felbab-Brown (n 28) 228.

87 See, for example, Drury (n 14) 255.

88 Akella and Allan (n 69) 6.

IV. Successes

Demand reduction campaigns that find success are either implemented alongside or highlight existing government laws and regulations; the so-called ‘twin-track approach’. More recent examples of success can be attributed to in-depth pre-campaign research, a targeted campaign roll-out, and adaptive campaign monitoring. The following three campaigns illustrate how effective these components can be when seeking success.

1. Shark fin in China

In 2006, before a demand reduction campaign led by WildAid commenced, Chinese consumption of shark fin was ubiquitous. So too was ignorance; a translation quirk meant that only one-quarter of the population knew that shark fin soup came from sharks, and nearly 20% of people thought shark fins grew back.⁸⁹ Over the next decade, consumption of shark fin fell by 80%, while shark fin imports and sales declined by 81%.⁹⁰ This is a remarkable achievement. The decline was accompanied by a widespread advertising campaign featuring prominent celebrities, a Chinese governmental ban on shark fin consumption at state banquets, and extensive media coverage.

Success can be largely attributed to the considered approach of WildAid’s demand reduction campaign. Beginning in 2006, the campaign conducted preliminary research which outlined a significant awareness gap of the origin of shark fins, and the brutal nature of shark finning. Those findings shaped a substantial marketing campaign featuring some of China’s most beloved celebrities, including basketballer Yao Ming, actor Jackie Chan, and footballer David Beckham. The campaign sought to turn public attitude against shark fin soup using a simple message: ‘When the buying stops, the killing can too’, a mantra seeking to highlight the cruelty of shark fin consumption.

89 Whitcraft et al (n 58) 23.

90 Vallianos et al (n 30) 7.

The campaign was intensified during the 2008 Beijing Olympics, and was ultimately seen by some 80 % of its targeted audience.⁹¹ A 2010 survey revealed that the campaign was recalled by more than half of survey respondents, and more than 80 % agreed that the campaign would deter them from consuming shark fin products.⁹² This follow-up research confirmed public support for the campaign, guiding its ultimate success.

2. Ivory in China

Because of its significant population and deep cultural affinity with the product, China is the world's largest consumer of ivory.⁹³ However, on 1 January 2018 a landmark ban on ivory trade was implemented by the Chinese government, providing an opportunity for a parallel demand reduction campaign.⁹⁴ As with the campaign to reduce shark fin consumption, pre-ban research was conducted, guiding the campaign roll-out, with post-campaign monitoring revealing further opportunities.

Pre-ban research into the ban's potential efficacy was promising: a report by the World Wildlife Fund revealed that more than 80 % of those interviewed agreed that the ban would deter them from buying ivory, and support for strict regulation was high.⁹⁵ This directed the campaign messaging to promote awareness of the ban, as well as attempting to provoke change in consumer behaviour.⁹⁶

As with the initiative to reduce shark fin consumption, WildAid conducted the campaign, and again utilised Yao Ming and Li Bingbing as the campaign faces.⁹⁷ Guided by the pre-ban research, the campaign aimed to promote awareness of the ban, alongside attempting to change consumer attitudes towards the ivory trade.⁹⁸ Again, the slogan 'when the buying

91 Ibid.

92 Whitcraft et al (n 58) 23.

93 Meijer et al (n 9).

94 [s.n.], 'China's Ivory Ban on Ivory Trade Comes Into Force', *BBC News online* (1 January 2018).

95 GlobeScan (n 11) 10.

96 Meijer et al (n 9) 53.

97 Ibid 16.

98 Ibid 53.

stops, the killing can too' featured in the campaign and, along with the use of celebrities, was regarded as its most memorable element.⁹⁹

A post-ban survey commissioned by WWF and TRAFFIC has found that the ban is having the effect that the pre-ban research had suggested: 83 % of respondents said the ban made them completely stop buying ivory.¹⁰⁰ Importantly, the post-ban research allowed GlobeScan, who carried out the research, to make a number of key recommendations based on the campaign outcomes. These included insights into messaging priorities, engagement of ivory 'rejectors' in future campaigns, and the targeting of millennials on social media and news applications.

3. Rhinoceros horn in Vietnam

The campaign to reduce the use of rhinoceros horn in Vietnam is in its relative infancy, but it represents best practice methods of formulating and implementing a strategy for behavioural change. Called the *Chi Initiative*, it is one of the largest ever demand reduction campaigns rolled out in Vietnam.¹⁰¹ The Initiative incorporates a five step process: behaviour identification, which highlights the purchasing behaviour requiring change; audience segmentation, which sections the campaign audience by, for example, attitudinal, psycho-social, and socio-economic factors; behaviour modelling, which builds on the first and second steps using empirical research to identify appropriate approaches to best achieve behavioural change; marketing framework, which develops the marketing strategy to include the most effective messages, messengers, and mechanisms; and finally, the implementation of the initiative, which is an adaptive approach, open to review and refinement as the campaign progresses.¹⁰²

Results are preliminary but encouraging. A 2016 study found that in the first three years of the campaign's rollout, the number of respondents that considered rhinoceros horn to be an effective medicine dropped by 45 %, which was the same percentage decrease in the people that self-reported

⁹⁹ Ibid 16.

¹⁰⁰ Ibid 15.

¹⁰¹ Susie Offord-Wooley, 'The Chi Initiative: A Behaviour Change Initiative to Reduce the Demand for Rhino Horn in Viet Nam' (2017) 58 *Pachyderm* 144, 144.

¹⁰² Ibid 146.

purchasing rhinoceros horn in the preceding 12 months.¹⁰³ The second phase of the initiative is now in motion and the *Chi Initiative* could prove to be the blueprint for future demand reduction campaigns.¹⁰⁴

V. Challenges

Demand reduction programs are never designed to fail, but good intentions alone do not guarantee success. Stimulating behavioural change of any kind is a complex task, and much energy is dedicated to reducing demand for trafficked wildlife. Still, some measures fall short of their ambition, often due to funding shortfalls, temporal constraints, or an underappreciation by reduction campaigners of the task.¹⁰⁵

This undertaking is made more difficult by deficiencies in current research, both in the nature of the research itself, and in the lack of coherence between data sets. Current areas for improvement include: more consistent research methodologies, reducing the potential for misleading or incomparable datasets; more comprehensive research studies that analyse all demographics; and a greater focus on analysing previous campaigns, building on success and learning from failure. As data collation, research strategies, and campaigns differ from species to species, and consumer to consumer, uniformity is difficult.

1. Inconsistent research methodologies

The vast number of international organisations, many of which are dedicated to the same cause, has contributed to research methodologies that are inconsistent and disparate, making comparisons between surveys difficult and confusing when formulating a demand reduction campaign.¹⁰⁶

If standardised best-practice research methodologies were developed, dissemination throughout the international community would make survey

¹⁰³ Viet Nam CITES Management Authority (n 30) 6.

¹⁰⁴ Offord-Wooley (n 101) 146.

¹⁰⁵ Akella and Allan (69) 11.

¹⁰⁶ Burgess et al (n 1) 12.

results more comparable. Pre-existing research could then be relied upon with greater confidence, increasing efficiency when devising reduction campaigns and allowing funds to be redirected towards other areas of demand reduction. States could also be encouraged to conduct their own research, using established methodologies for regular reporting, and allowing stakeholders to more readily identify current and potential issues.

2. Research gaps

Despite a number of organisations dedicating resources towards understanding consumers of trafficked wildlife, there are still a number of research gaps across every stage of the demand reduction process, including consumption drivers, effective campaign approaches, and post-strategy analysis.¹⁰⁷

Further research must be conducted in many consumption markets to better understand the demand drivers. For example, the United States conducts more demand reduction campaigns than anywhere else in the world, yet it is still unclear why it is the world's second biggest destination for pangolin.¹⁰⁸ It may be a transit hub, it may be a sizeable consumer, or it may be both. Such an understanding is vital to ensure the efficiency and effectiveness of any campaign to reduce demand.

Gaps in campaign marketing includes a lack of research into the effects of language in messaging, the most effective psychological tools to effect change, and a lack of reference to established behavioural science methods that may be utilised in reduction campaigns.¹⁰⁹ A recent toolkit designed to help fight trafficking of wildlife offered little in the way of guidance for demand reduction. Thus a dedicated manual to demand reduction is needed.¹¹⁰

¹⁰⁷ Ibid 20.

¹⁰⁸ See, for example, Heinrich et al (n 16) 25. Note these figures may be due to more effective law enforcement, resulting in more seizures.

¹⁰⁹ Burgess et al (n 1) 23, 29, 31.

¹¹⁰ USAID, *Measuring Impact – Measuring Efforts to Combat Wildlife Crime: A Toolkit for Improving Action and Accountability* (March 2017) 16 – 18.

3. Lack of campaign analysis

With a lack of funding often considered a reason for campaign failure, it is imperative that measures be as efficient and effective as possible.¹¹¹ This can be assisted by an examination of demand reduction measures both during and after they are implemented, however research reveals that post-campaign analysis is poor.

As at 2018, 236 demand reduction initiatives had been identified; of those, only one quarter reported outcomes, and less than 10% reported impacts.¹¹² A further 46 campaigns were recognised, without any accompanying analysis at all.¹¹³ While some outcomes may not be observable for some time, and some impacts may be undetectable at all, this gap reveals both a current impediment and a future opportunity.

Reporting failures may not fill a researcher with pride, but consistent reporting of outcomes will help build a greater understanding of the strategy components that are vital to success, and those that are conducive to failure. Mistakes that can be avoided, should be, so that efficiencies and campaign success rate may be improved.

VI. Opportunities

1. Learning from best practice

There are fundamental best practices that each demand reduction campaign should try to achieve. They must be sensitive to market change and be suitably adaptive.¹¹⁴ They should be paired with effective bans, or regulation that is enforced, and is seen to be enforced.¹¹⁵ When tackling consumption of trafficked wildlife, parties to the CITES treaty have been urged to implement: demand reduction campaigns alongside regulations and law enforcement; in-depth research conducted using standard

¹¹¹ Akella and Allan (n 69) 11.

¹¹² Veríssimo and Wan (n 1) 6.

¹¹³ *Ibid.*

¹¹⁴ Akella and Allan (n 69) 7.

¹¹⁵ *Ibid.*

methodologies; evidence-based campaigns that target demand drivers; greater awareness campaigns to highlight the plight of trafficked species and the consequences of consuming them; and stronger legal and enforcement deterrents.¹¹⁶

Many publications have endorsed individual guidelines to follow when researching, formulating, and implementing demand reduction campaigns.¹¹⁷ While there are some variations, the body of research broadly recommends the following steps:

- (1) Conduct research. Preliminary and comprehensive research is vital. Establish the main drivers of the demand, noting that there may be multiple, and there is likely to be nuance between consumers at both an individual and demographic level.
- (2) Consider any influence or social pressure that facilitates consumption. These pressures will need to be accounted for when designing strategies, and can include social, familial, and societal pressures.
- (3) Segment the audience. Identify the most trusted messengers of that information, specific to the consuming demographic. For example, the increase in online wildlife trade, while challenging, presents the opportunity for more targeted advertising.¹¹⁸ Data collation may provide the chance to target consumers at each stage of the purchasing cycle: as they conduct initial research into the product; as they check and compare prices; or as they move to complete the transaction. To this end, social media campaigns could be used.¹¹⁹
- (4) Construct the marketing strategy. Ensure the strategy targets internal drivers and external influences. As brief examples, where medicine is a consumption driver, characterising purchases as a waste of money may be effective. If status is the predominant driver, campaigns that challenge the social acceptability of purchases may be effective.

116 CITES, Conference of the Parties, *Demand reduction strategies to combat illegal trade in CITES-listed species*, Resolution Conf. 17.4, 1.

117 See, for example, Burgess et al (n 1) 87 – 91; USAID (n 110) 16 – 18.

118 Sung and Fong (n 15) 220.

119 See, for example, Steven Greenfield and Diogo Verissimo, 'To What Extent is Social Marketing Used in Demand Reduction Campaigns for Illegal Wildlife Products? Insights From Elephant Ivory and Rhino Horn' (2019) 25 (1) *Social Marketing Quarterly* 40, 43 – 48.

(5) Monitor the campaign. Once the campaign has begun, the strategy must remain sensitive to market changes and adjusting the strategy accordingly. This step should include follow-up research of consumer markets and audiences, to identify the campaign aspects that work, the effects that are being achieved, and the demographics that are not responding positively. The campaign can then be altered, slightly or radically, to ensure it can be as effective as possible.

2. Central data repository

While still a comparatively new field of research, there has been many resources dedicated towards understanding demand reduction. Still, finding suitable research outcomes is difficult and time consuming. One idea, raised briefly in a recent report by Burgess, prescribes a ‘centrally managed, definitive source of reliable data per taxon per country’.¹²⁰ Given the mismatched nature of available research, such a repository would well serve those that agitate to reduce demand.

A website could be established incorporating this. It could provide resources for species-specific reduction strategies, with a database of research studies that could be input to have a uniform dataset. For example, under ‘ivory’, data could be separated into demographic (‘consumer’), consumption behaviour (‘driver’), and reduction approach (‘strategy’). Algorithms could divide demographics into customisable parameters, such as age, sex, and location, and data could be viewed either as an average of all available and reputable research, or as a link to individual articles that have conducted research into ivory consumption and behaviours. The issue of copyright could perhaps be overcome through a subscription service that provided payment to the publisher each time an article is downloaded.

A separate section could analyse past campaigns. As demand reduction is a relatively new strategy, a recent study has collated every reduction effort since the turn of the century.¹²¹ As new campaigns are rolled out, their progress could be tracked under a section of ‘current campaigns’, which could then be updated as necessary. There would be an incentive for

¹²⁰ Burgess et al (n 1) 39.

¹²¹ Verissimo and Wan (n 1).

experts to examine previous campaigns, and opportunities for further research would present themselves.

Should this repository become a definitive source, it could serve to eliminate many of the current deficiencies that are regularly highlighted, and contribute to a unified view of demand reduction campaigns.

VII. Conclusion

Experience has shown that hampering the trafficking of wildlife is difficult, but it is not impossible. There are a number of committed stakeholders, demonstrated by the vast number of international organisations, that dedicate their existence to saving the animal kingdom's endangered species. A greater understanding of the drivers underpinning consumer behaviour is emerging, allowing campaigns to tailor strategies to address them. Despite some examples of improvement, there is still a need to increase awareness and enhance enforcement of existing laws to deter the purchasing of trafficked wildlife.

As the world's biggest market for trafficked wildlife, southeast Asia bears much responsibility in reducing demand. China has confirmed its commitment to protecting vulnerable fauna, exemplified by the ivory trade ban and efforts to reduce shark fin consumption, proving that change can be effected. China is not alone in its success. Japan, Vietnam, and Yemen, among others, have also demonstrated that well-founded, committed, enduring demand reduction campaigns can change consumer behaviour for the better.

Every new demand reduction campaign offers the chance to benefit from previous successes, or learn from past failures. To fully grasp this opportunity, research methodology must be consistent, research gaps must be filled, and campaigns must be analysed with more vigour. To facilitate this process, and remove inefficiencies, a central data repository should be created that can serve as a starting point for all demand reduction experts.

The size of the trafficked wildlife industry may appear insurmountable, but a burgeoning focus on reducing consumer demand is giving stakeholders a fighting chance. As each new campaign is employed, the body of knowledge grows, allowing future campaigns a greater chance at success.

Humans would do well to remember that they are not above nature, they are nature. The sooner that is internalised, the greater the chance of saving vulnerable wildlife. The natural order depends on it.

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