Policy Briefing

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From the ground up

Changing the conversation about climate change

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Front cover
A Bangladeshi farmer sits in front of his flood-resistant jute crop. Growing alternative crops is one of many climate adaptations being undertaken across Asia.
G.M.B. AKASH/PANOS PICTURES

Methodology

Climate Asia is the world's largest study of people's everyday experience of climate change. The project spoke to more than 33,500 people across seven Asian countries – Bangladesh, China, India, Indonesia, Nepal, Pakistan and Vietnam.

Using both quantitative and qualitative research, Climate Asia built a regional picture of how different groups across Asia live and deal with climate change. This research explored a range of issues, including people's values, livelihoods, use of food, water and energy, family life, media habits, future hopes and concerns as well as any environmental changes they have noticed or adapted to already.

Qualitative research conducted in 2012 and 2013 across all seven countries included in-depth interviews with experts and opinion-formers, audience focus groups and community assessments. Initial insights from this research were further examined though workshops and an evaluation of existing initiatives. This research was then analysed to provide context and add depth to the quantitative findings.[1]

The quantitative survey was conducted between June and November 2012 and interviewed more than 33,500 people across the seven countries.

Nationally representative surveys were conducted in each of the countries. Due to the size of India and China, however, interviewing was only conducted in specific regions which were selected in order to cover a geographical representation of each country.

The survey had two main aims – to provide a replicable baseline that could be measured over time and to inform the development of communication strategies in the future. The replicable indicators that the survey measured included:

- Awareness of current changes in the environment
- Levels of knowledge about actions to take
- Current actions taken to respond to changes in the environment
- Likelihood of taking action to respond to changes in future
- Current use of communication to enable response to changes in the environment

The project has also developed a toolkit to enable governments, donors and NGOs to to use this audience data to develop their own communication strategies to meet the public's needs.

GETTY IMAGES

Left A parched paddy in Tianlin county, China. China was one of seven countries surveyed by Climate Asia, the region's largest ever study into public attitudes towards climate change.

INTRODUCTION

Where the earth meets the sky

Over the past several decades, climate change has emerged as one of the hallmark public policy issues of our time. It is the subject of high-level scientific inquiry, contentious rounds of political negotiation and debate, and impassioned awareness campaigns across the globe.

These discussions are productive and vital. And yet, for much of the world's population, the climate change discourse has been in large part inconsequential. Indeed, in many of the poorest countries on earth, the most relevant part of the debate is not so much about cutting greenhouse gases as it is about coping with their effects.

For people residing in these countries, the science and politics of climate change necessarily take a back seat to its impact on daily lives: on health, on homes, on crop yields. The impacts experienced exacerbate existing development problems. And so, climate change adaptation becomes a matter of building resilience in order to manage risk.

Accordingly, this policy briefing seeks to shift the fulcrum of the conversation in the service of those most exposed to the consequences of a warmer world. To do this, the briefing looks at the everyday experience of people living in the world's most populous continent: Asia. It draws on data from BBC Media Action's Climate Asia project, which interviewed more than 33,000 people in seven countries – Bangladesh, China, India, Indonesia, Nepal, Pakistan and Vietnam – and compiled the results into the region's largest ever study of public knowledge of and attitudes towards climate change.

In documenting the stories of people and communities in Asia and the larger regional trends they represent, this policy briefing seeks to unleash new insights and new solutions in tackling the enduring challenge of climate change. In particular, this briefing highlights the role that media and communication can play in the adaptation process. For when we listen to those who sit metaphorically "where the earth meets the sky", we find that many of the obstacles to climate change adaptation are informational and attitudinal in nature and would thus benefit from media and communication interventions.

This paper is organised as follows:

Part 1 draws on data from Asia and beyond to underscore some of the developmental impacts that arise from climate change, with particular emphasis on health and livelihoods.

Part 2 lays out some of the central insights drawn from the more than two years of research that went into the Climate Asia project. This section delineates three obstacles to climate change adaptation identified in the Climate Asia survey – lack of information, lack of co-operation and lack of institutional support – and illustrates how media and communication could play a role in addressing them.

Part 3 examines the policy context for this inquiry, highlighting the opportunity for a new approach to communication due to increasing convergence of the global environmental and development agendas around climate change adaptation.

Part 4 draws conclusions and offers some policy recommendations.

PART 1

The real effects of climate change

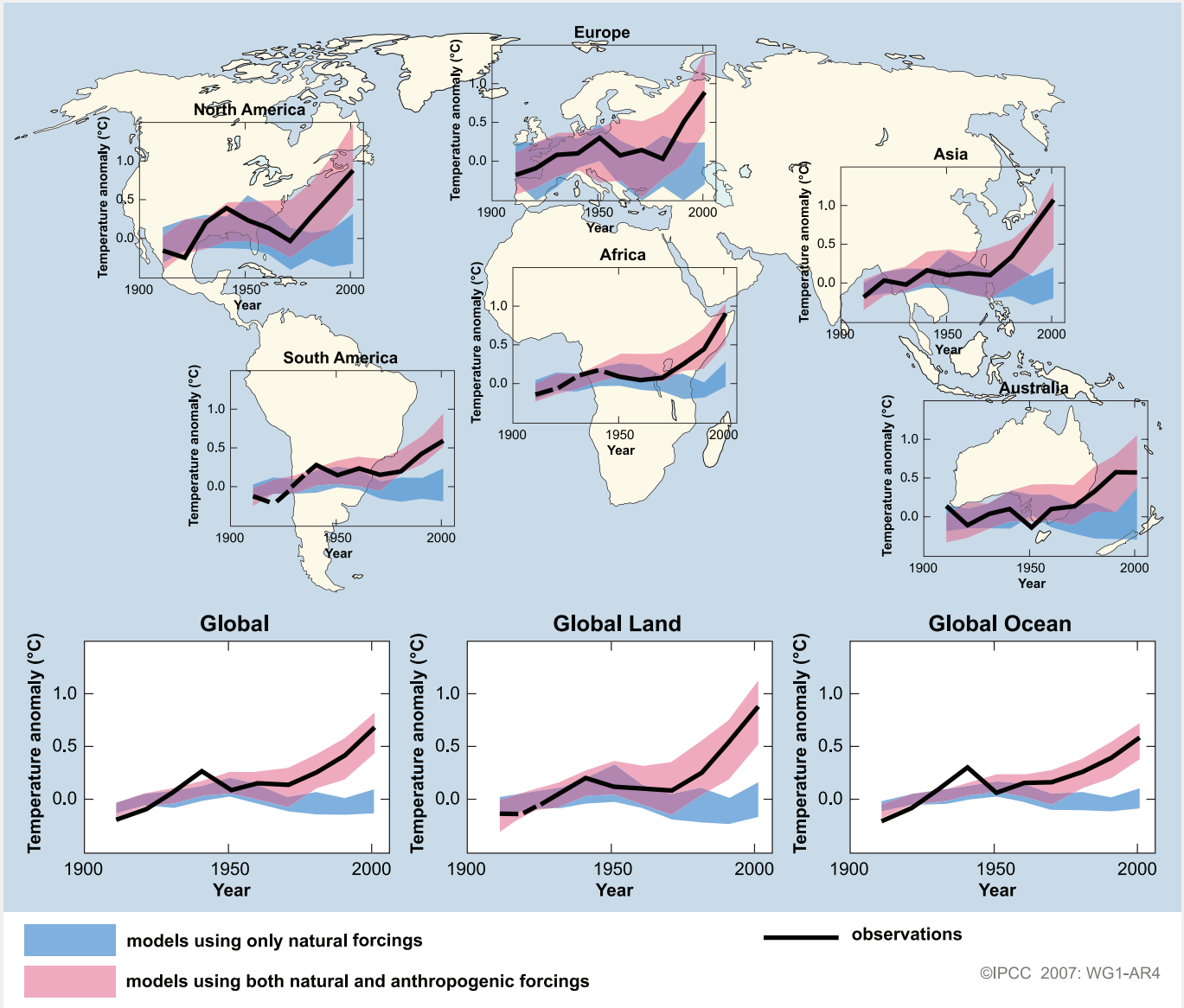
The voices of the most affected have largely been relegated to the margins of the climate change discussion, and yet they have a lot to offer – most notably in sharing their real experience with the challenges that are being faced by millions of people. "It's important to hear from the people who are affected and living in these places day to day," says Clare Stott, a researcher at the International Centre for Climate Change and Development (ICCCAD) in Bangladesh.[2] "The impacts of climate change are going to be long term, so to understand people's priorities is quite important."

> "It's important to hear from the people who are affected and living in these places day to day."

Pulling perspectives from the periphery also has the potential to unleash new insights and new solutions about climate change adaptation. In so doing, it moves us away from a discourse of victimhood to one that embraces agency.

Figure 1

Global and continental temperature change



Comparison of observed continental- and global-scale changes in surface temperature with results simulated by climate models using natural and anthropogenic forcings. Decadal averages of observations are shown for the period 1906 to 2005 (black line) plotted against the centre of the decade and relative to the corresponding average for 1901 to 1950. Lines are dashed where spatial coverage is less than 50%. Blue shaded bands show the 5% to 95% range for 19 simulations from 5 climate models using only the natural forcings due to solar activity and volcanoes. Red shaded bands show the 5% to 95% range for 58 simulations from 14 climate models using both natural and anthropogenic forcings. Data sources and models used are described in IPCC AR4 WGI, Section 9.4, FAQ 9.2, Table 8.1 and the supplementary information for Chapter 9. {FAQ 9.2, Figure 1}[3]

IPCC FIFTH ASSESSMENT REPORT

Climate change: managing risk

Climate change has already begun to affect people's lives all across the globe, according to the 2013 series of reports by the Intergovernmental Panel on Climate Change (IPCC), the scientific task force appointed by the United Nations to assess current knowledge about climate change. The first report in the series, focusing on the physical science basis of climate change, opens with the message that we are seeing changes in the climate system unprecedented in records spanning hundreds of years. The report's authors are "virtually certain" that most places will see more incidents of hot temperature extremes and fewer of cold, as temperatures rise (see Figure 1). They say it is also very likely that heat waves will occur more frequently, although occasional winter extremes will continue to occur.[4]

The second report in the series described the human impacts of global warming as "severe, pervasive and irreversible". Communities in Asia, specifically, were marked out as at risk of these impacts, with extreme climate events predicted to have an increasing impact on human health, security, livelihoods and poverty across the region (see Figure 2). Multiple stresses caused by rapid urbanisation, industrialisation and economic development are predicted to be compounded by climate change in the coming decades. People living in developing countries in low altitudes, particularly those along the coast of Asia, are thought to be most at risk of these impacts, especially those living in cities.[5]

The communities best able to respond to these exogenous shocks are generally those with the most resources to spare. Richer societies will more readily be able to rebuild, restructure and repair. In contrast, those living on the margins will be more likely to be pushed over the edge.[6]

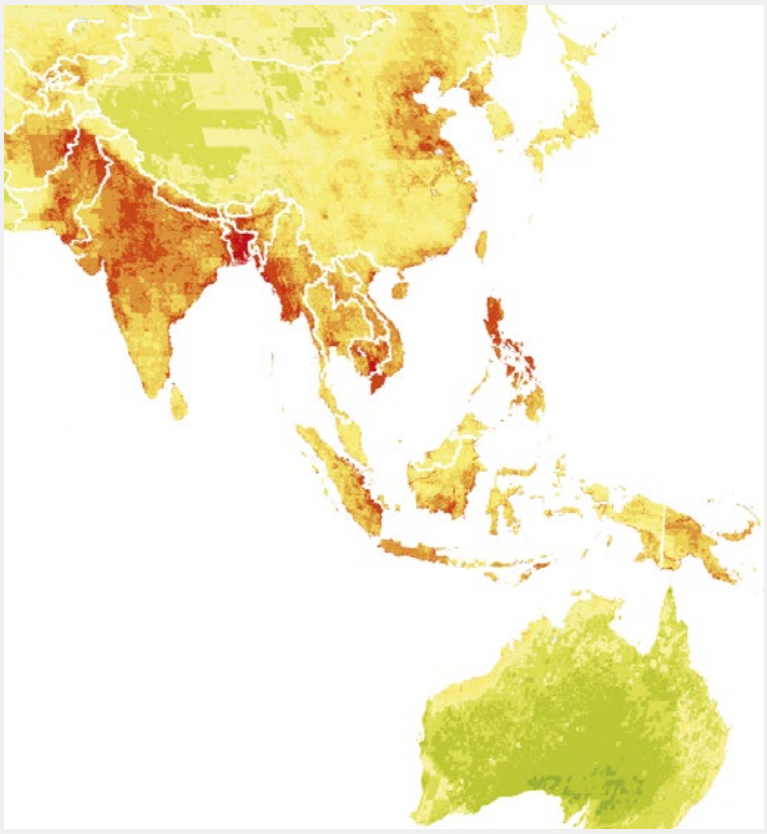
But effective climate change adaptation is not only determined by a society's wealth. It is also fundamentally about the ability to respond to multiple and unforeseen extreme climate events, such as typhoons, floods and heat waves. As a result, the most effective response to climate change will often be to foster broad-based resilience, whether this is defined as food security, water security, disaster risk reduction or economic empowerment.[7] "There's still a lack of attention to capacity building in a very broad sense: the capacity of communities to observe changes, understand them and identify solutions that in the short term are best suited to the challenges and to deal with uncertainty," says Sven Harmeling, CARE International's Climate Change Advocacy Co-ordinator.[8]

Indeed, it is the inherent uncertainty of climate change and its precise future impacts that led the IPCC to focus on how the projected risks arising from these impacts can be adequately managed. This emphasis on risk management has two practical implications. First, it shifts the debate away from alarmism around long-term climate impacts towards a more practical conversation about effects that are both real and immediate (see Part 2).[9] Second – and relatedly – in many of the most vulnerable parts of the world, adapting to climate change will now be seen first and foremost as a development problem, requiring attention to the very same sorts of issues that the development sector already grapples with, such as access to energy, food and water security, and sanitation.[10]

> "There's still a lack of attention to … the capacity of communities to observe changes, understand them and identify solutions that in the short term are best suited to the challenges and to deal with uncertainty."

Figure 2

Climate change vulnerability in Asia



Source: Maplecroft's Climate Change Vulnerability Index 2013 | www.maplecroft.com

WWW.MAPLECROFT.COM

Figure 3 **How changes in rainfall can have an impact on people's lives**

Climate Asia

The respondents in the BBC Media Action Climate Asia survey had front row seats to the types of changes we can expect as the world grows warmer.[11] And their perceptions echo the findings of the IPCC reports.

Overall, most people interviewed felt that their lives had improved in the last 10 years (54% compared with 19% feeling they were worse off). There was also a general sense that people had experienced the benefits of development, including improved infrastructure, access to electricity, improved communication and better health care. However, many stated that this development had come at a cost to the environment.[12]

When asked about the last 10 years, for example, over three-quarters of the respondents across the seven countries said that temperatures had risen. Forty per cent of people said that the severity of extreme weather events had increased, while 52% said that rainfall had been more unpredictable across this period. Data from India demonstrates the sorts of linkages people made between climate change and real impacts on their lives such as food, water and energy. (See Figure 3.) As this figure shows, less predictable rainfall is seen to have a host of direct and indirect impacts on people's daily lives. For example, water shortages can lead to an increase in diseases which in turn affect income and, in extreme cases, migration.[13]

The biggest concern across the region was health (see Figure 4). Of the people interviewed for this study, 83% felt that changes in climate were having an impact on their health. In focus groups, people linked respiratory problems to prolonged dry seasons, and poor nutrition to failing crops. An increase in pests was also noted by 46% of people in the region, affecting not only crops but also disease. "The mosquitoes are on the increase," said a man in the Pakistani district of Mansehra. "People get malaria, typhoid, and there are stomach upsets and dengue fever too."[14] In general, the more developed the economy (for example China, Vietnam, Indonesia), the more climate change concerns were framed in terms of health.

Jobs and livelihoods were another major concern, with 74% of those surveyed reporting that changes in climate and availability of water, food and energy meant that they were less able to earn money. (See Figure 5.)

Farmers across the region described increased costs and decreased income as crops were destroyed or rotted by extreme weather and planting seasons became less predictable. Nearly three out of five farmers have

Figure 4 **Perceived health problems associated with changes in climate**

Climate issue	Health problems identified by people across Asia
Increased temperatures	Heat related illness: heatstroke, prickly heat, other skin rashes
Sudden changes in weather	Fevers, colds, flu, headaches
Increased dry season and pollution	Respiratory problems: asthma, pneumonia
Floods, droughts and lack of available clean water	Water-borne diseases: cholera, typhoid and diarrhoea
Decreases in agricultural productivity, crops failing	Poor nutrition caused by lack of food and changes in diet such as vitamin deficiencies, lack of balanced diet and anaemia
Increases in pests	Increases in diseases carried by mosquitoes: malaria, dengue fever and chikungunya
Overuse of pesticides	Health concerns related to use of chemicals/pesticides

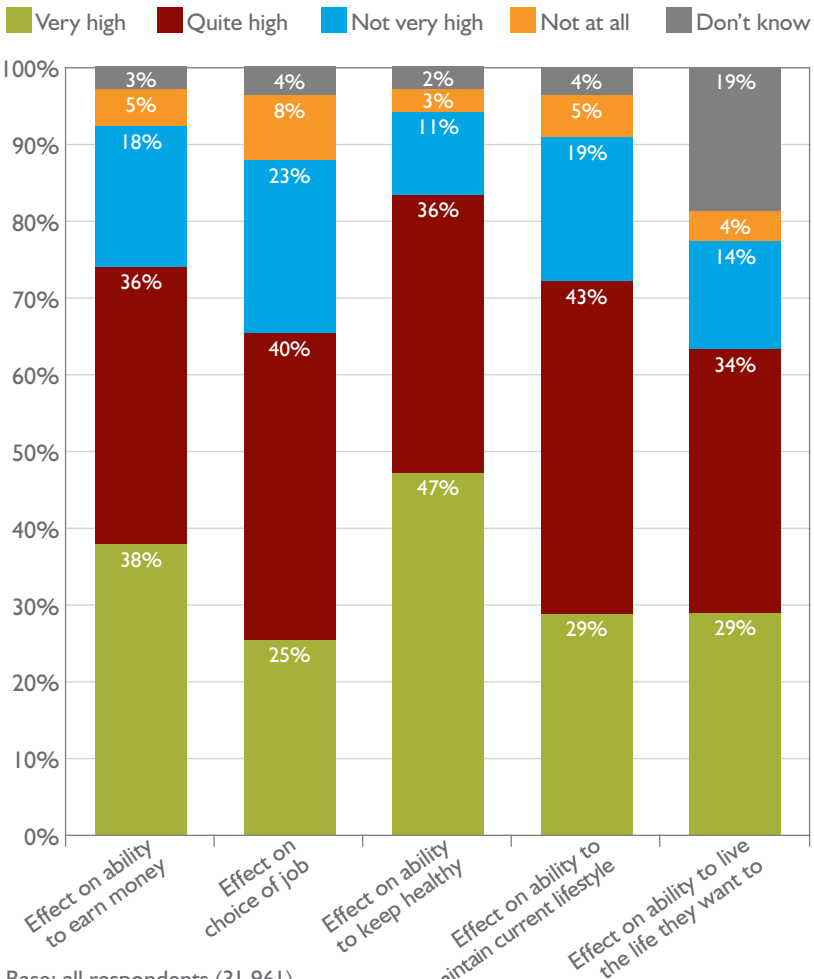
Source: BBC Media Action Climate Asia

not seen their income from land increase at a time when income is growing for most people across the region.[15] "People's land is their bread and butter," said one woman from a rural area near the city of Badin in Southern Pakistan. "They eat out of the land, as well as earn from the land. Their whole business depends on this."[16]

In India, nearly half of people surveyed in rural areas reported that agricultural productivity had decreased during the last decade.[17] "Previously, there used to be rain for four months," said a man from the Indian state of Odisha. "Now we get rain throughout the year. It rains in summer. It also rains in winter. Then, it does not rain enough in monsoon, when we need it. It is not predictable any more ... Our crops get affected badly."[18]

The precise ways in which changes in climate manifest themselves vary considerably across the region, as Figure 6 illustrates. Thus, for example, while Bangladeshis were relatively more preoccupied with food security, Indians were more concerned with water security and Indonesians with preparing for extreme weather. This table suggests, above all, the highly contextualised nature of climate-change-based concerns and – by extension – appropriate communication strategies.

Figure 5 **Perceived level of impact of changes in climate on lifestyles and livelihoods**



Base: all respondents (31,961)

Figure 6 Climate change impacts across five countries

	Bangladesh	India	Indonesia	Nepal	Vietnam
Research Insights	Feel the impacts of changes in climate Make changes to livelihoods but need more knowledge and skills to act more	Feel the impacts of changes in climate but are not taking much action They feel they cannot make a difference and want more government support	Very willing to make further changes to their livelihoods and lifestyle. Feel a responsibility to act but want more information so that they can make choices	Feel impacts and are taking some small actions. Willing to make changes but feel they do not have enough resources or support from the government. The poorest, with least access to media, are feeling the most impacts	People who are feeling impacts from changes are taking action but want to do more Others are not feeling impacts and are not planning for the future
Thematic priorities	1. Preparing for extreme weather 2. Diversifying livelihoods and agricultural practices	1. Coping with water shortages 2. Adapting agricultural practices	1. Preparing for extreme weather 2. Livelihoods – difficult decisions to make 3. Health impacts of changes in climate	1. Increasing agricultural productivity 2. Increasing accountability	1. Building awareness of the need to plan for the future 2. Preparing for extreme weather 3. Emphasise health impacts
Current status of communication	High level of awareness of climate change and heavy NGO activity, but low level of trust in NGOs and little media communication on adaptation	Effective small-scale communications Big differences between states, eg Gujarat supporting people, Madhya Pradesh little trust in government	Communication focused on "deforestation" and "carbon" Existing communication not reaching rural areas and smaller cities	Communication framed around term "climate change" and scaring people and not on how people can act	Good communication for areas at high risk, but people in other areas less exposed to communication and feel less informed
Communication need	1. Support to take actions 2. Provide platform for skills sharing	1. Build awareness of the problem 2. Increase civic engagement 3. Show individual actions that can be taken 4. Encourage community participation	Two tier approach: 1. Local: build on community cooperation and networks to improve knowledge and practices 2. National: build awareness of response to impacts rather than climate change	1. Build on strong attachment to the environment 2. Encourage community participation	1. Build awareness of adaptation practices across country 2. Increase discussion and participation to develop innovative actions
Key target audiences	• Farmers/ Fishermen • Larger cities • People living in Barisal	• Urban poor • Farmers • Housewives	• Respected members of the community • Farmers/ Fishermen • Hot spots, eg Kalimantan	• Farmers/ Fishermen • Housewives in Terai • Youth 15–24	• Farmers • Urban youth • Rural audiences

PART 2

Obstacles to adaptation

This policy briefing seeks to change the way that climate change is communicated. The idea is to reorient climate change discourse away from the preserve of a policy space preoccupied primarily with science and politics, towards one that encourages people's experience to be at the heart of policy responses to climate change. In short, we are less concerned with how climate change is communicated among diplomats and activists than with how one might talk about these issues with a taxi driver in Delhi or a smallholder in Sumatra.

To move us towards that goal, the previous section began to document the concrete ways in which climate change is both conceptualised and experienced by those closest to its impacts. We saw that "climate" was largely understood by those interviewed in the survey as changes in temperature, rainfall and extreme weather events, while "impact" was defined primarily by their ability to earn money, keep healthy or produce their crops.

In this section, we draw on the Climate Asia data set to examine some of the key drivers of and barriers to effective adaptation. We seek to understand the variables that impede or enable adaption on the ground, whether these are in response to water shortages (such as recycling water), energy concerns (such as using public transport), food issues (such as rotating crops) or extreme weather events (such as learning to swim). (See Figure 7.)

Figure 8 lists the top obstacles to climate change adaptation region-wide as identified by the respondents to the Climate Asia survey. These barriers were identified during the initial phases of exploratory research, and subsequently analysed to pinpoint which factors actually drive various adaptation responses. The Appendix to this policy briefing summarises how we divided the population into five discrete groups, each with its own motivations and barriers to action.

In this section, we also draw on case studies from the region in order to explore three key obstacles identified by respondents – lack of information, lack of co-operation and lack of institutional support. In so doing, we hope to demonstrate that some obstacles to climate change adaptation are informational and attitudinal in nature and can thus benefit from media and communication interventions. These case studies are illustrative in nature, designed to highlight the perceptions of Asian people about the obstacles to effective climate change adaptation at the individual, community and systems levels.

Figure 7 Actions taken by respondents across the region

Water	
Base: half of respondents across region	*16,340*
Storing / saving water	50%
Recycling water	35%
Making water safe to drink	56%
Finding a new water supply	31%
Energy	
Base: half of respondents across region	*16,340*
Using electricity more efficiently	74%
Using less / alternative fuel	34%
Using public transport	27%
Neighbourhood awareness campaign	25%
Using renewable sources of energy	18%
Food	
Base: half of respondents across region	*15,621*
Changing diet	59%
Keeping food for longer	47%
Reducing food waste	30%
Growing different types of crops	30%
Rotating crops	28%
Technology to improve soil fertility	27%
Finding out about crop / livestock prices	27%
Extreme weather	
Base: half of respondents across region	*15,621*
Listen to weather forecasts	53%
Learn to swim	28%
Learn first aid	26%
Permanent adjustments to my home	21%
Disaster preparedness plan	21%
Sign up for early warning alerts	19%
Temporary adjustments to my home	14%
Take out insurance	14%

Lack of knowledge

Even the most motivated adaptors to climate change will be less able to act if they aren't aware of solutions to their problems. The world is still struggling to come up with adequate responses to the impacts of climate change, making it all the more important that the little knowledge that is available be widely shared.

Where rainfall has become erratic, traditional water management methods from another part of the world might suddenly become relevant. When seas creep up the shores, inland communities might need to roll out agricultural techniques that those closer to the shore have used for centuries. As drought-resistant strains of wheat, corn and rice come on the market, knowing that they are available could mean the difference between harvest and hunger.

In BBC Media Action's Climate Asia survey, lack of knowledge was one of the most common obstacles listed by those trying to adapt to environmental upheaval. As Figure 8 suggests, over half of respondents interviewed for the survey felt that they lacked access to information or simply did not know how to respond when confronted with a climate adaptation challenge. In addition, we know that people who were taking the most action were also those who felt most informed (see discussion of "adapting" category in segmentation appendix).

In the Indian state of Madhya Pradesh, for instance, where frequent droughts had led to water shortages, three-quarters of the population said that they didn't feel informed enough to respond overall and around a quarter of people were taking actions to adapt, such as storing water (27%) or finding a new water supply (26%). In Bangladesh, local and international efforts to address the country's unique vulnerability to extreme weather had educated the population about the reality of climate change. But there too, only half felt prepared for extreme weather and only 32% were keeping on top of weather reports.[19]

The following case study from Pakistan illustrates how a lack of knowledge can impede effective climate change adaptation.

Basti Fareed Bux Mashuri

The farming community of Basti Fareed Bux Mashuri, located in the flood plain of the Indus River in Central Pakistan, is an example of a community suffering from a lack of knowledge.

Not a single person owns a television. A few families once owned radios, but these were sold for quick cash after a spate of recent floods devastated the village and the surrounding countryside. When the government needs to make an announcement – to warn people that the waters are rising, for instance – it does so through loudspeakers from the local mosque.

But as global emissions warm the earth, the villagers of Basti Fareed Bux Mashuri are becoming ever more familiar with the dangers posed by an increasingly unstable environment. In 2008, 2010 and 2012, floods swept through the village, wiping out crops and plunging many families into debt.

During the most recent flood, rain poured down uninterrupted for 36 hours, submerging the dirt tracks that lead in and out of the community. Villagers used boats as they fled their homes in search of higher ground.

To make matters worse, in the period between the floods, the village didn't have enough fresh water to go around. Temperatures were rising, and during the dry summer months, many of the women complained that there was barely enough water to drink or cook. "It gets so hot in the summer that we don't want to work," says a farmer from the village. "We can't. The earth feels like it's burning."

The villagers of Basti Fareed Bux Mashuri are trying to find ways to cope with the changes. Recently, some have replanted sugarcane fields with sunflowers, a less thirsty crop. They'd do more, but for the most part they don't know how. The international non-governmental organisation Caritas is active in the area, but only a few in the village say that they are aware of outside sources for help.

Support is available, but the villagers don't know how to get it. The local district Disaster Management Agency does its best to provide flood warnings, but illiteracy and the lack of media penetration mean information often arrives late or not at all. The national government offers flood victims assistance, in the form of large-scale cash relief delivered through pre-loaded ATM cards, but few in the village know how to apply for one. Many are unsure whether they qualify. "Lack of education is our biggest problem," says a woman from the village.[20]

Figure 8 Barriers to adaptation cited by respondents

	All	Bangladesh	China	India	Indonesia	Nepal	Pakistan	Vietnam
Base	*31,961*	*3,578*	*5,062*	*8,368*	*4,985*	*2,354*	*4,128*	*3,486*
	%	%	%	%	%	%	%	%
Need government support	75.1	85.6	71.8	71.2	83.7	77.7	64	77.6
Don't have enough resources to respond	69.5	77	64.2	71.1	70.5	84.7	62.8	62
Don't know how to respond	57.8	56.4	61.2	62.4	50.2	76.2	49.3	51.3
Don't have access to information	57.4	56.9	61.7	61.7	49.8	79.8	54.4	40.6
Think response won't make a difference	48.4	42.1	37.6	68.8	33	47.5	48	44.7
Don't know anyone else responding	47.6	49.5	42.2	61.6	31.1	43	48.1	45.7
Have other priorities	47.4	29	42.5	56.4	53.3	38.1	48.3	48.5
It is not a problem now	39.9	22.4	37.9	47.1	49.6	33.1	34.7	40.1
Don't feel it is their responsibility	32.5	19.1	23.9	46.3	26.5	27.9	40.6	28.1
Doesn't fit with religious beliefs	27.1	20.4	12	42.5	21.5	14.4	35.9	25.1
Family wouldn't approve	9.8	7	4.3	18	4	4.9	15.6	6.2

Basti Fareed Bux Mashuri presents a simple illustration of a community that wants to respond to climate-related challenges but lacks the information necessary to do so. In contrast, the Quang Tri province in the Central Coast area of Vietnam demonstrates how the presence of information can greatly enhance adaptive response.

In Quang Tri, a targeted communication strategy by the government and the state-owned media has led to significantly higher levels of knowledge about climate change than in regions in the country where this has not been the case. Some 44% of respondents in the Central Coast region reported being aware of programmes providing information about the impacts of climate change on issues relevant to them, such as food, water and extreme weather. In the Central Highlands, in contrast, this figure was just 1%.

It would further appear that this elevated level of knowledge in Quang Tri has translated into action: 85% of respondents from the Central Coast region regularly listen to weather forecasts and 53% have a disaster preparedness plan.[21] Figure 9 lists some of the key descriptive statistics that characterise Quang Tri.

The case of Quang Tri provides evidence of the effectiveness of an information-rich communication strategy carefully targeted to meet a particular community's needs. At other times a national or regional communication strategy may be warranted. The bottom line is the importance of taking into account the needs and perceptions of those most affected and responding with suitable communication strategies to reach them effectively.

Quang Tri

The Vietnamese province of Quang Tri lies in the middle of the country's Central Coast, one of the areas most affected by the types of threats we can expect from climate change. Residents of the province report wide swings in temperatures, fierce storms, less predictable planting seasons, rising erosion from rivers, and the rapid spread of agricultural pests and diseases.

"The weather has definitely been changing here," says Linh, a rice farmer from the region. "It is more unpredictable now. In some years, too much rain comes too early, so there is not enough time to harvest and dry our rice crop. It starts to rot, and we can't sell it."

And yet, confidence that these problems can be addressed is high. Residents have access to a wide variety of media: television, radio and newspapers. Nearly half of those surveyed say they feel well informed. Many have attended government-sponsored training programmes to educate the country about the solutions to climate change, including alternative crops and new agricultural techniques.

Lihn, for instance, was taught how to grow mushrooms, in addition to rice. Her friends learned how to make brooms and handicrafts. "Sometimes it is scary to do new things," she says. "It takes time to buy new seeds and learn how and where to sell the crops. We also need to invest our own money in it when we are not always sure we will make a profit. But it is worth taking the risk ... we have to make changes."

Figure 9

Quang Tri, Central Coast: feeling more impact, taking action

In Vietnam's Central Coast, action has been taken – by government and people themselves – to respond to changes in climate and environment. However, people in this area do not necessarily feel that action has been successful to date and there is a desire for more detailed information.

In this area:

- People had noticed the greatest changes in weather
- The largest number of people claimed to have experienced high impacts (46%)
- The greatest number of people were aware of existing communication on climate change and related topics (44%)
- The largest number of people felt well informed (48%)
- The largest number of people felt very engaged in their communities (35%)
- People had far lower barriers to action than the rest of the population; notably, very few people in the region thought access to information was a problem
- People with a variety of different backgrounds were taking action, including poor and very poor people

Designing communication strategies: know your audience

When planning communication strategies, it is critical to know the audience, their needs, what motivates them, and how they get their information.

In India, for instance, more than a third of respondents listed earning money as their highest value (when compared with things like drawing on traditional ways of life, being in the outdoors, being respected in their neighbourhoods, etc.). This insight could be used to tailor a message about climate change adaptation that highlights the money-saving benefits of actions such as saving water or reducing electricity use. Equally, one might emphasise to farmers the money-making aspects of actions like growing more suitable crops, which can save on labour and produce greater revenue in the long term.

In Pakistan, where 86% of those surveyed reported religious belief as important[22] or in Bangladesh, where 97% said that being respected in their neighbourhood was important,[23] a different focus might be advised. This could be engaging religious leaders through targeted communication strategies, for example, or providing examples of communities working together in order to solve adaptation problems.[24]

> "The current visualisations are a child covering his nose or … a jammed vehicle in cities with the smoke from industrial chimneys … But it is very rare [to see communication] about the sea, which is also important in climate change."

As noted in Part 1, in wealthier countries in Asia, climate change impacts tend to be viewed through the lens of health. In China, for example, health was the concern most cited by respondents (37%),[25] and 92%[26] of those interviewed said that they were motivated by trying to stay healthy. Furthermore, over three-quarters of Chinese respondents (81%)[27] said that changes in climate and availability of resources were already affecting their ability to stay healthy. This implies that communication emphasising the link between climate change and health might motivate people to respond in such areas.

Choosing the right medium is also critical. Nepalese respondents reported that they got most of their information from radio.[28] In Pakistan, by contrast, television was king – the main source for three-quarters of those surveyed – while radio was only mentioned by 15% of respondents.[29]

Failure to understand the concerns, barriers and motivations of intended audiences and the media they use can lead to highly ineffective communication strategies, wasting already scarce communication budgets and resources. This has sometimes been the case in Indonesia, where people are very concerned about future impacts of climate change (87%)[30] but less concerned about its current impacts.

It is noteworthy that despite being at high risk of extreme weather events,[31] Indonesians were taking less action overall to prepare for extreme weather events compared with people in all the other Climate Asia countries.[32] And yet, alarmist headlines from government agencies such as "Jakarta will be underwater by 2030: DNPI"[33] are not uncommon,[34] placing the problem in a future context, without providing substantial information on how to deal with this possibility in the present.[35] As one print media expert observed: "The current visualisations are a child covering his nose or … a jammed vehicle in cities with the smoke from industrial chimneys … But it is very rare [to see communication] about the sea, which is also important in climate change."[36]

Communication and media interventions in Indonesia have also been largely confined to urban areas – despite rural areas feeling the highest levels of impact.[37] In larger cities, 57% of people stated that they had heard of existing communication initiatives around climate change, compared with 35% of people in smaller cities and 28% in rural areas. Only 32% of people living in rural areas felt that they were well informed about the things they could do to cope with the perceived changes, compared with 67% of urban dwellers.[38] This urban bias in communication interventions is reflected in the number of people making lifestyle changes to cope with the impacts they are feeling – almost half of urban residents as compared with 29% in rural areas.[39]

Lack of co-operation

In many cases, even if an individual knows of a solution to a problem posed by climate change, that knowledge might not be enough. A person acting alone cannot build a well, manage a large-scale plot of land or set up a neighbourhood awareness campaign. Some techniques for adaptation are also prohibitively expensive and beyond the reach of individuals, especially in areas where resources are scarce.

As a result, attempts at adaptation often present a co-ordination problem, requiring the co-operation of large communities, many of whose members may refuse to participate individually if they perceive success to be unlikely and/or too costly. In such cases the greatest challenge can often lie in building people's confidence in the shared venture. Many solutions to the harmful effects of a warming world thus require broad mobilisation across an entire community.

Lack of co-operation was not identified as one of the top 10 barriers to adaptation during the initial phase of research for the Climate Asia project (see Figure 8). But subsequent analysis revealed that – across the region – community involvement is an important determinant of whether or not people take action. Those that feel more involved in their community are in many cases taking more action. This is particularly true during extreme weather.

Of particular note, Climate Asia analysis also revealed that community actions such as making water safe to drink or weather-proofing homes were much more likely to happen in communities with "low" or "medium" levels of resources than they were in either very poor or very rich areas.[40] This suggests that if people in poor communities can be shown how to take action collectively and encouraged to believe that adaptation is feasible, they may well be able to tackle many climate-related challenges, regardless of their income.

In cases where communities suffer from a lack of co-operation, communication can play a critical role in removing the obstacles to action by building trust between members of the community and stressing the need to overcome rivalries. In Vietnam, for example, urban youth were particularly keen to participate in collective actions of various sorts to adapt to climate change, provided that they could identify effective strategies. "Sometimes we want to [participate], but just don't know how," said a young man from Ho Chi Minh City. Added another: "I am like a drop of rain in a desert. I need a group to build up trust and [then] more people will join in."[41]

Communication can also help to inspire confidence that the communal action is worth the individual investment. As one young woman in Sindh in Pakistan proudly noted when describing a well that the community had dug: "We made it [the well] ourselves. The government did not make it. The people of the village made it on their own land, neither the government helped, nor anyone else."[42]

Media and communication can also act as a sort of natural amplifier of adaptive responses. One of the real benefits of looking at what people are doing on the ground is that it enables us to see how people are naturally adapting to their surroundings, as humans have been doing for centuries. Communication can amplify this – showcasing people who are coming up with innovative solutions at a local level so that others can benefit.

> "I am like a drop of rain in a desert. I need a group to build up trust and [then] more people will join in."

The Indian village of Goilikhirak brings alive the different ways that media and communication can facilitate adaptive response at the community level.

This story of one young man and his radio in rural India nicely illustrates the power of communication to help communities take resilient action. When people have good ideas, these ideas are often adopted by others around them. Khabrilal ultimately convinced others in his community to work together on innovative farming techniques and the community was more successful as a result. Given that people living in rural areas within the developing world are frequently underserved by media, targeted efforts are needed to engage and inform those willing to take action. In short more "radio men" like Khabrilal are needed.

Goilikhirak

The village of Goilikhirak, in the central Indian state of Madhya Pradesh, is a farming community in one of India's poorest states. It is a state in which only 17% of inhabitants report feeling informed about how they could respond to changes in the environment and where many believe that individual actions are useless. Goilikhirak has recently suffered from intense drought, leading to water shortages. Diesel pumps pull water from open wells, but there isn't enough to spare for irrigation. Villagers report that summer temperatures have gone up, rainfall has dropped, and the monsoons have become erratic.

And yet, Goilikhirak is working together to confront its challenges. The driving force is a young man known locally as Khabrilal – or "The Messenger" – because he owns the only radio in the village.

One day, several years ago, Khabrilal was listening to a community radio channel run by an NGO called Development Alternatives, when he heard about a competition encouraging people in rural areas to try new farming techniques and to share them with others. Khabrilal organised his friends to participate in this competition, which was being held on a reality radio show about agricultural innovation. They won the competition by successfully experimenting with organic crops and manure, an agricultural technique that can help soil retain water.

Now Khabrilal and his neighbours help others in their community to do the same. "Many people ask me why I bother, it is the government's job," said Khabrilal. "But I always say if we don't do anything, neither will the government."

Nor is Goilikhirak an isolated example. The inhabitants of Sangkrah in Indonesia, for example, have developed innovative ways of coping with frequent flooding – adapting traditional Javanese practices of community action, known as *gotong royong* – to manage communal work and services collectively. When disaster threatens, local elders disseminate warnings and co-ordinate response. Before a flood, young men work together to clean the canals that allow water to drain away. When flooding is expected, these groups organise themselves to monitor upstream rainfall and rising water levels. During a flood, they guard the area to prevent looting. Once the waters have receded, they help with the clean-up. They are willing to make these interventions rather than moving away.[43]

The Climate Asia survey data from Nepal also reveals a strong link between community involvement and taking action. There, people who are highly involved in their communities are taking far more action on water, electricity, extreme weather preparedness and food security issues than those who are not.[44] This holds especially true for agricultural actions such as using technology to improve soil fertility (55% of people with high community involvement compared with 43% of those with low involvement), growing different crops (75% high compared with 53% low) and finding out about crop and livestock prices (62% high compared with 47% low). "Electricity was brought about through our community's investment; the electricity department made very minimal [efforts]," said a woman from a rural area in the Pyuthan district. "Rather than help from outside – people from the community have together brought about many changes."[45]

Figure 10 demonstrates the relationship between community co-operation and preparation for extreme weather in Nepal. As this figure shows, among people who are "poor" or "very poor", those that feel they can work together with their community are taking more action. Eighteen per cent of people with high community co-operation have a disaster plan, compared with 4% of those with low co-operation.[46]

The Nepalese data is really powerful because, once again, it very clearly suggests that poverty need not necessarily be a barrier to taking effective action. Communities of all resource levels are capable of climate change adaptation, provided that they know what to do and believe that it is possible.

Lack of institutional support

Some problems faced by a community will prove insurmountable, even when its members act together. There's little a village can do once rising sea levels have washed away the soil on which it once stood. Powerful storms can lay waste to entire regions. A year's harvest can be destroyed by flood, drought or sudden changes in weather.

Figure 10 Community co-operation and preparedness amongst poor communities in Nepal

	All % within the poor or very poor economic categories	Low community co-operation % within poor or very poor categories	Medium community co-operation % within poor or very poor categories	High community co-operation % within poor or very poor categories
Base (respondents)	*757*	*126*	*407*	*224*
	%	%	%	%
Listening to weather forecasts	56	28	51	80
Learning first aid	14	3	10	26
Signing up to warning alerts	13	4	12	20
Having a disaster plan	12	4	12	18
Taking out insurance in case of a disaster	3	2	3	4

CHRIS STOWERS/PANOS PICTURES

Left Villagers wade through flood waters in Vietnam.

Nor does a change have to be catastrophic to exceed a community's capacity to respond. Gradual decreases in agricultural productivity can sap a farming region of its jobs and resources. More frequent flooding can disrupt local economies. Shifts in rain patterns might require large-scale public works, like irrigation canals and dams, to regulate the water supply. In cases like these, it will be up to those with bigger budgets and greater capabilities – government agencies or well-funded non-profit-organisations – to intervene; otherwise, the problem will remain unsolved.

Government support was thought to be particularly important in this regard. In the Climate Asia project, 75% of respondents surveyed felt that lack of government support was a barrier to adaptation – making this the most cited of all barriers across the region. Lack of government support can obstruct solutions at the local, municipal, regional or national level. In some cases, authorities are simply unaware of local needs. In others, the obstacle could be government inattention, inefficiency or corruption.

Three examples illustrate the way in which institutional variation across countries can affect adaptation strategies. Pakistan is the only country of all seven included in the Climate Asia survey in which more people thought that life had become worse in the past five years, across both rural areas and big cities.[47] In speaking with over 4,000 people across the country, Climate Asia found that lack of electricity, not having enough food and not having enough clean water were people's biggest worries. High inflation was also mentioned by respondents as putting a lot of pressure on their lives. These worries were aggravated by perceived changes in climate and the environment, namely rising temperatures, changes in rainfall patterns, shifts in seasons and saline water intrusion, all of which people said affected agricultural productivity and access to water.

People in Pakistan, more than in any other country surveyed, thought that these changes in weather and in availability of water, food, and electricity and fuel, were currently having a high impact on their lives, their lifestyles and their health. But they also felt strongly that officials were not effective in taking action. Indeed, Pakistan also stood out for the low confidence that people had in national, provincial and local governments – this was the biggest barrier to taking action identified by respondents. More than 70% of people surveyed said that they had little or no confidence in government to help them.[48] "There is no one to ask for help," said a woman from a rural area near the city of Badin.[49] "People only come here when they want votes. They forget about us the rest of the time."

> "You know, we are good at making plans. We are great planners but terrible implementers."

In 2012, Pakistan established a Ministry of Natural Disasters and Climate Change, putting in place the framework for a more responsive government. And yet, the agency will need to be carefully managed if it is to be effective. "We have seen that both at the federal and at the provincial level, the availability of funds is there," said a government official from Sindh province. "It is the implementation or the execution phase which is poor in Pakistan." A civil society expert adds: "You know, we are good at making plans. We are great planners but terrible implementers."[50]

Despite this low trust in government, people in Pakistan are taking action at the individual level, such as using renewable energy and finding new sources of water. This suggests that adaptation strategies in Pakistan could be more effective if they were executed directly with local communities, rather than via large government agencies in which citizens have less confidence.

The media can also be useful here. In cases where institutional support is perceived to be weak – such as Pakistan – the media and other forms of communication can provide those on the front line with a voice, help to identify needs and solutions, communicate these to authorities capable of intervening and then hold them to account when they do not. "The government cannot do it alone," said a government representative in Bangladesh. "The common people must raise their voice. Then the government will understand that they have to do something about it."[51]

In Indonesia, in contrast, trust in local government is high compared with other countries in the region, with three-quarters of Indonesians saying they feel confidence in local government to take action. This is, in part, a result of the extensive grassroots governance systems embedded in Indonesian communities.[52] Local leaders link communities directly with higher levels of government, such that policies initiated at the national level are fed down to the community via individuals who actually have an obligation – social and governmental – to act on these issues.

Among these local opinion-formers – including local government leaders and religious or community group heads – 78% said that people came to them for advice.[53] Furthermore, over half of the general population (51%) spoke to local influencers and community elders to get advice on changes in weather and resources. In contrast, Indonesians see their central government as corrupt and self-serving.[54] It is therefore highly expedient for communication strategies in Indonesia to utilise these pre-existing and highly trusted community networks and local government structures to disseminate information and to encourage people to work together within their communities. (See Figure 11.)

Conversely, in countries with strong, centralised government structures, such as China and Vietnam, it is the national government that people trust.[55] The central government also controls media and communication. Consequently, it is the national government that has the capacity and the authority to implement adaptation measures at both national and local levels, as well as to

Figure 11 Diagram of community networks in Indonesia

JOCELYN CARLIN / PANOS

Left Many people are already adapting to changes in climate. Tawhita Bineati's home in the frequently flooded Pacific island of Kiribati is built on stilts and his family sleeps on a hammock.

reach individuals and communities across the country and engage them in beneficial actions and behaviours.

Ultimately, each country, and even each area within a given country, is unique in terms of its socio-political structure and the challenges it faces with regard to the governance of climate change adaptation issues. The most vital point for developing effective communication and media strategies is to understand these localised situations and the complexities inherent in implementing both large- and small-scale adaptation measures. The Climate Asia research provides significant opportunities due to the sheer scale and breadth of information collected. This allows for a more nuanced understanding of how perceptions about government vary across the region and how these in turn help to shape judgements around appropriate communication strategies.

From victims to problem-solvers

The Climate Asia project offers a useful corrective to the way people talk about climate change. Indeed, one additional advantage to listening carefully to what people are saying on the ground is that it avoids the "victimisation" discourse so pervasive around climate change.

The participants interviewed by Climate Asia were certainly frustrated by the climate-induced development challenges they faced. But, as noted earlier, they also appreciated the benefits of development and were eager to identify and to implement solutions. Indeed, many were already adapting.

In central Java in Indonesia, villagers were working together to maintain irrigation channels and organising early response plans in case of natural disaster.[56] In Bangladesh, agricultural workers sought new opportunities in cities after their fields succumbed to salt water intrusion and frequent flooding.[57] In Pakistan, city dwellers were installing pumps and digging wells to cope with water shortages. In rural areas of the country, farmers were experimenting with alternative crops or trying to resettle.

Of course, such innovations are not always possible. But the Climate Asia results suggest that, across the region, people who felt more informed and who were involved in communities that acted together were more likely to take action to respond to the changes they noticed and to address the impacts they felt. In other words, most people in Asia not only wanted information, they also wanted to take action. (see Appendix.)

UN CLIMATE CHANGE

PART 3

The policy context: 2015

Above Opening ceremony of the 2010 UN climate change conference in China.

Climate change rhetoric tends to be couched in scientific terms, grafted onto international politics and targeted at elite audiences. But 2015 presents an opportunity to change that. In both environmental and development circles, there is space to introduce a new perspective, with more of a bottom-up approach to how we think and talk about climate change adaptation.

Climate change mitigation

The response to climate change can broadly be divided into two separate realms: mitigation and adaptation. Mitigation attempts to prevent the climate from changing in the first place; adaptation tries to minimise the damage once it has become inevitable.

The steps required for mitigation include increasing energy efficiency, moving away from fossil fuels, changing the world's approaches to agriculture and forestry, and capturing and containing greenhouse gases.

For cuts in carbon emissions to be effective, global co-ordination is required. Efforts to broker an international response have been slow-going, although after 19 years of negotiation there is hope for an international agreement on the horizon. This agreement is expected to be reached in 2015 and implemented by 2020, and will cover both climate change mitigation and adaptation.[61]

Beyond Kyoto: the adaptation agenda

In 2015, the annual meeting of the United Nations Framework Convention on Climate Change (UNFCCC) is expected to yield a new binding agreement in the fight against global warming.[58] At this meeting, the world's governments will commit to the steps they will take to mitigate the harm being caused by global emissions and other causes of climate change.[59]

Like its predecessors, the 2015 agreement will include measures to reduce the atmospheric concentration of greenhouse gases – what's known as climate change mitigation (see box on left).[60] But the agreement is also expected to place a firm emphasis on efforts to adapt to climate-induced changes that are already occurring.

Communication is emerging as one tool being deployed to help nations adapt to the negative impacts of a changing climate. Article 6 of the UNFCCC calls on participating governments to promote public understanding of how the world is warming and advocates the advancement of "public participation in addressing climate change and its effects and developing adequate responses"[62] (see box on Article 6). But there is still some distance

Article 6 of the UNFCCC

ARTICLE 6: EDUCATION, TRAINING AND PUBLIC AWARENESS

In carrying out their commitments under Article 4, paragraph 1(i), the Parties shall:

(a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

(i) The development and implementation of educational and public awareness programmes on climate change and its effects;

(ii) Public access to information on climate change and its effects;

(iii) Public participation in addressing climate change and its effects and developing adequate responses; and

(iv) Training of scientific, technical and managerial personnel.

(b) Co-operate in and promote, at the international level, and, where appropriate, using existing bodies:

(i) The development and exchange of educational and public awareness material on climate change and its effects; and

(ii) The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

to go in order to fully realise the potential of climate change communication at the official level. Article 6 does not clearly articulate which audiences it is trying to reach through its public awareness campaigns and, crucially, what those audiences feel that they need in order to better adapt to climate change. Of particular note, there is little within the text that specifically caters to the communication needs of those most affected by climate change. Rather, the focus of Article 6 is on the education and training of "scientific, technical and managerial personnel".[63]

Most communication efforts around climate change focus on mitigation or on spreading understanding of the scientific explanations behind the phenomenon.[64] Such topics may be of critical relevance for the richer parts of the world. But this emphasis can seem out of place in areas where education levels are low, individual emissions are negligible and the risks of suffering from climate change are immediate. As a representative from the United States stated during the first dialogue on Article 6 in 2013, "Conveying messages can only be successful if they are prepared in line with the audience's needs and capacity to understand and communicated through suitable media."[65]

Nor are the large-scale financing initiatives, such as the UNFCCC's Adaptation Fund, set up in a way that best serves those most harmed by climate change. The requirements to access funding for such adaptation initiatives, for example, do not generally include formal reporting on media and communication elements. This omission can easily result in a failure to work with local communities to identify their priorities and needs and – critically – to scale those initiatives so as to enable these communities to better help themselves.

In short, both the public policy discourse – and funding – around climate change in recent years has focused largely on mitigation, not adaptation. Not surprisingly, the communication discourse that flows out of these policy debates tends to be diplomatic, not developmental.[66]

Article 6 thus presents an opportunity to reframe the global discussion about climate change and adaptation around the observations, needs and potential for action of those most likely to be harmed by climate change's effects. Happily, another global policy debate looks set to enhance this possibility.

Beyond the MDGs: adaptation as a development problem

The year 2015 will also be pivotal for the development community, as it is the year set by the United Nations member states as the deadline for the achievement of the Millennium Development Goals (MDGs).[67] These blueprints for international development include targets such as eradicating extreme poverty and hunger, reducing child and maternal mortality rates, achieving universal primary education, promoting gender equality and ensuring environmental sustainability.

> "Conveying messages can only be successful if they are prepared in line with the audience's needs and capacity to understand and communicated through suitable media."

This last target has been broken down into four parts, all of which acknowledge the central role that the environment can play in many aspects of daily life: the adoption of sustainable development, the reduction in biodiversity loss, increased access to safe drinking water and basic sanitation, and better living conditions for millions of slum dwellers.[68]

To date, however, environmental concerns have often been segregated from the rest of the MDG framework, even in areas where environmental impacts clearly impinge upon the chances of attaining other goals. Climate change, for instance, is likely to disrupt the

JACOB SILBERBERG/PANOS PICTURES

Above Farmers planting rice in Bihar, India as life starts to return to normal after the 2007 South Asian floods.

rains many regions rely upon for agriculture, adding new difficulties to the battle against hunger. Disruptions in the environment can also negatively affect livelihoods, health and the availability of energy, thereby hampering efforts at poverty alleviation.

In an attempt to avoid these kinds of siloed working practices in the future, an effort is underway to create a set of "Sustainable Development Goals", which will be introduced into the agenda on the expiry of the MDGs in 2015.[69] Recent reports, including one established by United Nations Secretary-General Ban Ki-moon to map out the Post-2015 Development Agenda, have identified a series of broad targets, including eradicating poverty, ensuring food security and good nutrition, securing sustainable energy, and the sustainable management of natural resources.[70]

> "Climate change adaptation is inherently a development issue and needs to be treated as such by the international community."

One real innovation, however, is the weaving of an environmental perspective – including recognition of the threats posed by climate change – into a wide swathe of issues, including food, water, energy, health and the way people earn their living. This synergy is important; as we have seen, climate change adaptation is inherently a development issue and needs to be treated as such by the international community.

PART 4

Conclusions and recommendations

Climate change is, and will continue to be, a reality of 21st-century life. This policy briefing has argued for a re-centring of climate change discourse around those who face the most risk: those in the developing world for whom learning to live with climate change is a critical – and daily – need. Such a bottom-up approach entails a shift from the abstract to the concrete, and privileges real solutions to the immediate challenges these communities face.

To illustrate this perspective, we drew on data from across the world as well as some of the insights emerging from BBC Media Action's Climate Asia survey. This cross-national analysis of seven countries revealed a large population with first-hand experience of the effects of changes in climate and a strong desire to adapt to the developmental challenges they confront. At the same time, the data also highlighted the role that media and communication can play in the adaptation process.

The year 2015 is a propitious moment for reorienting the way that we talk about climate change. With global climate change negotiations and post-2015 development debates simultaneously underway, there is a window of opportunity to build on the momentum of both conversations to articulate a climate change perspective rooted in people's needs.

With that in mind, here are some of the main conclusions arising from this policy briefing:

Use language people understand: If you want to engage with the people most affected by climate change do not talk about climate; talk about water, food and livelihoods. Do not talk about scientific or technical abstractions. Talk about the problems they face in their daily lives and possible solutions to those problems.

Focus first on what people need: Once you speak in language that makes sense to people in terms of how they experience climate change, focus on where they are "at". When planning communication strategies, it is critical to know the audience: their needs, what motivates them and how they get their information. This will make the intervention more appropriate and engaging.

Media can help: Media and communication are by no means the only solution to climate change adaptation. Nor will they always be the most appropriate in any given situation. But because of the way the debate has been framed, we have overlooked their power as a potential tool in the fight against climate change. The Climate Asia results reaffirm the importance of communicating with people to help them take action to respond to changes in climate and their environment. Across the region, people who felt more informed and who were involved in communities that acted together were more likely to be taking action to respond to the changes they noticed and the impacts they felt.

G.M.B. AKASH/PANOS PICTURES

Above A young man in Bangladesh pauses to use his mobile phone while harvesting potatoes. Mobile phones keep farmers in touch with the latest crop prices.

Learn from the audience: In some cases, there are obvious solutions to the challenges unleashed by a warming world. Sea walls can help protect coastal communities from swelling waters and stronger storms. Drought resistant seeds can improve the chances of a successful harvest. Irrigation and water storage can help people manage erratic rainfall. But the case studies documented in this briefing demonstrate that in many areas of the globe, communities are already innovating at the grassroots level in their adaptation responses. Practitioners need to pay attention to those innovations and ensure that, where relevant to the context, they are shared.

> "A bottom-up approach … privileges real solutions to the immediate challenges these communities face."

Below An Ethiopian girl plants a drought-resistant Moringa Cabbage Tree as part of a horticultural training project. Climate change adaptations such as these are being implemented by communities and NGOs not just in Asia but across the globe.

MIKKEL OSTERGAARD / PANOS PICTURES

Tailor responses to the socio-political realities at hand: Just as practitioners need to design interventions with their target audience's needs, attitudes and beliefs in mind, it is equally critical to appreciate the socio-political context at hand. Perceptions analyses like Climate Asia need to appreciate how local, provincial and national institutional structures place constraints on what is feasible.

Media coverage of climate change: This briefing has implications for the way that climate change is reported. At present, climate change reporting tends to reinforce the technical bias noted in the Introduction; a rhetoric that is largely scientific in nature, readily grafted onto international politics and, as such, remains the purview of largely elite audiences. When the developing world is mentioned, it tends to be in the context of a narrative of victimhood. But if the shift towards a more resilience-oriented conversation around climate change takes hold, then the way the media report climate change will similarly shift in order to highlight the information needs of this new audience.

Treat adaptation as a development problem: The challenges posed by climate change are varied and unpredictable. In many cases, the best response is to build a community's ability to absorb these unexpected shocks. Once climate change adaptation is re-framed as a matter of building resilience, its links to traditional development challenges – and solutions – become evident.

Realign adaptation funding to serve those on the front line: Nobody better understands the challenges caused by climate change than those experiencing them at first hand. Taking heed of their voices will allow adaptation efforts to be guided from the bottom, properly channelling resources to those who need it most.

As Dr Rajendra Pachauri, chairman of the IPCC notes: "We are now at a stage where what we need even more than a global agreement is for people to take the initiative to respond."[71] But the form which that policy response takes is still up for grabs.

Use Article 6 as an opportunity to better define affected audiences and their information needs at the national level: Article 6 of the UNFCCC calls for the promotion of awareness of climate change and its effects. This emphasis on communication is laudable. But there is still some way to go in order to ensure that this Article is conceptualised in a way that allows for a developmental discourse rather than a diplomatic one. In particular, Article 6 would benefit from more carefully delineating those audiences that it is trying to serve and, crucially, what those audiences feel that they need in order to better adapt to climate change. The Climate Asia research project provides crucial insights for such an undertaking.

"We are now at a stage where what we need even more than a global agreement is for people to take the initiative to respond."

Endnotes

1 Survey data, country reports and a description of Climate Asia's methodology can be found on its website: http://www.bbc.co.uk/mediaaction/climateasiadataportal

2 Interview with Stephan Faris, 11 April 2014.

3 Figure 1 is reproduced from IPCC AR4 WGI Report and is credited to the following authors: Solomon, S., D. Qin, M. Manning, R.B. Alley, T. Berntsen, N.L. Bindoff, Z. Chen, A. Chidthaisong, J.M. Gregory, G.C. Hegerl, M. Heimann, B. Hewitson, B.J. Hoskins, F. Joos, J. Jouzel, V. Kattsov, U. Lohmann, T. Matsuno, M. Molina, N. Nicholls, J. Overpeck, G. Raga, V. Ramaswamy, J. Ren, M. Rusticucci, R. Somerville, T.F. Stocker, P. Whetton, R.A. Wood and D. Wratt, 2007: Technical Summary. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

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11 Unless otherwise noted, figures in this section can be found on BBC Media Action's Climate Asia project data portal: http://www.bbc.co.uk/mediaaction/climateasiadataportal/dataportal

12 For example, 56% of those interviewed thought that the number of trees had decreased.

13 Conversely, others – particularly in mountain regions – mentioned that grass grew at higher altitudes, enabling them to have more livestock.

14 Zaheer, K. and Colom, A. (2013) *Pakistan: How the people of Pakistan live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project, p. 26. Available from http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/pakistan [Accessed 5 May 2014].

15 Based on internal calculations from BBC Media Action's Climate Asia project data portal.

16 Zaheer, K. and Colom, A. (2013), p. 17.

17 Gambhir, V. and Kumar, P. (2013) *India: How the people of India live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project, p. 17. Available from: http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/india [Accessed 5 May 2014].

18 Gambhir, V. and Kumar, P. (2013), p. 28.

19 Al Mamun, M. A., Stoll, N. and Whitehead, S. (2013) Bangladesh: *How the people of Bangladesh live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project. Available from: http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/bangladesh [Accessed 5 May 2014].

20 Community assessment, Rajanpur District, Pakistan, January 2013.

21 See: http://www.bbc.co.uk/mediaaction/climateasiadataportal/dataportal#?vietnam/audience/qh4a/9

22 Zaheer, K. and Colom, A. (2013), p. 13.

23 Al Mamun, M. A., Stoll, N. and Whitehead, S. (2013), p. 12.

24 Of course communication strategies can take into account a range of drivers, including values and monetary motivations at the same time. These examples are meant to highlight certain drivers.

25 Copsey, T., Hoijtink,L., Shi, X. and Whitehead, S. (2013) *How the people of China live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project, p. 8. Available from: http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/china [Accessed 5 May 2014].

26 Ibid, p. 31.

27 Ibid, p. 22.

28 Colom, A. and Pradhan, S. (2013) *Nepal: How the people of Nepal live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project, p. 53. Available from: http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/nepal [Accessed 5 May 2014].

29 Zaheer, K. and Colom, A. (2013), p. 66.

30 http://www.bbc.co.uk/mediaaction/climateasiadataportal/dataportal#?indonesia/situation/qc6b

31 Copsey, T., Dalimunthe, S., Hoijtink, L. and Stoll, N. (2013), p. 4.

32 See BBC Media Action's Climate Asia project data portal: http://www.bbc.co.uk/mediaaction/climateasiadataportal/dataportal#?regional/audience/qh4a/15 [Accessed 5 May 2014].

33 Jakarta Post (2013). Jakarta will be underwater by 2030: DNPI. [Online] *Jakarta Post*, 12 September. Available from: http://www.thejakartapost.com/news/2013/09/12/jakarta-will-be-underwater-2030-dnpi.html [Accessed 5 May 2014]. DNPI is the National Council on Climate Change of Indonesia.

34 Copsey, T., Dalimunthe, S., Hoijtink, L. and Stoll, N. (2013), p. 23.

35 The issue of messaging on climate change that is removed in space, time and experience from audiences and the negative cognitive effects of such messages are well known; see Center for Research on Environmental Decisions (2009) *The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Available from: http://guide.cred.columbia.edu/pdfs/CREDguide_full-res.pdf [Accessed 7 May 2014]. See also Weber, E. U. (2006) Experience-based and description-based perceptions of long-term risk: why global warming does not scare us (yet). *Climatic Change*, 77:1–2, 103-120.

36 Copsey, T., Dalimunthe, S., Hoijtink, L. and Stoll, N. (2013), p. 18.

37 Ibid, p. 27.

38 Ibid, p. 53.

39 Ibid, p. 33.

40 Based on internal calculations. Presumably, the very well-off can solve adaptation problems on their own while the very poor need to focus more on survival.

[41] Copsey, T., Nguyen, Y. and Phuong, H. P. (2013) *Vietnam: How the people of Vietnam live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project p. 64.

[42] Intervention by a rural woman from Diplo, Sindh province, aged 25-34 during focus group discussions in Pakistan between November 2012 and February 2013.

[43] Community assessment, Sangkrah, Solo City (November 2012).

[44] Colom, A. and Pradhan, S. (2013), p. 27.

[45] Ibid, p. 26.

[46] Community co-operation is defined by both the extent to which people feel involved in their communities as well as the extent to which they believe that their communities work together to solve problems.

[47] Zaheer, K. and Colom, A. (2013), p. 11.

[48] Ibid, p. 21.

[49] Ibid, p. 21.

[50] Ibid, p. 21.

[51] Al Mamun, M. A., Stoll, N. and Whitehead, S. (2013), p. 30.

[52] Trust in local government is reinforced by strong local identities and a highly fragmented national geography.

[53] Copsey, T., Dalimunthe, S., Hoijtink, L. and Stoll, N. (2013), p 52.

[54] Ibid, p. 42.

[55] In China, for example, 83% of those surveyed reported confidence in the central government and 61% believed that the government makes helpful decisions.

[56] Copsey, T., Dalimunthe, S., Hoijtink, L. and Stoll, N. (2013) *Indonesia: How the people of Indonesia live with climate change and what communication can do*. A country report by BBC Media Action's Climate Asia project, p. 36. Available from: http://www.bbc.co.uk/mediaaction/climateasiadataportal/explore/indonesia [Accessed 5 May 2014].

[57] This example comes from our formative research in Bangladesh.

[58] United Nations Framework Convention on Climate Change (UNFCCC; https://unfccc.int). The UNFCCC is an international treaty, ratified by 195 countries, with the objective to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

[59] UNFCCC Press Release (2013) UN Climate Change Conference in Warsaw keeps governments on a track towards 2015 climate agreement. [Online] *UN Climate Change Gateway*, 23 November. Available from: http://www.un.org/climatechange/blog/2013/11/25/un-climate-change-conference-in-warsaw-keeps-governments-on-a-track-towards-2015-climate-agreement/ [Accessed 4 May 2014].

[60] Lefton, R., Taraska, G., Cooper, J. and Bovarnick, B. (2013) Warsaw Climate Talks End with Foundation for a Global Agreement. [Online] *Center for American Progress*, 4 December. Available from: http://www.americanprogress.org/issues/green/report/2013/12/04/80378/warsaw-climate-talks-end-with-foundation-for-a-global-agreement/ [Accessed 4 May 2014].

[61] European Commission (2014) The 2015 international agreement. [Online] Available from: http://ec.europa.eu/clima/policies/international/negotiations/future/index_en.htm [Accessed 4 May 2014].

[62] UNFCCC Article 6 focuses on education, training and public awareness. Full Text of the UNFCCC, Article 6. [Online] Available from: https://unfccc.int/essential_background/convention/background/items/1366.php [Accessed 4 May 2014].

[63] United Nations Alliance on Climate Change Education, Training and Public Awareness (http://unfccc.int/cooperation_and_support/education_and_outreach/items/7403.php). See the agenda of this meeting to underscore this point: UNFCCC (2013) *Summary report on the 1st Dialogue on Article 6 of the Convention*. FCCC/SBI/2013/13. Warsaw: UNFCCC Subsidiary Body for Implementation. [Online] Available from: http://unfccc.int/resource/docs/2013/sbi/eng/13.pdf [Accessed 4 May 2014].

[64] See, for example, Connect4Climate, a global partnership program working on communicating climate change to young people, with over half a million followers on social media: http://www.connect4climate.org/about_c4c. Another notable example is 350 (named after 350 parts per million of carbon dioxide, the level that some scientists have said is the maximum allowable in the atmosphere for maintaining ecosystems and the human systems that depend on them), an umbrella organisation of climate-focused campaigns, projects and actions led from the bottom-up by people in 188 different countries: http://350.org

[65] UNFCCC (2013) Summary report on the 1st Dialogue on Article 6 of the Convention. FCCC/SBI/2013/13. Warsaw: UNFCCC Subsidiary Body for Implementation, p. 6. [Online] Available from: http://unfccc.int/resource/docs/2013/sbi/eng/13.pdf [Accessed 4 May 2014].

[66] Sharman, T. (2012) *Into Unknown Territory*: *The Limits to Adaptation and Reality of Loss and Damage from Climate Impacts*. [Online] Available from: http://germanwatch.org/fr/download/4108.pdf [Accessed 4 May 2014].

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[68] The four target areas of ensuring environmental sustainability, and the progress made in each, can be found on the United Nations website: http://www.un.org/millenniumgoals/environ.shtml [Accessed 4 May 2014].

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[71] As quoted at the launch of the Climate Asia India report in Delhi, 24 September 2013.

Appendix

Climate Asia segmentation analysis

This appendix illustrates one way that the data from the Climate Asia project can be used to help frame communication strategies so as to reach people in the region more effectively. Through a statistical process called cluster analysis, the Climate Asia research team analysed survey data from across the region and placed people into five discrete segments – the surviving, the struggling, the adapting, the willing and the unaffected.

For each segment, the extent to which people feel the impacts of climate change varies, as does the extent to which people are already adapting, as well as the factors that enable and prevent response (see below). As such, the people in each segment have different communication needs and can be supported in different ways. In many communities, people from all five groups were present, each with their own communication needs.

Cluster analysis identified five key factors that were shown to distinguish people across the region:

1) Impact felt from changes in climate, food, water and energy
2) Actions people were taking
3) Willingness to make changes
4) Extent to which people felt that they could make decisions as a community
5) The degree to which resources and information were barriers to action

The five segments and their different communication needs are illustrated below.

Segment 1: Surviving (17%): Finding it too hard to take action

Tara is a housewife in a village called Parwadi in Uttarkhand, India. Tara's typical day involves cooking, cleaning, fodder and fuel gathering, tending to cattle and helping her husband with farming – sowing, de-weeding, harvesting, etc. She talks about her everyday encounters with climate change:

"For the past three to four years, our crops are getting infested with a particular pest which we have not seen previously. In the past, the snowfall used to be very good. In December and January this whole place would be white, but since the snowfall has reduced, we have seen these pests.

Previously, rains would come when expected, also they would be neither too heavy nor too light. Now rains come whenever … our houses have got destroyed, we are experiencing frequent cloud bursts which wash away our houses, our crops get affected and in fact last year we lost many lives in other villages.

We just don't have enough food. I am not sure what we can do. We only know how to grow wheat. There are people in the village who have started growing other things, but if we make changes we may risk having less food to eat and people in the community won't help us. The government needs to give us alternatives, and we need support to make changes. We can't do anything by ourselves alone."

Communication

People in the surviving segment feel isolated and disconnected from their communities. For this group, communication needs to increase self-belief and self-confidence so that people feel empowered to act. Fostering the belief that the things they do will make a difference to their everyday lives can help influence change. Communication also needs to demonstrate that making changes is acceptable by showing people from similar backgrounds taking action, which can inspire the "surviving" and shift perceptions of what is possible.

Once people believe they can do something, communication can concentrate on improving knowledge of simple actions. For example, showing how people can take small actions in the household, such as recycling water or preserving food, will help them to feel that they can be successful in adapting to climate change.

Segment 2: Struggling (21%): Trying to take action but finding it difficult

Raju is a farmer from an isolated village in the far western region of Nepal.

"I am a farmer, well, I used to be. I grew rice, wheat and maize but a severe drought last year destroyed all my crops. I couldn't afford to buy enough food for my family so I had to go to India to work … for six months. I didn't want to leave my family or my land for so long but I had no choice, we needed the money.

Now that I am back, I would like to grow vegetable crops but I don't know which vegetables would be best to use, and what techniques I should use to farm them. I wish I could find this information out but people in my area don't know about it either."

Communication

People in the struggling segment are information thirsty; they need information that is relevant to them, communicated through channels they can access and trust.

There is scope here for using media to amplify the effect of NGO or government interventions on adaptation challenges or to showcase people who are already successfully taking such actions.

This "demonstration effect" can help to encourage discussion of solutions and inspire people to act on their own.

Community involvement and collective problem-solving are quite common among this segment. Focusing on what people can do together can reduce their feelings of helplessness.

Segment 3: Adapting (20%): Acting and wanting to do more

Tariq is a young teacher living in Badin city in Sindh province, Pakistan.

"I love my job and I feel that I have a responsibility to help the students I teach by giving them information. We have all experienced the extreme heat in the summer, and seen that floods are getting more frequent. This is not good for our health, or for those who depend on the land to make money.

I tell my students that it is due to climate change, as I learnt about this at university and from the news. Because of the hot weather, I have started saving water by collecting rainwater in barrels and try to throw out less food. I also always turn lights out, when we are not having a power outage.

I know I could do more to help myself, and my students, like prepare better for flooding, but I need more information on what changes to make. Once I know how to do this, I could then work with the local school nature club, funded by an NGO, so that our children and their families also know how to do this. I don't know where I could go to get this information from and there doesn't seem to be any advice from the TV or radio."

Communication

People in the adapting group are taking actions, but want to do more. They are often influential members of their community and therefore can also inspire others.

Given their existing levels of awareness, the people in this group would benefit from a greater level of information, of a more technical kind, which can encourage them to further refine and expand their actions. This communication should be action-orientated, aimed at increasing their skills to the benefit of their communities. Examples might include developing market access for farmers and fishermen or promoting water- and energy-efficient agriculture.

The people in this group can also lead by example; communication can utilise their experiences and knowledge to inspire people in other groups. The media can showcase people's current actions in this segment and provide a platform for discussion to help support and strengthen communication with government bodies, so as to help put in place longer term responses and infrastructure.

Segment 4: Willing (19%): Worrying about tomorrow

Anita lives in Jakarta, Indonesia, with her husband and young daughter.

"Life has definitely got better in the last 10 years. My husband and I both have got good jobs in the city, and have bought a nice new flat. We can even afford a new car. But development has also meant there are fewer green areas, more fumes and water pollution and I am worried that these are harmful for my daughter. I also get worried about storms and floods hitting the city, and think that these are going to get a lot worse in the future.

I have seen a lot of TV programmes and adverts on climate change so I have started to do my bit by turning lights off in the house and using the air conditioning less. I have also started saving water and using fewer plastic bags. I would like to take more actions to stop climate change, as I want my child to have a good future, but I don't know what else I can do to help."

Communication

People in this segment are willing to make changes and do not seem to face any of the barriers that those in other segments are experiencing. Nonetheless, this group is not taking action to the same degree as the adapting segment.

Communication should engender a spirit of action in this segment by sharing what others have learned and found successful. It should also inform people of actions that will help them in the future, such as storing and purifying water, using renewable energy or preparing for extreme weather events.

Segment 5: Unaffected (23%): Believe there is no need to do anything

Lei is a student in Guangzhou city, Guangdong province, China.

"I know all about climate change. We learnt about it at school, and there are campaigns about it on TV and in the local community. I see how it could make things difficult for farmers and fishermen but I really don't see how it affects me, a young student in a big city. The government is clearly working to help those affected, and I know in some communities NGOs are getting involved too. But that is far away from here.

I am doing things the campaigns say we should do – like recycling water and using electricity efficiently, but I have always done those things. It doesn't really have anything to do with climate change."

Communication

For the unaffected group, creating a sense of responsibility is important. The people in this segment lack awareness of the impact that changes in the climate are having on people's lives (for example on health and income). People in this group tend to value their environment less, so communication can help them to understand the implications of their inaction for others around them.

Exposure to other people's responses in similar contexts and with similar problems can create opportunities for discussion, help people to understand the implications of the changes in climate and encourage them to act. Demonstrating simple, low-cost solutions to problems can help to address the information deficit exhibited here and also inform people about the range of possible actions.

Putting the segmentation to use

Figure A1 outlines the key variables identified in the segmentation analysis, and the characteristics attributed to each segment.

Figure A1 Climate Asia: Key characteristics of the five segments

Segment	Surviving	Struggling	Adapting	Willing	Unaffected
Impact felt in daily lives	High	High	High	Medium	Low
Action taken	Low	Medium	High	Medium	Low
Willingness to change	Low	Medium	High	Medium	Very low
Community cooperation	Very low	High	High	Medium	Low
Feel informed	Low	Low	Medium	High	Low
Knowledge of how to act	Medium	Low	Medium	Medium	Very low

This segmentation analysis underscores that climate change adaptation is not influenced by standard demographic variables, such as age, income, education level, wealth or geography, alone. It shows psychology is also important, and people's attitudes – especially their willingness to change – are significant in understanding levels of adaptation. It also breaks down an enormous population and a very complex issue into five key groups at different stages of action. Through this psychographic grouping of categories, we can apprehend commonalities across the region, identify target audiences and tailor communication to country contexts. (See Figure A2.)

Figure A2 Climate Asia: Segments by country

Segment	Bangladesh	China	India	Indonesia	Nepal	Pakistan	Vietnam
*Base**	3,078	3,770	7,394	3,806	2,230	2,460	2,707
	%	%	%	%	%	%	%
Surviving	9	17	26	6	11	24	10
Struggling	31	7	25	23	45	10	9
Adapting	18	27	20	11	16	27	24
Willing	27	10	18	33	13	13	24
Unaffected	16	39	11	27	15	26	33

Most predominant segment in each country * Number of respondents in each country included in the audience segmentation

This segmentation becomes even more relevant to communication strategies when applied to target audiences, as it can be used to better understand the psychographic factors affecting response alongside simple demographics. The benefits of this analysis can be seen in the development of BBC Media Action programming in Bangladesh. As is shown in Figure A2, large numbers of those surveyed in Bangladesh fell into the "Struggling" segment – but there are also a significant number of people in the "Adapting" segment. This pattern of segmentation also holds true for Bangladeshi farmers. Thus, the findings of the segmentation analysis can shape communication strategies and media content to reach such groups more effectively.

In Bangladesh, this meant developing programming that enabled farmers from the "Adapting" segment to share their knowledge and work together with farmers from the "Struggling" segment – resulting in the reality TV show *Amrai Pari*, in which communities pool knowledge, skills and resources to implement adaptation measures.

With this enhanced understanding of people's self-identified adaptation needs, governments, international development agencies and local NGOs are well positioned to target specific audiences within those countries. Segmentation can enable organisations to ascertain which media and communication platforms might best reach these varied audiences. In many cases, the target audiences identified by BBC Media Action include a high proportion of people in the "Struggling" and the "Surviving" segments, who feel a high level of impact but do not feel informed about how to respond and are therefore taking few actions.

More detail about the five segments and the three priority audiences identified by BBC Media Action can be found in the Climate Asia country reports. Climate Asia data and tools are available on the Climate Asia data portal, which can also be used to find data on media preferences and media usage by segment.

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Survey data, country reports and a description of the Climate Asia project methodology can be found at: www.bbc.co.uk/mediaaction/climateasiadataportal

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