



Illegal Wildlife Trade (IWT) Challenge Fund Evidence Final Report

IWT Challenge Fund Project Information

Project reference	IWTEV003
Project title	Exploring drivers of wild meat consumption and interventions in Vietnam
Country(ies)	Vietnam
Lead Partner	Wildlife Conservation Society, Vietnam Program
Project partner(s)	Not applicable
IWTCF grant value	£99,998
Start/end dates of project	01 st July 2022 – 30 th December 2023
Project Leader’s name	Hoang [REDACTED], Country Director
Project website/blog/social media	https://vietnam.wcs.org/ https://www.facebook.com/wcsvietnam.org https://www.linkedin.com/company/wcs-viet-nam/
Report author(s) and date	Hoang Bich Thuy, Country Director 30 th March 2024

1. Project summary



Figure 1. Map of project sites in Viet Nam
interventions.

In spite of the ongoing COVID-19 pandemic and the Vietnamese Governments efforts on law enforcement and communication campaigns to discourage the consumption of protected species, the prevalence of wild meat consumption in Vietnam remained high in 2022. To better understand this issue, WCS conducted a study to investigate the factors driving, and potentially useful in reducing the selling and consumption of wild meat. This included work to understand the dynamics of wild meat markets in Bac Ninh, Ha Nam, and Ha Noi, in Northern Vietnam. We conducted a Knowledge, Attitude, and Practices (KAP) survey and developed a crime script to support analysis and identification of opportunities for

We encountered several challenges including limited availability of data on the dynamics of participants along the wild meat supply chain, difficulty enrolling restaurant customers in surveys, and reluctance from restaurateurs to allow customer interviews. However, we implemented alternative methods to address these challenges, including the snowball sampling method to identifying participants and a self-administered survey to gather information about the drivers for the sale and consumption of wild meat, evaluate the perception of health risks, and identify barriers to reducing its prevalence.

The research findings were shared and discussed with stakeholders in the project locations, leading to the development of a preventative crime model complemented by social behaviour change interventions. These interventions, combined with enforcement actions, will be implemented in future projects to reduce the trade and consumption of wild meat. The project did not specifically include poverty reduction interventions, however the results obtained from our KAP survey regarding the motivations for the sale and consumption of wild meat may inform government agencies in identifying potential alternative livelihoods for individuals involved in this trade chain.

2. Project Partnerships

The project was implemented by WCS, with initial partners including the Institute of Police Science (IPS), under the People's Police Academy (PPA). However, during the implementation process, we collaborated with other government partners including the Institute of Regional Sustainable Development (IRSD) under the Vietnam Academy of Social Science (VASS).

During the project design phase, WCS had identified the IPS as a key partner and a support letter from the IPS was attached to the proposal submitted. During the kick off meeting, WCS and IPS discussed implementation of project activities. However, six months after the project was granted, the IPS was still not able to secure formal approval from the Ministry of Public Security to collaborate with WCS on this project, as required by the Government of Vietnam for all projects supported by international donors. Thus, WCS identified the **Institute of Regional Sustainable Development (IRSD) under the Vietnam Academy of Social Science (VASS)** as an alternative Government partner. The IRSD is a national social research institute responsible for regional research-based strategies, plans, and policies to enhance sustainable development.

The IRSD was very supportive and engaged in deploying the KAP survey in the three project provinces, including the recruitment of respondents. IRSD provided expertise when developing research tools, securing permission to implement and mobilize local support, and participated in data collection. IRSD also participated in developing the KAP survey report and provided recommendations related to changing wildlife meat consumption behaviours in restaurants. We anticipate IRSD will be instrumental in implementing the preventative policing strategy and behaviour change interventions recommended by this project, as well as future projects on related topics. Given this and considering their national outreach network and policy influencing capability, WCS will continue to engage IRSD.

The Faculty of State Management, Institute of Management for Agriculture and Rural (IMARD) is a training institution under the Ministry of Agriculture and Rural Development. They oversee high-quality training for civil servants and public employees, and human resources for the agriculture and rural development agencies. WCS involved this new stakeholder in developing crime scripts and organizing consultation meetings on crime scripts and preventative models with forest protection officers. We jointly designed interventions aiming at making forest rangers and police become change agents and allies in promoting new behaviours for restaurateurs.

Recognising the importance to conduct research and to engage One Health stakeholders in Vietnam, WCS and the Institute of Environmental Health and Sustainable Development (IEHSD) co-hosted a consultation on the recommendations and preventive measures to mitigate risks of zoonotic disease transmission associated with wildlife trade and consumption. We also vetted findings of a policy and legal review on disease management and prevention in the wildlife supply chain and gathered comments on policy revision in Vietnam. IEHSD provided key inputs into the project implementation, and WCS Vietnam will continue to involve them in our work related to zoonotic risk detection and mitigation.

This project offered the opportunity of incorporating the crime prevention model using the crime script analysis technique into the curricula for pre-service forest protection, so WCS engaged the **Vietnam National University of Forestry (VNUF)** in reviewing and commenting on the draft of the crime script and preventive strategy. VNUF is interested in this approach. WCS will continue to work with them to develop an action plan and mobilize funds to integrate countering wildlife trafficking and crime preventative models into their training curricula for their students.

When conducting the KAP survey and consultation workshops, we received active involvement and support from forest protection, animal health, human health, and market management agencies in the provinces of Bac Ninh, Ha Nam, and Ha Noi. These provincial partners will continue to be engaged to promote the project's results in the next period to reduce demand for threatened species of wildlife in Vietnam.

3. Project Achievements

3.1. Outputs

Output 1: A report on the current situation and trends of wildlife trafficking in Vietnam and patterns of trade for consumption purpose

This output was achieved. Various data collection methods were used, including a literature review; field trips to project provinces - Bac Ninh, Ha Nam, Ha Noi - to observe wild meat consumption at restaurants and wildlife sale at markets before, during and after the high season for wild meat in these provinces; meetings and consultations with local government agencies in these provinces; and analysis of nationwide wildlife seizure data. WCS also scanned online media platforms on wildlife-related topics with key words in Vietnamese language.

Despite the lack of recent academic literature on wild meat trade in Northern Vietnam, especially in Bac Ninh and Ha Nam provinces, we were able to compile a situational analysis report on legal and illegal wildlife trade (IWT) in Vietnam. The report mapped out key actors with their roles in the wild meat supply chain including poachers, farmers, transporters, traders, restaurateurs and consumers. It also identifies sources of commonly traded species including wildlife laundering, and the operation of the wildlife supply chain, from storing to transporting, selling, and eating.

WCS also reviewed patterns in the wild meat trade for human consumption in Vietnam from sourcing (both legal and illegal) of wildlife, to the laundering process, to the transport process (intra and international), to the advertising/selling process, and the consumption of wild meat process. These are helpful insights to be verified during the KAP survey and for facilitating discussion on designing behaviour change interventions.

The situational analysis is available as Annex 4 of this final report. It shows that wild meat sourcing involved both legal and illegal wild meat. The pandemic accelerated the shift of selling of wild meat from traditional markets to online platforms. Both traders and restaurants heavily relied on online communication and delivery services to source and sell wild meat. To many Vietnamese, wild meat consumption has religious, social, and spiritual implications.

While COVID-19 has somewhat reduced consumption we found signs of reversal of the previous trend.

Output 2: A KAP survey report on scope of current markets and wild meat consumption trends and practices, motivation to serve and to consume wild meat and willingness to pay for wild meat.

This output was achieved. During January – May 2023, a KAP survey was deployed through joint efforts from WCS, IRSD and local social researchers to understand the scope of current markets, wild meat consumption trends and practices, motivation to serve and consume wild meat and willingness to pay for wild meat from 234 respondents (129 males, 105 females) in the three project provinces of Bac Ninh, Ha Nam, and Ha Noi. The KAP protocol including tools (Guide for in-depth interviews, Guide for group discussion, self-report questionnaire) and consent forms were reviewed and approved by the Institutional review boards (IRB) of WCS and from the Ha Noi University of Public Health in Vietnam.

The data collected was coded and analysed to compile the report, which is available in Annex 4. Key findings include the decreased volume of wild meat sale and consumption at surveyed restaurants; new modalities of sale including on-site and takeaway to adapt to the travel restrictions during the COVID-19 pandemic; word of mouth advertisement and marketing; busy hours and peak seasons linked to the tourism in Ha Nam and Bac Ninh; low perception of the zoonotic diseases risk; perception of a clean product and exotic taste. These were helpful insights to later work with provincial forest rangers and restaurateurs in Ha Nam for further verification and discussion on behaviour change interventions to reduce wild meat consumption.

The main challenge of this KAP survey was to conduct interviews with consumers eating at the restaurants. They often went in large groups, refused to be disturbed to participate in interviews while eating and left in a hurry after eating. Restaurateurs, in addition to being reluctant to be enrolled in the research, also did not want their customers to be disturbed by the survey team. Given these constraints, the research team decided to use snowball sampling techniques to approach consumers.

Output 3: A preventative policing strategy including potential entry points for long-term behaviour change interventions.

This output was achieved. A preventative policing strategy (Annex 4) including suggested long-term behaviour change interventions was developed. These were based on the evidence presented in a crime script, outlining the sequence of behaviours related to wild meat trade and consumption for restaurateurs, and consumers at restaurants (Annex 4).

Findings from the situational analysis (Output 1) and the KAP survey report (Output 2) helped WCS to develop the crime script on the sale and consumption of wild meat in selected restaurants in Bac Ninh, Ha Nam, and Ha Noi, Vietnam, which was then reviewed by forestry management and criminology experts.

The behaviour change interventions presented in the strategy aimed at 1) getting support from and engage relevant law enforcement and management agencies and CSOs as change agents and allies in promoting new behaviours for restaurateurs and 2) supporting provincial level agencies to implement their own behaviour change interventions. Both the crime script and preventative policing strategy were vetted with local forest rangers in Bac Ninh, Ha Nam, and Ha Noi and individuals from wildlife protection organizations, research institutes and relevant law enforcement agencies. In these consultation meetings, WCS also discussed the long-term behaviour change interventions and collected inputs from the forest protection officers who are overseeing the protection of the consumed species. The crime script and preventative policing strategy were also introduced to 30 students from the VNUF, which helped gauge the possibilities of integration of crime prevention strategy into the training plan for VNUF students, in view of implementing the strategy later on to promote

new behaviour among restaurateurs and consumers to reduce wild meat trade and consumption.

Output 4: Guidance on impacts of wildlife trade and consumption on public health risks and mitigation measures

This output was achieved. A set of guidelines and a policy brief on health risks associated with wildlife trade and consumption, and proposed mitigation measures, were developed and are available in Annex 4.

Findings from the KAP survey showed low risk perception and limited self-protection actions amongst law enforcement officials and restaurateurs who have direct contact with wildlife animals when controlling restaurants, slaughtering animals, and handling live animals. A previous version of the guidelines for the safe handling of wildlife and wildlife products during counter wildlife trafficking enforcement operations developed by WCS with the support of the Bureau of International Narcotics and Law Enforcement Affairs (INL) in 2022 was updated.

WCS developed a policy brief with an updated legal framework related to zoonotic disease control and prevention with a detailed analysis of gaps and discrepancies. This brief discusses solutions for better zoonotic disease management, control and prevention, based on the issues identified and lessons learned from countries including China. These documents were reviewed by and shared with representatives of different government agencies including forest protection, and animal health, along with rescue centres, research and scientific institutions, and universities and training institutions of 21 provinces.

They were also shared with the One Health stakeholders including government agencies and international organizations (e.g. FAO, GIZ, TRAFFIC, WWF, STOP Spillover project) and members of the Pandemic Prevention Working Group. A virtual regional forum between WCS Vietnam, China and Indonesia programs also provided opportunities to discuss, make comments on and provide recommendations on measures to effectively prevent the risks of zoonotic disease transmission, especially related to wildlife trade and consumption, that WCS plans to implement along with the behaviour change interventions.

3.2. Outcome

Outcome: Motivations for sale and consumption of wild meat, especially high-risk zoonotic transmission species are understood and used to design responsive and preventive interventions for illegal wildlife trade in Vietnam

As a result of the activities implemented in the past 18 months and the outputs achieved, WCS and authorities from the three project provinces developed a solid understanding of the key motivations of restaurateurs and consumers for the sale and consumption of wild meat. We were able to identify, both common and endangered species legally and illegally traded and served as food, along with the actors and methods involved in each step and used these as inputs to design targeted preventive interventions for future resource mobilisation to reduce demand for wild meat and prevent zoonotic diseases spillover in Vietnam.

Outcome Indicator 01: By the end of the project (December 30, 2023), a preventative policing strategy with long-term behaviour change interventions are developed and shared for subsequent plan of actions.

This indicator was achieved. WCS and stakeholders developed a preventative crime strategy combining enforcement, behaviour change interventions to address the risks of illegal wildlife trade for food consumption and advocate for policy change to restrict wild meat consumption. The behaviour change interventions for the two key actors – restaurateurs and consumers - were developed to address barriers to change and leverage motivators outlined in the crime script. These behaviour change interventions were discussed with Forest Protection Departments and Food Safety Authorities in Bac Ninh, Ha Nam, and Ha Noi for

potential integration into their annual outreach activities with restaurants and future project opportunities.

As mentioned in the previous section, it was challenging to observe sale and consumption of wild meat and to engage restaurateurs and customers in restaurant facilities to explore drivers. Therefore, more information will be collected during the baseline assessment on behaviour change interventions, to build restaurateurs and consumers profiles reflecting detailed drivers for sale and consumption behaviours and their characteristics in order to inform long term behaviour change.

Outcome Indicator 02: By the end of the project (December 30, 2023), a set of recommendations for regulatory reform to restrict wild meat consumption in Vietnam is developed and shared with Government agencies responsible for wildlife management, crime prevention and public health.

This indicator was achieved. WCS analysed potential health risks and violations based on the provisions of Vietnamese law on wildlife protection. At the same time, we also pointed out loopholes in regulations and laws related to wildlife management, crime prevention and public health and listed down recommendations for improvement. In the scope of this project, these recommendations were vetted with forest protection, animal health, rescue centre, food safety and some international organizations to enhance their awareness and gain their support in the process of future regulatory reform. We hope to yield more results and evidence from practical models and lessons learned from implementing interventions in different provinces, to include wildlife consumption as an offence in the scope of a regulatory document. Currently wildlife consumption is not mentioned in any existing legislation.

Outcome Indicator 03: By the end of the project (December 30, 2023), guidance on health risks related to wildlife trade and consumption, and mitigation measures is shared and consulted on in at least 02 cities/provinces.

This indicator was achieved. The guidance on health risks related to wild meat trade and consumption and mitigation measures were developed and shared. Face-to-face meetings with representatives of forest protection and animal health departments, national parks, universities, research institutes and other One Health stakeholders from nine (9) provinces (e.g., Ha Noi, Ha Nam, Bac Giang, Thai Nguyen, Hai Phong, Hai Duong, Thai Binh, Nghe An, Dong Nai) where there are many wildlife farms and wild meat restaurants or frequent transportation routes of live wildlife were held. The guidance document was also sent to provincial forest protection departments of an additional 16 provinces throughout the country to raise awareness of the forest rangers on the risks of zoonotic disease transmission and provide guidance on what and how to mitigate the risks.

Outcome Indicator 04: By the end of the project (December 30, 2023), interventions to effectively reduce wildlife trade and consumption in Vietnam have been identified.

This indicator was achieved. The behaviour change intervention developed and vetted with different stakeholders includes interventions targeting wildlife related management and law enforcement agencies including forest protection and food safety officers, and members of civil society organizations. The plan also includes a set of behaviour change interventions aimed at restaurateurs and consumers to reduce wild meat trade and consumption, especially high-risk mammals and wild birds. With future funding, WCS will work closely with selected stakeholders to design a detailed action plan and run a pilot phase in selected restaurants in the three project provinces.

3.3. Monitoring of assumptions

Throughout the 18 months of the project, WCS monitored project implementation against original assumptions. We also recorded new risks and solutions implemented to overcome

them to achieve planned outputs and meet project objectives. Below are details of our monitoring:

Important Assumptions	Monitoring results
Outcome	
<p>(i) COVID-19 is well controlled in Vietnam, no social lockdown and travel restrictions are applied which allow the project to organize direct meetings/surveys; Restaurateurs and customers cooperate and participate in the surveys.</p>	<p>Partially holds true: Vietnam has controlled well the COVID-19 pandemic. Operations of agencies, businesses, actors in the tourism sector, and restaurants have gradually returned to normal in the second half of 2022. Despite some delays in scheduling and approvals, WCS, national and provincial stakeholders were able to host in-person meetings and consultation workshops in late 2022 and 2023.</p> <p>Customers at the restaurants refused to participate in the survey because they didn't want to be disturbed during their meals. The snowball sampling method was used instead to conduct the survey with customers.</p>
<p>(ii) Government agencies support the development and application of the crime script in counter wildlife trafficking and restriction of wild meat consumption.</p>	<p>Still holds true: the crime script was developed and shared with stakeholders from forest protection departments and food safety departments of the three project provinces in consultations. Training institutions in the field of agriculture and forestry, criminology and law also provided comments and inputs to the crime script.</p> <p>As explained above, not having the IPS on board in this evidence project as planned, WCS looked for an alternative Government partner to test the crime scripting method and develop a preventative policing strategy on wildlife protection issues into pre-service training plan. This resulted in a collaboration with VNFU to co-host a two-days training course to update participants on the current situation of the violations and crimes related to wildlife protection in Vietnam, the risks of zoonotic diseases; and to identify training needs for forest protection students.</p>
<p>(iii) Government agencies support actions preventing health risks related to wildlife trade and consumption; the government and National Assembly have a plan to revise relevant laws.</p>	<p>Still holds true: through meetings and consultation, the guidelines on health risk mitigation measures received positive feedback from various stakeholders, especially forest rangers directly involved in handling wildlife-related cases and in charge of monitoring forestry product inventory.</p> <p>Key information from the guidelines and recommendations for policy revision were collated to send to in-charge bodies in the Ministry of Health and Ministry of Justice when they revise the Law of Disease Prevention led by the Ministry of Health, to replace the 2007 Law on Prevention and Control of Infectious Diseases.</p>
<p>(iv) Project stakeholders can agree on effective interventions to reduce</p>	<p>Still holds true: agreements were reached after each consultation meetings with the three provinces of Bac Ninh, Ha Nam, and Ha</p>

Important Assumptions	Monitoring results
wildlife trade and consumption.	Noi. WCS recorded the opinions and inputs from provincial stakeholders on the feasibility of interventions.
(v) All relevant stakeholders support WCS's activity and are willing to join consultation meeting.	<p>Partially holds true: relevant stakeholders in Ha Nam and Bac Ninh were willing to join, while it was challenging for those in Ha Noi to set a time for a separate consultation meeting. To address this, WCS combined the consultation meeting for participants from Ha Noi and Bac Ninh together.</p> <p>Not having obtained approval from their line Ministry, IPS could not participate in this evidence project. The subsequent change of lead stakeholder from the IPS to the IRSD delayed the project implementation by six months, shortening the time available to conduct activities.</p>
Output 1	
(i) WCS is able to access relevant resources from other conservation organizations and government agencies.	Still holds true: WCS accessed and collected information and data from various channels, including media (news on wildlife seizures, wildlife trade on online platforms, research articles and reports) and government agencies such as the Supreme People's Procuracy of Vietnam, the Environment Police Department of Ministry of Public Security, the Ha Noi Environment Police Department, the Ha Noi and Ha Nam Forest Protection Department (wildlife crime data and report).
(ii) WCS is able to determine and identify key parts of the trade chain for wildlife, including gender roles.	Still holds true: even though data and information about roles in the wild meat supply chain from open sources such as literature and media, are limited, WCS was able to collect additional data through the KAP survey, to identify the decision-making role in the trade chain.
(iii) There are gender differences within wildlife trade chains	Still holds true: the findings from the situation analysis report and KAP report showed that Vietnamese males are the major consumers and collectors of wild meat. The KAP report showed significant differences in decision making on wild meat consumption between males and females in terms of motivations (nutrition aspect, and "exotic" aspect). From our media scanning, the top identified online wildlife traders are females. Further research is needed to verify these gender roles.
(iv) Stakeholders are willing to provide information to inform review of current status.	Still holds true: through our partnerships with management and law enforcement agencies of Vietnam, especially Ha Noi and Ha Nam, we received updates about wildlife trade and consumption and were able to verify what we collected from the literature review and online research, through official and unofficial meetings.

Important Assumptions	Monitoring results
Output 2	
(i) Cooperation and full participation of restaurant owners, staff, and customers; the support of wildlife management and law enforcement officers, relevant local CSOs	Partially holds true: wildlife management and law enforcement officers, and relevant local CSOs accepted to participate in the KAP survey and consultation meetings on the survey results afterwards. However, most customers refused to participate in the survey at restaurants, because they usually went in groups and didn't want to be disturbed. We had to change our survey plan and interview consumers who had previously eaten wild meat at a different place and time, rather than during their meals at the restaurants.
(ii) KAP surveys, including self-reported consumption is an accurate reflection of consumption.	Partially holds true: KAP surveys, including self-reported consumption, only partially reflect the consumption. First, because of the small sample size – three provinces in the North of Vietnam. Second, because we could not verify consumers' actual drivers of consumption because they responded based on their past experience at the wild meat restaurants.
(iii) Consumers, and other participants in the wildlife trade chains can be identified and are willing to participate in research.	Partially holds true: Relevant law enforcement and management agencies such as environmental police, market control, food safety and forest protection were easy to identify. These agencies were supportive in identifying and connecting us with restaurants selling wild meat to participate in the survey. However, it was challenging to enrol customers eating at restaurants in interviews. In addition, restaurateurs and staff did not want the survey team to bother their customers.
Output 3	
(i) Cooperation and full participation of restaurant owners, staff, and customers; and the support of wildlife management and law enforcement officers, relevant local CSOs.	Partially holds true: we received support from wildlife management and law enforcement officials, and relevant local CSOs during the process of developing and organizing consultations on the guidelines and proposing the risk mitigation measures. However, with limited participation and contributions of the restaurant owners, staff, and customers in the survey, we could not gather much feedback from them on the guidelines and policy brief.
(ii) Entry points for behaviour change interventions targeted at men and women in the wild meat supply chain are identified	Still holds true: Data collected on gender roles was carefully considered when designing a behaviour change intervention plan, to target restaurateurs and consumers together with law enforcement. However, more evidence and insights on restaurateurs' and consumers' profiles will be further researched during the baseline assessment to refine the gender sensitivity of these interventions.
(iii) Government agencies and stakeholders are interested in trialling a preventative	Still holds true: the preventative policing approach is not new in the criminology curricula taught in police trainings. WCS and the VNUF hosted a training in which crime scripting and preventative policing

Important Assumptions	Monitoring results
policing approach to illegal wildlife trade.	strategies were introduced and discussed. WCS will follow up on where and how to integrate these into their training curricula and plan for forest rangers.
(iv) Stakeholders are able to agree on effective interventions.	Still holds true: behaviour change interventions were discussed, agreed, and are ready to be piloted in the three project provinces.
Output 4	
Government agencies, like-minded and pro-wildlife groups support WCS's proposed action on preventing health risks related to wildlife trade and consumption.	Still holds true: the Government partners from different sectors, including animal health, human health and forest rangers, and local and international organizations, were very proactive in providing inputs and comments on the preventive measures to reduce the risks related to wildlife trade and consumption. They also shared their experiences and perspectives from similar areas.
Stakeholders are able to agree on guidance contents.	Still holds true: multi stakeholder meetings were hosted to introduce and agree on the health risks associated with wildlife trade and consumption, and proposed mitigation measures to be implemented at wild meat restaurants and with wild meat consumers.
WCS Indonesia and China offices support WCS's actions in Vietnam	Still holds true: the WCS Indonesia and China teams provided inputs and recommendations on proposed actions and interventions developed by the Vietnam team during a virtual meeting. The three teams also exchanged related materials and lessons learned from behaviour change interventions on wild meat consumption in China and the use of crime scripts in Indonesia.

3.4. Impact: achievement of positive impact on illegal wildlife trade and poverty reduction

Our evidence project aimed at collecting information and insights on drivers of wild meat sale and consumption and working with three pilot provinces to design interventions promoting behaviour change from both the wild meat supply (restaurants) and demand (consumers) sides to ultimately address illegal trade of wild meat (high risk mammals and birds) for human consumption. We also expected that working with the Institute of Police Science (IPS) of the People's Police Academy (PPA), under the Ministry of Public Security will help incorporate the preventative model into their research work and training system, including updates to lecturers and teachers for police training systematic improvement.

The impact on illegal wildlife trade of an evidence project is relatively limited by default, as evidence projects are meant to collect data to inform interventions. However, engaging provincial forest protection officers and environmental police officers in our KAP survey, consultation meeting and designing behaviour change interventions, helped them to better acknowledge the illegal trade of wildlife and wild meat, and wild meat consumption at restaurants in their respective provinces. WCS also tried to emphasize the importance of

recognizing risks, risk perception and preventive messages on public health prevention to start preparing for behaviour change interventions.

Through the KAP survey and consultation meeting, WCS provided guidance to interviewed consumers and restaurateurs on mitigating public health risks associated with the trade and consumption of high-risk species. This may have impacted them to some extent, raising their awareness of the risk of infectious diseases spillover from their actions, and risks of food poisoning and other food safety issues for community people and consumers who frequent wild meat restaurants. Having these two key groups of stakeholders in wild meat sale and consumption apply prevention measures can provide long-term benefits regarding the prevention of future pandemics, and reduced impacts on human health and economic loss.

Gathering evidence for and development of a preventative policing approach helped WCS identify actions that would drive long-term behaviour change at wild meat restaurants and among their consumers. With the ongoing capacity building for lecturers at the Vietnam University of Forestry where forest rangers are trained, we expect to identify opportunities to integrate the crime script analysis process into their training programs resulting in forest rangers being able to apply the crime script in regulating wildlife farms and wild meat restaurants as part of their responsibilities.

Project results shared with government partners and stakeholders have increased their awareness and encouraged their commitment to protecting wildlife and minimizing risks in trade and consumption of wildlife. This has partly contributed to the project's long-term impact goal of ensuring the future of threatened wildlife species and minimizing risks in the wildlife trade chain.

4. Contribution to IWT Challenge Fund Programme Objectives

4.1. Thematic focus

The project contributed to two out of the four themes, namely 1. Reducing demand for IWT products and 3. Strengthening law enforcement, by working closely with authorities and other stakeholders to collect evidence to inform the design of a preventive strategy to address the sale and consumption of wild meat in Vietnam that includes demand reduction and behaviour change activities.

4.2. Impact on species in focus

This evidence project aimed to collect data on wild meat sale and consumption, focusing on – but not limited to - the following species: Asia pangolin, Masked, Asian and Owston's palm civets, Leopard cats, Asian Openbill, Painted Stork, Yellow-breasted Bunting, Big-headed, Box, Oldham's leaf and Pond turtles, and Clouded monitor. The main impact on species in focus is the development of an evidence base on sale and consumption of those species, to inform future work that would be anticipated to have a more direct and stronger impact.

As explained above no observation could be conducted during the KAP survey at restaurants, so we were not able to collect direct evidence of consumption of these species in restaurants in the project locations - Bac Ninh, Ha Nam, and Ha Noi. To fill this gap and understand the impact of sale and consumption on those species, we conducted a literature review and scanned media data.

The situational analysis (Annex 4) indicated that the laundering of wild meat (such as the Asian palm civet) is a common practice. Wild meat of rare or endangered species such as pangolin is not common online. Common species referred to with the general term of turtle meat, have been more regularly noted. The variety of wild meat on offer and the covert

communication methods, codes, or special characters to avoid attention from regulators, is making detection and species identification complex.

Through media scanning including social media (detailed results in Annex 4), we found that the filter bubble on social media spaces separated the public into different online social circles, resulting in most of the discussion showing many more positive sentiments compared to negative ones, even on opposing topics such as conservation and wildlife trade. We found that the audience's attitude toward the consumption of mammal species was mixed and positive while the attitude toward wild bird species consumption was overwhelmingly positive. Similarly, the sentiments toward the consumption discussions of hard-shell turtles and lizards (mostly monitor lizards) were prevalent. On wild meat, the audience had different ideas and mixed attitudes about different taxa. For mammals, the attitude is positively mixed, and some audience showed concerns about zoonotic and legality risks. For turtles, the attitude is also positively mixed, and the main concern of the audience was cultural karma. For wild birds, the audience is slightly more negative about the consumption due to animal cruelty and legal concerns.

4.3. Project support to poverty reduction

While this evidence project primarily aimed at collecting data on wild meat sale and consumption, some results of the KAP survey on "*The drivers and barriers to wild meat selling and consumption and its market dynamics in Bac Ninh, Ha Nam, and Ha Noi,*" regarding the motivations behind wild meat sale and consumption, may contribute to the design of initiatives that will ultimately reduce poverty, for example by informing relevant government agencies in identifying potential alternative income generating activities to support the livelihoods for individuals involved in the trade of species in focus.

The guidelines on mitigation measures to prevent public health risks aimed to improve the understanding of the health risks for law enforcement officers, but also restaurateurs when handling live wild animals. Applying preventive measures will help ensure safety in their work and reduce the direct risk of being infected by zoonotic pathogens. More broadly this will limit the risk of zoonoses spillover that can have devastating global consequences on the livelihoods of millions of people and dramatically increase poverty.

4.4. Gender equality and social inclusion

While conducting the research, we paid attention to the gender factors shaping the participation of males and females in the wildlife meat trade and consumption at restaurants. Using this evidence, gender sensitive preventative solutions, including behaviour change messages were considered when designing interventions.

In terms of stakeholder engagement, acknowledging the male dominance within staff of law enforcement agencies and in an attempt to maintain gender equity, WCS encouraged participation of women and provided equal opportunities for women and men to participate in all activities, from planning to execution. We also informally reminded stakeholders of the importance of balancing the appointment of male and female officials to participate in consultations.

We collected gender-disaggregated data on participation in all activities (Table 1), that shows the percentage of women and men participating in nationwide activities is close to equal. Despite our efforts to engage women at the local level and in field surveys at the restaurants the number of men participating was higher than women because the most people consuming wild meat at restaurants recorded were males.

Table 1: Gender of participants to project activities

Project Activities	Participants/ Respondents		Consultants	
	Male	Female	Male	Female
1. Review and analyse open-source information and conduct field observation surveys in the North of Vietnam	N/A	N/A	N/A	N/A
2. Deploy KAP survey in Hanoi and/or two neighbouring provinces (Ha Nam, Bac Ninh)	129	105	0	4
3. Organise consultation meetings with wildlife management and law enforcement officers, restaurants, consumers, and local CSOs to verify the developed KAP survey report in Ha Nam	102	6	N/A	N/A
4. Organise consultation meetings with wildlife management and law enforcement officers, restaurants, consumers, and local CSOs to verify the developed crime script and preventative policing strategy in Ha Nam	8	1	1	2
5. Introduced crime script and preventative policing strategy to students from VNUF in Ha Noi	16	14	3	2
6. National consultation meeting on the recommendations and preventive measures to mitigate risks of zoonotic disease transmission associated with wildlife trade and consumption co-hosted with IEHSD in Ha Noi	14	13	3	4
7. National consultation review meeting on crime script and preventative policing strategy, and the guidelines on health risk mitigation measures in Ha Noi	10	9	0	0

5. Monitoring and evaluation

There was no change to the logical framework during the project, however there was one notable adjustment compared to the initial project design - the change of the lead stakeholder described in section 2. In an adaptive approach, as the IPS could not secure approval for this project, we engaged the IRSD which played an active role in facilitating the implementation of the KAP survey.

The project's monitoring, evaluation and learning plan was reviewed every quarter, as the team was planning activities to monitor project progress and quality. After the completion of each activity, a debriefing meeting was conducted to review achievement of targets and draw lessons learned. The monitoring and evaluation officer kept track of the progress against the log frame, to ensure each activity's deadline was respected, record the results and ensure that challenges were promptly addressed. A log of lessons learned was

documented and shared among the project management team and other partners. It includes lessons on collaboration with stakeholders especially with restaurant, on the sensitive issue of wildlife trade. These lessons are available in section 7. There has been no external review of the project.

6. Actions taken in response to Annual Report reviews

The main comment received on the Annual Report 1 (July 2022 - March 2023), was the need to provide additional evidence showcasing the completion of various project activities. Therefore, in the last Half-Year Report (April – September 2023), we have included the following supporting documents:

- i. The report on the Knowledge, Attitude, and Practice survey conducted on "The drivers and barriers to wild meat selling and consumption and its market dynamics in Bac Ninh, Ha Nam, and Ha Noi."
- ii. The draft situational analysis report on wild meat trade and consumption in Northern Vietnam.
- iii. The draft Crime Scripts highlights the sale and consumption activities of wild meat in selected restaurants in Bac Ninh, Ha Nam, and Ha Noi.
- iv. The outline of the draft Policy Brief addresses the health risks associated with wildlife trade and consumption, as well as proposes preventative recommendations.

7. Lessons learnt

Lessons	Recommendations
<p>Output 1:</p> <ol style="list-style-type: none"> 1. The inclusion of media news, articles and unpublished reports to our literature review was necessary to gather the most updated information regarding wild meat trade and consumption. 	<p>Output 1:</p> <ol style="list-style-type: none"> 1. Continuing to monitor, collect and record all relevant grey literature including unpublished reports, news, and articles, to maintain up-to-date information on wildlife trade activities, which is critical for an efficient triangulation process.
<p>Output 2 & 3</p> <ol style="list-style-type: none"> 1. It required more time than expected to get local law enforcement officers and CSOs to join the consultation meetings because they had to get internal approval for their participation. They also seemed to be very hesitant to share detailed insights and generally provided general opinions. 2. It was challenging to engage restaurant owners, staffs and customers as the topic is sensitive. They seemed unwilling to participate in discussions, from the KAP survey to crime scripts and preventative strategy, even when the meeting was requested by the forest protection officers who are overseeing restaurants for forest product inventory. 	<p>Output 2 & 3</p> <ol style="list-style-type: none"> 1. Collaborating with an institution like IMARD, a government training institution for forest rangers, in organizing activities helped to build a safe environment to talk and share perspectives, at least among forest protection participants. 2. Building a core research team should include representatives of local CSOs because local people will easily create trust with restaurant owners, employees and customers, through which the research team can easily access and explore information. Spending more time to get acquainted with the restaurant and have the

Lessons	Recommendations
<p>3. Direct observation as well as approaching customers at the restaurant are almost impossible, because customers do not want to be bothered while having their meals, and restaurant staff want to keep their customers satisfied. Other reasons could also be the lack of trust of the project staff, and the awareness that they are doing something wrong or illegal. The majority of customers in these visited restaurants are male.</p> <p>4. Although we tried to recruit both female and male research respondents, our members of the KAP survey team were all female and we noticed difficulties in the interview process with some restaurateurs and customers</p>	<p>restaurant's support in approaching customers in future similar research.</p> <p>3. For similar future research at restaurants or similar venues that requires observation, more time should be spent getting to know the facilities and their owners. The research team should also include both male and female researchers, to better access male respondents and ensure that gender angles of the research are fully explored.</p> <p>4. We will consider this gender balance in future research teams as well.</p>
<p>Output 4:</p> <p>1. A limited engagement of the restaurateurs, their staffs and customers in the consultations prevented from reflecting the diversity of perspectives from different stakeholders in the guidelines. Yet this is key to ensure that guidelines will be applicable and make sense to all parties and build ownership.</p> <p>2. Organizing meeting with other WCS country programs proved useful to learn from their experiences and get advice on how to do conduct similar works. However, as the meeting took place at the end of project only, we did not benefit from colleague's advice as much as we could have in the design and preparatory phase.</p>	<p>Output 4:</p> <p>1. Engage the local CSOs early on and make them the point of contact to communicate with restaurateurs, staff and customers as they are trusted and can more easily talk directly to targeted groups.</p> <p>2. Organize frequent meetings (e.g. quarterly or bi-annually) with other WCS country programs to get timely updates and comments on the planning of upcoming activities.</p>

8. Risk Management

Out of the 6 risks registered in the project, we only had to handle 1 risk and no new risks occurred. As mentioned in the Annual report 1 (July 2022- March 2023), in order to mitigate the risk of "Lack of full engagement and participation from some targeted individuals and groups in KAP surveys or meetings", WCS adapted our KAP survey method to be more inclusive and engaging, leveraging personal networks and introductions to build trust with respondents, obtaining consent forms prior to interviews, and respecting the decisions of

those who chose to say no and withdraw from participation. More details are turned into lessons learned reported in the above section.

9. Sustainability and legacy

During the past 18 months, the intended sustainable benefits brought by this evidence project stayed unchanged compared with what WCS proposed in the proposal. We hope to leverage more resources (from various funding sources) to implement our behaviour change intervention plans at the three project provinces as pilot interventions, to gain further insights and generate impact in terms of reduction from both the wild meat supply and demand sides. Findings from our situational analysis of the wild meat trade and consumption in North Vietnam were provided to stakeholders and could serve as a baseline for future studies on the topic, and intervention implementation.

We do not anticipate impact on the contracts of WCS Vietnam Program staff when the funding for this project ends, as we do not hire staff on a grant-based basis. This will rather impact our ability to implement the interventions designed as an outcome of this project.

Mindful of the need to ensure sustainability of this project's result, throughout the project we worked with the two training institutions to help incorporate the preventative policing strategy and crime scripting techniques into their research and training programs. We built foundations for this by engaging them actively in the work, but further work is needed to effectively include those aspects into the training programs for these institutions.

While looking for further funding to pilot and expand the interventions achieved with this project, sustainability is guaranteed through our continued support to the province's forest protection department in multiple ways. For example, we will provide advice to them in implementing the province's migratory bird protection campaigns, using the outputs from this project. Our guidelines on risk mitigation measures were not only shared during the meetings with relevant project stakeholders but also sent to many other Law Enforcement Agency's Offices to be used as a reference when handling wildlife-related cases. Data and results on drivers of wild meat consumption have been shared within three WCS country programs and other members of conservation organisations working on behaviour change communication and demand reduction such as TRAFFIC, WWF, and Vietnam One Health University Network. We anticipate the outputs from this project to be picked up by them to inform similar work. Lessons will also be applied in our future work in Vietnam.

10. IWT Challenge Fund Identity

We developed an internal communication guidance document covering all relevant identity requirements of this project, including branding and marking to make sure that the donor could be identified and recognized.

The UKAid Logo and IWT Challenge Fund appeared on all visual communications, including printed handouts, event backdrops, speeches, communication products and reports, ensuring that the U.K. Government is recognized as the donor of this project. We also mentioned the IWT Challenge Fund to each partner and participant we approached.

11. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been investigated in the past 12 months	No

Does your project have a Safeguarding focal point?	Yes Hoang [REDACTED], Country Director [REDACTED])	
Has the focal point attended any formal training in the last 12 months?	No	
What proportion (and number) of project staff have received formal training on Safeguarding?	100% [all 24 staff members]	
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months?		
<p>No incidents or reports of safeguarding violations have been made available to WCS personnel, partners, or the individuals engaged in our work throughout the project. All project staff, consultants, partners and stakeholders have been provided with and instructed on the WCS Safeguarding Policy and related ones including the Harassment Policy, Whistle-blower Policy and Code of Conduct. We designed and undertook project activities following all the above policies and regulations.</p> <p>We executed project activities with precaution in handling sensitive information on illegal practices, and strict compliance to regulations and internal mechanisms as approved by WCS' Institutional Review Board such as ensuring confidentiality of data collected and anonymity of the individuals participating in the research.</p>		

12. Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual IWTCF Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[REDACTED]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL	55,789	55,789	0%	

Staff employed (Name and position)	Cost (£)
Nguyen Thi Thu My - HR and Admin Team leader	[REDACTED]
Nguyen Thi Thanh Nga – Policy Influencing Team Leader	
Tran Thi Thanh Huong – Grant & Procurement Manager	

Staff employed (Name and position)	Cost (£)
Nguyen Thi Lan Anh – Law Enforcement Assistant Team Leader	
Hoang Bich Thuy – Country Representative	
Pham Thi Thuy Trang – Procurement Officer	
Pham Thanh Trung – Program Manager	
Tran Hong Van – Country Finance Manager	
Nguyen Dinh Thang - Program Officer	
Vuong Thi Uyen – Program Finance and Accounting Officer	
Nguyen Kim Ngan – Finance Assistant	
Luu Thi Van – Program Officer	
Tran Thi Kim Thanh – Program Officer	
Hoang Thanh Van – Admin Officer	
Nguyen Quynh Anh - Program Officer	
Ha Thi Nhat Le - Program Officer	
Duong Thi Minh Nguyet - Partnership and Monitoring and Evaluation Specialist	
Nguyen Viet Anh - Program Officer	
Nguyen Quang Vinh - Program Officer	
Bui Thu Trang – Program Assistant	
TOTAL	39,369.03

Other items – description	Other items – cost (£)
Infographic	
Printing	
Postage	
Auditing fee	
TOTAL	3,026.47

12.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
WCS flexible fund	4,354.00

TOTAL	4,354.00
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Source of funding for additional work after project lifetime	Total (£)
NA	NA
TOTAL	

12.3 Value for Money

This project was executed in a result-oriented manner, trying to leverage strategic government connections to ensure the necessary support from authorities and build ownership of stakeholders. We were able to adapt and overcome challenges, such as the impossibility to partner with the lead stakeholder we had initially identified (the IPS), by building another strong partnership with a recognized research institution, the IRSD. Collaboration with IRSD was pivotal in designing and conducting the KAP survey, but also provided an opportunity for WCS to engage in the long term on capacity building programs for forest protection officers. However, we still sought inputs from IPS – the initial partner - when drafting crime scripts and the preventative policing strategy, as well as the IMARD. Engaging a broad range of government institutions in this work and with a long-term vision, contributed to ensuring it was good value for money. The consultative meetings held with forest protection officers in Bac Ninh, Ha Nam, and Ha Noi to discuss these scripts and preventative models required time and efforts but added significant value to the outputs produced and they turned out to be crucial for achieving our objective of developing a detailed understanding of our topic.

Combining expertise from several fields, i.e. social researchers, criminology experts and WCS staff with strong CWT skills such as data mining and analysis, or behaviour change communication experience, benefited the research and helped to achieve high quality outputs. The results of this projects are particularly relevant in the context of a post COVID-19 situation and with the risks associated in terms of wildlife trade and wild meat consumption.

Throughout the project duration, the allocated resources were effectively utilized, resulting in outputs and outcomes that justify the costs incurred. The project's financial management demonstrated adherence to budget expenses between budget lines within a financial year consistently remaining below 10% for any high-level budget line.

WCS maintains a commitment to fair, open, and ethical procurement practices, ensuring compliance with applicable laws and donor requirements. Our procurement policy and procedures, and cost norms are implemented to secure goods and services at the most reasonable prices, promoting value for money and fostering strong business relationships with vendors and suppliers in Vietnam.

All of these elements contributed to making this project a good value for money.

13. **OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes**

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section Vietnam has suffered from the COVID-19 pandemic with enormous losses of life, health and economy. To prevent the outbreak of zoonotic epidemics in the future, WCS has conducted a

literature review data to compile data on zoonotic diseases and pathogens that have been reported in wildlife in Vietnam or reports of pathogens in some specific species. The results were presented in the form of an [infographic](#) for easy understanding by the public. The infographic was published on WCS's communication channels (Facebook, Website and LinkedIn) with a total of 303,023 reaches and shared with related stakeholders and journalists through email. Reporters from VTV2 and public health reporters have used data from this infographic and produced articles and reports with warnings about possible epidemics related to the wildlife supply chain.

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessa ry)
Infographic	Pathogens transmitted between humans and animals in the wildlife supply chain	<p>Human encroachment into the wildlife habitat, along with the increase in wildlife trade, has created opportunities for zoonotic pathogens to be transmitted from wildlife to humans. The recent COVID-19 global pandemic is also believed to have originated from wildlife.</p> <p>WCS Viet Nam research results compiled from 112 scientific studies show that in Vietnam there are:</p> <ol style="list-style-type: none"> 1. 232 pathogens were detected in wildlife and captive wildlife. Of these, 157 pathogens were found to be capable of transmitting between humans and animals 2. The 5 orders of animals with the highest number of pathogens include: Even-Toed Ungulates, Rodents, Carnivores, Bats and Primates 3. Pathogens appear at all 3 trade-nodes in the wildlife supply chain, which are: (1) supply source (natural or artificial environment), (2) during transportation and handling (stores, market...), and (3) destination (restaurant, zoo, rescue centre...) 4. Provinces/cities that have detected the largest number of pathogens include Ho Chi Minh City, Dong Thap, Hoa Binh, Hanoi, Yen Bai, Phu Tho, Bac Giang, Thanh Hoa <p>For more information, please visit: https://zoonosis.giamdinhloai.vn/en/</p>	<p>WCS Viet Nam Program's facebook: https://www.facebook.com/wcsvietnam.org</p> <p>And WCS Viet Nam Program's LinkedIn at: https://www.linkedin.com/company/wcs-vietnam/</p>	NA

Annex 1 Project’s original (or most recently approved) log frame, including indicators, means of verification and assumptions.

This below log frame was revised on June 24 2022 by Change request 1 and was approved on July 21, 2022

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Impact: Reduction of wild meat consumption and illegal wildlife trade contributes to reduced pressure on and overexploitation of wild animals in Vietnam			
Outcome: Motivations for sale and consumption of wild meat, especially high-risk zoonotic transmission species are understood and used to design responsive and preventive interventions for illegal wildlife trade in Vietnam.	01. By the end of the project (December 30, 2023), a preventative policing strategy with long-term behaviour change interventions are developed and shared for subsequent plan of actions.	0.1 Copy of crime script outlining the trade and consumption of wild meat; Copy of a preventative policing strategy with long-term behaviour change interventions on illegal wildlife trade and consumption.	COVID-19 was well controlled in Vietnam, no social lockdown and travel restrictions are applied which allow the project to organize direct meetings/surveys; restaurateurs and customers cooperate and participate in the surveys.
	02. By the end of the project (December 30, 2023), a set of recommendations for regulatory reform to restrict wild meat consumption in Vietnam is developed and shared with Government agencies responsible for wildlife management, crime prevention and public health.	0.2. Copy of recommendations for regulatory reform to restrict wild meat consumption in Vietnam, Records of advocacy events, participants list (disaggregated by gender), media messages, statement of relevant policy makers,	Government agencies support the development and application of the crime script in counter wildlife trafficking and restriction of wild meat consumption. Government agencies support actions preventing health risks related to wildlife trade and consumption; the government and National Assembly have a plan to revise relevant laws.
	03. By the end of the project (December 30, 2023), guidance on health risks related to wildlife trade and consumption, and mitigation measures is shared and consulted on in at least 02 cities/provinces.	0.3. Copy of guidance on health risks related to wildlife trade and consumption, and mitigation measures.	Project stakeholders can agree on effective interventions to reduce wildlife trade and consumption.
	04. By the end of the project (December 30, 2023), interventions to effectively reduce wildlife trade and consumption in Vietnam have been identified.	0.4. Copy of interventions, records of meetings with stakeholders.	All relevant stakeholders support WCS’s activity and are willing to join consultation meeting.
Output 1: A report on the current situation and trends of wildlife trafficking in	1.1. By the end of Year 1, a desk review and analysis report on crime preventative models and potential for application to	1.1. Minutes of meetings, copies of papers reviewed, list of resources, documents outlining different stages of wildlife trade chain for key species.	WCS is able to access relevant resources from other conservation organizations and government agencies.

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Vietnam and patterns of trade for human consumption purpose	address illegal wildlife trade and consumption in Vietnam.		WCS is able to determine and identify key parts of the trade chain for wildlife, including gender roles.
	1.2. By the end of Year 1, key actors, and participation of men and women in the wild meat supply chain are identified.	1.2. Records of discussions with local law enforcement agencies, identified trade chains, gender disaggregated data and information on the role in trade chains for wildlife species.	There are gender differences within wildlife trade chains.
	1.3. By the end of Year 1, patterns in the wild meat trade for human consumption in Vietnam are profiled and understood.	1.3. Copy of the finalised report on patterns of wild meat trade for human consumption in Vietnam.	Stakeholders are willing to provide information to inform review of current status.
Output 2: A KAP survey report on scope of current markets and wild meat consumption trends and practices, motivations to serve and consume wild meat and willingness to pay for wild meat.	2.1. KAP protocol and questionnaires developed and approved by IRB (institutional review board) by Year 1 including questions to identify gender roles.	2.1. Copy of the approved KAP protocol and questionnaires; list of respondents (disaggregated by gender), IRB approval letter.	Cooperation and full participation of restaurant owners, staff, and customers; the support of wildlife management and law enforcement officers, and relevant local CSOs.
	2.2. By the end of Year 1, three survey trips are conducted and at least 180 respondents (120 men and 60 women) are surveyed in Hanoi and two neighbouring provinces.	2.2. Trip reports, list of respondents (disaggregated by gender), completed KAP questionnaires, minutes of in-depth interviews (IDIs) and focus group discussions (FGDs).	KAP surveys, including self-reported consumption, is an accurate reflection of consumption. Consumers and other participants in the wildlife trade chains can be identified and are willing to participate in research.
Output 3: Preventative policing strategy including potential entry points for long-term behaviour change interventions.	3.1. Crime script for the wildlife trade and consumption drafted and shared with stakeholders by end of Year 2.	3.1. Copy of draft crime script;	Cooperation and full participation of restaurant owners, staff, and customers; and the support of wildlife management and law enforcement officers, and relevant local CSOs.
	3.2. By the end of Year 2, a preventative policing strategy including suggested interventions is developed and agreed with relevant stakeholders.	3.2. Records of meetings, list of participants (disaggregated by gender), draft proposed interventions, final agreed preventative policing interventions and strategy.	Entry points for interventions targeted at men and women in the wild meat supply chain can be identified. Government agencies and stakeholders are interested in piloting a preventative policing approach to the illegal wildlife trade.

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
			Stakeholders are able to agree on effective interventions.
<p>Output 4: Guidance on impacts of wildlife trade and consumption on public health risks and mitigation measures.</p>	<p>4.1. By the end of Year 2, one set of guidance on public health risks, and prevention measures, developed.</p> <p>4.2. By the end of Year 2, three consultation meetings/briefings were organized to share guidance and policy briefs with relevant stakeholders to raise awareness of the health risks associated with wildlife trade and wild meat consumption.</p> <p>4.3. By the end of Year 2, a virtual regional forum sharing lessons learned on preventing wildlife trade and consumption in Vietnam, Indonesia, and China is organized including highlighting health risks.</p>	<p>4.1. Final version of the guidance, records of consultation meetings including agreement by stakeholders.</p> <p>4.2. Records of consultation meetings, list of participants (disaggregated by gender), photos of meetings, media coverage.</p> <p>4.3. Workshop agenda, expert list, and online registration list (disaggregated by sex), minutes and photos.</p>	<p>Government agencies, like-minded and pro-wildlife groups support WCS's proposed action on preventing health risks related to wildlife trade and consumption.</p> <p>Stakeholders are able to agree on guidance contents.</p> <p>WCS Indonesia and China offices support WCS's actions in Vietnam.</p>

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
<p>Activities</p> <p>Output 1: A report on the current situation and trends of wildlife trafficking in Vietnam and patterns of trade for consumption purpose</p> <p>1.1. Review and analyse open-source information and conduct field observation surveys in the North of Vietnam</p> <p>1.2. Compile results of open-source information gathering and field observation surveys to draft an analysis report on the current situation and trends of wildlife trade and wild meat consumption in Vietnam, especially the illegal trade of wildlife for human consumption purpose</p> <p>Output 2: A KAP survey report on scope of current markets and wild meat consumption trends and practices, motivation to serve and to consume wild meat and willingness to pay for wild meat</p> <p>2.1. Develop KAP survey protocol and questionnaires, secure the institutional review board (IRB) approval</p> <p>2.2. Deploy KAP survey in Hanoi and/or two neighbouring provinces (Ha Nam, Bac Ninh)</p> <p>2.3. Compile results of the field survey and draft the KAP survey report on scope of current markets and wild meat consumption trends and practices; motivation to serve and to consume wild meat and willingness to pay for wild meat</p> <p>Output 3: A preventative policing strategy including potential entry points for long-term behaviour change interventions</p> <p>3.1. Draft crime script(s) for the wildlife trade and consumption</p> <p>3.2. Organise consultation meetings with wildlife management and law enforcement officers, restaurants, consumers, and local CSOs to verify the developed crime script and preventative policing strategy</p> <p>3.3. Develop and agree on a recommended list of behaviour change interventions</p> <p>Output 4: Guidance on impacts of wildlife trade and consumption on public health risks and mitigation measures</p> <p>4.1. Develop set of guidelines and policy briefs on health risks associated with wildlife trade and consumption, and mitigation measures</p> <p>4.2. Organise consultation meetings/briefings to share documents with relevant stakeholders to raise their awareness of the risks and consult the measures to prevent health risks associated with wildlife trade and consumption</p> <p>4.3. Organise virtual regional forum sharing lessons learned on preventing health risks associated with wildlife trade and consumption in Vietnam, Indonesia, and China</p>			

Annex 2 Report of progress and achievements against final project log frame for the life of the project

Project summary	SMART Indicators	Progress and Achievements
Impact Reduction of wild meat consumption and illegal wildlife trade contributes to reduced pressure on and overexploitation of wild animals in Vietnam		
Outcome Motivations for sale and consumption of wild meat, especially high-risk zoonotic transmission species are understood and used to design responsive and preventive interventions for illegal wildlife trade in Vietnam.	01. By the end of the project (December 30, 2023), a preventative policing strategy with long-term behaviour change interventions are developed and shared for subsequent plan of actions.	Achieved. A preventative policing strategy and a behaviour change intervention plan targeted related stakeholders (law enforcement and management officers and CSOs), restaurateurs and consumers were developed using crime script analysis as a tool and inputs from a literature review of current situation and trends of wildlife trafficking in Vietnam and patterns of trade for consumption purpose and a KAP survey on the scope of current markets of wild meat consumption, motivation to serve and to consume wild meat and willingness to pay for wild meat. All documents were shared and vetted by wildlife management and law enforcement officers, relevant local CSO, and training institutions.
	02. By the end of the project (December 30, 2023), a set of recommendations for regulatory reform to restrict wild meat consumption in Vietnam is developed and shared with Government agencies responsible for wildlife management, crime prevention and public health.	Achieved. Recommendations for regulatory reform to restrict wild meat consumption in Vietnam were collated through the legal review process and the development of the preventative policing strategy. Recommendations on changing and improving policies as well as improving the capacity of law enforcement and management officers related to wildlife were proposed and consulted with both wildlife and public health agencies.
	03. By the end of the project (December 30, 2023), guidance on health risks related to wildlife trade and consumption, and mitigation measures is shared and consulted on in at least 02 cities/provinces.	Achieved. Guidance on health risks was shared with animal health, human health and forest protection officers in a total of 21 provinces nationwide.
	04. By the end of the project (December 30, 2023), interventions to effectively reduce wildlife trade and consumption in Vietnam have been identified.	Achieved. We identified interventions among key target audiences, communication messages and activities to be executed such as training, meetings, group discussion to promote their behaviour changes. We hope to secure more financial resources in the next phase to test these interventions before scaling up in the three project provinces.
Output 1. A report on the current situation and trends of wildlife trafficking in Vietnam	1.1. By the end of Year 1, a desk review and analysis report on crime preventative models and potential for application to address illegal wildlife trade and consumption in Vietnam.	1.1. Completed. A report analysed seven (7) crime scripts applying in countering wildlife crime was made, with focus on countries, and geographical locations which are comparable to Vietnam, similarities in the operation of wildlife sourcing, transport, trafficking, laundering, trade, advertising, or consumption, the structure,

Project summary	SMART Indicators	Progress and Achievements
and patterns of trade for human consumption purpose.		the flow, and the types of information mentioned in the crime scripts. The most applicable elements of these were utilized in this project's crime script. Evidence provided in section 3.1 of report and Annex 4
	1.2. By the end of Year 1, key actors, and participation of men and women in the wild meat supply chain are identified.	1.2. Completed. The key actors at each node of the different processes and the emerged patterns of wild meat trade for human consumption were identified. The participation of men and women in the supply chains were highlighted with little updated information, except the sex of consumer was updated, verified and be detailed with result from KAP research. The collected information was utilized to describe roles and activities of the actors in this project's crime scripts. Evidence provided in section 3.1 of report and Annex 4
	1.3. By the end of Year 1, patterns in the wild meat trade for human consumption in Vietnam are profiled and understood.	1.3. Completed. The patterns of activities in the sourcing (both legal and illegal) of wildlife, the laundering process, the transport process (intra and international), the advertising/selling process, and the consumption of wild meat process were analysed and synthesised in the situation analysis report. Evidence provided in section 3.1 of report and Annex 4
Activity 1.1 Review and analyse open-source information and conduct field observation surveys in the North of Vietnam.		Completed with observation surveys in the three project provinces of Bac Ninh, Ha Nam, and Ha Noi
Activity 1.2 Compile results of open-source information gathering and field observation surveys to draft an analysis report on the current situation and trends of wildlife trade and wild meat consumption in Vietnam, especially the illegal trade of wildlife for human consumption purposes.		Completed.
Output 2. A KAP survey report on scope of current markets and wild meat consumption trends and practices, motivation to serve and to consume wild meat and willingness to pay for wild meat.	2.1. KAP protocol and questionnaires developed and approved by IRB (institutional review board) by Year 1 including questions to identify gender roles.	Completed with approvals from WCS's IRB in the US and IRB of Hanoi University of Public Health in Vietnam. Evidence provided in section 3.1 of this report and Annex 4
	2.2. By the end of Year 1, three survey trips are conducted and at least 180 respondents (120 men and 60 women) are surveyed in Hanoi and two neighbouring provinces.	Completed with 234 respondents (129 males, 105 females) in Bac Ninh, Ha Nam, and Ha Noi provinces. Evidence provided in section 3.1 of this report and Annex 4
Activity 2.1 Develop KAP survey protocol and questionnaires, secure the institutional review board (IRB) approval.		Completed with the survey protocol and tools including Focus group discussion guide (FGD), Key Informant interview guide (KII), self-reported Questionnaire and

Project summary	SMART Indicators	Progress and Achievements
		consent forms and received approvals from IRBs of WCS in the US and Ha Noi University of Public Health in Vietnam.
Activity 2.2 Deploy KAP survey in Hanoi and/or two neighbouring provinces (Ha Nam, Bac Ninh).		Completed field data collection in March 2023 in Bac Ninh, Ha Nam, and Ha Noi.
Activity 2.3. Compile results of the field survey and draft the KAP survey report on scope of current markets and wild meat consumption trends and practices; motivation to serve and to consume wild meat and willingness to pay for wild meat.		Completed with a KAP survey report on the drivers and barriers to wild meat selling and consumption and its market dynamics in Bac Ninh, Ha Nam, and Ha Noi in July 2023.
Output 3. Preventative policing strategy including potential entry points for long-term behaviour change interventions.	3.1. Crime script for the wildlife trade and consumption drafted and shared with stakeholders by end of Year 2.	Completed and shared Evidence provided in section 3.1 of this report and Annex 4
	3.2. By the end of Year 2, a preventative policing strategy including suggested interventions is developed and agreed with relevant stakeholders.	Completed and agreement reached Evidence provided in section 3.1 of this report and Annex 4
Activity 3.1. Draft crime script(s) for the wildlife trade and consumption.		Completed with staged crime scripting on sale and consumption of wild meat of two actors, i.e. restaurateurs and consumers.
Activity 3.2. Organise consultation meetings with wildlife management and law enforcement officers, restaurants, consumers, and local CSOs to verify the developed crime script and preventative policing strategy.		Completed with a crime script vetted by forestry protection officers, food safety officers and other related stakeholders through meetings and written review.
Activity 3.3. Develop and agree on a recommended list of behaviour change interventions.		Completed with a recommended list of behaviour change interventions consulted along with crime scripts through meetings and written review.
Output 4: Guidance on impacts of wildlife trade and consumption on public health risks and mitigation measures.	4.1. By the end of Year 2, one set of guidance on public health risks, and prevention measures, developed.	Completed. One set of guidelines on health risk and prevention measures related to wildlife trade and consumption was developed. Evidence provided in section 3.1 of this report and Annex 4
	4.2. By the end of Year 2, three consultation meetings/briefings organized to share guidance and policy brief with relevant stakeholders to raise awareness of the health risks associated with wildlife trade and wild meat consumption.	Completed. Three consultation meetings were organized to share developed guidelines and a policy brief with key partners and relevant stakeholders to raise their awareness of the health risks associated with wildlife trade and wild meat consumption and proposed mitigation measures. Evidence provided in section 3.1 of this report and Annex 4
	4.3. By the end of Year 2, a virtual regional forum sharing lessons learned on preventing wildlife trade and consumption in Vietnam, Indonesia, and China is	Completed. A Virtual regional forum was organized with participation from WCS Programs of Vietnam, China and Indonesia to highlight the health risks related to wildlife trade and consumption and share the lessons learned on risk prevention. Evidence provided in section 3.1 of this report and Annex 4

Project summary	SMART Indicators	Progress and Achievements
	organized including highlighting health risks.	
Activity 4.1. Develop set of guidelines and policy briefs on health risks associated with wildlife trade and consumption, and mitigation measures.		Completed with a set of guidelines and policy briefs on health risks related to wildlife trade and consumption, and mitigation measures developed.
Activity 4.2. Organise consultation meetings/briefings to share documents with relevant stakeholders to raise their awareness of the risks and consult the measures to prevent health risks associated with wildlife trade and consumption.		Completed with a consultation meeting with relevant stakeholders organized and the participants were shared related materials, including the guideline, policy brief and consulted on the measures to mitigate the risks from wildlife trade and consumption.
Activity 4.3. Organise virtual regional forum sharing lessons learned on preventing health risks associated with wildlife trade and consumption in Vietnam, Indonesia, and China.		Completed with a virtual forum organized in December 2023 with 19 staff members from the three country offices of Viet Nam, Indonesia, and China.

Annex 3 Standard Indicators

Table 1 Project Standard Indicators

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Total planned during the project
IWTCF-B06	Number of criminal networks/trade routes mapped/identified	Number routes trading wild meat and bird for human consumption in Bac Ninh, Ha Nam, and Ha Noi mapped/identified during desk review	Number	None	1	3	3
IWTCF-B07	Number of illegal wildlife products/shipments detected.	Number of species, its quantity and weight traded for human consumption identified during desk review	Number	None	8	3	NA
IWTCF-B08	Estimated size/scale of network.	Scale of the network identified during desk review	Scale	Scale of network: International, National, Local	National	NA	NA
IWTCF-B08	Estimated size/scale of network.	Number of subjects involving to the network to be identified	Number	None	15	0	30
IWTCF-B20	Number of amendments to national laws and regulations in project countries	Number of recommendations to improve national laws and regulation in Vietnam	Number	Disaggregated by whether they are on wildlife legislation, serious and organised crime or closing markets.	2	0	2
		Number of review meeting/workshop attended and facilitated to improve national laws and regulation in Vietnam	Number	Disaggregated by whether they are on wildlife legislation, serious and organised crime or closing markets.	2	3	4
IWTCF-B23	Number of databases established that are used for law enforcement.	Number of databases established that are used for tracking suspects and cases to feedback to law enforcement agencies for further actions.	Number	Gender, year	1	0	1

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Total planned during the project
IWTCF-C06	Number of consumers that have demonstrated the desired behaviour change	Number of consumers engaged in sharing their knowledge, attitude and practice on wild meat consumption in project sites	Number	Gender; Age Group; Typology of behaviour change	155	0	180
		Number of restaurateurs engaged in sharing their knowledge, attitude and practice on wild meat sale and consumption in project sites	Number	Gender; Age Group; Typology of behaviour change	14	0	
		Number of law enforcement officers engaged in sharing their knowledge, attitude and practice on wild meat trade and consumption in project sites	Number	Gender; Age Group; Stakeholder group: Indigenous Peoples, Local Communities, Nationals, public sector, civil society, private sector	28	0	
		Number of local authorities engaged in sharing their knowledge, attitude and practice on wild meat trade and consumption in project sites	Number	Gender; Age Group; Stakeholder group: Indigenous Peoples, Local Communities, Nationals, public sector, civil society, private sector	37	0	
IWTCF-D21	Number of decision-makers attending briefing events	Number of decision-makers and relevant stakeholders attending briefing events on IWT and CWT efforts	Number	Attendee gender balance, types of decision-makers (Govt, senior NGO, private sector, local leaders, resource managers (farmers) etc.), number of events	67	47	100
		Number of participants attended KAP findings	Number	Attendee gender balance, types of participants (restaurateurs, Govt officer)		102	102

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Total planned during the project
		Number of participants attended Crime Scripts and Preventative Policing Strategy & risk on zoonotic disease to public health	Number	Attendee gender balance, types of participants (Law enforcement, Local authority, training institution, media, NGOs, officer)		58	58
IWTCF-D25	Number of globally threatened taxa with improving conservation status resulting from the intervention.	Number of globally threatened taxa identified for behaviour change interventions and preventative policing strategy	Number of taxa	Flora/Fauna/Fungi	3	0	3
IWTCF-D26	Number of new and enhanced tools/approaches developed for tackling IWT.	Number of preventative policing strategy developed for tackling IWT.	Number	Typology of tools/approaches; Stakeholder group: Indigenous Peoples, Local Communities, Nationals, public sector, civil society, private sector.	0	1	1
IWTCF-D27	Number of partnerships established	Number of law enforcement agencies in Bac Ninh, Ha Nam, and Ha Noi engaged in the KAP survey: forest ranger, environmental police, market control	Number	This can be a long-term partnership where WCS can share and exchange information about IWT	9	0	9
		Number of mass organisations and civil social organisations in Bac Ninh, Ha Nam, and Ha Noi engaged in the KAP survey: father front, women's union, youth union	Number	This is a general partnership in which WCS can collaborate in related work	9	0	9

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. web link or publisher if not available online)
Not available	Not available	Not available	Not available	Not available	Not available	Not available

Annex 4: Supplementary material (optional but encouraged as evidence of project achievement)

Please include here a list of all annexes you are including alongside your final report, which can be submitted as separate document/s.

This may include the Means of Verification material you listed in your project log frame. For example, the abstract of a conference, the summary of a thesis etc. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

It is important, however, that you include enough evidence of project achievement to allow reassurance that the project is continuing to work towards its objectives. Evidence can be provided in many formats (photos, copies of presentations/press releases/press cuttings, publications, minutes of meetings, reports, questionnaires, reports etc.) and you should ensure you include some of these materials to support the final report text.

If you are attaching separate documents, please list them here with an Annex reference number so that we can clearly identify the correct documents.

Supplementary materials enclosed with this final report are:

1. Activity 1.2: Literature review report: Situational Analysis on Wild Meat Trade and Consumption in Northern Viet Nam.
2. Activity 2.3: Knowledge, Attitude and Practice (KAP) survey report: The drivers and barriers to wild meat selling and consumption and its market dynamics in Bac Ninh, Ha Nam and Ha Noi
3. Activity 3.1: Crime script: Sale and Consumption of Wild Meat (WM) in Selected Restaurants in Bac Ninh, Ha Nam, and Ha Noi, Viet Nam
4. Activity 3.2: Preventative policing strategy on the sale and consumption of wild meat at selected restaurants in Bac Ninh, Ha Nam and Ha Noi
5. Activity 3.3: Behaviour Change Intervention Plan: Wild meat sale and consumption
6. Activity 4.1_1: Guidelines for the safe handling of wildlife and wildlife products during counter wildlife trafficking enforcement operations
7. Activity 4.1_2: Policy brief on health risks associated with trade and consumption of wildlife in Viet Nam, and mitigation measures.

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the subject line.	Yes
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the subject line.	No
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 13)?	No
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	Yes
Have you involved your partners in preparation of the report and named the main contributors	No
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	