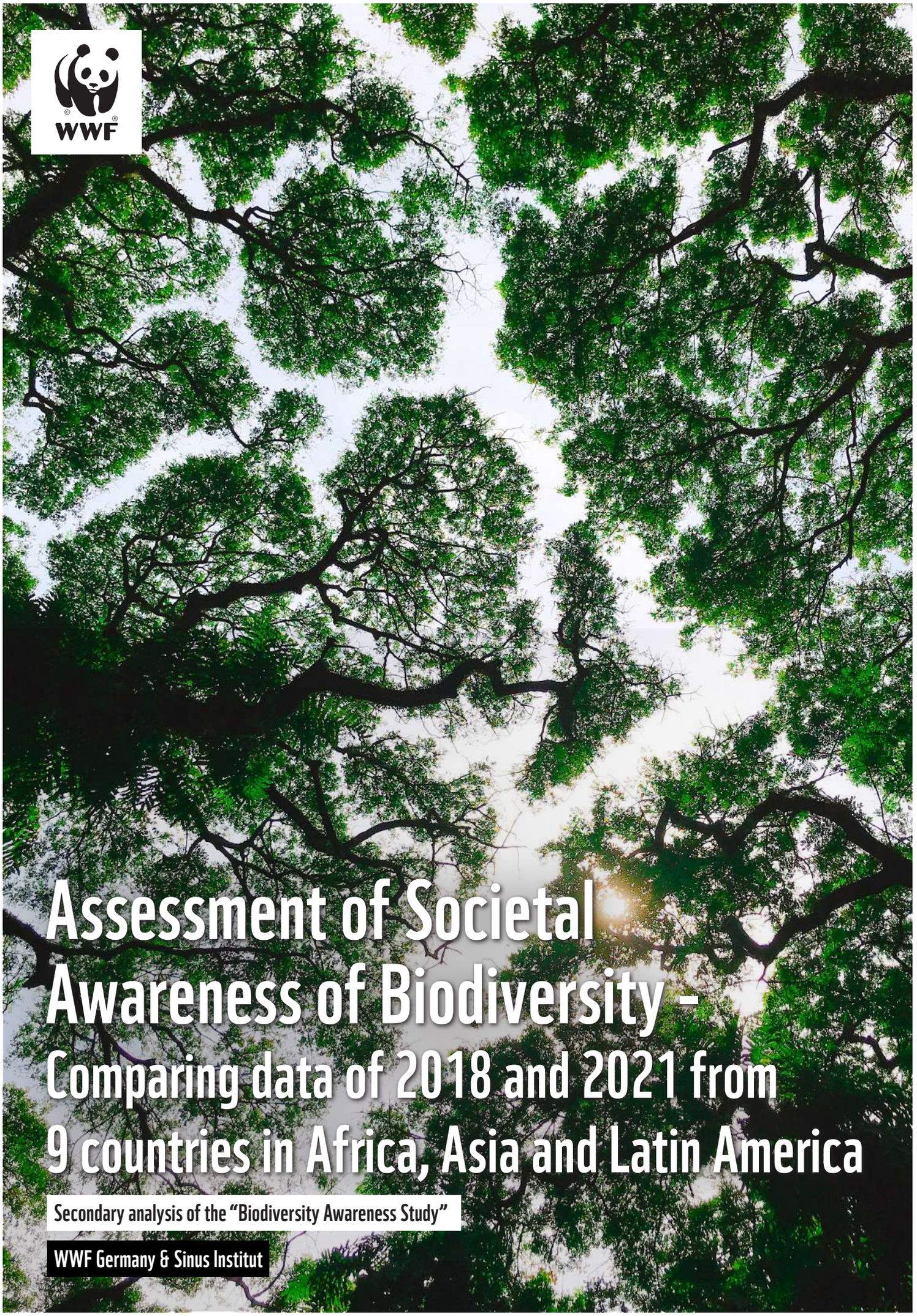


# Assessment of Societal Awareness of Biodiversity – Comparing data of 2018 and 2021 from 9 countries in Africa, Asia and Latin America

Secondary analysis of the "Biodiversity Awareness Study"

WWF Germany & Sinus Institut

# TABLE OF CONTENTS


Background of the study, study design and methodology 5

Composition of the societal indicator and analytical procedure 9

Main findings of the analysis 13

Limitations and interpretation guidelines 21



| | |
|---|---|
| Publisher | WWF Germany |
| Status | March 2022 |
| Coordination | Dr. Christine van Deuren (WWF Germany) |
| Lead Authors | Dr. Christoph Schleer (Sinus Institut) |
| | Dr. Christine van Deuren (WWF Germany) |
| | Naima Wisniewski (Sinus Institut) |
| Contact | Dr. Christine van Deuren, christine.vandeuren@wwf.de |
| Layout | www.pitched.ch |
| Translation | Gary Willis |
| Cover Photo | © Firos NV/Unsplash |


Some of the values presented in the tables and figures contain rounding differences.


© 2022 WWF Germany, Berlin. Reprints, including excerpts, only with permission of the publisher.

© Yasron El Jihan/Unsplash

# Background of the study, study design and methodology

## Background of the study

On behalf of the WWF, Hall & Partners company collected data on biodiversity awareness in ten non-European countries. The SINUS Institute was then commissioned to use this data as a basis for calculating the indicator of "societal awareness of biodiversity" developed in the context of nature awareness studies in these ten countries. And further to differentiate it according to sub-indicators and socio-demographic characteristics. The total value shown refers to all countries included in the study. Since the survey was conducted for a second time, comparative analyses were also carried out between the results of the overall indicator and the three sub-indicators in 2018, and the findings in 2021.

This report is a summary of the main findings from nine countries - India, Indonesia, Vietnam, Brazil, Colombia, Mexico, Peru, Kenya, and South Africa.

## Study design and methodology

The study is based on an online survey of people aged 18 to 65. At least 1,000 people were interviewed in each of the countries included in the study. The surveys were conducted in the national language. The survey period was from 25th of November until 9th of December 2021.

For the random survey, the aim was to cover important socio-demographic characteristics to the greatest extent possible. Wherever this was feasible, we monitored for gender, age, education, household income, residential location, and children in the household. A special feature of the survey is that in each country, only people who do not have a generally negative attitude towards environmental issues were interviewed.

**Target group**

Online population aged 18 and over who do not have a negative attitude toward environmental issues

**Method**

Standardised online interviews (CAWI)

**Survey**

Conducted by Hall & Partners
Duration of campaign: November 2021
Length of interview: approx. 25 min

**Sample**

| Country | Number of interviewees |
|---|---|
| **Asia** | |
| India | 1.004 |
| Indonesia | 1.046 |
| Vietnam | 1.027 |
| **South America** | |
| Brazil | 1.000 |
| Colombia | 1.005 |
| Mexico | 1.042 |
| Peru | 1.029 |
| **Africa** | |
| Kenya | 1.050 |
| South Africa | 1.025 |

*Figure 1: Study design and methodology*

| *Figures in percent* | ø | ASIA India | Indonesia | Vietnam | SOUTH AMERICA Brazil | Columbia | Mexico | Peru | AFRICA Kenya | South Africa |
|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | | | | |
| Male | 50 | 52 | 50 | 48 | 47 | 48 | 49 | 52 | 52 | 49 |
| Female | 50 | 48 | 49 | 52 | 52 | 52 | 50 | 48 | 48 | 51 |
| **Age groups** | | | | | | | | | | |
| 18 to 29 years | 39 | 35 | 39 | 51 | 34 | 36 | 28 | 39 | 67 | 33 |
| 30 to 39 years | 31 | 34 | 35 | 34 | 25 | 28 | 30 | 29 | 28 | 30 |
| 40 to 49 years | 16 | 17 | 16 | 11 | 17 | 19 | 20 | 19 | 5 | 19 |
| 50 to 65 years | 14 | 14 | 10 | 4 | 24 | 17 | 21 | 13 | 1 | 18 |
| **Education** | | | | | | | | | | |
| Low formal education | 12 | 5 | 5 | 11 | 36 | 12 | 4 | 8 | 9 | 25 |
| Average formal education | 19 | 10 | 36 | 13 | 12 | 18 | 17 | 23 | 20 | 24 |
| High formal education | 69 | 85 | 59 | 76 | 52 | 70 | 78 | 69 | 71 | 51 |

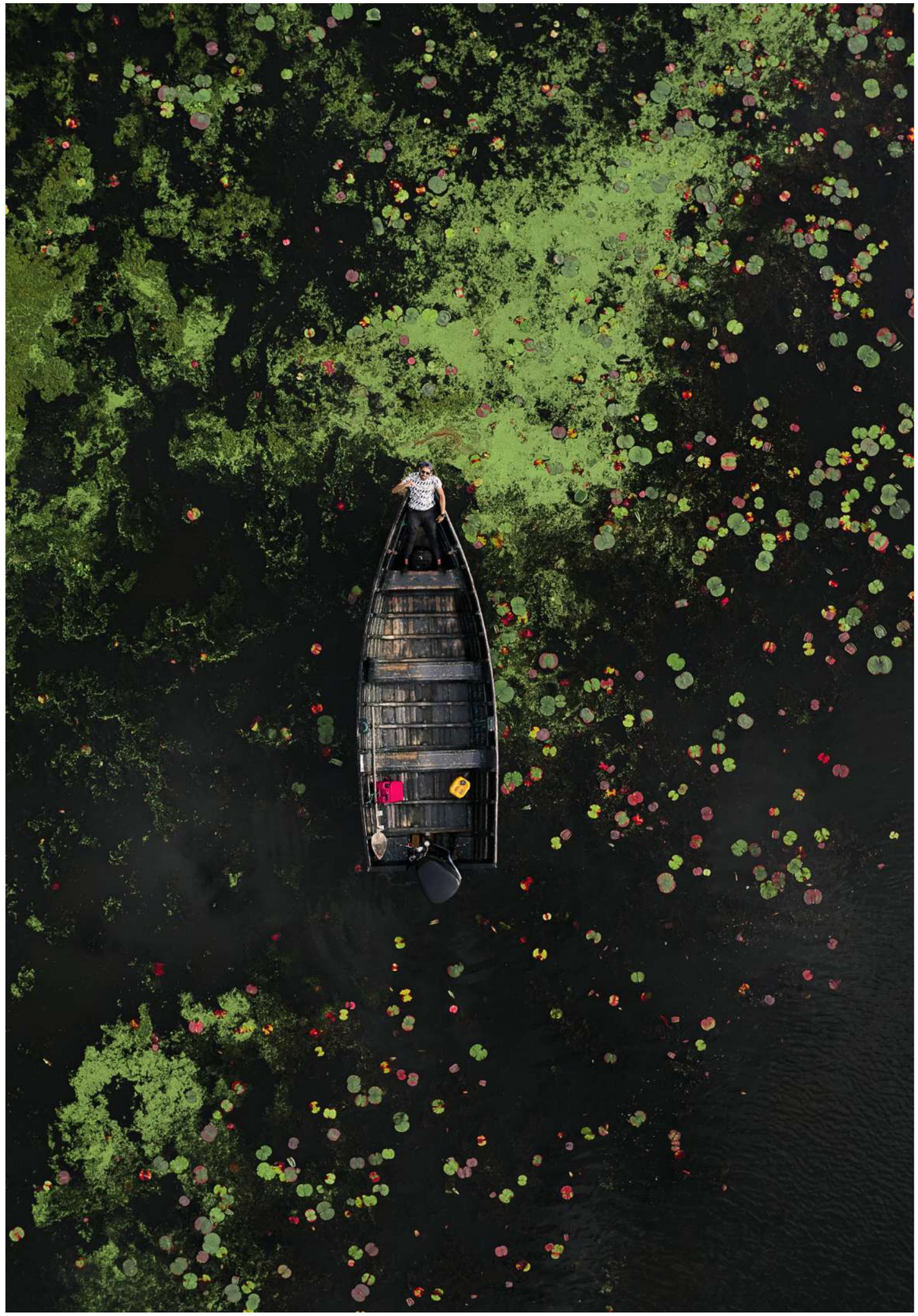
strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 2: Composition of random survey - gender, age, education*

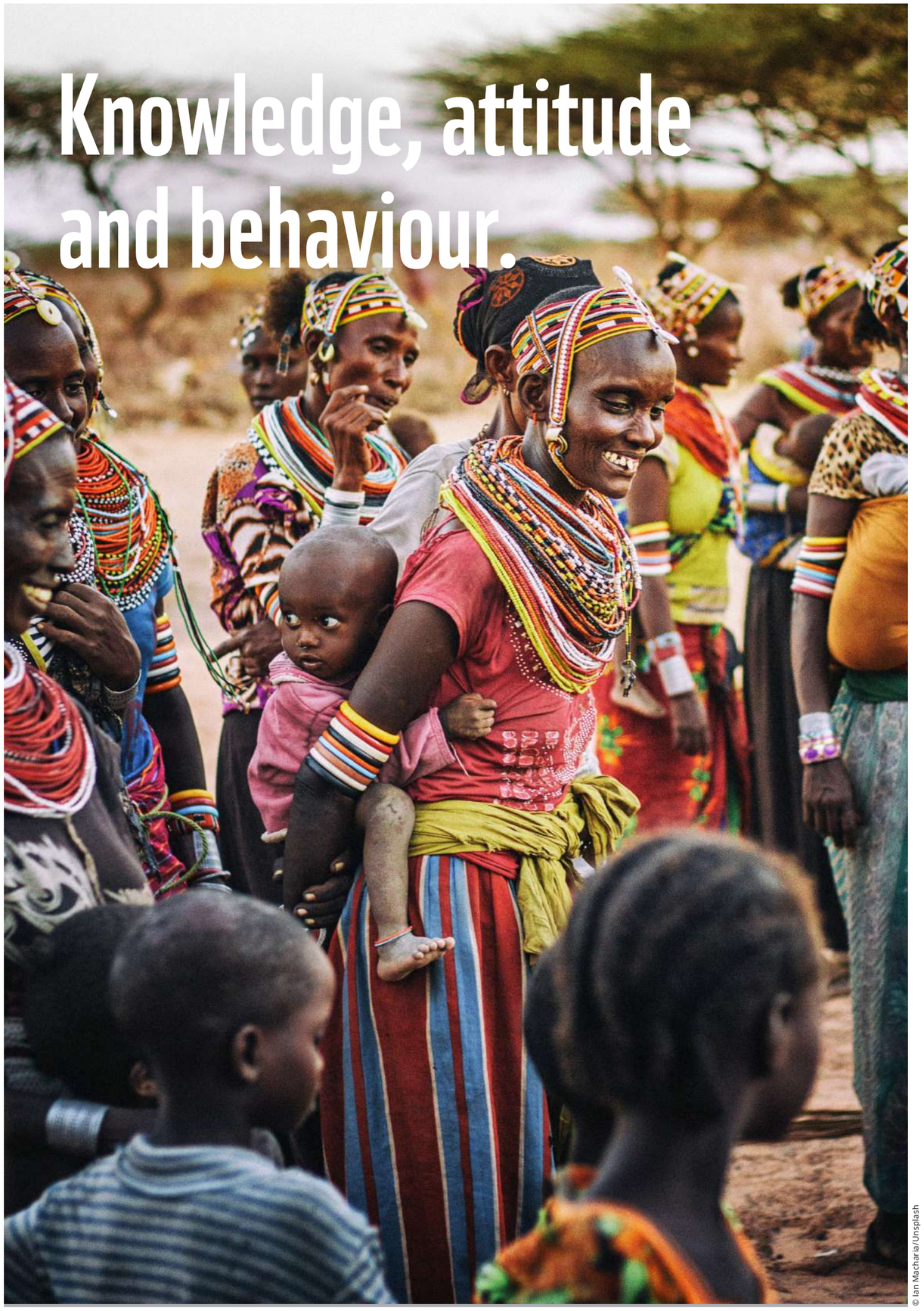
| *Figures in percent* | ø | ASIA India | Indonesia | Vietnam | SOUTH AMERCIA Brazil | Columbia | Mexico | Peru | AFRICA Kenya | South Africa |
|---|---|---|---|---|---|---|---|---|---|---|
| **Household income** | | | | | | | | | | |
| High income | 29 | 22 | 30 | 10 | 34 | 37 | 30 | 50 | 32 | 25 |
| Average income | 37 | 40 | 49 | 31 | 32 | 39 | 26 | 25 | 47 | 44 |
| High income | 31 | 36 | 19 | 58 | 29 | 19 | 40 | 22 | 17 | 28 |
| No answer | 3 | 2 | 2 | 1 | 5 | 5 | 4 | 3 | 5 | 3 |
| **Residential location** | | | | | | | | | | |
| Urban | 66 | 80 | 56 | 69 | 59 | 82 | 82 | 86 | 20 | 41 |
| Suburban | 29 | 16 | 36 | 22 | 39 | 16 | 16 | 13 | 68 | 53 |
| Rural | 5 | 4 | 8 | 10 | 2 | 2 | 1 | 1 | 12 | 5 |
| **Children in household** | | | | | | | | | | |
| Children in household | 78 | 83 | 89 | 85 | 75 | 81 | 79 | 82 | 63 | 77 |
| No children in household | 22 | 17 | 12 | 15 | 25 | 19 | 21 | 18 | 37 | 23 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 3: Composition of random survey - household income, residential location, children in the household*



© Mohsen Karimi/Unsplash




© Ian Macharia/Unsplash

# Composition of the societal indicator and analytical procedure

The societal indicator was developed to make the targets measurable and tangible.

### Background to the development of the societal indicator

The central political document that regulates the safeguarding of the diversity of life at an international level, is the United Nations Convention on Biological Diversity (UN Convention on Biological Diversity, CBD) from 1992, which was also signed and ratified by the Federal Republic of Germany. To implement the Convention on Biological Diversity in Germany, the National Strategy on Biological Diversity was adopted by the Federal Cabinet on the 7th of November 2007. A key objective of this strategy is to raise public awareness of the need to protect biodiversity and to keep nature intact. Specifically, the following goal was set: "By 2015, at least 75 percent of the population shall consider the conservation of biological diversity to be one of society's priority tasks. The importance of biological diversity is firmly anchored in society's consciousness. People's actions are increasingly geared towards this and are leading to a significant reduction in the pressure on biological diversity" (BMU 2007, page 60 et seq.).

In order to make these targets measurable and thus empirically tangible, the "awareness of biodiversity" societal indicator was developed. It shows the extent to which this objective has been met (see Kuckartz and Rädiker 2009) and is part of the set of indicators for the National Strategy on Biological Diversity (see Ackermann et al. 2013). The data for its calculations has been collected since 2009 at two-year intervals by way of the nature awareness studies. This current report presents this indicator for nine non-European countries.

### Composition of the societal indicator

The societal indicator is composed of the sub-areas "knowledge", "attitude" and "behaviour". For each of these three sub-areas, requirements are defined, in which the targets of the National Strategy on Biological Diversity are expressed. Based on these requirements, a sub-indicator is formed for all three areas:

- The **knowledge indicator** measures the awareness of the term "biological diversity". It indicates the percentage of respondents who are familiar with the term "biological diversity", including the mention of at least one of its sub-components (species diversity, ecosystem diversity, genetic diversity).

- The **attitude indicator** determines the appreciation for biodiversity. It indicates the percentage of respondents who believe that biodiversity on earth is declining, and who at the same time have a positive attitude towards biodiversity and its conservation.

- The **behavioural indicator** measures the willingness of a person to make their own contribution to the conservation of biodiversity. It indicates the percentage of respondents who express sufficient willingness to contribute to the conservation of biodiversity personally.

The overall indicator is calculated by combining the three sub-indicators and indicates as to what percentage of the population fulfils the requirements in all three sub-areas (knowledge, attitude, willingness to behave positively). Since, according to the model chosen, it is not sufficient for a person to merely fulfil the requirements in only one or two sub-areas out of three (e.g. having sufficient knowledge and a positive attitude, but not being sufficiently willing to behave appropriately), the values of the overall indicator are inevitably lower than those of the sub-indicators. Strictly speaking, the overall indicator can at most only be as high as the lowest sub-indicator (cf. figure 4).

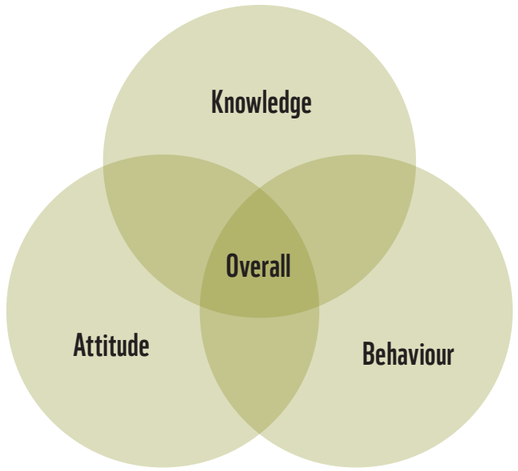



*Figure 4: "Awareness of biodiversity" sub-indicators and overall indicator.*

### Analytical procedure

In addition to assessing the overall indicator and the three sub-indicators, the survey data was differentiated according to gender, age, education, household income, residential location, and the number of children in the household.

- **Age groups**: under 30 years of age, 30 to 49 years, 50 to 65 years.

- **Level of education groups**: Low: "No formal schooling" or "Primary or secondary education"; Average: "Some college education"; High: "University or undergraduate education" or "University post-graduate education".



- **Household income**: categorised by country as being low, average, and high.

Differences in the response behaviour of these population groups were examined using a chisquared test (e.g. the under 30's age group compared to the average). This is based on a confidence interval of 95% and 99%t, which is generally used in social scientific research. Accordingly, characteristics are interpreted as being over-represented or under-represented in the random survey if this can be said with a probability of at least 95%t. Characteristics that have a probability of 99% are considered to be strongly overr-epresented or strongly underrepresented.

The result of the significance test always depends on the group size. The larger the group (the higher the number of participants), the more likely it is, that even minor over-representations and under-representations shown to be significant.

© Joanna Nix/Unsplash

# Main findings of the analysis

**Overall indicator and sub-indicators**

A comparison of the countries shows that the respondents in Indonesia are the ones most likely to meet all the requirements of the societal indicator (Indonesia: 58%). Also in Vietnam (48%), India (46%) and Colombia (46%), an above-average number of respondents have a high awareness of the importance of biodiversity (average: 43%). In contrast, the figures in South Africa (34%) and especially in Kenya (29%) are below average (cf. Figure 5).

The value of the knowledge indicator is lower in the two African countries included in the study, than in the three Asian and four South American countries: While an average of 60% of the respondents state that they know at least one of the three sub-components of biological diversity (diversity of species, ecosystems, genes), the figure is 42% in Kenya and 49% in South Africa. The values in India (55%) are also below average. In contrast, the highest values were measured in Mexico (67%), Indonesia (72%), Colombia (73%) and Peru (73%).

**Respondents in Indonesia are most likely to meet the requirements of the societal indicator.**

The attitude indicator reveals a different picture: respondents in India (81%), Vietnam (79%), Brazil (79%) and Indonesia (78%), are the most likely to express a sufficiently high level of awareness for biodiversity protection. The values of the attitude indicator in Mexico (65%), South Africa (65%), Kenya (64%), Colombia (63%) and Peru (60%), are significantly lower. The average score is around 70%.

As for the behavioural indicator, the differences in the comparison between countries are the smallest: The range goes from a value of 85% of respondents in Brazil to a value of 94% measured in Indonesia, Vietnam, and Peru (average: 92%).

| | | ASIA | | | SOUTH AMERICA | | | | AFRICA | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Figures in percent* | ø | India | Indonesia | Vietnam | Brazil | Columbia | Mexico | Peru | Kenya | South Africa |
| Sub-indicator “Knowledge” | 60 | 55 | 72 | 58 | 58 | 73 | 67 | 73 | 42 | 49 |
| Sub-indicator “Attitude” | 70 | 81 | 78 | 79 | 79 | 63 | 65 | 60 | 64 | 65 |
| Sub-indicator “Willingness to change behavior” | 92 | 92 | 94 | 94 | 85 | 94 | 91 | 94 | 90 | 92 |
| Overall indicator | 43 | 46 | 58 | 48 | 43 | 46 | 42 | 44 | 29 | 34 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 5: Overall indicator and sub-indicators*

## Overall indicator and sub-indicators compared over time

The value of the overall indicator has risen by 5 percentage points across all countries – from 38% in 2018 to 43% in 2021. However, the differences between the countries are considerable in some cases: Whereas the value of the overall indicator has risen in South Africa (+2 percentage points), India (+4 percentage points) and Vietnam (+9 percentage points), and especially in Brazil (+25 percentage points) and Indonesia (+26 percentage points), it has fallen in Peru (-4 percentage points), Colombia (-6 percentage points), Mexico (-6 percentage points) and Kenya (-9 percentage points).

Also, with regard to the sub-indicators, large differences can be seen between the countries under consideration when comparing them over time (cf. Figure 6).

- The value of the knowledge indicator increased in India (+1 percentage point), Vietnam (+4 percentage points) and especially in Indonesia (+23 percentage points). In contrast, the value decreased in South Africa (-1 percentage point), Peru (-3 percentage points), Colombia (-6 percentage points), Mexico (-10 percentage points), Brazil (-12 percentage points) and Kenya (-13 percentage points).

- The value of the attitude indicator increased in India (+4 percentage points), Indonesia (+12 percentage points) and Brazil (+24 percentage points), and decreased in South Africa (-1 per-centage point), Kenya (-2 percentage points), Mexico (-2 percentage points), Colombia (-8 percentage points) and Peru (-12 percentage points). In Vietnam, the attitude indicator did not change.

- The value of the behavioural indicator has increased in all countries considered - except for Kenya. The biggest differences are in Indonesia (+12 percentage points), Vietnam (+12 percentage points), South Africa (+12 percentage points) and especially Brazil (+45 percentage points).

| | | | ASIA | | | SOUTH AMERCIA | | | | AFRICA | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Figures in percent* | | ø | India | Indonesia | Vietnam | Brazil | Columbia | Mexico | Peru | Kenya | South Africa |
| Sub-indicator "Knowledge" | 2018 | 61 | 54 | 49 | 54 | 70 | 79 | 77 | 76 | 55 | 48 |
| | 2021 | 60 | 55 | 72 | 58 | 58 | 73 | 67 | 73 | 42 | 49 |
| Sub-indicator "Attitude" | 2018 | 69 | 77 | 66 | 79 | 55 | 71 | 67 | 72 | 66 | 64 |
| | 2021 | 70 | 81 | 78 | 79 | 79 | 63 | 65 | 60 | 64 | 65 |
| Sub-indicator "Willingness to change behavior" | 2018 | 80 | 85 | 82 | 82 | 40 | 87 | 85 | 85 | 90 | 80 |
| | 2021 | 92 | 92 | 94 | 94 | 85 | 94 | 91 | 94 | 90 | 92 |
| Overall indicator | 2018 | 38 | 42 | 32 | 39 | 18 | 52 | 48 | 48 | 38 | 32 |
| | 2021 | 43 | 46 | 58 | 48 | 43 | 46 | 42 | 44 | 29 | 34 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 6: Overall indicator and sub-indicators when compared over time*

## Socio-demographic view of indicators across all countries (global)

Across all countries, a differentiated analysis by means of socio-demographic characteristics shows that a high awareness of biodiversity (overall indicator) is dependent upon education (low vs. high: Δ 18 percentage points), household income (low vs. high: Δ 10 percentage points), residential location (urban vs. rural: Δ 13 percentage points) and household situation (with those having children vs. those without children: Δ 9 percentage points). The lowest value is found in the group with a low level of formal education (28%), the highest value in the group with those having the highest household income (47%). The level of the overall indicator increases with the level of education and household income. Furthermore, the overall indicator is higher in the group living in an urban residential area than it is in the group living in a rural residential area, and higher in the group with those having children than in the group without children (compare Figures 7 and 8).

| | | Gender | | Age (years) | | | Education | | |
|---|---|---|---|---|---|---|---|---|---|
| *Figures in percent* | ø | M | F | 18-29 | 30-49 | 50-65 | low | average | high |
| Sub-indicator "Knowledge" | 60 | 60 | 60 | 63 | 59 | 56 | 43 | 57 | 64 |
| Sub-indicator "Attitude" | 70 | 71 | 70 | 70 | 71 | 71 | 68 | 68 | 72 |
| Sub-indicator "Willingness to change behavior" | 92 | 91 | 93 | 91 | 93 | 90 | 86 | 93 | 93 |
| Overall indicator | 43 | 43 | 43 | 44 | 42 | 40 | 28 | 41 | 46 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 7: Overall indicator and sub-indicators across all countries by gender, age, and education*

| | | Household income | | | Residential location | | | Children in household | |
|---|---|---|---|---|---|---|---|---|---|
| *Figures in percent* | ø | low | average | high | urban | suburban | rural | yes | no |
| Sub-indicator "Knowledge" | 60 | 57 | 61 | 62 | 64 | 53 | 50 | 62 | 54 |
| Sub-indicator "Attitude" | 70 | 66 | 72 | 74 | 72 | 68 | 65 | 71 | 67 |
| Sub-indicator "Willingness to change behavior" | 92 | 90 | 93 | 94 | 93 | 90 | 90 | 93 | 90 |
| Overall indicator | 43 | 37 | 44 | 47 | 46 | 37 | 33 | 45 | 36 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 8: Overall indicator and sub-indicators across all countries by household income, residential location, and by having children in the household*

With regard to the knowledge indicator, differences can be found in education (low vs. high: Δ 21 percentage points), household income (low vs. high: Δ 5 percentage points), residential location (urban vs. rural: Δ 14 percentage points), household situation (with having children vs. without children: Δ 8 percentage points) and age (under 30 years. vs. over 50 years.: Δ 7 percentage points). The lowest value is to be found in the group with a low level of formal education (43%), and the highest value in the group with those having a high level of formal education and among the respondents living in urban residential areas (64% each).

As far as the attitude and behavioural indicators are concerned, the socio-demographic differences are comparatively small. The most notable differences can be seen in the following: The attitude indicator is higher among those with high household incomes (74%) than among those with low household incomes (66%); and higher among those living in cities (72%) than among those living in suburban or rural areas (68% and 65% respectively). The behavioural indicator is higher among those respondents having either an average or a high level of formal education (93% each), than among those with a low level of education (86%).

## Socio-demographic view of the indicators in the individual countries

The socio-demographic characteristics included in the analysis have varying degrees of effect on the overall indicator in the countries under consideration.

- Education has an influence in most countries. Significant differences can be found in Indonesia, Vietnam, Brazil, Colombia, Mexico, Peru, and South Africa. In each case, it is those re-spondents who have a low level of formal education that have a lower awareness of the im-portance of biodiversity. For example, only 27% of the Indonesian respondents who have a low level of formal education meet the requirements of the overall indicator. Among those having an average formal education, the figure is 55%, whereas it is 61% among those with a high level of formal education (cf. also Figure 9).

- The Household income is highly relevant in India, Vietnam, Brazil, and Mexico. In Brazil, for example, the range spans between 31% (low household income) and 55% (high household income).

- Age has in impact in India and South Africa. In these countries, the youngest respondents are the ones most likely to meet the requirements of the overall indicator. For example, 41% of 18 to 29 year-old South African respondents meet the requirements of the overall indicator. Among 30-49 year-olds the figure is 31%, and among 50-65 year-olds, 27%.

- Residential location is also important in some countries. In India, Vietnam and Brazil, high awareness of biodiversity is more widespread in cities and suburban areas than it is in rural areas.

- In India, Indonesia, and Vietnam, it is a relevant factor as to whether children live in the household or not. In these countries, respondents who indicated that there are children in the household are more likely to meet the requirements of the overall indicator than those respondents who indicated that there are no children in the household.

- Gender only plays a role in Indonesia: 51% of male respondents here meet the requirements of the societal indicator. For female respondents, the figure is 64%.



| *Figures in percent* | Ø | Gender | | Age (years) | | | Education | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M | F | 18-29 | 30-49 | 50-65 | low | average | high |
| Sub-indicator “Knowledge” | 72 | 66 | 79 | 71 | 74 | 70 | 43 | 68 | 78 |
| Sub-indicator “Attitude” | 78 | 76 | 80 | 77 | 79 | 75 | 61 | 80 | 78 |
| Sub-indicator “Willingness to change behavior” | 94 | 95 | 94 | 94 | 95 | 93 | 94 | 94 | 95 |
| Overall indicator | 58 | 51 | 64 | 57 | 58 | 55 | 27 | 55 | 61 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 9: Overall indicator and sub-indicators in Indonesia by gender, age, and education*

There are also clear socio-demographic differences in the knowledge indicator.

- In the knowledge sub-indicator, the level of response varies greatly according to the educational background of the respondents. In Brazil, for example, 43% of those with a low level of formal education know at least one of the three sub-components of biodiversity, whereas in the group of highly educated respondents the figure is 68% (cf. also Figure 10). Only in India and Peru the educational effects are insignificant.

- Besides education, household income is also very relevant. In India, Vietnam, Brazil, Mexico and South Africa, knowledge about the content-related meaning of the term “biodiversity” is most widespread in the high-income group.

- In South Africa, age also plays a role. Here, it is the youngest respondents who most frequently state that they know at least one of the three sub-components of biodiversity.

- In India, respondents with children in the household are more likely to meet the knowledge indicator requirements than respondents without children in the household.

- Gender differences are only evident in Indonesia. There, the value of the knowledge indicator is higher for women than it is for men.

| *Figures in percent* | Ø | Gender | | Age (years) | | | Education | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M | F | 18-29 | 30-49 | 50-65 | low | average | high |
| Sub-indicator “Knowledge” | 58 | 56 | 59 | 59 | 57 | 57 | 43 | 57 | 68 |
| Sub-indicator “Attitude” | 79 | 76 | 81 | 79 | 79 | 78 | 79 | 80 | 78 |
| Sub-indicator “Willingness to change behavior” | 85 | 82 | 88 | 82 | 87 | 84 | 81 | 84 | 87 |
| Overall indicator | 43 | 39 | 47 | 44 | 43 | 41 | 31 | 44 | 51 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 10: Overall indicator and sub-indicators in Brazil by gender, age, and education*

When compared to the overall and knowledge indicators, the socio-demographic differences are smaller in the attitude indicator.

- Educational background plays a role in Indonesia and Vietnam. In these countries, respondents with a high level of formal education meet the requirements of the attitude indicator more often than those respondents who have a low level of formal education.

- Household income is a major factor in India, Vietnam, and Mexico. In each case, it is the group with the lowest household income that has the lowest value when it comes to the attitude indicator (cf. also Figure 11).

- The residential location is relevant in India, Brazil, and Mexico. When compared to rural areas, urban residential areas score higher on the attitude indicator.

- Differences between gender and age are hardly discernible. It is worth mentioning that in India, the oldest respondents (50-65 year-olds) meet the requirements of the attitude indicator with below-average frequency.

- As to whether children live in the household or not, only has an effect in Vietnam. Respondents with children living in the household meet the requirements of the attitude indicator more often than those respondents that do not have children living in the household.

| *Figures in percent* | ø | Household income | | | Residential location | | | Children in household | |
|---|---|---|---|---|---|---|---|---|---|
| | | low | average | high | urban | suburban | rural | yes | no |
| Sub-indicator "Knowledge" | 58 | 50 | 60 | 60 | 61 | 57 | 47 | 59 | 56 |
| Sub-indicator "Attitude" | 79 | 65 | 77 | 82 | 82 | 73 | 71 | 81 | 66 |
| Sub-indicator "Willingness to change behavior" | 94 | 87 | 94 | 96 | 95 | 92 | 91 | 94 | 92 |
| Overall indicator | 48 | 34 | 50 | 50 | 52 | 44 | 34 | 50 | 40 |

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 11: Overall indicator and sub-indicators in Vietnam according to household income, residential location, and children in the household*

The socio-demographic differences in the behavioural indicator are also comparatively small.

- The greatest differences are again to be seen in education. In India, Vietnam, Colombia, Peru and Kenya, the educationally disadvantaged groups demonstrate the lowest values in respect of the behavioural indicator (cf. also Figure 12).



- Income effects can be identified in India, Vietnam, and Brazil. In these countries, it is the groups that have the lowest household income which have the lowest score on the behavioural indicator.

- While gender does not play a role in any of the countries surveyed, age is of relevance in Colombia and Mexico (at least tendentially). In Colombia, the willingness to behave positively is greatest among the oldest respondents. In Mexico, on the other hand, it is more pronounced among the younger respondents.

- In India, Indonesia and Brazil, the requirements of the behavioural indicator are met more often by those respondents who live in cities than they are by those who live in suburban or rural residential areas.

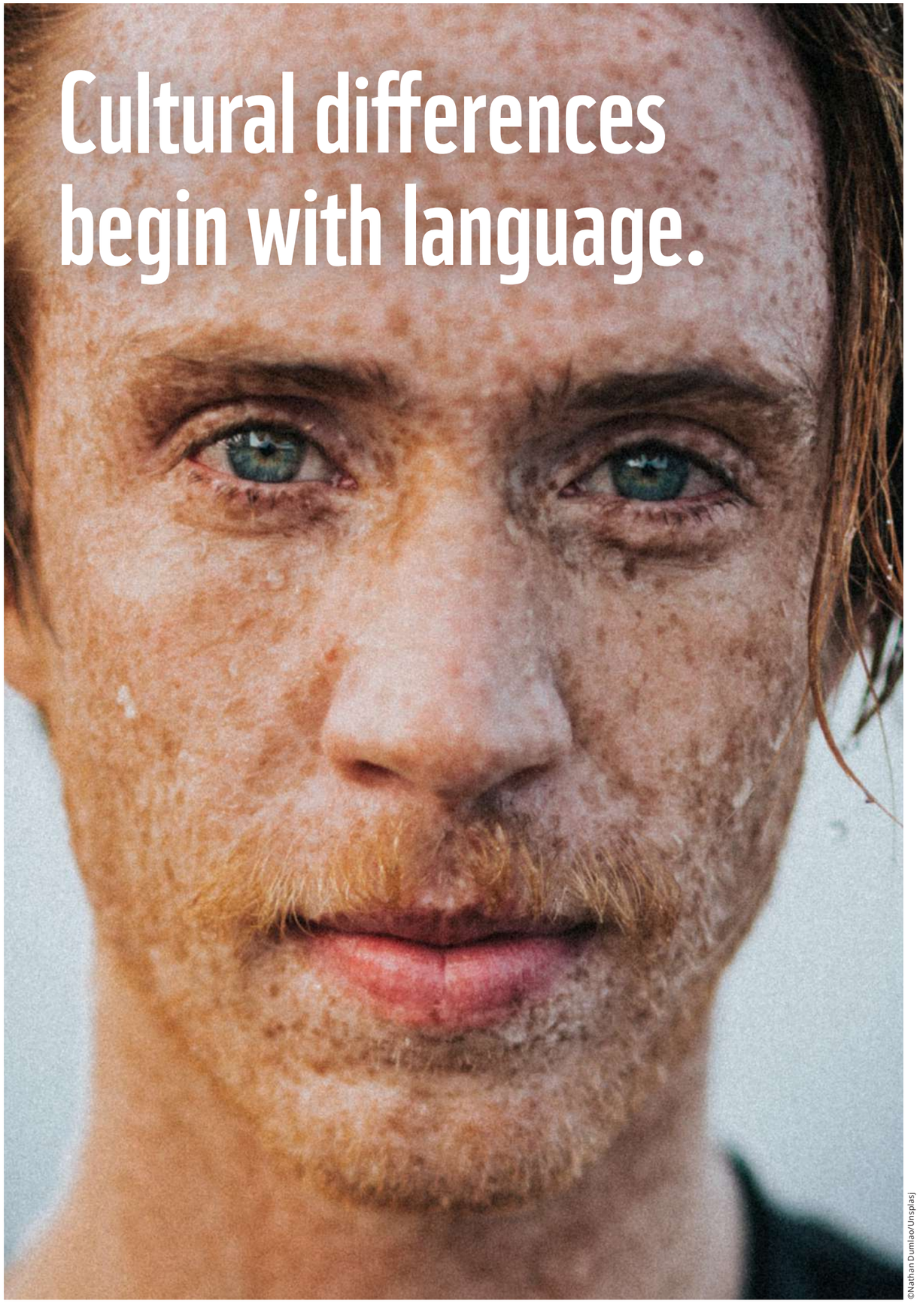
- In India and Mexico, respondents with children in the household meet the requirements of the behavioural indicator more often than respondents having no children in the household.

| *Figures in percent* | ø | Gender | | Age (years) | | | Education | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M | W | 18-29 | 30-49 | 50-65* | low | average | high |
| Sub-indicator "Knowledge" | 42 | 47 | 37 | 44 | 38 | 25 | 25 | 41 | 45 |
| Sub-indicator "Attitude" | 64 | 66 | 62 | 66 | 60 | 64 | 65 | 64 | 64 |
| Sub-indicator "Willingness to change behavior" | 90 | 89 | 91 | 89 | 93 | 100 | 82 | 92 | 91 |
| Overall indicator | 29 | 31 | 26 | 30 | 25 | 18 | 21 | 29 | 29 |

*low case number

strongly over-represented
over-represented
strongly under-represented
under-represented

*Figure 12: Overall indicator and sub-indicators in Kenya by gender, age, and education*




©Nathan Dumlao/Unsplasj

# Limitations and interpretation guidelines

As any empirical study, this study also has its limitations, which must be taken into account when interpreting the results. In order to critically reflect on the significance of the findings, the most important limitations are described below.

**The representational nature of the random survey**

- In the selected countries, only people who do not have a generally negative attitude towards nature and environmental issues were interviewed. This makes it difficult to compare countries, as it is not known to what extent a country's population has a negative or positive attitude toward these nature and environmental issues.

Only people who do not have a generally negative attitude towards nature and environmental issues were interviewed.

- Important socio-demographic characteristics of the random survey (e.g. education, income, age) do not correspond to the actual socio-demographic distributions within the respective countries. This is especially true for education: On average, 69% of the respondents have a high level of formal education, 19% have an average level of formal education and only 12% have a low level of formal education (cf. Figure 2 regarding the random survey composition). Since, as shown in the findings, the level of the societal indicator (and the sub-indicators) varies greatly with the educational background of the respondents, greater distortions ("upwards") can be assumed to exist here.

- It should also be noted that (1) only a few of the respondents live in rural areas (5% on average) and (2) no information is available about regional differences. For example, the population in Brazil differs greatly from region to region (rich South vs. poor Northeast. The region most affected by declining biodiversity, and therefore presumably more willing to contribute to biodiversity conservation, is the population of the Amazon region and the Pantanal).

- Finally, some of the data points to extremely high differences when making comparisons over time (questionnaires of 2018 and 2021). For example, the value of the overall indicator increased by 25 percentage points in Brazil and by 26 percentage points in Indonesia. In fact, an increase of 45 percentage points was measured for the behavioural indicator in Brazil.

**Methodology of the study**

In contrast to the surveys conducted in Germany, no personal interviews but online questionnaires were carried out in the 9 focus countries. This means that the total number of people surveyed is not representative of the total population

of a country, but “only” of the online population. Furthermore, it must be taken into account (when comparing countries) that the online penetration within the various countries varies greatly.

### Cultural differences

- When conducting surveys in different countries, cultural differences or country-specific characteristics must be taken into account. This begins with the language. A purely formal translation of the questionnaire into the national language is not sufficient; in order to compare countries, a cultural translation is necessary (especially for the term “biodiversity”).

**Cultural differences will always have an impact on the response behaviour, directly or indirectly.**

- In addition, there are a number of other cultural differences that can have a direct or indirect influence on the response behaviour of the interviewees - such as values, religions, norms, world views, etc. This applies, for example, to tendencies towards acquiescence/approval: The more strongly respondents are oriented toward subjectively perceived norms, the more they tend to give socially desirable answers (approval tendency). countries are the smallest: The range goes from a value of 85% of respondents in Brazil to a value of 94% measured in Indonesia, Vietnam, and Peru (average: 92%).

© Kyle Petzer/Unsplash

More publications
in our "WWF Wissen" app.
Download now!

iOS

Android

Also accessible
via a browser

Support WWF
IBAN: DE06 5502 0500 0222 2222 22

Zertifiziertes Fundraising
TÜV Thüringen-Standard
• Spendenbeschaffung
• Datenschutz
• Spenderzufriedenheit
ID 15 271 13002
www.tuev-thueringen.de

Zertifiziertes
Projektmanagementsystem
TÜV Thüringen Standard
• Projektplanung
• Projektcontrolling
• Projektverifizierung
ID 15 290 16001
www.tuev-thueringen.de

**Why we are here**
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

WWF Deutschland
Reinhardtstr. 18 | 10117 Berlin | Germany
Tel.: +49 30 311 777-700
info@wwf.de | wwf.de

© 1986 Panda symbol WWF – World Wide Fund For Nature (Formerly World Wildlife Fund) • ®"WWF" is a WWF Registered Trademark. • Date: 05/20