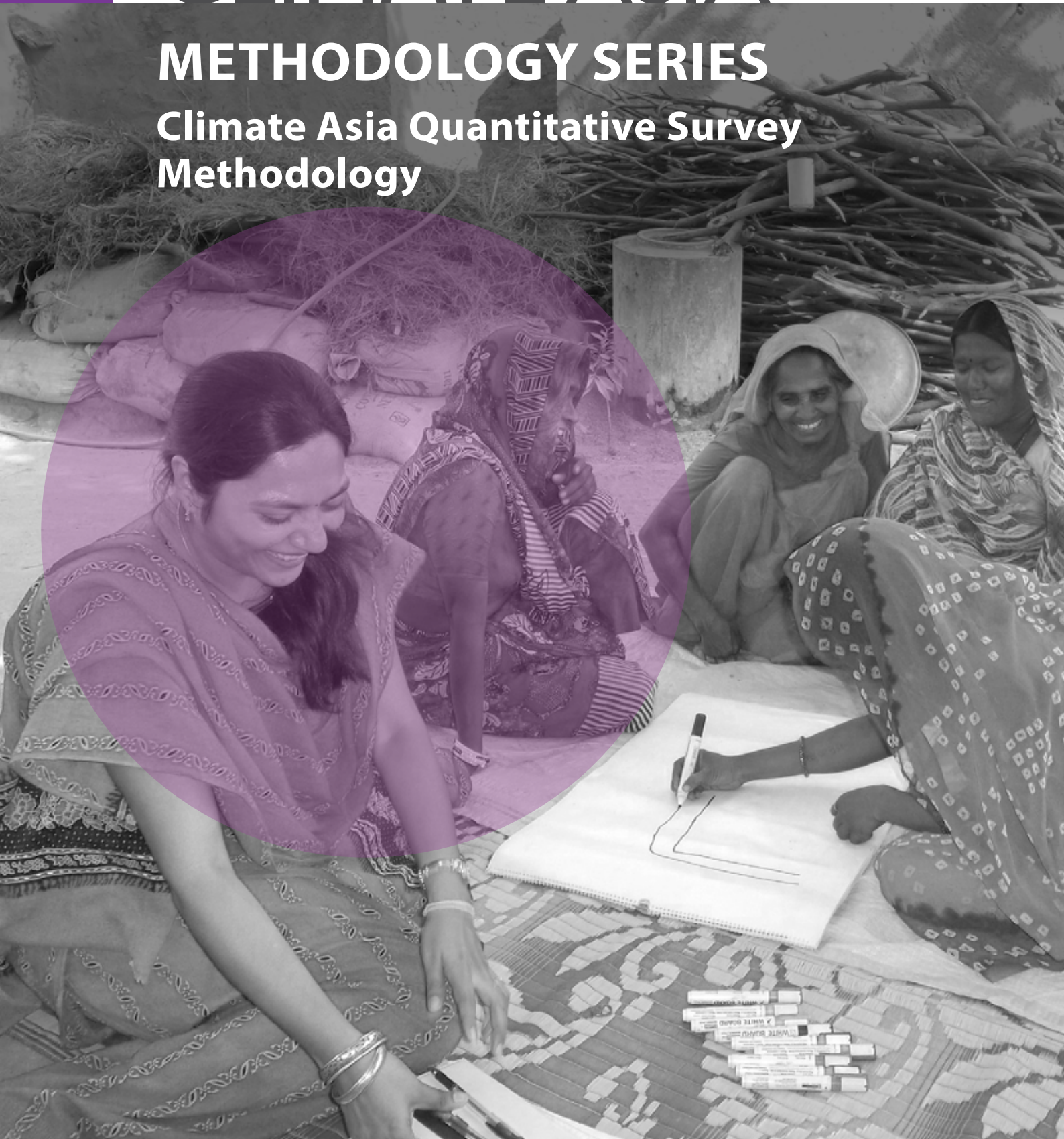


# CLIMATE ASIA

## METHODOLOGY SERIES

### Climate Asia Quantitative Survey Methodology



# CLIMATE ASIA QUANTITATIVE SURVEY METHODOLOGY

## Background

How do people in Asia live with climate change now? How will its impacts shape their future, and how will they, in turn, shape their environment? What are the most effective ways to support people to adapt to climate change, and how best can the media, governments, organisations and businesses communicate with them?

These are the questions behind Climate Asia, the world's largest study of people's everyday experience of climate change. Conducted from May to November 2012, the research project surveyed 33,513 people across seven Asian countries – Bangladesh, China, India, Indonesia, Nepal, Pakistan and Vietnam. These interviews were held with both a random sample of the population and opinion formers who were identified as being important influencers in their communities. Research agencies and partners in each country implemented the surveys.

Research embedded in people's lived experiences is the basis of the Climate Asia quantitative survey. The survey had two key aims:

- To provide a replicable baseline of public understanding of effects, impacts and responses to climate variability and change that can be tracked and measured over time
- To inform the development of communication that enables action in response to climate variability and change

We shaped the survey using insights generated by our qualitative research and other existing research. Four key themes were identified: food, water, energy and extreme weather events. They were selected because people across the region were noticing changes in these areas, and as they were tangible issues that related to people's everyday lives, participants could take a range of actions to deal with them.

Working within this framework, the survey measured the following replicable indicators:

- People's values, views of life and worries
- Awareness of current changes in the environment
- Levels of knowledge about actions people could take to respond to changes
- Actions people took at the time of the survey to respond to changes
- Likelihood of people to take action in the future to respond to changes
- People's use of various communication channels and media

The survey also facilitated regional analysis of data and audience segmentation and so the same questions were asked across the region. However, the survey did include a few country-specific questions (for instance to assess the country's poverty levels) and some country-specific response options (such as specific media channels) to enhance understanding of national circumstances.

## How the qualitative research informed the quantitative research

Findings from the three qualitative research activities informed the design of quantitative baselines so that researchers could:

- Create wording that resonated with audiences and framed attitudinal statements for people to respond to
- Develop indicators and attitude statements to use in the quantitative survey
- Ascertain key differences between thematic zones, countries and demographics to inform questionnaire design for future audience segmentation
- Understand the extent to which questionnaires could be standardised across countries, such as use of terminology across countries.
- Gain insight into how audience experiences vary depending on the geographical zone where they live
- Inform audience segmentation through insight into how audiences vary in their knowledge, attitudes and behaviour
- Format qualitative audience segments to help inform development of questions with which to build audience segments for the quantitative phase

The qualitative data was analysed by country to give depth to the quantitative findings. As well as the subject areas mentioned above, analysis of the data helped to provide:

- An understanding of how people without a lot of access to information vary in terms of knowledge, attitudes and behaviour to those who live in areas with high media access
- Case studies of how audiences respond to changes in climate
- Examples of communications on climate change that have been picked up by audiences and resonate with them

## Survey design

Climate Asia created a single standard survey to be replicated in different languages across the seven countries.

Findings from the focus group discussions showed that many participants could not relate to the concept of climate change. For example, in Pakistan a woman commented: “There is a lot of change in the environment of the world; the world is coming nearer to end, the Day of Judgment. We hear quite a lot of odd news.” They either felt it was something too far off to concern them or thought it was too large a problem for them to tackle.

This presented a challenge when designing our quantitative research. If many survey respondents were unlikely to understand or relate to the concept of climate change, they would be unable to provide much insight into how to respond to it.

Thus the survey was deliberately designed not to include a lot of questions on awareness and understanding of the concept of climate change. Drawing from literature and insights from our qualitative research, we grounded questions in concepts that people were more likely to relate to and understand. The main focus was on how climate change affected people’s day-to-day lives and how people perceived changes in the weather. These could include changes in temperature, rainfall, number of trees and varieties of animal species, but not the concept of climate change. We also asked about weather’s predictability.

Since the project goals were to inform communication initiatives, particularly through mass media, and to provide replicable baselines, we chose to conduct nationally representative surveys where possible rather than focusing on specific populations such as farmers. Media planners can now use survey findings to implement national or provincial data-driven communication strategies.

With a focus on each of the four main impacts – food, water, energy and extreme weather events – the survey gives a list of actions that participants may have taken to deal with them. In order to manage the length of time it took to complete the survey, each respondent was asked about two impacts (either water and energy, or food and extreme weather events). Questions included past, present and planned action on these impacts. The set of actions in the survey was derived through consultation with experts from across the region. The challenge was to select actions that were applicable to people from the region so that response levels could be compared.

To explore factors that may affect their ability to respond to these issues, the survey also included questions on governance, self-efficacy, trust, confidence in institutions and other barriers and motivators such as “survival” and “to ensure a better future for my children”.

### **Sampling: choosing representative samples**

The size and diversity of the population determined the number of interviews conducted in each country. To ensure the sample was as representative of each country as possible, BBC Media Action researchers set quotas for urban and rural areas to reflect the urban-rural distribution of the country’s population as a whole. For example, in Indonesia where 70% of the population live in rural areas, 70% of interviews were conducted there.<sup>1</sup>

Because of their size, a different approach had to be taken in India and China. In these countries the project conducted research in specific regions that represented a large percentage of the countries’ population and covered the main geographical regions.

Since the research focused on both the general population and locally influential people, researchers kept separate samples for both these groups. When deciding on the sample size for each country, the team considered the country’s population and used a confidence interval of not more than plus or minus 2% for any country.

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<sup>1</sup>This is different to many national media surveys conducted, where more interviews are conducted in urban areas to reflect the more diverse population found there. Data is then weighted to reflect the actual urban and rural populations. In this study, BBC Media Action was interested in the differences between different rural areas and geographical zones.

## National and regional breakdown of sample sizes for Climate Asia

No other quotas were set for the general population as the research used both systematic and probability proportionate to size (PPS) sampling methods to select respondents. This ensured that the population was accurately represented.<sup>2</sup>

	Bangladesh	India	Nepal	Pakistan	China	Indonesia	Vietnam	Total
Total population aged 15+	164 Million	1.17 Billion	29.3 Million	184 Million	1.35 Billion	233 Million	87.8 Million	3.22 Billion
Representation	National	Specific regions	National	National	Specific regions	National	National	
General population	3,000	8,000	2,000	4,000	5,000	4,500	3,000	29,500
Influencers/ opinion formers	500	750	350	500	500	750	500	3,850
Total number of interviews	3,600	8,779	2,400	4,495	5,745	4,994	3,500	33,513

The first step in sampling was to divide each country into main geographical strata to ensure a representation of all geographical regions. These were:

- Bangladesh – the seven administrative divisions
- Nepal – the country was split into three ecological regions – mountains, hills and Terai (plains)
- Vietnam – the country was split into six geographical zones
- India – main sampling units were Mumbai, Gujarat, Madhya Pradesh, Odisha, Tamil Nadu and Uttarakhand
- China – main sampling units were Beijing, Sichuan and Guangdong
- Pakistan – each province (Sindh, Punjab, Balochistan, Khyber Pakhtunkhwa and Gilgit–Baltistan) was split into rural and urban areas, and then districts were chosen randomly
- Indonesia – seven geographical zones

Then, to ensure a nationally representative sample, BBC Media Action employed the PPS methodology to select the study districts from within the geographical regions. To do this, census data or other equivalent population data was used.

Urban and rural areas within a district/state were listed separately on the basis of census classification. We used municipal wards as primary sampling units (PSUs) in urban areas, and villages as PSUs in rural areas. Once the sampling units were chosen, researchers conducted 20 interviews in each. Standard guidelines to be followed in each country were set for how to choose the respondents to ensure comparability.

<sup>2</sup> Probability proportional to size (PPS) is a sampling method for use with surveys in which the probability of selecting a sampling unit is proportional to the size of its population.

## Identifying opinion formers

Alongside the survey of the public, interviews were conducted with potential opinion formers. Opinion formers defined for the quantitative survey were not the elite but were key influencers in the community who could be used as a communication channel, particularly in rural areas. They were identified by questions asked at the beginning of interviews with households. These covered occupation, membership of civil society organisations and perceived influence on their community.

If no one in the household met these criteria the interviewer started the interview process as normal, including selecting respondents randomly. As a result, opinion formers were purposively sampled, but the general population was sampled randomly.

## Survey implementation

Working with research agencies and partner organisations for implementation, each questionnaire took approximately one hour.

The questionnaire was piloted in each country and the questions were back translated to ensure comparability. In each country, a local researcher employed by BBC Media Action supervised the agency or partner who implemented the research. This involved attending interview briefings, spot checking fieldwork, checking completed questionnaires and supervising the data entry process.

In London, decisions were made on how to adapt the survey to take into account feedback from the countries. For example, when it was found that some of the four point scales used were difficult for respondents to understand, pictorial show cards were drawn up and shown. In this way, the overall aim for comparability across the region was not compromised, while still ensuring that the questionnaire was appropriate for each country context.

A number of issues affected our ability to carry out interviews including Ramadan, monsoon season, a power cut across several states in India, soaring temperatures in Pakistan and flooding in China. Such events were logged and referred to during analysis to check whether they affected response to questions about climate and energy.

## Next steps

This research has been designed so that it can be replicated in the future to evaluate the success of communications over time.

The data from the survey is available on the BBC Media Action Climate Asia data portal, [www.bbc.co.uk/climateasia](http://www.bbc.co.uk/climateasia). Here responses to any question can be analysed by audience segments, key demographics, geographic location or media use.

The survey questionnaire, the other Climate Asia research tools and explanations of how we conducted all phases of the study are available on [www.bbc.co.uk/mediaaction/climateasiadataportal/resources](http://www.bbc.co.uk/mediaaction/climateasiadataportal/resources)

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## ABOUT CLIMATE ASIA

Climate Asia, a BBC Media Action project, is the largest-ever quantitative and qualitative research study into public understanding of climate change in Asia. Funded by the UK Department of International Development (DFID), Climate Asia interviewed over 33,500 people across seven countries – Bangladesh, China, India, Indonesia, Nepal, Pakistan and Vietnam. The resulting comprehensive data set paints a vivid picture of how people live with climate change now.

This report is one of many tools created from this unique data, all designed to help the planning and implementation of communication and other programmes to support people to adapt to the changes they face. They are available on the fully searchable and public Climate Asia data portal, [www.bbc.co.uk/climateasia](http://www.bbc.co.uk/climateasia), including a climate communication guide, further information on Climate Asia's research methods and the tools used to conduct research, including the survey questionnaire. Since all of Climate Asia's data and tools are designed for the widest possible use, this report and data portal details are freely available to anyone who might be interested.

## ACKNOWLEDGEMENTS

BBC Media Action would like to thank everyone who agreed to be interviewed and take part in the Climate Asia research project. All Climate Asia data, including this report, findings from each country, a climate communication guide, further information on our research methods and the tools we used to conduct our research are available on [www.bbc.co.uk/climateasia](http://www.bbc.co.uk/climateasia).

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