COVID-19 ONE YEAR LATER
PUBLIC PERCEPTIONS ABOUT PANDEMICS AND THEIR LINKS TO NATURE
CHINA, MYANMAR, THAILAND, US AND VIETNAM
FINDINGS FROM 2021 SURVEY
This report comes as a larger, more indepth followup to one conducted at the beginning of the COVID-19 outbreak in Asia. In March 2020, WWF commissioned GlobeScan to conduct a survey among the general public in 5 Asian markets (Vietnam, Thailand, Myanmar, Hong Kong SAR and Japan) to measure and better understand opinions around the closure of high-risk wildlife markets within the context of the COVID-19 outbreak.

Since that study, the impact of COVID-19 has become deeper, longer-lasting, and more widespread than could have been predicted at the beginning of 2020. The pervasive effects of this virus and the resultant pandemic have irreparably altered people’s perceptions, attitudes, and lives all over the world. Given COVID-19’s origin as a zoonotic disease—one that spreads from animals to humans—people’s perceptions and behavior around the purchase of wild animals as food, pets and luxury items, are of particular interest to monitor during this time.

In early 2021, we conducted a more in-depth follow-up study to assess whether the immediate concerns and opinions about COVID-19 have persisted, or whether economic concerns and other factors have detracted from the focus on wildlife consumption as the root cause of the pandemic. We also delved into perceptions regarding what needs to be done to prevent future pandemics, and we looked at the public’s understanding of other root causes, beyond high-risk wildlife trade. We wanted to understand whether consumers in deeply affected countries are supportive of government action to prevent zoonotic outbreaks at the source.

This study looks at five countries – China, Myanmar, Thailand, the United States, and Vietnam. We compare results in Myanmar, Thailand, and Vietnam with those from 2020 when relevant as the three countries surveyed last year. China and US were only surveyed in 2020; therefore data comparisons are not available.

This survey comes as a larger, more indepth followup to one conducted at the beginning of the COVID-19 outbreak in Asia. In March 2020, WWF commissioned GlobeScan to conduct a survey among the general public in 5 Asian markets (Vietnam, Thailand, Myanmar, Hong Kong SAR and Japan) to measure and better understand opinions around the closure of high-risk wildlife markets within the context of the COVID-19 outbreak.

This study uses quantitative data collection to answer the research questions. Quantitative data collection provides robust, comparable results that allow for analysis of trends and preferences across a large geographic area. These data can be used to understand beliefs, knowledge, and attitudes toward public health, the economy, and wildlife consumption during the COVID-19 outbreak across the five countries surveyed.

This survey was conducted in five countries between February 4th and March 18th, 2021. This timing was chosen to coincide with the 2020 survey, which was conducted between March 6th and 11th, 2020. Participants from an online panel were invited to participate in the online survey via email. The survey had a questionnaire length of 19 minutes on average, with a median length of 13 minutes.

Participants could answer the survey either on their smartphones or on their computers, at their convenience. Any participants under 18 years of age were screened out and were not permitted to participate in the survey.

Note: data comparisons are made with 2020 for Myanmar, Thailand and Vietnam because they were surveyed last year. China and US were only surveyed in 2021; therefore data comparisons are not available.

Due to political unrest in Myanmar, research in this country was cut short and the final sample size was 631. This was weighted to 1,000 in the report for easy comparison with other countries. With the lower sample size for Myanmar, the margin of error is higher, and this must be considered when interpreting results on incidence rates. Results on opinions and attitudes are less likely to be affected.
OVERVIEW OF ALL 5 SURVEYED COUNTRIES
PERCEIVED PRIMARY SOURCES OF COVID-19
Base: Among those aware of COVID-19, %

58% WILDLIFE/WILD ANIMALS

PERCEIVED WAYS OF COVID-19 TRANSMISSION FROM WILD ANIMALS TO HUMANS
(Among Those Who Believe Wild Animals Are the Source of COVID-19) (%)

- EATING WILD ANIMALS: 73%
- PHYSICAL CONTACT WITH WILD ANIMALS / WILD MEAT / EXOTIC PETS (TOUCHING): 60%
- BEING BITTEN BY WILD ANIMALS: 35%
- USING WILD ANIMALS IN MEDICINES: 30%
- USING WILD ANIMALS FOR FUR: 26%
- BEING NEAR WILD ANIMALS WITHOUT CONTACT: 24%

OVERALL LEVEL OF WORRY ABOUT THE CORONAVIRUS OUTBREAK
Base: Among those aware of COVID-19, %

- VIETNAM: 87% (88% in 2020)
- MYANMAR: 81% (79% in 2020)
- THAILAND: 73% (86% in 2020)
- CHINA: 68% (87% in 2020)
- US: 63% (88% in 2020)

EXTREMELY OR VERY WORRIED ABOUT THE OUTBREAK
74%
CALL FOR GOVERNMENT ACTIONS

- 81% Believe closure of high-risk wildlife markets where they sell animals coming from the wild is very or somewhat effective to prevent similar pandemic diseases from happening in the future.

- 85% Are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.

- 88% Strongly support or support increased efforts to preserve forests and end deforestation in their country or overseas specifically to prevent future pandemics.

- 85% Strongly support or support “One Health” approach to dealing with pandemics.

*“One Health” is an approach to designing programs, policies, and legislation where different sectors communicate and work together for better health outcomes across people, animals, plants, and their shared environment, especially for animal health, disease transfer between animals and humans, and combating antibiotic resistance.

<table>
<thead>
<tr>
<th>Country</th>
<th>US</th>
<th>China</th>
<th>Vietnam</th>
<th>Myanmar</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure</td>
<td>68%</td>
<td>91%</td>
<td>94%</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>Efforts</td>
<td>68%</td>
<td>90%</td>
<td>94%</td>
<td>93%</td>
<td>86%</td>
</tr>
</tbody>
</table>
## PAST 12-MONTH PURCHASE OF WILDLIFE IN AN OPEN MARKET

**Base: All Participants**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>7%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>14%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>4%</td>
</tr>
<tr>
<td>Thailand</td>
<td>11%</td>
</tr>
<tr>
<td>China</td>
<td>10%</td>
</tr>
<tr>
<td>US</td>
<td>7%</td>
</tr>
</tbody>
</table>

## PAST 12-MONTH PURCHASE OF WILDLIFE ONLINE

**Base: All Participants**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>7%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>12%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2%</td>
</tr>
<tr>
<td>Thailand</td>
<td>8%</td>
</tr>
<tr>
<td>China</td>
<td>7%</td>
</tr>
<tr>
<td>US</td>
<td>7%</td>
</tr>
</tbody>
</table>

## TYPE OF WILDLIFE SPECIES BOUGHT IN THE PAST 12 MONTHS

**Base: Among Wildlife Product Buyers, %**

<table>
<thead>
<tr>
<th>Wildlife Species</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live Birds</td>
<td>47%</td>
</tr>
<tr>
<td>Snakes</td>
<td>35%</td>
</tr>
<tr>
<td>Turtles</td>
<td>26%</td>
</tr>
<tr>
<td>Bats</td>
<td>21%</td>
</tr>
<tr>
<td>Civet Cats</td>
<td>20%</td>
</tr>
<tr>
<td>Pangolins</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>
### IMPACT OF CORONAVIRUS ON CONSUMPTION OF WILDLIFE PRODUCTS

Base: Among those aware of COVID-19, %

<table>
<thead>
<tr>
<th>Country</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam (n=1000)</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>Myanmar (n=1000)</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Thailand (n=999)</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>China (n=983)</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>US (n=993)</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

#### CONSUME LESS OR STOPPED CONSUMING WILDLIFE

- I consume more wildlife
- There's no change in my consumption of wildlife products
- I consume less wildlife products
- I've completely stopped consuming any wildlife products
- I never consume wildlife products

### FUTURE INTENTION TO BUY WILDLIFE PRODUCTS IN WILDLIFE MARKETS

Base: All Participants

<table>
<thead>
<tr>
<th>Country</th>
<th>Very likely</th>
<th>Likely</th>
<th>Neither likely, nor unlikely</th>
<th>Unlikely</th>
<th>Very unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam (n=1000)</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>17</td>
<td>55</td>
</tr>
<tr>
<td>Myanmar (n=1000)</td>
<td>0</td>
<td>8</td>
<td>50</td>
<td>30</td>
<td>13</td>
</tr>
<tr>
<td>Thailand (n=1000)</td>
<td>2</td>
<td>4</td>
<td>12</td>
<td>67</td>
<td>7</td>
</tr>
<tr>
<td>China (n=1000)</td>
<td>23</td>
<td>25</td>
<td>28</td>
<td>71</td>
<td>-</td>
</tr>
<tr>
<td>US (n=1000)</td>
<td>5</td>
<td>7</td>
<td>17</td>
<td>13</td>
<td>59</td>
</tr>
</tbody>
</table>
IF WILDLIFE MARKETS WERE CLOSED

Base: Among Those Who Are Likely to Buy Wildlife Products in the Future, %

31%

NO, I WOULD NOT BUY ANY WILDLIFE PRODUCTS ANYMORE

PAST 12-MONTH PURCHASE OF EXOTIC PETS

Base: All Participants

CHINA

60%

VIETNAM

8%

MYANMAR

13%

THAILAND

12%

US

8%

I WOULD BUY WILDLIFE PRODUCTS OVERSEAS

36%

I WOULD BUY WILDLIFE PRODUCTS FROM A TRusted SUPPLIER

33%

I WOULD BUY WILDLIFE PRODUCTS ONLINE

26%

I WOULD BUY WILDLIFE PRODUCTS THROUGH ANOTHER CHANNEL

11%

TOTAL

TYPE OF EXOTIC PETS BOUGHT IN THE PAST 12 MONTHS

Base: Among exotic pet buyers, %

PARROT

30

SNAKE

29

TURTLE/TORTOISE

24

LIZARD

22

FELINE

22

SONGBIRD

17

RODENT

15

BIRD OF PREY

13

TOAD/FROG

12

WATERFOWL

8
<table>
<thead>
<tr>
<th>Vietnam (OPINION SURVEY)</th>
<th>Myanmar (OPINION SURVEY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>84% believe closure of high-risk wildlife markets where they sell animals coming from the wild is <strong>very</strong> or <strong>somewhat effective</strong> in preventing similar pandemic diseases from happening in the future.</td>
<td>86% believe closure of high-risk wildlife markets where they sell animals coming from the wild is <strong>very</strong> or <strong>somewhat effective</strong> in preventing similar pandemic diseases from happening in the future.</td>
</tr>
<tr>
<td>94% are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.</td>
<td>88% are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.</td>
</tr>
<tr>
<td>88% would be <strong>extremely</strong> or <strong>very worried</strong> if no measures are taken to close all high-risk markets selling animals from the wild.</td>
<td>87% would be <strong>extremely</strong> or <strong>very worried</strong> if no measures are taken to close all high-risk markets selling animals from the wild.</td>
</tr>
<tr>
<td>95% strongly support or support increased efforts to <strong>preserve forests</strong> and end deforestation in their country or overseas specifically to prevent future pandemics. 92% say they are <strong>concerned</strong> or <strong>very concerned</strong> when told that “deforestation leads to closer contact between people and wildlife, increasing the risk of coronaviruses and other diseases jumping from animals to humans.”</td>
<td>90% strongly support or support increased efforts to <strong>preserve forests</strong> and end deforestation in their country or overseas specifically to prevent future pandemics. 88% say they are <strong>concerned</strong> or <strong>very concerned</strong> when told that “deforestation leads to closer contact between people and wildlife, increasing the risk of coronaviruses and other diseases jumping from animals to humans.”</td>
</tr>
<tr>
<td>93% strongly support or support a “<strong>One Health</strong>” approach to dealing with pandemics. 45% say they have heard of the “<strong>One Health</strong>” approach without being prompted.</td>
<td>86% strongly support or support a “<strong>One Health</strong>” approach to dealing with pandemics. 6% say they have heard of the “<strong>One Health</strong>” approach without being prompted.</td>
</tr>
<tr>
<td>14% purchased wildlife products in the past 12 months from <strong>open wildlife markets</strong>. 12% purchased wildlife products in the past 12 months <strong>online</strong>. 13% purchased exotic pets in the past 12 months.</td>
<td>4% purchased wildlife products in the past 12 months from <strong>open wildlife markets</strong>. 2% purchased wildlife products in the past 12 months <strong>online</strong>. 1% purchased exotic pets in the past 12 months.</td>
</tr>
<tr>
<td>39% <strong>consume less or stopped</strong> consuming wildlife because of COVID-19.</td>
<td>22% <strong>consume less or stopped</strong> consuming wildlife because of COVID-19.</td>
</tr>
</tbody>
</table>
75% believe closure of high-risk wildlife markets where they sell animals coming from the wild is very or somewhat effective in preventing similar pandemic diseases from happening in the future.

84% are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.

79% would be extremely or very worried if no measures are taken to close all high-risk markets selling animals from the wild.

90% strongly support or support increased efforts to preserve forests and end deforestation in their country or overseas specifically to prevent future pandemics. 79% say they are concerned or very concerned when told that “deforestation leads to closer contact between people and wildlife, increasing the risk of coronaviruses and other diseases jumping from animals to humans.”

91% strongly support or support a “One Health” approach to dealing with pandemics. 53% say they have heard of the “One Health” approach without being prompted.

11% purchased wildlife products in the past 12 months from open wildlife markets. 8% purchased wildlife products in the past 12 months online. 12% purchased exotic pets in the past 12 months.

41% consume less or stopped consuming wildlife because of COVID-19.

91% believe closure of high-risk wildlife markets where they sell animals coming from the wild is very or somewhat effective in preventing similar pandemic diseases from happening in the future.

92% are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.

82% would be extremely or very worried if no measures are taken to close all high-risk markets selling animals from the wild.

94% strongly support or support increased efforts to preserve forests and end deforestation in their country or overseas specifically to prevent future pandemics. 83% say they are concerned or very concerned when told that “deforestation leads to closer contact between people and wildlife, increasing the risk of coronaviruses and other diseases jumping from animals to humans.”

93% strongly support or support a “One Health” approach to dealing with pandemics. 53% say they have heard of the “One Health” approach without being prompted.

10% purchased wildlife products in the past 12 months from open wildlife markets. 7% purchased wildlife products in the past 12 months online. 8% purchased exotic pets in the past 12 months.

28% consume less or stopped consuming wildlife because of COVID-19.

81% are much more or slightly more likely to buy from companies taking action to prevent pandemics.
72% believe closure of high-risk wildlife markets where they sell animals coming from the wild is very or somewhat effective in preventing similar pandemic diseases from happening in the future.

68% are very likely or likely to support the efforts by governments and health ministries to close all high-risk markets selling animals coming from the wild.

59% would be extremely or very worried if no measures are taken to close all high-risk markets selling animals from the wild.

68% strongly support or support increased efforts to preserve forests and end deforestation in their country or overseas specifically to prevent future pandemics. 68% say they are concerned or very concerned when told that “deforestation leads to closer contact between people and wildlife, increasing the risk of coronaviruses and other diseases jumping from animals to humans.”

68% strongly support or support a “One Health” approach to dealing with pandemics. 14% say they have heard of the “One Health” approach without being prompted.

65% purchased wildlife products in the past 12 months from open wildlife markets. 7% purchased wildlife products in the past 12 months online. 8% purchased exotic pets in the past 12 months.

7% consume less or stopped consuming wildlife because of COVID-19.

12% are much more or slightly more likely to buy from companies taking action to prevent pandemics.
A MAJORITY OF PEOPLE SURVEYED ARE DEEPLY WORRIED ABOUT FUTURE PANDEMICS. THEY SUPPORT GOVERNMENT ACTION TO TACKLE ROOT CAUSES LIKE HIGH-RISK WILDLIFE TRADE AND DEFORESTATION.