



BBC
MEDIA ACTION

TRANSFORMING LIVES THROUGH MEDIA
AROUND THE WORLD

BRIDGING THEORY AND PRACTICE

BUILDING RESILIENCE

**HOW RESEARCH HAS BEEN
USED TO DEVELOP AND
EVALUATE A MEDIA
AND COMMUNICATION
APPROACH**

SONIA WHITEHEAD

RESEARCH REPORT // JULY 2017

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BBC Media Action, the BBC's international development charity, uses the power of media and communication to support people to shape their own lives. Working with broadcasters, governments, other organisations and donors, it provides information and stimulates positive change in the areas of governance, health, resilience and humanitarian response.

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Executive summary

There is growing evidence to suggest that media and communication can support people to become more resilient to short-term shocks and long-term trends. To date, however, systematic research on the role of media and communication projects in helping to build resilience is limited.

This report advances this body of work in two ways. First, it shows how research carried out across Asia, and in Bangladesh and Tanzania has been used to build an approach to producing media programming for resilience that is rooted in the needs of people. Second, it shows the impact that media can have when adopting this approach.

Specifically, the report shows how using research to understand different people's needs, as well as the barriers and motivators they face personally and in their wider, socio-political context, is important when designing media and communication projects that facilitate change. Research across multiple countries shows that the main determinants of whether or not people take steps to become more resilient include:

- The impacts they are currently feeling or the anticipated risk of those impacts
- The extent to which they feel informed about how to take action
- How connected they feel to others in their community
- How confident they feel to act on their own
- How much they believe resources or institutional factors are a barrier to uptake

The report draws upon two examples – a national reality television programme in Bangladesh and a local radio programme in Tanzania – to illustrate the power of this approach.

In Bangladesh, the television programme aimed to increase the awareness of the risk of impacts arising from extreme weather. It also sought to show how people could take actions to adapt to changing weather, such as raising the plinth of their house, and modelled how people could work with their community to take these actions. Research fed into the continual development of the programme and later series addressed new issues such as how to work with local power structures to obtain support in becoming more resilient.

In Tanzania, BBC Media Action worked with three local radio stations in two drought-affected states to produce programmes that informed farmers on specific techniques to improve their farming practices. Programming sought to increase farmers' confidence that they could take such actions.

The evaluation findings from each of these projects show the impact that media and communication can have on supporting people's resilience.

- **Reach:** Both programmes reached people at scale. Over the course of the three-year project, BBC Media Action's resilience programming in Bangladesh (including both the television programme and a PSA) reached an estimated 22.5 million people. In Tanzania, the radio discussion programmes and affiliated debate specials together reached 31% of the population in the two drought affected states.
- **Knowledge:** In both countries, the programmes helped to improve people's understanding of resilience issues – over two-thirds of audiences reported improved understanding as a result of listening to or watching the output.
- **Discussion:** The programmes also stimulated discussion. In Tanzania, for example, 46% of listeners said that they discussed the topics covered in the programme with others.
- **Action:** Ultimately, the research shows that the programmes have been successful at driving action. In Bangladesh, nearly half (47%) of viewers in Bangladesh could name actions that they had taken as a result of watching the programme. This included making water safe to drink, storing food and raising their houses so they were less at risk of flooding.

However, although both programmes contributed to adoption of resilient behaviour, they did so in different ways. The Bangladesh programme worked primarily through the effect of perceived risk and lack of institutional support, whereas in Tanzania, knowledge and confidence appeared to be more important drivers of change.

Media and communication are by no means the only solution to building resilience. Indeed, institutional reforms also need to be in place to sustain change. However, this report has shown that media and communication can make a considerable contribution to enabling people to become more resilient. People who were exposed to BBC Media Action programming knew how to cope with unpredictable weather, discussed these issues with people around them, felt more confident about their ability to act and, ultimately, took simple actions that could support them to adapt to the shocks and stresses they were experiencing.

The findings in this report contribute to the growing evidence base around the role of media and communication in resilience. But in light of the nascent nature of the field, the findings are necessarily exploratory, and thus serve as a basis for future research around the drivers and pathways to sustainable change.

Introduction

Over the past decade, “resilience” has emerged as an increasingly salient theme in international development discourse and practice. Although definitions vary, resilience is fundamentally about helping people to prepare for, cope with and respond to a host of different shocks and stresses, from social, economic and cultural, to physical, environmental and political.¹

Some of these pressures are sudden: disease outbreaks, earthquakes and financial market collapse. Others evolve gradually: water scarcity, armed conflict and soaring population growth. All undermine the potential of individuals, communities and countries to thrive over time.

Poor countries are disproportionately affected by these shocks and stresses – especially people surviving at the margins of society.² And even for those people whose situations have improved, it is important to ensure that this positive trajectory continues.

In short, resilience is not just about enhancing the capacity of individuals, communities and countries to bounce back from shocks and stresses. Rather, it entails a long-term approach, focused on continuing adaptation and transformation so as to avoid crises in the long run. Helping people to fashion long-term strategies for coping with shocks and stresses – large and small – is thus at the heart of the resilience agenda.

Approaches to building resilience are still evolving, and lessons are emerging globally.³ This report seeks to contribute to that growing knowledge base. Specifically, it explores the role that media and communication can play in fostering resilience in the developing world. There is increasing recognition that media and communication can support people to be more resilient to both short-term shocks and long-term stresses. To date, however, systematic evidence on the role of media and communication projects in helping to build resilience is still limited.

Accordingly, this report has two aims. First, it will show how research can be used to develop an approach to resilience. Second, the report also illustrates what happens when we put this approach into practice, by looking at the impact of two BBC Media Action resilience programmes in Bangladesh and Tanzania.

This report is written primarily for donors and practitioners working in the international development sector, supporting people to become more resilient. It makes the case for using media and communication in projects to support resilience. In so doing, it details an approach to designing projects that can be adopted by development practitioners working with communities across a variety of themes.

This report will also be of use to the international development research community. It shows how research has been used both to inform the development of this approach and to measure resilience.

The report is divided into four sections. The first section provides a short background to the main issues raised in this report. Part 1 defines resilience, and reviews the existing evidence around the relationship between media, communication and resilience. The next section of the report focuses on project design and implementation. Part 2 lays out BBC Media Action's approach to resilience. Part 3 describes the projects in Bangladesh and Tanzania that were designed to support people to adapt to, and prepare for, climatic and environmental changes. The third section of the report looks at impact evaluation. Part 4 explains the research methodology used to assess the impact of those programmes. Part 5 reports the findings. The final section concludes. Part 6 discusses some of the key findings, while Part 7 offers specific recommendations for the wider set of policy, practice and research actors working on resilience.

Background

Part I: Media, communication and resilience

What is resilience?

“Resilience” has become a widely adopted term within the development field despite a lack of agreement on precisely how it is defined or measured. Nevertheless, it remains a useful umbrella concept to address complex development problems with a more integrated approach.⁴

Across the multiple definitions of resilience, there are a number of common themes. These include the ability cope with “shocks” (rapid-onset events such as earthquakes and landslides) and “stresses” (slower-onset trends such as drought or economic decline), and the ability to recover and to adapt. Resilience has also been described as a process rather than an outcome.⁵

BBC Media Action describes resilience as the ability of people to thrive by managing risk and to respond positively to change in the face of sudden events and long-term stresses. The organisation focuses on three over-arching themes: food and water security, disaster risk reduction, and economic security

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In 2014, the Organisation for Economic Co-operation and Development (OECD) published a set of guidelines for a “systems analysis” approach to resilience which usefully identified three types of capacities that projects can seek to address: “absorptive” (coping mechanisms used during periods of shock such as taking children out of school or planting an early harvest), “adaptive” (measures that modify an existing system so as to moderate future damage such as introducing drought resistant seeds or diversifying livelihoods) and “transformative” (actions that create a fundamentally new system so that the shock will no longer have any impact, such as conflict-resolution mechanisms or urban planning).⁶ BBC Media Action’s approach is very much centred on the first two of these phases – the absorptive and the adaptive. However, the need to address the long-term, institutional barriers to transformative change is noted throughout and returned to in the concluding section of the report.

In order to make sure that resilience projects are having their desired effect, it is important to develop robust, verifiable monitoring, evaluation and learning frameworks for assessing and measuring the impact of resilience interventions. While monitoring and evaluation approaches are now well

established in general, monitoring or impact evaluations of resilience interventions are still in their infancies. Measuring resilience “capacity” can reflect changes in individuals, households, communities or institutions across factors as diverse as social and human capital, women’s empowerment, access to information, collective action, and formal and informal safety nets. This report looks at some of these indicators with respect to media and communication interventions.⁷

Media and communication for resilience

There is increasing recognition that media and communication can build resilience by making technical information more accessible, addressing social norms and perceptions, supporting people to evaluate their choices, facilitating dialogue, prompting positive decisions and influencing power. However, the evidence base in this area remains limited to individual sectors, rather than to resilience overall, and, to our knowledge, there are no systematic reviews on the role of media and communication in resilience.⁸

Within the agricultural sector, there is a considerable history of using media and communication to provide information. For many years, radio farming programmes – and more recently mobile phone services – have increased farmers’ knowledge of agricultural innovations, linked farmers to new markets and buyers, strengthened their ability to negotiate prices and helped them to diversify their crops to meet demands, among other things.⁹ A report by the International Institute for Communication and Development suggests that information and communication technologies (including broadcast media) have the potential to enhance agricultural production, increase income and empower farmers to represent their interests.¹⁰

Some recent farming programmes have been particularly engaging and also demonstrated impact. One example is *Shamba Shape Up*, a television programme broadcast in Kenya in which experts advise smallholder farmers on how to improve their operations and yields. According to research commissioned by the Africa Enterprise Challenge Fund, 88% of viewers who watched *Shamba Shape Up* reported that the programme had helped them to learn new things about farming. In addition, 84% said that it had helped them to make decisions and half of all those surveyed reported having adopted new practices as a result.¹¹

Within the field of disaster risk reduction, there is also a history of using media and communication for public education and public awareness. While these projects have focused mostly on providing information to promote behaviour change, communication has also been recognised as having an important role to play in fostering public dialogue and public decision-making.¹² The evidence base around what works is still evolving, however, and is still divided up by a specific focus on different types of disasters.¹³

Finally, within the area of economic security, the amount of evidence around the impact of media and communication is limited, but strong. The World Bank’s *World Development Report 2015*, for example, referred to two randomised control trials that demonstrated positive impacts from “Entertainment Education”.¹⁴

As well as differing across sub-fields in terms of the precise focus of the evidence base, communication for resilience efforts also tend to focus primarily on generating “information products” for affected communities. This fails to acknowledge the socio-cultural and psychological factors in individual decision-making, and the need for knowledge exchange networks.¹⁵

But this is changing, as emerging research is starting to show that key social variables linked to subjective and cognitive elements can be as important as material factors in people’s ability to buffer shocks.¹⁶ Thus, for example, one recent article claims that aspirations, self-efficacy and perceptions of risk influence the ability to absorb and recover from shocks and stresses at both the individual and collective levels.¹⁷ These early forays into including psychological factors in resilience measurement demonstrate the value that these metrics can bring to the understanding of resilience at both the level of the individual and community.¹⁸

These early forays into including psychological factors in resilience measurement demonstrate the value that these metrics can bring to the understanding of resilience at both the level of the individual and community.

BBC Media Action’s approach to media and communication programming in resilience is very much in keeping with this emerging body of work emphasising psychological and social factors. With this in mind, the next section turns to look at how the organisation has used research to inform and evolve its approach to resilience.

Design and Implementation

BBC Media Action uses mass media and outreach to achieve impact at scale. Media and communication can be powerful forces for positive social change, providing a highly cost-effective means of facilitating the exchange of information and ideas between large numbers of people and playing a key role in changing their attitudes, behaviours and norms. The organisation's work spans three themes: governance and rights, health and resilience, and humanitarian response.

As the BBC's international development charity, a central, over-riding editorial principle guiding this work is to "put audiences first". What it means in practice is that, in order to help people to demand more accountability, live healthier lives, cope with humanitarian crises and subsequently flourish, it is vital to know how people live, what they believe and the issues that most affect them. Audience insight and feedback are also essential for ensuring that media outputs are appealing, relevant and effective over time.

While the charity's work in the fields of governance and health is well established, resilience is a relatively new thematic focus. In recent years, the organisation has thus used research iteratively over the course of several resilience projects to generate and fine-tune a set of core ideas for how to go about making resilience media programmes as useful as possible to the end user.¹⁹ This approach has been applied to other organisations as well.

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This section is divided into two parts: one that looks at project design and one at project implementation. The first section explains what we have learned about how to use research to craft media and communication programmes, while the second talks about two concrete projects that illustrate that approach in action.

Part 2: Design: How research can inform an approach to resilience

Part 2 of this paper presents an overview of BBC Media Action's evolving approach to resilience. Specifically, it shows how research has been used to understand the particular needs of distinct populations and to fashion media and communication interventions that meet those needs. It is organised around four central questions that can guide such an approach:

1. What impacts are people feeling?
2. What are their barriers and motivators?
3. How do audiences differ?
4. How can research inform a communication strategy?

Examples from three of BBC Media Action's projects are used to illustrate this approach: Climate Asia, a multi-country research and communication project in Asia; *Amrai Pari* (Together We Can Do It), a national television programme in Bangladesh; and *Nyakati Zinabadilika* (The Times/Winds are Changing), a radio programme in two rural regions of Tanzania.

Introducing Climate Asia

How do changes in climate affect the everyday lives of people in Asia and how are they adapting to them? Who are most resilient and who need the most support?

These were the questions behind Climate Asia, the world's largest study of people's everyday experience of climate change. Using both quantitative and qualitative research, the project built a regional picture of how different groups across Asia live and deal with climate change. The project involved speaking to more than 33,500 people across seven countries – Bangladesh, China, India, Indonesia, Nepal, Pakistan and Vietnam.

Quantitative research was conducted between June and November 2012. Nationally representative surveys were carried out in each of the countries. Due to the size of India and China, however, interviews in these two countries were only conducted in specific regions, selected in order to cover a geographical representation of each country.

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

The main aim of the project was to inform the development of communication to support people to be more resilient to climate change.

For more on Climate Asia, including detailed reports, all survey data, and a toolkit on how to use the audience data to develop communication strategies, visit:
<http://dataportal.bbcmediaaction.org/site/themes/resilience/>

What impacts are people feeling?

In order to support people to become more resilient to the shocks and stresses they face, it is important to understand how these shocks and stresses manifest in people's lives.

This is partly a matter of language. The qualitative findings from BBC Media Action's Climate Asia study, for example, showed how people in Asia conceptualised their experience of climate change (see Box: Introducing Climate Asia). According to this research, people were conscious of experiencing extreme weather events and changes in temperature and rainfall, although they were not necessarily aware of the terms "climate change" or "global warming". They also talked about the impact they felt from the changes they perceived in terms of their ability to earn money, to keep healthy or to produce crops. And they connected many of these changes to existing problems such as pollution, lack of infrastructure and weak service delivery by governments. In short, "climate change" wasn't something to be communicated as an abstract concept; it needed to be rooted in people's lives (see Box: How people are noticing changes in climate).

How people are noticing changes in climate

“I now don’t need to wear a jumper until November.”
— Vietnam

“I have to walk further to get water.”
— India

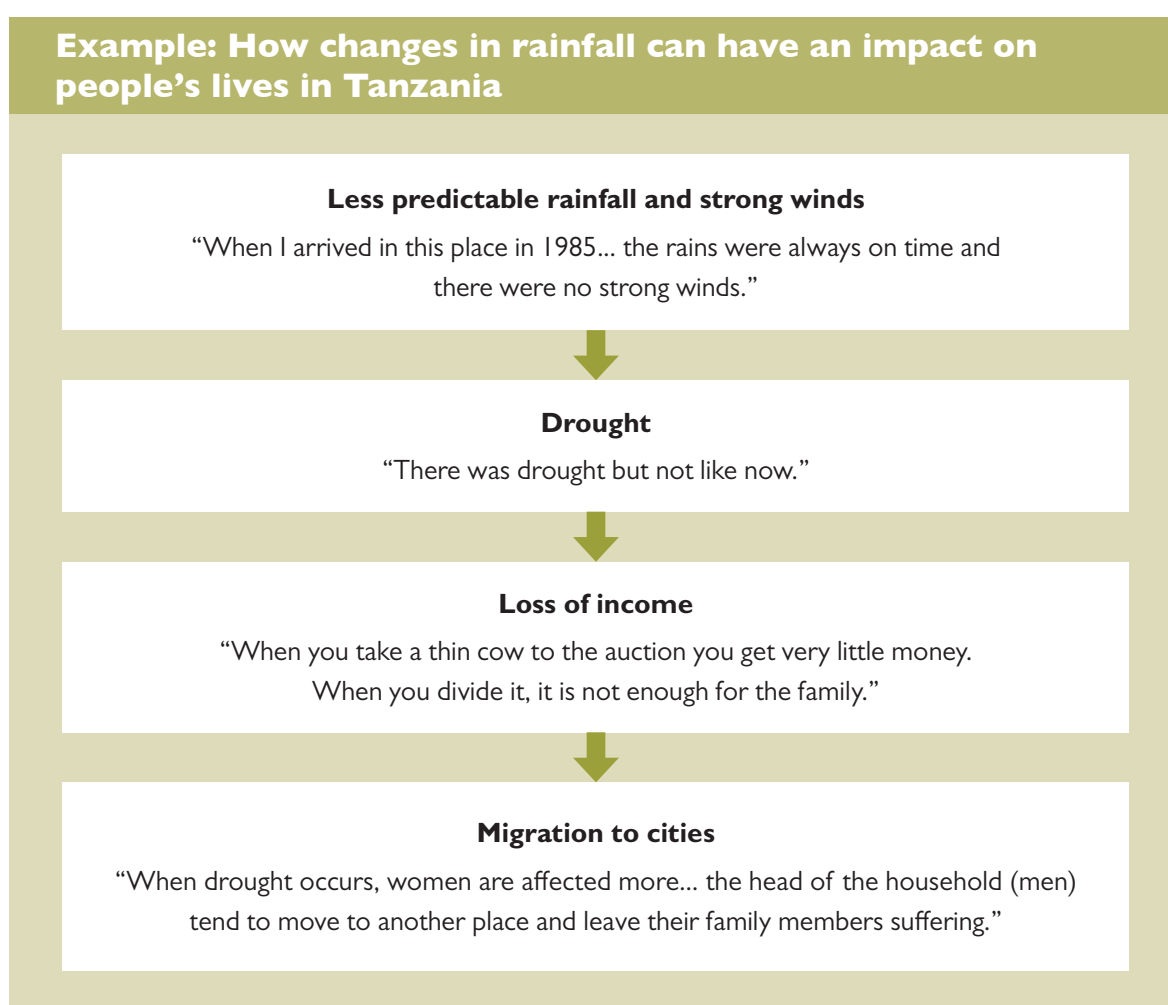
“I need to use my bath to save water as it is getting scarce.”
— Indonesia

By understanding how people experience the effects of sudden disasters or long-term trends, communication can help to shift the conversation away from alarmism around seemingly insurmountable, large-scale problems, towards more practical concerns about what people can do to mitigate the impacts that are real and immediate. Project designers can then engage people with content they can

understand and is relevant to their daily lives and to provide them with the tools to adapt to the specific challenges they face, such as water and food shortages or improving people's livelihoods.

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In addition to making content relevant and meaningful, gathering a first-hand account of the impacts people feel is also important for understanding – and addressing – some of the less visible ways in which shocks and stresses may impact on people's lives. The trickle-down effect of climate change on people's lives is illustrated in the Box: How changes in rainfall can have an impact on people's lives, which demonstrates the negative spillover effects that drought can have on things like income, migration and family well-being.



Finally, it is important to take into account not only the range of stresses and shocks that people are currently experiencing, but their perceived vulnerability to such adverse events in the future. In this way, “perceived risk” and “impacts felt” go hand in hand.

What are people's barriers and motivators to resilient behaviours?

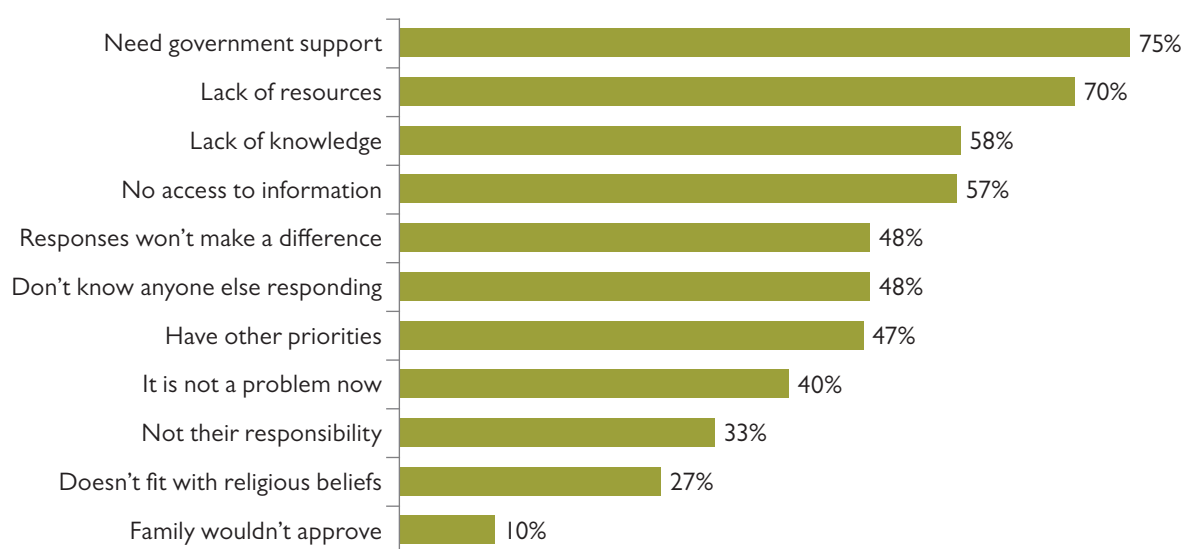
In order to empower people to adapt in response to the impacts they face, programme designers need to help address those factors that impede adaptation or conversely enable people to act.

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Just as there are factors that hinder change, so too are there factors that can lead to change. In international development circles, these are often referred to as “drivers of change”.

In the initial phases of the survey research for Climate Asia, people were asked to state how much they strongly agreed or disagreed with a list of barriers that had been drawn up during the initial qualitative research. These included barriers that referred to personal traits and beliefs (e.g., “I have other priorities” or “This is not my responsibility”), as well as people's perception of how well the external environment was supporting them. Table 1 lists the top barriers from across the seven countries.

Table 1: Barriers to adaptation cited by Climate Asia respondents



Base: All Climate Asia respondents (n: 31,961)

Perhaps not surprisingly, lack of knowledge was one of the most common obstacles listed. 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 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.

Survey data from the seven countries was then analysed further, to understand the main determinants of whether or not people took actions to promote resilience. In this analysis, community involvement emerged as an important determinant of whether or not people took actions to promote resilience.²⁰ This finding

triangulated strongly with the qualitative data, which showed that when people in a community felt that they could work together, they were able to solve problems such as finding new water sources together. In communities that were more fragmented, in contrast, there was a fight for resources. This was illustrated in a community within Madhya Pradesh, where because of community tensions, poorer people in the community had to leave the village to source water, as they were refused permission to use the local well.

The Climate Asia findings also showed that the perception that individuals felt that they either weren't able or weren't responsible for acting without institutional support (whether financial or otherwise) was often a deterrent to action. Qualitative research in Pakistan and India, as part of Climate Asia, similarly revealed that people residing in areas where decision-making was restricted by community leaders were less likely to take action than those in areas where local people felt more empowered to act autonomously.

How do audiences differ?

During the course of the research for Climate Asia, it became clear that the way people experienced changes in climate and how they responded differed – not just by the standard demographic variables such as age, income, education, wealth or geography – but also by other characteristics.

To understand these differences better, data from 33,000 interviews was analysed and a detailed, multi-layered research process followed to generate five key factors that were shown to distinguish people across the region.²¹ These were:

1. Perceived impact felt from changes in climate, food, water and energy
2. Actions people were already taking
3. Willingness to make changes
4. Extent to which people felt that they could make decisions as a community
5. Degree to which resources and information were barriers to action

Identifying where people fall across these five factors is thus important for understanding change in resilience projects. That can be done through either qualitative or quantitative analysis. BBC Media Action employed both methods to identify relevant drivers within the theories of change underlying specific projects (see Part 3).²²

To understand people's needs further, the Climate Asia project then undertook a statistical technique called "cluster analysis" in order to split people into five segments.²³ Each segment varied across the factors that enabled and prevented response. The segments were labelled surviving, struggling, adapting, willing and unaffected, in order to illustrate how they reflect the five core factors that determine behaviour change (see Table 2). With this nuanced understanding of the distinguishing characteristics of target audiences, communication can be designed that will resonate with people's diverse needs and aspirations. Part 3 will show how these analytic categories correspond to actual people.

With this nuanced understanding of the distinguishing characteristics of target audiences, communication can be designed that will resonate with people's diverse needs and aspirations.

Table 2: 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 co-operation	Very Low	High	High	Medium	Low
Feel informed	Low	Low	Medium	High	Low

How can research inform a communication strategy?

Once an organisation has a clear understanding of the target groups it wishes to reach and their barriers and motivators, the next step is to draw up a communication strategy rooted in a theory of change. A range of communication channels– from media to community tools – will be selected based on an evaluation of existing media programming along with audience preferences (see Box on Media access and content.)

Media access and content

A key advantage of communication-based interventions is the scale of reach that can be achieved. In increasingly competitive media markets, it is important to understand which media and what content will engage the target audience.

Using regular, nationally representative surveys and qualitative research on how people access and use media enables project managers to design relevant media content. For example, while TV is currently the most accessed media in Bangladesh, media data in 2015 showed that Facebook usage among young urban Bangladeshis was increasing rapidly. This led to the project developing short videos for Facebook on how to prepare for earthquakes, which were aimed at urban youth.

It is also important to understand how people relate to media content and what they would like to see or listen to on air. For example, it is important to know who their role models are; which characters in the media they most relate to and which information they most remember.

The survey data from our resilience work on the BBC Media Action data portal (<http://dataportal.bbcmmediaaction.org/site/>) enables practitioners to understand which media people access by country and audience segment, so as to address key barriers to adapting to changes in weather in an optimal way.

Developing communication objectives

The first step here is to establish clear objectives for what communication can achieve for a target audience on a given issue and in a given context. Climate Asia research showed, for example, that people wanted to know how to take actions to adapt to changes in climate. Media can play an informative role by showing simple actions that people can take; for example, how to grow alternative crops or how to make crafts to supplement income when crops fail. In Tanzania, the radio show outlined how citizens could set up a clay pot business, weave baskets or set up a chicken-rearing business to diversify their livelihoods. In Bangladesh, the television programme covered techniques such as building a tower garden to grow vegetables in saline areas to help people cope with changes in soil fertility.

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Communication has the power to affect change by going beyond the provision of information, however. Media can also provide a platform where people can share and discuss ideas on actions they might take. A community radio call-in programme like the one set up in Tanzania can provide an opportunity to discuss more technical farming techniques, for example.

Media can also inspire and motivate. It can be used to identify grassroots innovations and disseminate these adaptation strategies so as to inspire others to adapt. In Tanzania, a local man constructed fish ponds to supplement his income. After sharing his story on the radio programme, he reported that six people in the village contacted him to learn more about making fish ponds.

Some techniques for adaptation are prohibitively expensive and beyond the reach of individuals to achieve on their own, especially in areas where resources are scarce. In some cases, these may require support from the government and/or the community to implement. In other cases, the intervention will be more about helping people to understand their entitlements as citizens, how to navigate complex government systems and processes or how to counter government inaction through techniques for collective action. In Tanzania, for example, the idea of starting a co-operative group to grow vegetables and then take them to market together was discussed on the radio show. Communication can thus help to connect communities with institutions and encourage accountability in the provision of services or encourage people to act without that support.

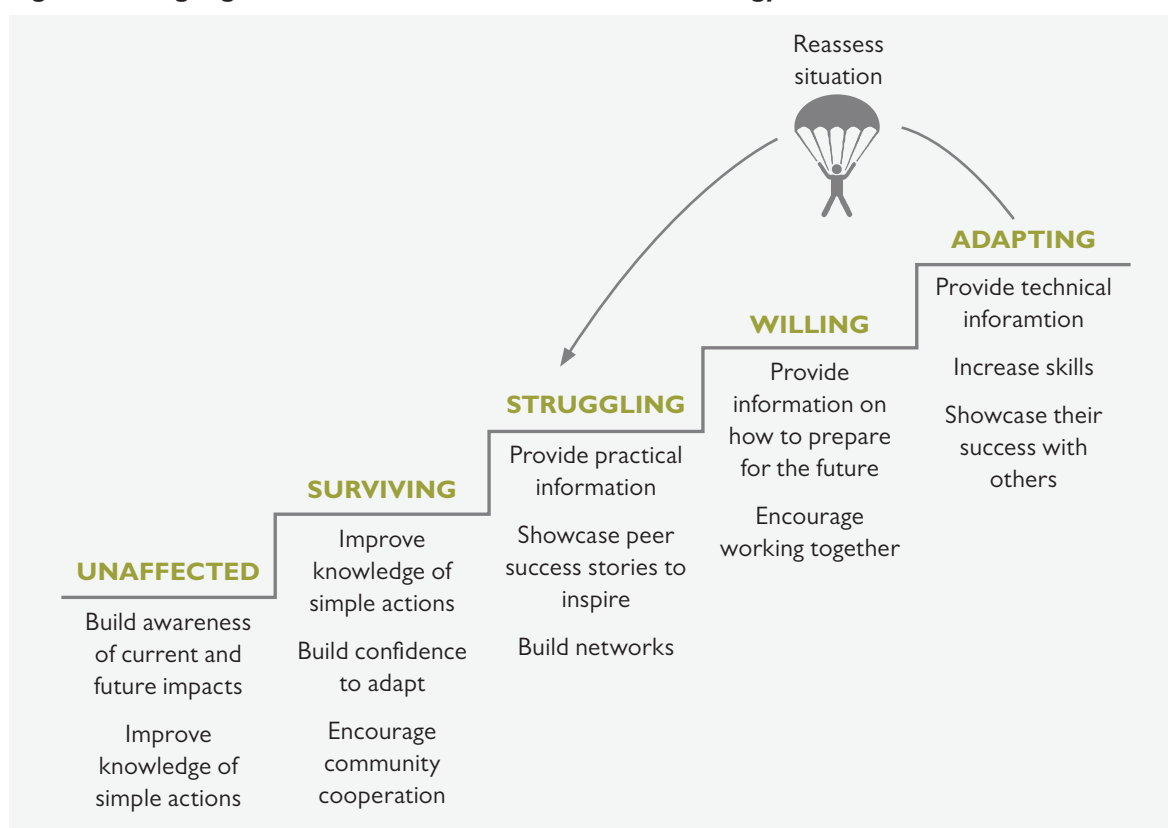
As with all project design, the choice of communication objectives needs to be informed by an in depth understanding of the country or region's broader socio-political context. For example, women's limited social mobility might necessitate emphasising short-term adaptation strategies that women can adopt within the home, while simultaneously addressing gender norms that might prevent women from adopting other strategies in the longer run.²⁴ *Amrai Pari* sought to do both: it showcased women engaging in livelihoods such as cage fishing or cottage handicrafts to improve their income, while at the same time telling stories that demonstrated more counter-normative action around community leadership.

Communication strategy as a journey

In all cases, it is useful to think of communication strategies as a journey. Building on the segmentation analysis presented earlier, Figure 1 illustrates the main communication needs of people falling within each segment, and how a range of different communication strategies described here can be made relevant to particular segments.

When a media intervention begins, people may find themselves at any given stage on this ladder. The goal is to help them move up the ladder. So, for example, if a greater portion of a community finds itself in the “surviving” segment, the first series of a programme might focus on the provision of knowledge. The hope would be that, by the second series, these individuals would have moved into the “struggling” segment, where demonstration effects would be more powerful drivers of change. Programmes can also be designed to meet the needs of one specific segment or to target the communication needs of multiple segments simultaneously. It is vital to conduct research continually throughout the project to reassess how and if people are moving through this progression and whether their communication needs have shifted and different communication strategies are thus required. When this happens – as the “parachute” in Figure 1 suggests – programmers may need to go back and tackle a previous step on the communication ladder.

Figure 1: Using segmentation to define communication strategy



This framework can be employed to support organisations to develop and refine the way in which they deliver communication. In 2015 BBC Media Action worked closely with the American and Indonesian Red Cross Societies in Jakarta to strengthen their internal research capacity and better understand their target communities. The Red Cross was interested in the high-risk flood areas of Jakarta, where

livelihoods were being severely impacted by regular floods. The data from Climate Asia showed that members of this community fell within the “struggling” segment. Through workshops, BBC Media Action helped the Red Cross gain an understanding of this group and develop ways to provide practical information on how to prepare for floods, such as creating platforms for people in the community to share stories and discuss ideas.²⁵

Obviously, this entire approach is predicated on being able to identify practical actions relevant to target audiences that can facilitate resilience (see Box on actions to strengthen resilience).

Actions to strengthen resilience

To understand which actions people should take requires project designers to work with thematic experts, NGOs and local communities to ensure that these activities are relevant and useful.

For its work on Climate Asia, BBC Media Action assembled a selection of adaptation behaviours that people might take in response to climatic variability and change.²⁶ These adaptation behaviours were selected on the basis that they were simple, did not require significant additional resources and would be applicable across most of the region. For example, to tackle water shortage, the following actions were tested:

- Storing/saving water (for example, collecting rainwater)
- Recycling water/re-using waste water
- Making water safe to drink (for example, boiling, straining through cloth, using water filter)
- Finding a new water supply (for example, digging wells, installing hand pumps, tube wells)

These possible actions were shown to focus groups as picture cards and participants were asked to devise ways they would like TV or radio to cover them.

Similarly, in Bangladesh, technical advisers suggested a number of low-water irrigation and cultivation techniques for drought-prone areas. The programme then featured experts working with the people to showcase how to employ these methods in a way that could be readily emulated across the country.

In sum, BBC Media Action’s research approach underscores that resilience is not influenced by standard demographic variables alone (such as age, income, education level, wealth or geography). Psychology is also important, and people’s attitudes – particularly their willingness to change and how connected they feel to community – are significant in understanding levels of adaptation. This approach breaks down an enormous population and a very complex issue into five key groups at different stages of action. 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. Part 3 shows how this research approach was used to inform the development of programming in Bangladesh and Tanzania.

Part 3: Implementation: Applying the Research to Bangladesh and Tanzania

Based on a detailed understanding of audience needs, the media outputs of the resilience projects in Bangladesh and Tanzania were designed with specific aims and objectives, considering the local contexts and overall political and media environments.

Audience feedback was collected throughout both projects and used to evolve the programmes. In Bangladesh, quantitative and qualitative evaluation data collected at the midpoint of the project was also used to inform programming and to refine the project's theory of change. In this way, both projects employed an “adaptive programming” approach to project design: they used learning derived from research and feedback that emerged during project implementation to refine the approach and build on what was working.²⁷ This section summarises these projects and outline how research findings were used in the development and continued adaptation of the projects.

Both projects employed an “adaptive programming” approach to project design: they used learning derived from research and feedback that emerged during project implementation to refine the approach and build on what was working.

Bangladesh

The design of the project was informed by the Climate Asia 2012 findings. This research showed that people in Bangladesh were aware of less predictable weather and extreme events, but did not feel prepared to cope with them. Although people felt that the government should support them and that they did not have the financial resources to act, 74% felt that it was their responsibility to be better prepared.²⁸ Indeed, people were already taking action before the project began: they were supplementing their income with other work, growing alternative crops, and migrating in order to change jobs and provide for the next generation.²⁹

BBC Media Action's resilience project emerged in response to these findings. It sought to help people to prepare better for and cope better with future crises, particularly extreme weather events, which are very common in Bangladesh. Consistent with BBC Media Action's overall approach, the project incorporated media outputs, capacity strengthening of NGOs in specified communities, and community outreach activities to maximise the reach of media outputs.³⁰

A reality television series – *Amrai Pari* (Together We Can Do It) – was the flagship media output, which aired from 2014 to 2016. As 86% of the population had access to television at the project outset and most TV outlets broadcast nationally, this medium made the most sense for reaching the largest swathe of the population.³¹

In keeping with the analysis done for Climate Asia, the project identified three key drivers that would underpin its theory of change: (i) how at risk people felt to the impacts of extreme weather; (ii) which barriers existed to action; and (iii) how connected people felt to their communities.

The project identified three key drivers that would underpin its theory of change: (i) how at risk people felt to the impacts of extreme weather; (ii) which barriers existed to action; and (iii) how connected they felt to their communities.

The biggest driver of change was the audience's perception of risk. The idea was that people would be more aware of their vulnerability to extreme weather after watching *Amrai Pari* and thus more inclined to undertake action to become more resilient.

Programme-makers also needed to target the main barriers to change. In Bangladesh, these concerned how perceptions of institutional support affected willingness to act. Regional differences in Bangladesh explored during Climate Asia illustrate this point nicely. In north-west Bangladesh, where there is little NGO support, communities had a history of taking action in the face of disasters on their own. In the south-west of the country, however, an area that is routinely hit by cyclones and is thus home to many NGOs, communities were more likely to rely on the support of those NGOs before taking action themselves. The programme thus needed to explain to people how they could make changes without having to wait for the government or NGOs to help them. The idea was to change people's thinking, so that they held the belief that they could work alone and not have to wait for the government to tell them what to do.

Which brings us to community. Following on the Climate Asia segmentation, the TV programme decided to target the three segments of the population who felt most at risk from drought, floods, salinity, river-bank erosion and cyclones in Bangladesh – the surviving, struggling and adapting (see Box on Applying the segmentation to programme design in Bangladesh). Formative research revealed that all three segments valued “fitting in” – an important value in Bangladesh – so seeing people “like them”, or (from similar communities), taking action would be a strong motivator to act. As noted in Part 2, analysis of the Climate Asia data further showed that people who felt they could work with their community were also more likely to take action or be willing to take action in response to climate change. With these overall insights in place, the programme utilised the premise of “together we can do it” to motivate people to take action.

Analysis of the Climate Asia data further showed that people who felt that they could work with their community were also more likely to take action or be willing to take action in response to climate change.

Applying segmentation to programme design in Bangladesh

Drawing on the findings of the segmentation analysis discussed in Part 2, the programme tried to meet the needs of different groups who were likely to watch the programme. The idea was to design a programme that could reach all three segments by addressing their different communication needs simultaneously.



Surviving: 9% of the Bangladesh over-15 population

People in this segment are feeling the impact of climate change but lack of knowledge, isolation and feelings of helplessness prevent them from adopting resilient behaviours.

Mahmouda once had a nice house but it was destroyed by a cyclone. After losing all their belongings, her family was forced to migrate to Dhaka where her husband became a rickshaw driver. The family struggles to afford their basic needs like water and housing. Recently, her husband got tuberculosis and she is worried about her children. Mahmouda feels isolated in her new home – she has no family or friends with whom she can discuss her worries. She feels powerless to change her situation.



Struggling: 30%

People in this segment realise that they should be taking action but are finding it difficult. They feel involved in decision-making at the community level and are discussing the issue with those around them more. They want more information that is relevant to them.

Sultan has been a farmer for over 25 years but the past few years have become increasingly difficult. His rice yields have decreased and his livestock are dying as droughts have dramatically reduced the available grazing area. The water has become saline and Sultan is concerned that he won't have clean drinking water in the future. He has discussed his concerns with the community and they share his worries. However, no one knows what to do.



Adapting: 18%

Those in the “adapting” segment are taking action in response to the impacts they feel. They are often leaders in the community and hungry for more information and skills.

Rashid comes from a long line of farmers. His father's land was split between him and his three brothers, so Rashid only had a small area of land to grow crops. Water scarcity further limited his crop production and, ultimately, his income. In the face of these challenges, Rashid decided to sell his land and set up a textile mill.

He wants to get married but has found it difficult to find a partner. Women from his village don't want to marry him as they want opportunities to leave the village and to live in places that aren't affected by drought.

To capture this “community spirit” and to ensure that the programme was engaging to viewers, the programme employed a “makeover” approach. Communities were challenged to execute a resilience-related task that they had identified themselves, working against the clock. Based on audience research that identified lack of resources as another barrier to action, the programme featured simple, cheap and replicable methods of taking action, which people could do with materials and tools available to them in their local vicinity.

In one neighbourhood, for example, residents were challenged to build a floating garden in order to protect their livelihoods during flooding. The hosts travelled around the country, visiting communities throughout Bangladesh. This enabled the programme to cover a number of different stresses including: heat and lack of electricity in slum communities in the capital Dhaka; lack of cultivable land, soil erosion and unpredictable flooding with communities living in the chars (islands made from river sediment) in the north-west of the country; and the risk of cyclones in the south-west of the country.

In addition to the TV series, the Bangladesh resilience project also incorporated several other media components and partnerships to reinforce content from the programme. A public service announcement (PSA) spot, for example, featured a short drama about a rural family in Bangladesh who had benefited from taking action to prepare for extreme weather, including planting flood-resistant crops and securing the roof of their home. Initially, the rest of the community were suspicious, but when a local leader explained the value of the family’s actions, the community was inspired to take collective action to repair a flood barrier. Other outputs included a radio show highlighting actions that young people were taking and the success they had achieved; a Facebook page to engage urban youth in conversations around disaster preparedness; capacity-building activities with NGOs in Barisal; and a partnership with the Red Crescent to increase the reach of project outputs among more vulnerable communities.

In sum, across the outputs, *Amrai Pari* communicated three key themes to its audiences:

- The climate is changing; you can do something about it
- You don’t need expensive solutions and you can take action without government help
- You’ll be more effective if you do it collectively

With these themes in place, the segmentation described in the box above was used to refine programme design. The key segment that the show targeted was the “struggling” – those people who felt that they could work together with their community, but were not taking enough action to mitigate the long-term risks they were feeling, such as growing new crop varieties. The idea was that people like Sultan would be inspired by seeing other communities taking these actions.

In turn, the show was set up for the “adapting” segment – people like Rashid – to learn from experts talking about actions in the show. Rashid would then be confident to take more complex, riskier actions, such as raising the plinth of his house or building a well, on his own.

Finally, by watching people with similar backgrounds working with others in their community, the “surviving” segment – people like Mahmouda – would feel less alone. Over time, people in this group would be encouraged to learn more about how to act, and in time have the confidence to adapt. Programme-designers realised that the “surviving” segment (which was the smallest of the three groups and the hardest to reach) would need more support to act than people in the other segments. As a result, the project focused its capacity-strengthening activities in places where the “surviving” segment was more prevalent, such as in the cyclone-prone region of Barisal in the south-west.

Obviously, none of this can happen overnight. As noted in Part 2, people need to be taken on a journey to become more resilient. The idea is to help to move people along the step-wise progression towards resilience – from surviving to struggling to adapting, etc. – depending on where they start and their communication needs. But needs can also change, and research throughout the project helped to understand these changing needs. The way in which this research helped *Amrai Pari* to adapt over time is described in the Box entitled *The evolution of Amrai Pari*.

The evolution of Amrai Pari

The first series concentrated primarily on increasing awareness of the risks of extreme weather. Research after the first series showed that people were hungry for more information: they wanted to know more about how to carry out specific resilience techniques. To address this, more time was spent showing experts talking about skills, such as building a tower garden to grow vegetables in saline areas to help people cope with changes in soil fertility. Animations were also used to reinforce how a given technique – such as raising the plinth of a house – could be executed.

Initially, the programme intended to focus on actions that people could do without external support. However, and consistent with Climate Asia’s finding on the lack of institutional support as a key barrier to action, focus group discussions after the first series showed that people wanted more information on how they could overcome local power barriers that were preventing them from taking action to improve their resilience. In response, the second and third series focused on following communities as they worked alongside local government and other stakeholders to implement change responding to longer-term resilience challenges. The programme followed the story of a woman from Char Barret, a river island affected by floods and land erosion, who mobilised her community to register for the government’s land redistribution scheme. The show outlined how landless people could access government support and showcased the community’s experience of coming together to enrol in the redistribution scheme.

Research conducted towards the end of the first series also indicated that “collective efficacy” in and of itself was not the only key driver of change, and that discussion was also an important driver. These findings informed project strategy: outreach work was introduced where people were given the opportunity to discuss the show with others, and the second and third series featured more actions that individuals could take themselves.

(Box continues next page ►)

There were also learnings around the importance of emphasising the economic benefits of adaptation. In 2014, 16% of Bangladeshi farmers reported having less income compared with five years previously. Indeed, 36% of people reported that they had made changes to their livelihoods as a result of changes in climate, such as taking up additional jobs to support their income.³² It became apparent after the first series that the actions viewers were replicating most tended to be the ones where they could see short- to medium-term economic benefit. For example, after the first series, research participants were inspired to replicate the technique for growing mushrooms they'd seen demonstrated in urban slums because they realised it could earn them extra money. In response, future programmes included more information on how specific actions could lead to economic gains for viewers.

Tanzania

In Tanzania, the Radio for Resilience project sought to increase resilience of the most vulnerable people in the drought-ridden regions of Dodoma and Morogoro. Previous research conducted by BBC Media Action had found that, although Tanzanians were intensely environmentally aware and perceived an increasing deterioration in their environment, they were struggling to cope due to a lack of resources and limited information. They also felt that there wasn't anything they could do and felt excluded from public discourse on the issue, which was dominated by expert opinion.³³ As such, the desired outcomes of the project were as follows:

1. Increase people's knowledge on climate-related issues and actions they can take to build their resilience
2. Increase people's ability to respond to climate-related issues, including by increasing collective and individual efficacy and motivation, and connecting different stakeholders to facilitate the uptake of these practices
3. Increase informed discussion about these issues
4. Increase demand for greater accountability

Tanzania has a very different media environment to Bangladesh. Radio is the most accessed media platform and numerous local and regional stations broadcast across the country. Accordingly, BBC Media Action partnered with three local radio stations in Dodoma and Morogoro to produce a weekly magazine and discussion programme about climate adaptation-related topics: *Nyakati Zinabadilika* (The Times/Winds are Changing). The radio shows were broadcast with BBC Media Action support from 2013 to 2015, and stations continued to broadcast them after the project ended in 2015.

In addition to the media outputs, capacity-strengthening initiatives for civil society organisations (CSOs) and media partners were a big part of this project. Full-time mentors were embedded on one-month rotations at all three partner stations – Abood FM, Dodoma FM and Ulanga FM. The mentors provided training in editorial standards, programme-making and management. With this support, the stations were able to develop and adapt their own local version of *Nyakati Zinabadilika*. Community outreach came in the form of listening groups, which provided a space for discussing the programme collectively.

While the project had, from the outset, identified the need for informed discussion, motivation and platforms to hold institutions to account, the formative audience research was crucial to shaping both the content – and format – of these radio shows. As with Bangladesh, the learnings from Climate Asia were used to inform the key drivers that would be explored in the qualitative research. The findings were shared and discussed with the radio producers of the local stations in a two-day workshop to inform content development.

Where lack of information was concerned, for example, research highlighted the importance of providing applicable knowledge on how to take actions relating to agriculture, pastoralism and entrepreneurship. If the weekly topic was on “effective harvesting of tomatoes”, there would be five interlinked five-minute programmes on this topic, from Monday to Friday, covering everything from where to get the seeds to how to grow them, when to harvest them and market-related information. This also supported the programme’s explicit objective of enabling informed discussion.³⁴

Audience research was crucial to shaping both the content – and format – of these radio shows... [it] highlighted the importance of providing applicable knowledge on how to take actions relating to agriculture, pastoralism and entrepreneurship.

People in Dodoma and Morogoro also expressed a desire to hear not only from people like them, but also from professional experts and local authorities. As a result, the programme format combined expert advice with the testimonials of real people. There would be an interview with a farmer who had tried and tested an effective technique and an interview with a government extension officer. This format reflected the programme’s intent to help overcome the “confidence” barrier identified in the formative research. The idea was that if the farmers could get trusted advice, and knew others had tried out a certain technique, they would be more motivated to take actions themselves.

Finally, and in response to the audience’s desire to address accountability issues around resilience explicitly, the project also funded seven community debates with BBC Media Action Tanzania’s flagship governance programme, *Haba na Haba* (Little by Little), looking at issues such as the conflict between pastoralists and farmers over resources, how best to effect disaster risk reduction, and organic versus heavy-artificial-input agriculture. This allowed for local resilience issues affecting Morogoro and Dodoma to be brought to a national audience and, equally, to bring national governance challenges down to the local level.

As with Bangladesh, the Tanzania project was set up to be adaptive. Outcome mapping and analysis of audience SMS messages and phone calls were used across the two seasons to reflect on the programmes and modify them based on feedback. This audience feedback was then used to inform the topics covered by the radio programme.

Thus, for example, as women were identified by the formative research as a key target group, the programmes attempted to role-model actions to support them. Although the endline research found

that conservative social norms still hindered women's ability to take action, research conducted throughout the project nonetheless underscored the significance of the examples of entrepreneurship portrayed by the programme for female audience members:

“First of all I would like to congratulate that lady for opening up her own eye clinic. May God bless her ideas. However, many women have been facing hardship because our husbands have been forbidding us from working.”

Female, Ruaha, Morogoro, Tanzania

Audiences' desire to hear the experiences and questions of more citizens “like them” contributed to the decision to increase the length of each programme.

The partnership with local CSOs was also an important part of the adaptation story. Radio stations invited CSOs to the station to discuss upcoming programme ideas, allowing them to feed into programme content by providing technical advice, connecting journalists to farmers or pastoralists to interview, or explaining services available in the community. These stakeholders helped the programmes identify best practices and testimonials to be featured on the programme. In this way, the CSO partnership helped to ensure that the content of the programmes provided relevant information that met audiences' needs.

In sum, having identified relevant barriers and motivators based on the research approach laid out in Part 2, the programmes sought to leverage those factors that made adaptation easier and to address those that got in the way. In Bangladesh, programming was designed to foster a sense of working together, while in Tanzania, a leadership accountability element was incorporated to overcome the institutional support barrier.³⁵

Careful programme design is only half the battle, of course. The following section turns to look at how one knows whether these programmes are actually having their desired effects.

Impact Evaluation

This section pivots from how research can be used to design projects to how it can be used to evaluate them. After a brief overview of the portfolio of research methodologies employed to assess impact, research findings for both countries on key indicators are reviewed in detail.

Part 4: Research methods

It is difficult to measure the impact of a media intervention (see Box: Isolating the impact of media). Added to this, in 2013 when the research evaluation process began, there was very little previous research in this area from which to draw. There were no tried and tested questions to measure constructs such as self-efficacy (confidence) or collective efficacy (community) as these related to resilience. In the absence of this, findings from Climate Asia were used and questions were piloted prior to use.

To assess the impact of the two projects outlined in Part 3, the following broad research questions were posed:

- **Reach:** Did the programmes **reach** their target audience?
- **Engagement:** Were audiences **engaged** and did they tune in to the programmes regularly?
- **Knowledge:** Did audiences **know** how to counter the impacts of changes in climate?
- **Discussion:** Did audiences **discuss** the content of the programmes?
- **Efficacy:** Did people feel **confident** that they could act as a result of the programmes?
- **Action:** Were the audience **taking action** or intending to act?

To answer these questions and others, a mix of quantitative and qualitative methodologies was used. In both countries, quantitative surveys with adults over 15 were carried out. In Bangladesh, nationally representative surveys were regularly conducted throughout the project. In Tanzania, one survey was conducted at the end of the project and was representative of people living in the two regions in which the project was operating: Dodoma and Morogoro (see Table 3).

Table 3: Survey details

Bangladesh			
Study	Data collection	Sample size	Sample criteria
Baseline survey	January and February 2014	n=3,500	Nationally representative, adults 15+
Tracker survey	June 2014	n=2,600	Nationally representative, adults 15+
Tracker survey	June 2015	n=1,170	Nationally representative, adults 15+
Endline survey	March to April 2016	n=2,820 (random) +651 (booster)	Nationally representative, adults 15+
Tanzania			
Endline survey	August 2014	2,285	Regionally representative, adults 15+

The quantitative surveys calculated reach by asking whether people recalled listening to or watching the programmes. Information was given to prompt recall including – where applicable – stills of the show, the name of the show and the time the shows were broadcast. To ensure that people had actually watched or listened, they were asked to recall the content of the show. If the response did not match what was actually shown, their answers were not counted.

In order to attribute impact to the programmes, audiences were asked directly if they had learned something new or taken action as a result of seeing the programme. They were also asked to say how much they agreed with a series of statements relating to the key outcomes of knowledge, confidence, discussion, etc. (that is, the identified drivers of resilient behaviour). Related questions were combined and statistical analysis was used to test the validity of grouped questions (called “constructs”) to ensure that measures were coherent. In order to minimise bias during data collection, the teams used open-ended questions, positive and negative statements and asked the question in a variety of ways, all of which was then checked across responses for consistencies.

Descriptive analysis of survey data was also used to compare “viewers/listeners” with “non-viewers/listeners” on things such as gender, age, education, income levels and other factors that could potentially affect the outcome. For instance, someone living in an area affected by natural hazards might be more likely to watch *Amrai Pari* and also be more likely to have taken actions to become more resilient already. If these sorts of factors are similar within the exposed and unexposed groups, then we can be more confident that comparisons between exposed and unexposed groups are due to the programme rather than to one of these factors.

In Tanzania, the population was quite homogenous, as the survey was conducted in two small regions that were both suffering from drought and dependent on agriculture for their livelihoods. Descriptive

analysis showed that listeners were broadly similar to the overall population in terms of gender, age, education and income.

However, this is very often not the case. Regression analysis enables the researcher to test the relationship between exposure to BBC Media Action programming and outcomes of interest (for example, knowledge, motivation, actions taken), while controlling for the distorting effects of other standard demographic variables like location or gender. Regressions thus provide an additional level of confidence that the association between an outcome and our programmes is true and not actually caused by other factors.

In Bangladesh, regression analysis was used to compare exposed and unexposed groups and to control for confounders such as location, age, gender and education. Obviously, it is not possible to control for the effects of all variables that may influence the outcome in question; it is only possible to control for those that can be identified and captured in survey questions. Moreover, this analysis does not identify the direction of an association: whether one thing (i.e. exposure) comes before the other (i.e. practice). Significant findings from regression analysis can demonstrate a relationship between two variables, but do not suggest that one causes the other.

In addition to analysing associations between programming and specific indicators of impact, the research also sought to evaluate pathways to change through structural equation modelling (SEM).³⁶

In the case at hand, this approach can be used to test how different variables (such as knowledge, discussion, self-efficacy, etc.) can lead to resilient actions. The model allows one to see how much of the association between programming and resilient behaviour works indirectly through the drivers of change such as knowledge and discussion, thereby testing whether the hypothesised causal pathways are supported by the data (see evidence criteria number 7 in the box: Isolating the impact of media).

Alongside the quantitative surveys, qualitative research was undertaken to understand why change in resilience outcomes occurred. Qualitative research included community assessments, audience feedback, focus group discussions and in-depth interviews. In Bangladesh, supplementary research was conducted to evaluate how motivated audiences were in undertaking local-level disaster preparedness measures.³⁷ Research was conducted with people living in areas at risk of extreme weather and those living in areas who felt less at risk, to understand how the impact varied. It was hypothesised that people who felt more at risk were more likely to act.

This research also explored the impact of programmes beyond just those people who listened to and viewed the shows. For example, to examine the impact of BBC Media Action capacity-strengthening activities, research was conducted with staff working in the local radio stations in Tanzania and in NGOs that were supported in Barisal, Bangladesh.

Isolating the impact of media

Whereas many traditional interventions are fixed – for example, with vaccinations, a person either gets one or does not – communication interventions are not so simple. People are often exposed to multiple communications in their everyday life, so recalling output in a cluttered media environment is often hard.³⁸ Exposure to a specific communication intervention also varies: a person could be listening to or watching a programme with their full attention or they could be exposed to it while talking to their family or at work.³⁹ As a result, one challenge researchers face is how to get people to recall what they have listened to or watched.

Establishing a counterfactual – how would this person have behaved had they not been exposed to a programme – is also very challenging. Furthermore, people living in areas where there is no media access often differ in other ways, such as their education and income levels, to people that have regular exposure to media.

Finally, it is also the case that a small change happening at scale can influence the behaviours of large numbers of people. However, these changes can sometimes take time to unfold and the pathways to this change are sometimes complex, often requiring social normative change. In the case of BBC Media Action's work, all of these challenges are further exacerbated by the need to deliver evaluations in fragile countries often characterised by weak infrastructure, limited transportation routes and ongoing conflict. There is also the need to build and maintain local research capacity and to balance competing demands on research budgets between evaluating impact and informing interventions.

Recognising that it is very difficult (and costly) to achieve clear, attributable evidence of impact in the media sphere, BBC Media Action has sought to contribute to the evidence base by addressing different aspects of Piotrow and colleagues' "evaluation criteria" (see below).⁴⁰

Evaluation criteria for building evidence:

1. Change: Did a change occur?
2. Correlation: Is there a correlation between change and the intervention?
3. Time order: Did change occur after the intervention?
4. Confounding and other explanations: Have confounding factors been accounted for and are there other explanations for change (e.g. shift in policy)?
5. Magnitude: Are there any large or abrupt changes in the trend?
6. Dose response: Is there evidence of a dose response relationship (e.g. as exposure increases, effects increase)?
7. Theory of change: Is there evidence that the theory of change (the hypothesised causal pathway) is supported by data?
8. Consistency/replication: Are results consistent across countries and with similar studies in the wider evidence base?

The next section outlines the findings from the impact evaluation of the two programmes in Bangladesh and Tanzania using the research methods outlined above to address these evaluation criteria.

Part 5: Evaluating impact and pathways to change

In Bangladesh and Tanzania, the programmes were effective at informing people of the risks they faced, providing them with knowledge to take action, motivating them to act and, ultimately, prompting them to take discrete, achievable actions to help them to adapt to a changing environment. This section concludes by summarising what the research has shown about the pathways to change.

Impact

Both the Bangladesh and the Tanzania projects undertaken by BBC Media Action have supported viewers and listeners to adapt to, and prepare for, climatic and environmental change. Table 4 provides an overview of key results.

Table 4: Impact at a glance

	Bangladesh <i>Amrai Pari</i> (national) 2016	Tanzania <i>Nyakati</i> <i>Zinabadilika</i> (local) 2014
Reach*		
% of population reached by programmes in final year	7.1%	15%
% of population reached by whole project (estimated)	10.8%	30%
Regular reach**	2.1 million (2% of adult population)	N/A
Knowledge: % of viewers/listeners who reported that the programme increased their knowledge of climate-related resilience challenges	78%	70%
Discussion: % of viewers/listeners who reported discussing the programme with others	35%	46%
Confidence: % of audience who reported that the programme improved their confidence in responding to climate-related resilience issues	N/A***	85%
Action: % of viewers/listeners who reported taking action as a result of watching/listening to the programme	47%	31%

Base: *Amrai Pari* reach (n=2,820 random nationally representative sample in 2016); *Amrai Pari* listeners (n=798 includes 651 boosters sample in 2016⁴¹); *Nyakati Zinabadilika* (n=2,285) in 2015.

* Note that reach figures include all activities associated with a programme, including PSAs in the case of Bangladesh, and the additional debate programmes that were run in Tanzania. See description of projects in Part 3.

** "Regular reach" is defined as those who report watching or listening to at least every second episode of a programme within the last 12 months at the point of data collection.

*** Self-reported measures of confidence were not collected for *Amrai Pari*.

Reaching audiences

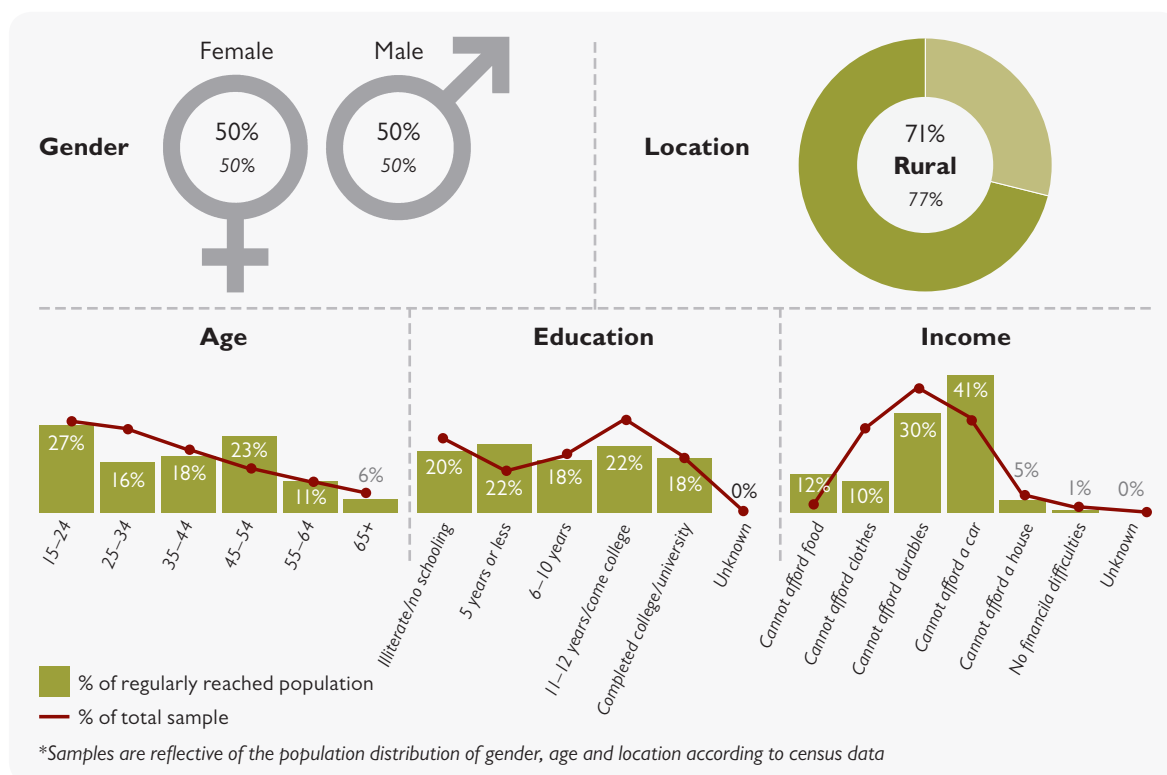
Reach is important – not just as an indicator of media impact – but as an indicator of development impact. Because mass media has the capacity to reach many people at once, skilfully designed and well-executed media and communication projects can not only change behaviour and norms, they can do so at scale.

Amrai Pari and *Nyakati Zinabadilika* both reached people at scale. In its first year on air (2014), *Amrai Pari* reached 15.8 million Bangladeshi adults nationally – representing 15.4% of the adult population. After switching from the national broadcaster to a cable and satellite channel with more competition in 2015, *Amrai Pari* saw a decline in reach, though a televised PSA aired on multiple broadcasters helped to reverse this.⁴² It is estimated that, over the course of the three-year project, BBC Media Action's resilience programming (including the PSA) reached 22.5 million people in Bangladesh cumulatively.⁴³

In Tanzania, 15% of adults in Dodoma and Morogoro listened to *Nyakati Zinabadilika* in 2014. Combined, *Nyakati Zinabadilika* and the *Haba na Haba* governance debate specials focused on resilience topics together reached 31% of the population (an estimated 747,000 people in the two regions).

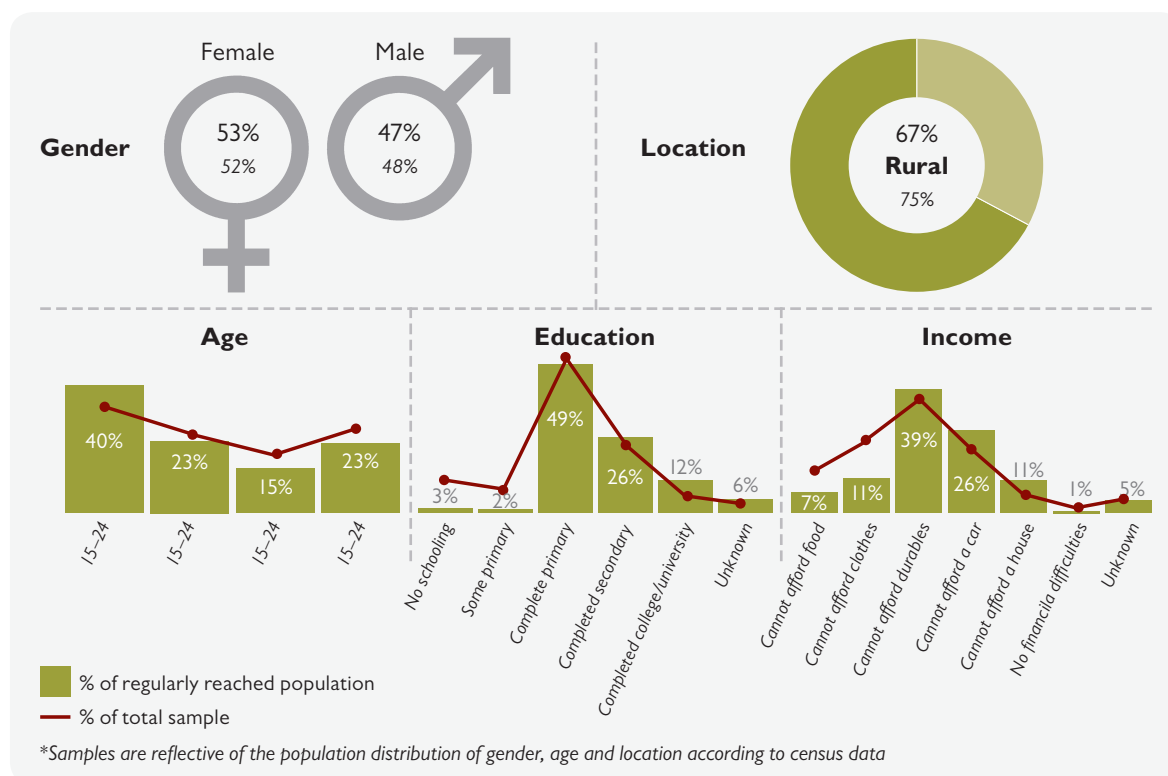
Throughout its lifetime, *Amrai Pari* was successful at engaging men and women equally. It was also successful at reaching younger people (27% of the regular audience were aged 15–24, which is representative of the national population). The programme was also increasingly successful at reaching some of the poorest and least educated people in Bangladesh. For example, the percentage of the audience with “no schooling” rose from 11% in 2014 to 17% in 2016. See Figure 2 for details on 2016 figures.

Figure 2: Profile of Amrai Pari regular audience, 2016



Nyakati Zinabadilika reached both men and women in proportion to the gender distribution in the census for the two regions. The programme had particular appeal among youth (40% of 15–24 year olds, compared with 30% in census population), although not targeted specifically at them. Those with the least education and purchasing power were under-represented, possibly because these groups were also less likely to have access to any media (see Figure 3).

Figure 3: Profile of Nyakati Zinabadilika regular audience, 2014



Engaging audiences

Successful programmes do not only reach audiences; they actively engage them. Feedback from *Amrai Pari* viewers suggests that people felt engaged with the programme because it reflected the experiences of ordinary people from across the country and dealt with issues that were relevant to their lives. Viewers liked seeing people like them from across Bangladesh taking action. Among the 7.5 million adults in Bangladesh who saw the programme in 2016, more than a quarter (28%) tuned in to at least every other episode.

In Tanzania, *Nyakati Zinabadilika* audiences particularly appreciated the concept of “local programmes for local audiences”. The fact that each local station involved in the project tailored its content to the specific needs of the audience meant that the programme was highly relevant and credible to listeners. Incorporating interviews from “ordinary people just like them” alongside expert advice from government extension officers and NGO staff was also important to engaging audiences, as one listener explained:

“It is not like when a presenter is giving you a recipe for making beef and she is reading the ingredients from somewhere. We hear them visiting the farmer and the farmer talks about his challenges and successes.”

Female, 18–25, Dodoma, Tanzania

Improving knowledge on how to adapt

The majority of audiences in Bangladesh and Tanzania reported that the programmes improved their knowledge of resilience-related issues. Among *Amrai Pari* viewers, in the 2016 endline survey, over three-quarters (78%) said that the show improved their understanding of how to deal with shocks like cyclones and floods and longer-term stresses, including availability of food, water, fuel and housing.⁴⁴ For example, a male viewer explained how he learned to adapt to the lack of space for cultivation:

“I thought that if they can plant trees in the rooftop, I can also plant trees by bringing fertile soil from another area. Then I put the soil into a sack and planted a tree.”

Male, Bashaktek Slum, Bangladesh

Bangladesh Over three-quarters (78%) of *Amrai Pari* viewers (2016) said that the show improved their understanding of how to deal with shocks and longer-term stresses.

Tanzania 70% of *Nyakati Zinabadilika* audiences reported that their knowledge on resilience-related issues had increased as a result of listening to the show (2014).

In Tanzania, 70% of *Nyakati Zinabadilika* audiences reported in 2014 that their knowledge on resilience-related issues increased as a result of listening to the show. While men were more likely than women to report that the show improved their knowledge (79% compared with 63%), women shared stories of how the programme enhanced their understanding of how to adapt in response to a changing climate.

In Bangladesh, a significantly higher proportion of *Amrai Pari* viewers felt well informed about things they could do to cope with resilience issues (71%), compared with those who had not watched the show (58%).

Similarly, *Nyakati Zinabadilika* listeners were significantly more likely to report having resilience-related knowledge than non-listeners (51% of listeners compared with 25% of non-listeners reported having medium or high levels of knowledge).⁴⁵

Discussion of resilience-related issues

BBC Media Action's research across themes has shown that if people discuss issues related to the programming that they have seen or listened to, it reinforces the information that they have heard. Discussion also encourages debate on points where there may be differences in opinion, enabling audience members to work through these and understand the point more fully. Work across health and governance has also showed that our programming is linked to increased discussion on related issues, which in turn leads to behaviour change.⁴⁶

More than a third (35%) of *Amrai Pari* viewers said that they discussed the programme with others, according to the 2016 endline survey. In Tanzania, 46% of *Nyakati Zinabadilika* listeners in 2014 said that they discussed the topics covered in the programme with others.

Bangladesh 35% of *Amrai Pari* viewers (2016) said that they discussed the programme with others.

Tanzania 46% of *Nyakati Zinabadilika* listeners (2014) said that they discussed the topics covered in the programme with others.

Qualitative research on the third series of *Amrai Pari* suggests that audience members discussed content from the show for three reasons: (i) to consolidate understanding; (ii) to validate whether new techniques worked before they tried them; and (iii) to share ideas with others who might use them. For example, audiences from urban areas said that they would share agricultural techniques from the show with relatives living in rural areas who might be more likely to use them:

“I discussed dry seed beds with my sister-in-law. I shared with her that we used to make wet seed beds, but [*Amrai Pari*] showed a dry seed bed. She agreed it was a good method. I also discussed everything I saw in the show with my husband.”

Female Amrai Pari viewer, north-west, Bangladesh Series III evaluation

But did viewers and listeners discuss resilience issues more generally than their unexposed counterparts? Here, the findings were inconclusive. In Tanzania, *Nyakati Zinabadilika* listeners were significantly more likely to discuss climate-related resilience issues than non-listeners (62% of listeners said that they discussed these issues quite or very often compared with 50% of non-listeners).⁴⁷ Meanwhile in Bangladesh, among those exposed to *Amrai Pari*, 56% said they talked to others about actions to cope with social and environmental issues very or quite often vs. 52% of those not exposed.

But regression analysis showed that there was no significant association between regular exposure to *Amrai Pari* and discussion.⁴⁸ More qualitative research would be required to understand the precise nature of the discussion prompted by watching or listening to BBC Media Action outputs in Bangladesh so as to explore if it differed to discussions among people not exposed to programming.

Building confidence to adopt resilient behaviours

Resilience programming also helped to increase people's confidence to take action (otherwise known as self-efficacy). In the cases of both programmes, research showed that seeing/hearing about “people like them” taking action encouraged viewers and listeners to do the same.

A high majority (85%) of *Nyakati Zinabadilika* listeners felt that the programme improved their confidence in responding to climate-related resilience issues:

“At first when I started this [way of] farming, people were looking down at me but as days went on, they started coming one after the other to see my success.”

Validation workshop participant, Radio for Resilience project

Audience feedback over the course of the programme further suggests that featuring farmers on the show was particularly important in motivating others to take action. Listeners were calling in and sending SMS messages to ask follow-up questions, to congratulate others who had tried an action and succeeded, or to share their inspiration:

“I sent a message to the fish farming programme. May I get the contact of a fish farmer? I was really motivated.”

SMS message, male listener, Tandale, Tanzania

In Bangladesh, regression analysis showed that people who regularly watched *Amrai Pari* were significantly more likely to feel confident that they could take action in their own lives: watching communities “like theirs” taking action gave them the confidence to do the same.⁴⁹

Bangladesh People who regularly watched *Amrai Pari* were significantly more likely to feel confident that they could take action in their own lives.

Tanzania 85% of *Nyakati Zinabadilika* listeners felt that the programme improved their confidence in responding to climate-related resilience issues.

Socio-political factors

Regression analysis showed that the *Amrai Pari* audiences were less likely to feel that they needed government or NGO support to take action.⁵⁰ This was encouraging, as it showed that the programme managed to help people feel that they were responsible, and could act without institutional support.

In the Tanzanian case, the programme had an explicit accountability objective built in from the very start. 60% of *Nyakati Zinabadilika* listeners agreed that the programmes held leaders to account at endline, and 69% of audiences agreed that the programmes enabled discussion between government, organisations and communities on climate-related resilience issues. This was important, as lack of public dialogue around these issues was seen as a key barrier to action:

“Through Dodoma FM’s *Nyakati Zinabadilika* programme, we are challenged to understand the problems faced by our farmers.”

Agricultural officer, Chamwino, Tanzania

Bangladesh *Amrai Pari* audiences were less likely to feel that they needed government or NGO support to take action.

Tanzania 60% of *Nyakati Zinabadilika* listeners agreed that the programme held leaders to account.

In Bangladesh, the accountability of government officials and NGO representatives was not tackled directly. But the second and third series of *Amrai Pari* did introduce local government endorsement of action – showing a local official saying “this is a good thing to do” – to help model good practice across the government and give viewers more leeway to take actions in their villages. The third series looked at increasing motivation around local-level disaster preparedness, including identifying those responsible for this area of policy and knowing how to contact them. The evaluation showed that people felt that the government should do more to support communities in preparing for disasters, rather than relying on them to contact the relevant government on their own. This suggests that there is perhaps a role for more programming that raises local issues around preparing for disasters and provides a platform for people to question local NGOs and government officials directly.

Community: working together

As touched upon earlier, one method for people to become more resilient is to work together and pool their resources.

In Tanzania, people felt that the programme had improved the capacity of the community to work together to respond: 69% of listeners in the endline survey said that the programme had improved the way their communities worked together. In research parlance, this is referred to as “community efficacy”.

“I have learnt that there is power in unity. One of the benefits is that being a member of a group is crucial in economic empowerment and capacity building. For example, I can strengthen my business and I can educate my child with the money.”

SMS sent to Abood FM, Morogoro, Tanzania

In addition to feeling more confident to act as a group, listeners to *Nyakati Zinabadilika* in Tanzania were also significantly more likely to report that they had actually worked together as a community to become more resilient (23% of listeners compared with 6% of non-listeners). Of the 31% of listeners who reported having taken an action, 54% mentioned establishing or joining a community group as a result of listening to the programme.

“ I have formed a group as a result of the knowledge we have acquired. We are now planning on growing mangoes, coconuts and oranges. ”

Male, Morogoro, Tanzania

Tanzania Of the 31% of listeners to *Nyakati Zinabadilika* who reported having taken an action, 54% mentioned establishing or joining a community group as a result of listening to the programme.

In comparison, in Bangladesh, the majority of actions that audience members reported having taken as a result of *Amrai Pari* at endline were individual ones, such as making adjustments to their homes or storing food. In the qualitative research, people commented that community actions tended to be larger in scale and were thus considered more difficult to achieve.

The third series of *Amrai Pari* did try to build awareness of formal, institutional bodies, such as the Disaster Management Committee, and suggested ways that communities could work through their local government initiatives to prepare their community for disasters. But while the final evaluation showed that people were aware of these bodies, they were still confused about how they could interact with them.

Influencing uptake of resilient actions

Ultimately, the programmes aimed to drive people to take simple actions. The evaluations showed that both programmes were successful at doing this.

At endline, the programmes prompted nearly half (47%) of viewers in Bangladesh and roughly a third (31%) of listeners in Tanzania to say they had adopted a resilient action. Among those who said they took action, the most common activities in Bangladesh were making adjustments to the home (63%) and storing water or goods (56%), while in Tanzania they said they were adopting new farming techniques (73%) and diversifying livelihoods through entrepreneurship (70%).

People said that they had taken an action to adapt to shocks and stresses as result of being exposed to programming.

Bangladesh 47% of viewers

Tanzania 31% of listeners

A comparison between people exposed to the programming and those not exposed provides further evidence that the programmes have influenced the uptake of resilient behaviour. In Tanzania, people who listened to Niyakati Zinabadilika were significantly more likely to have said they had carried out a range of resilience-related actions, including cultivating new types of crops (72% of listeners compared with 46% of non-listeners) and learning a new skill to supplement income (33% of listeners compared with 17% of non-listeners).

In Bangladesh, the analysis went further to show that people who watched the show and were most engaged in it were taking more action. Regression analysis showed that people who **regularly watched Amrai Pari were more likely to have taken action** (such as growing different crops, storing food or water, making adjustments to their home) than people who didn't watch the programme, **even after controlling for other factors like age, gender, education, location and income.**⁵¹ In addition, **more engaged audience members were more likely to report taking action** as a result of watching or listening to the show. For example, 69% of people who were highly engaged with the show said that they took action, compared with 36% of those with a low level of engagement.⁵²

Results also suggest that the changes to the programme appear to have been effective: the proportion of the audience who **reported taking action** after the third series **increased from 35.5% in 2015 to 47% in 2016.** As discussed in Part 3, in response to research, the second and third series showed more information about how to work with local power structures and emphasised the economic benefits of taking action.

Impact of other project outputs

This report focuses mainly on the impact of the principal media outputs in BBC Media Action resilience projects: the television programme in Bangladesh and the radio programmes in Tanzania. But other aspects of the project were also important in achieving impact.

In Bangladesh, for example, the accompanying PSA focusing on the benefits of working together to prepare for natural hazards had a particularly strong association on knowledge of how to prepare for disasters and risk perception.⁵³

In Tanzania, 12 CSOs facilitated 25 listening groups for communities in order to provide a space for listening to and discussing the programme collectively. CSO experts also shared what they had learned from programming during village assembly meetings and local area environmental network meetings.

According to a research commissioned by the Climate Change, Agriculture and Poverty Alleviation CSO members of the listening groups “developed a routine to visit other households to educate them about best practices”.⁵⁴ Qualitative research with members of listening groups also reflected the importance of this discussion for the spread of information:

“I like the programme because I planted cassava without using professional advice but now I have learnt and will go and tell my neighbours of what I heard.”

Female, 31+, Dodoma, Tanzania

In some cases, these group discussions led to specific actions:

On 24th April, at Dodoma FM’s Open Day, the Tanzania Environment Relatives Organisation, TERO, announced that their listening groups had also started keeping chickens and goats as result of listening to the *Nyakati Zinabadilika* programmes.

Observation from the Outcome Mapping journals⁵⁵

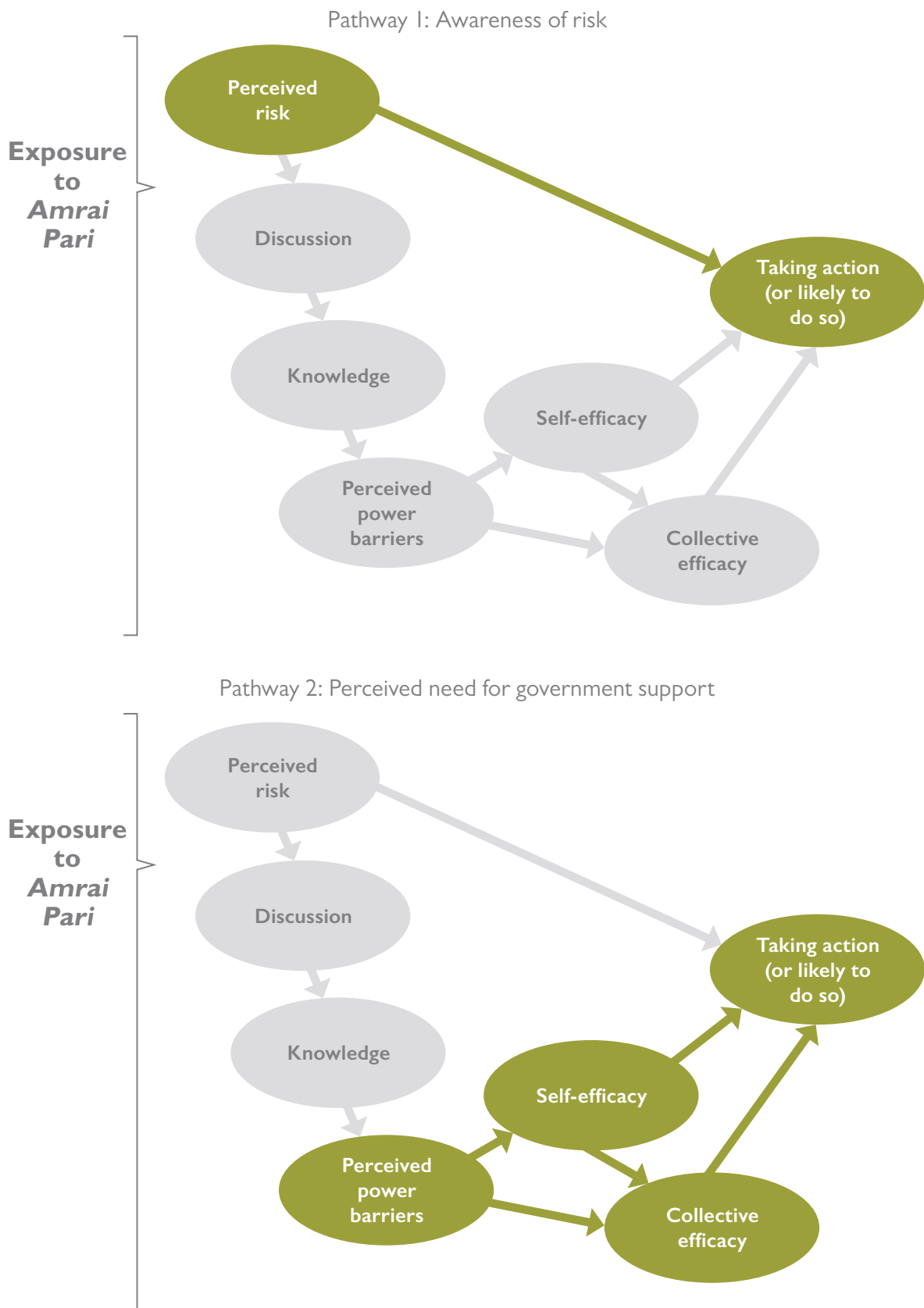
Pathways to change

In addition to assessing the overall impact of the programmes on things like knowledge of resilient behaviour and related actions, the analysis also investigated pathways to change: i.e. which of the many variables under consideration were most important in generating change.

In Bangladesh, path analysis was conducted on the 2013 baseline data to test a theoretical model about which drivers were important for taking action and how these related to one another. This model was informed by the (limited) existing literature, the Climate Asia study and the *Amrai Pari* baseline research. The model built on the “journey” of resilience described in Part 2: making people aware of the risks of extreme weather, giving them the platform to discuss and exchange ideas to adapt to these risks, and then providing them with some of the knowledge and skills to carry out actions that help them to adapt.

In 2016, findings from the path analysis were used to refine and test the model for how watching the programme *Amrai Pari* led to change. The entire theoretical model is outlined in Figure 4 (see next page); the pathways that were found to be significant for *Amrai Pari* viewers (based on the SEM) are in green.

Figure 4: How does Amrai Pari lead to people taking action? Findings from structural equation modelling



Other controls: age, gender, marital status, income, education, region, socio-economic class

This SEM identified two pathways between exposure to *Amrai Pari* and uptake of resilient action:

1. *Awareness of risk*: People who regularly watched *Amrai Pari* were more likely to report higher awareness of risk, and this perceived risk was then associated with making simple changes to prepare for adverse weather.
2. *Perceived need for government support*: People who regularly watched *Amrai Pari* were less likely to feel they needed government support, which was in turn associated with increases in self-efficacy and collective efficacy, which were in turn associated with small increases in the uptake of resilient behaviour.

Both of these results make sense, particularly when viewed in light of the segmentation analysis conducted during Climate Asia. As noted in Part 2, “feeling impacts” was one of the key variables shown to distinguish people across the region – people who felt impact were more likely to take action. Perceived risk is an extension of that variable: it is the perception of impacts people expect to experience if extreme weather were to affect their lives.

It is important to note that the results from the SEM outlined above were significant, but the effect sizes were not large. Therefore, statistically speaking, we cannot conclude that these pathways are robust. Going forward, and with a more fine-tuned understanding of the key variables at play, this model can be modified and tested more to understand how exactly change happens.

Qualitative research can also help to interpret the pathways through which programming can lead to action. The findings in Tanzania, for example, suggest that the programme increased people’s ability to respond to climate-related issues by improving their knowledge (on practical skills and how to access institutional support). Sharing this practical information by combining the experience of people like them with expert advice was important in increasing people’s confidence and motivation to act by themselves or with others.

The Box on Stories of change in Tanzania illustrates this nicely.

Case study: Stories of change in Tanzania

Bakari first started listening to *Nyakati Zinabadilika*, produced and broadcast by a local station Abood FM, in early 2014. Of all the episodes that Bakari listened to, three stand out most clearly in his memory – a programme about best agricultural practices for banana farming, another about sunflowers and a third about modern beekeeping.

Bakari says he liked the programme about modern beekeeping because “it tells you exactly how to make a modern beehive – like this, and this, and this”.

Previously, Bakari used to put logs high in the trees for bees to visit. Every time he emptied the logs he used to get between two and three litres of honey. He visited the CSO that was featured in the programme and purchased a hive for 50,000 Tanzanian shillings (£15). With the first harvest, he got five litres of honey and with the second he got 10. He began to sell the honey to his neighbours for 10,000 Tanzanian shillings (£3) per litre, so was able to start making a profit after the first harvest.

Bakari has since copied the beehive and built five more for himself. He hopes to be able to build and sell beehives to his neighbours in the future.

Says Bakari, “*Nyakati Zinabadilika* tells us that things are changing and that we must change too. Now I am changing and I see the benefits.”

These results reflect the fact that, just as audience needs are unique, so too are pathways to change. While both programmes contributed to adaptation of resilient behaviour, initial research shows that they did it in different ways. *Amrai Pari* worked primarily through the effect of perceived risk and lack of institutional support, while for *Nyakati Zinabadilika*, knowledge and confidence appear to have been more important drivers of change. In both cases more research needs to be conducted to understand the relationship between watching and listening to BBC Media Action programmes and taking action.

This section has illustrated the impact of two different media-based projects which have used research to inform their design and implementation. Part 6 brings the findings from the formative and evaluative research together and discusses the implications of these findings, while Part 7 wraps up with some recommendations for future work in this area.

Conclusions

Part 6: Discussion

This report describes how BBC Media Action has used research to design its approach to resilience.

To communicate effectively, BBC Media Action's experience has shown that the shocks and stresses affecting people in their everyday lives need to be identified and understood. How people articulate the day-to-day effects of these impacts then creates a "language" for communicators to follow.

Research across Asia and in Tanzania has shown that the key determinants shaping whether people take steps to become more resilient are:

- How much impact they feel from current stresses and shocks/how vulnerable they feel to risks from future events
- Knowledge of how to take practical, applicable actions
- Their personal willingness to enact changes, which is often expressed through confidence that they can act
- How connected they feel to others in their community because, in feeling less isolated, people are more likely to discuss resilience issues they face and know of resources they can access to enact change
- Their perception of barriers that exist, including economic resources available to them and how they perceive institutional support within the broader socio-political environment

BBC Media Action programmes in Bangladesh and Tanzania have demonstrated the importance of understanding where people fall along these dimensions and how people cluster within and across communities. By better understanding where different people are "at" – namely, whether the problem is fundamentally one of building awareness of risk or of showing people how they can continue to adapt – programme-makers can use this information to design resilience programmes to meet people's basic communication needs.

This report has also highlighted the importance of using research continually across the lifetime of the project in order to inform programme development. The underlying idea is that becoming resilient is a journey, and programme-makers need to support their audiences to progress up the adaptation ladder. This approach has been verified by audience feedback and by evaluative research in Bangladesh, where a greater proportion of people reported action than had previously.

The impact results from Bangladesh and Tanzania were very encouraging. A range of research methods indicated that people who had been exposed to BBC Media Action's resilience programmes had improved their knowledge of resilience-related issues, were more motivated to discuss those issues with people around them, felt more confident about their ability to act and, ultimately, took

simple actions that could support them to adapt to the shocks and stresses they were experiencing. Furthermore, all of this happened at scale.

Structural equation modelling in Bangladesh on a data set of regular viewers of *Amrai Pari* further identified two preliminary pathways between exposure to the programme and uptake of resilient action. In the first pathway, people who regularly watched the programme were more likely to report a higher awareness of risk, and this perceived risk was then associated with making simple changes to prepare for adverse weather. In the second pathway, people who regularly watched the show were less likely to feel that they needed government support, which was in turn associated with feeling more confident that they could take action, both individually and with others. These findings point to the importance of not just understanding how people feel, but how they perceive and interact with the power structures in their community.

This research has further shown how the general approach to resilience programming outlined here can be deployed at either the national or the local level. While the platforms and formats may differ, the fundamental idea of beginning with people and identifying the myriad things that enhance or obstruct their adaptive response is the same.

Obviously, national programmes such as *Amrai Pari* in Bangladesh will have greater reach. And reach is important – not just as an indicator of media impact – but as an indicator of development impact. Because mass media has the capacity to reach many people at once, skilfully designed and well-executed media and communication projects can not only change behaviour and norms, they can do so at scale. This multiplier effect helps to ensure impact across the individual, the household, the community and national levels.⁵⁶

But local programmes, such as Niyakati Zinabadilika in Tanzania, have their own distinct advantages. Tailored content is obviously easier to design at the local level. In Tanzania, for example, the radio programmes not only talked explicitly about group formation as a strategy for working together, but gave examples of how to do this drawn from the local area. This is much more difficult when the programme is broadcast nationally, as in Bangladesh.

The research also demonstrates the extent to which media outputs can be made relevant to a mass audience, whilst also addressing the needs of distinct groups such as the extreme poor, women, or specific occupational groups such as farmers. The audience segmentation from Climate Asia provides media practitioners with a way to understand the needs of these diverse groups of people and to creatively work out a way of producing outputs that can address them simultaneously. This is illustrated in the report through *Amrai Pari*. Evaluation findings show that it was successful at engaging women and low income groups. These are both groups that are less likely to engage with this type of factual output normally.

The research findings additionally show that the role of collective efficacy in motivating people to take action needs to be explored further. In Bangladesh, even while *Amrai Pari* modelled people working together, people tended to take individual actions. In Tanzania, in contrast, where more information was given on how to act as a group, people took more collective action. It is possible that other formats, such as dramas, could be used to build awareness of disaster preparedness support structures

by modelling how a community could work with them. In addition, future programming could illustrate people reconciling community differences so as to work together across these social divides. More research is also required to determine the best measures for collective efficacy.

Another finding worth noting from this research concerns the power of resilience interventions with multiple communication strands. In Bangladesh, the impact of the television programme was amplified by the accompanying public service announcement focusing on the benefits of working together to prepare for natural hazards. In Tanzania, listening groups facilitated by local CSOs encouraged discussion, reinforcing information and triggering collective action among group members. In addition, CSOs were able to feed back to the local radio stations, which helped the programmes to adapt their content.

To support resilience further, it is important that communication works alongside other initiatives at the government and community level to ensure that its impact is sustained. Again, this is perhaps easier to negotiate at a local level. In Tanzania, the sustainability question was addressed by building the capacity of local radio stations to produce their own programming. Research after the project was finished showed that these stations were still carrying out this programming, in part because there was continued interest from the community. This is more difficult to achieve at the national level. *Amrai Pari* has sought to do this in two ways: by doing national outreach work in Bangladesh (in partnership with the Red Crescent), and by working with local government in specific locations to prioritise local disaster preparedness activities.

Finally, a word is in order on the scope and ambition of media and communication programmes. Using an approach rooted in the needs of audiences, the two programmes considered in this report focused primarily on building their resilience through focusing on simple, achievable actions. Referring back to the OECD guidelines referenced in Part I, these projects sought to increase individual and communities' "absorptive" and "adaptive" capacities.⁵⁷ These programmes also addressed "transformative" aspects of building resilience such as increasing people's demand for accountability and increasing awareness of support that people could gain from institutions.

Media and communication are by no means the only solution to building resilience. Nor will they always be the most appropriate in any given situation. Indeed, other institutional reforms need to be in place to sustain change, such as providing a system of social security to protect the long-term health of the population. But those factors take considerable time to tackle and evolve over years, if not decades. In contrast, the projects highlighted in this report were much more focused on what could be achieved in the short run, even while laying the foundation for long-term social and political change.

Part 7: Recommendations

Having reviewed how research has been used both to inform BBC Media Action's approach to resilience and to evaluate it, this section concludes with some broad lessons emerging from that work. Given the multiple audiences this paper is intended to reach – practitioners, researchers and policy makers alike – we have divided the conclusions into distinct sections in order to highlight those insights that are most germane to each group.

Practitioners working in the media and on resilience:

Start with the audience: Resilience is a complex construct, which needs to be broken down in a way that resonates with people's lives, if communication on the subject is to be effective. To do this, the shocks and stresses that people are experiencing and the impacts they are feeling need to be precisely identified. For example, while science may provide records that show that the weather will get warmer, people need to know how that will affect them; for example, by needing to provide alternative feeding options for cattle or to plant different crops. Moreover, people's perceptions about these impacts are as important as the impacts themselves, which is why audience research – whether quantitative or qualitative – is so important to identify the psycho-social dimensions driving adaptation.

Understand audience needs: It is important to understand how people differ, even if they are experiencing similar shocks and stresses. Even people living in the same community are likely to have different communication needs. Research at scale has shown that the main determinants of whether people will take steps to become more resilient include: how much impact they are feeling from current stresses or the level of risk of potential shocks that they feel; how much information they have; how connected they feel with others in their community; how motivated/confident they feel; and how much they believe resources or institutional factors are a barrier to action. With this nuanced understanding of the distinguishing characteristics of target audiences, communication can be designed to resonate with people's diverse needs and aspirations. BBC Media Action's [audience segmentation](#) and accompanying [communications guide](#) enable practitioners to understand these differing needs.

Segment to shape communication strategies: Research can be used to understand different audiences and their communication needs. One effective way to do this at scale is through cluster analysis. As shown in this report, segmentation can then be applied to target audiences to better understand the psychographic factors affecting response alongside demographics. By doing this, practitioners can understand the specific communication needs of youth, urban males, rural females, etc. On a smaller scale, qualitative research exploring how at-risk people feel, the impact of shocks and stresses on their everyday lives, their willingness to act and the barriers they perceive can also inform this understanding.

Understand how change happens: Path analysis has shown that there are different ways that media outputs can facilitate change. Understanding these pathways is important to help evolve programmes and maximise their impact and also to contribute to the larger evidence base as to which variables are most important for effectuating change.

Learn and adapt: In contexts where the shocks and stresses facing people are constantly changing, it is important that communication interventions continue to evolve. Research presented in this report shows how using audience feedback and evaluative research to support content development iteratively throughout a project lifecycle has led to sustained and, in some cases, increased impact.

Evaluate resilience projects: Evaluative research of resilience projects is still in its infancy, and this is even truer of media and communication projects. Adding to this, resilience itself is a relatively new field within international development, so there is scant literature to draw from when designing questionnaires and other research tools for evaluating projects. Much more needs to be done to develop measures, test concepts and constructs, and share learnings across the community of researchers operating in this field so as to build a more robust evidence base. Tools and methods used in the research outlined in this report can be found [here](#).

Tailor responses to the socio-political realities at hand: While practitioners need to design media and communication interventions with their target audience's needs, attitudes and existing behaviours in mind, it is equally critical to appreciate the socio-political context at hand. How do local, provincial and national institutions place constraints on what is feasible? How can communication support people's resilience in a way that is sustainable to their socio-political reality?

Engage audiences: In order to reach audiences through mass media in increasingly competitive media markets, it is important to engage viewers and listeners. The art is in using research to identify issues that are relevant to audiences, isolating the drivers of change and then working with production teams to apply the research findings in creative ways. Using reality TV to tackle resilience in Bangladesh is a good example of how this can be done.

Researchers:

Evaluate over time: The projects included in this report were finite; evaluation surveys were conducted in Bangladesh over two years, but only once in Tanzania. Clearly, in order to fully understand impact, change needs to be tracked over time.

Fine-tune constructs: The findings in this report point to some of the key drivers of change in promoting more resilient behaviours by individuals and communities. However, some constructs – and in particular, those concerning community efficacy – would benefit from further fine-tuning.

Investigate pathways to Change: Whilst this report documents several potential pathways to change, the SEM analysis was conducted on only one country. These pathways would need to be replicated across projects and more countries in order to definitively conclude how media can facilitate change.

Donors:

Media Matters: This paper has demonstrated that media and communication projects rooted in audience needs can be effective in achieving resilience.

Resilience is a Journey: Building resilience is a long-term endeavour with long-term objectives and risks. This is precisely why resilience is best conceptualised as a “journey”: one that unfolds in different stages and must be constantly reassessed in the event that different segments of the population have backslid, have “graduated” to a new phase of that journey and/or if new shocks and stresses have arisen – e.g. war/earthquakes, etc. – causing new disruptions to adaptation.

Set Realistic Time Frames: There is no magical time-frame in which to carry out resilience projects: simpler actions may be taken up quite quickly, while longer-term institutional change such as health care or corruption reform may take decades to enact. Donors need to have realistic expectations about the kinds of change they will see and when these are likely to emerge. “Transformative” capacity strengthening is highly valuable, but requires a long-term investment by donors.

Governance Matters: The growing body of practice in resilience increasingly suggests that effective interventions are not merely technocratic; they strengthen accountability. Governance is thus at the heart of enabling inclusive and informed decisions, as seen in both of the projects considered in this report. But it takes time to create trust and foster real dialogue between the layers of government and between government and the poor. Local governments are often pivotal in this regard, as they frequently have the authority to integrate responses to resilience and can aggregate community action.

Endnotes

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19. In this sense, our approach has a great deal in common with “Design Thinking”, an approach to problem-solving that seeks to address challenges through rapid prototyping and repeated testing. At the core of design thinking is building empathy with the people you’re designing for, with the overarching aim of producing something genuinely valuable to them.
20. Farris, S., Lipscombe, S., Whitehead, S. and Wilson, D. (2014) *From the Ground Up: Changing the Conversation about Climate Change*. BBC Media Action Policy Briefing #14, p. 13 [online]. Available from: <http://www.bbc.co.uk/mediaaction/publications-and-resources/policy/briefings/policy-climate-change> [Accessed 27 April 2017].
21. For a detailed explanation of this methodology, see: BBC Media Action (2015) *How the Segmentation Analysis for Climate Asia was conducted*. Climate Asia Methodology Series [online]. Available from: http://downloads.bbc.co.uk/rmhttp/mediaaction/pdf/climateasia/tools/ClimateAsia_SegmentMethod.pdf [Accessed 13 May 2017].
22. Drivers are the attitudes and behaviours – such as knowledge, discussion and political efficacy – that are thought to have an influence on the outcome in question; in this case, resilient actions.

23. The term cluster analysis refers to a group of statistical research techniques often used by communication and market researchers to make sure that their products and services are designed or communicated about in ways that best suit their customers or audiences. This is also known as segmentation.
24. Unicef Bangladesh (2010) *Women and Girls in Bangladesh* [online]. Available from: https://www.unicef.org/bangladesh/Women_and_girls_in_Bangladesh.pdf [Accessed 12 April 2017].
25. More examples of how communication strategies can be targeted to enable distinct segments can be found in the BBC Media Action Climate Asia Country Reports [online]. Available from: <http://www.bbc.co.uk/climateasia/resources/country-reports> [Accessed 23 April 2017].
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28. See: BBC Media Action Data Portal [online]. Available from: <http://dataportal.bbcmmediaaction.org/site/countries/bangladesh/#theme-resilience-c-16-q-185> [Accessed 16 May 2017].
29. The Climate Asia research showed that 36% had made changes to their current job/livelihood to cope with changes. See: <http://dataportal.bbcmmediaaction.org/site/themes/resilience/#theme-resilience-c-16-q-164> [Accessed 24 May 2017]. These changes included supplementing income, growing alternative crops and making changes to the home. See: <http://dataportal.bbcmmediaaction.org/site/themes/resilience/#theme-resilience-c-16-q-165> [Accessed 24 May 2017].
30. The Climate Asia research identified that people in Barisal were most likely to come from the “surviving” segment and therefore needed the most support to motivate them to take action. Thus, capacity-strengthening activities focused here.
31. BBC Media Action (2017, forthcoming) *Strengthening resilience through media in Bangladesh: final evaluation*. BBC Media Action Country Report, p. 9.
32. BBC Media Action Data Portal [online]. See: <http://dataportal.bbcmmediaaction.org/site/themes/resilience/#theme-resilience-c-16-q-142> and <http://dataportal.bbcmmediaaction.org/site/countries/bangladesh/#theme-resilience-c-16-q-164> [Accessed 25 April 2017].
33. BBC Media Action (2010) *Africa Talks Climate*. BBC Media Action Research Report [online]. Available from: <http://www.bbc.co.uk/mediaaction/publications-and-resources/research/reports/africa/africa-talks-climate> [Accessed 18 May 2017].
34. After a year, this was changed to one 30-minute programme weekly.
35. The accountability element in the Tanzania project was actually designed as such from the outset, as the project was funded under “Accountability in Tanzania (AcT)”, a DFID-funded programme, which had many grantees in addition to BBC Media Action. That said, our formative research strongly reinforced the need to embed this resilience project in a governance framework, for the reasons noted.

36. SEM is a statistical technique for building and testing statistical models, which are often causal models. It is a hybrid technique that encompasses aspects of confirmatory factor analysis, path analysis and regression, which can be seen as special cases of SEM.
37. This was part of the ECHO-funded project, which co-funded the third series of *Amrai Pari*.
38. See: Valkenberg, P. and Jochen, P. (2013) *Five challenges for the future of media-effects research* [online]. Available from: https://pure.uva.nl/ws/files/1950766/148426_Five_challenges_for_the_future_of_media_effects_research.pdf [Accessed 17 May 2017].
39. Abraham Dowsing, K. and Hoijtink, L. (2014) *Proving the impact of media on behaviour change* [online]. BBC Media Action Working Paper. Available from: <http://www.bbc.co.uk/blogs/bbcmmediaaction/entries/69e77b7e-105e-3702-8189-c8cb03f4fd5f> [Accessed 16 May 2017].
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41. Booster cases were purposively sampled based on people who had watched *Amrai Pari*. This was to ensure that there was a robust enough number of cases to complete exposed versus unexposed analysis to understand the impact of programming.
42. In 2015, it reached 5.9 million people and in its final year (2016), *Amrai Pari* reached 7.5 million people (7.1% of the adult population).
43. *Amrai Pari* reached 15.8 million people in 2014, 5.9 million people in 2015 and 11.4 million people in 2016 either via *Amrai Pari* or the TV PSA or both. Estimated cumulative reach refers to the numbers of people who have been reached by BBC Media Action programming over the lifetime of the project, and is calculated using an assumption that 10% of the audiences are new listeners/viewers year on year.
44. Questionnaire available on the BBC Media Action Data Portal [online]. See: <http://dataportal.bbcmmediaaction.org/site/assets/uploads/2016/09/Bangladesh-Resilience-Endline-Questionnaire.pdf> [Accessed 17 May 2017].
45. Note that this analysis does not control for differences between those exposed and not exposed to programming, such as gender, education and income.
46. Snow, C. and Taylor, W. (2015) *Media, discussion and attitudes in fragile contexts*. BBC Media Action Research Report [online]. Available from: <http://www.bbc.co.uk/mediaaction/publications-and-resources/research/reports/media-discussion-attitudes-fragile-contexts> [Accessed 10 May 2017]. See also: BBC Media Action (2017) *Global Health Stories* [online]. Available from: <http://globalhealthstories.com/#insights> [Accessed 19 May 2017].
47. Note that this analysis does not control for differences between those exposed and not exposed to programming, such as gender, education and income.
48. The adjusted R square of the model is 0.030 and the F value is 8.658 (significance < 0.001). See the technical appendix of BBC Media Action, (2017, forthcoming) for full results.
49. The adjusted R square of the model is 0.028 and the F value is 8.082 (significance < 0.001). See the technical

- appendix of BBC Media Action (2017, forthcoming) for full results.
50. The adjusted R square of the model is 0.024 and the F value is 7.111 (significance < 0.001). See the technical appendix of BBC Media Action (2017, forthcoming) for full results.
 51. The adjusted R square of the model is 0.021 and the F value is 6.417 (significance < 0.001). See the technical appendix of BBC Media Action (2017, forthcoming) for full results.
 52. Engagement levels were calculated based on how many programmes people had watched and how much of each one they watched. There were 744 respondents who were identified as engaged viewers. Viewers with 'low engagement' (N=200) reported that they typically watched less than half of any particular episode of *Amrai Pari* (although they could have been exposed to as many as 15 episodes in total). Respondents with 'high engagement' (N=118) had viewed at least five episodes of *Amrai Pari* and reported watching more than half of each episode. The remainder of engaged viewers (N=456) were categorised as 'medium engagement'. See BBC Media Action (2017, forthcoming). *Strengthening resilience through media in Bangladesh*, p. 45.
 53. The adjusted R square of the model is 0.031 and the F value is 8.853 (significance < 0.001). See the technical appendix of BBC Media Action (2017, forthcoming) for full results.
 54. Nyagonde, S. (2014) *Study to Assess the Impact of Radio Programmes in Kilosa and Chamwino Districts*. Final Report. Climate Change, Agriculture and Poverty Alleviation [online]. Available from: <http://www.tfcg.org/pdf/CCAP%20Climate%20Change%20Radio%20Programme%20Impact%20Assessment%202014%20FINAL.pdf> [Accessed 19 May 2017].
 55. Outcome mapping is a research methodology that evaluates impact by asking partners and those involved to track observations throughout a project. In Tanzania, NGO partners and radio stations were asked to keep a journal (which has a list of impact indicators agreed with them) and to note down any observation that was evidence of change under the relevant indicator.
 56. These are the basic units of analysis in the 2014 OECD Systems Analysis Framework. OECD (2014), op cit.
 57. Ibid.



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