BBC Media Action's governance research: emerging evidence and learning

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Executive Summary

In 2011, the UK Department for International Development provided BBC Media Action with a five-year grant to work in 14 countries to achieve a series of governance, health, and humanitarian and resilience outcomes. Of these, governance programming is broadcast in nine countries. The grant is underpinned by a significant research programme designed to measure and derive insight from the impact of this work and to help generate evidence about the role of media and communication in development.

This research working paper is one of a series supported by this grant, and is one of a specific strand of research papers designed to share the learning and insights our research generates as the grant progresses. Because the research is at a relatively early stage and the data generated from our research to date is limited, this paper is not designed to provide conclusive research results. Rather, it is designed to share some of the most interesting data we do have and the conclusions we are beginning to reach about the contexts in which we work and the impact of BBC Media Action's programmes. It is also designed to highlight what our research is, and is not, telling us so that we can tailor our research strategy as the grant progresses.

The paper synthesises findings from quantitative and qualitative data from across African, Asian and Middle Eastern countries. The second section draws on baseline data from Bangladesh, Burma, Kenya, Nepal, Nigeria, Palestinian Territories and Sierra Leone to explore the media and governance contexts in the countries where we work. The third part then summarises what we are learning about who is being reached by BBC Media Action interventions. The fourth section, firstly, reports regression analysis conducted on baseline data from Sierra Leone and midline data from Kenya to build up evidence on the impact of debate and discussion programmes on audiences' political knowledge and participation. Then findings are presented from a qualitative study assessing how Nigerian drama *Story Story* is promoting dialogue as a means of reducing conflict.

Comparing findings across countries is helping us to learn more about the governance and media contexts in which we work and inform programming. A first glance at key governance outcomes across countries attests to the centrality of country context in shaping how political knowledge, discursive participation, political participation and interest in politics relate to each other.

Disaggregating these outcomes by demographic variables underlines the importance of gender in structuring them, with women reporting lower levels of political knowledge and interest in politics, and discussing and participating in politics less than men. However, disaggregating political participation by income reveals less consistent results: in Nigeria and Bangladesh, those with more resources are more likely to participate, whereas in Kenya and Sierra Leone, those with more resources and less likely to participate. Conducting cross-cultural analysis at this stage of the grant is also providing important methodological learning that is shared in this paper and will feed into how research is conducted in the latter part of the grant.

The paper also presents results from two regression models which evaluate the impact of BBC Media Action programmes. There is encouraging preliminary evidence that political debate programmes may be having a positive impact on audiences' knowledge of governance issues in Kenya and Sierra Leone. Evidence for programme impact on political participation is more mixed, which may be due to the complex nature of influencing behaviour that depends on external factors such as

the opportunity and freedom to participate. We are also seeing that audiences are positively receiving governance drama *Story Story* and finding its lessons on conflict reduction easily applicable to interpersonal disputes in their own lives.

We hope that sharing this analysis will be useful to other researchers and development actors, that it will help spark and inform broader debates about the role of media in achieving development outcomes, and that it provides an opportunity for greater commentary and scrutiny from which we hope to learn. As the grant progresses, further research will be published as the volume of our data, and our evidence base, increase.

1. Introduction

In 2011, BBC Media Action was awarded funding from the UK Department for International Development (DFID) for a five year "Global Grant". The overall aim was to contribute to improved outcomes in governance, health and resilience and preparedness across 14 countries with a specific focus on fragile and conflict-affected states. For governance, the support from DFID to BBC Media Action was designed to enable BBC Media Action to provide information and build communication capacities to enhance governance and contribute to more accountable state–society relations. In addition, the grant was designed to enable robust monitoring and evaluation to ensure that programmes are rooted in the realities of local contexts. At the outset of the grant, BBC Media Action designed a research programme to effectively inform programming, evaluate its impact and contribute to the wider evidence base of "what works" in media and communication. Although the research spans the three key areas of governance, health and resilience and humanitarian response, this paper focuses on research in the area of governance.

The governance research programme takes a mixed methods approach to build up an evidence base to answer the following research questions at the end of the grant. These governance-specific questions sit within a set of overarching research questions for the whole grant, outlined in appendix one.

Figure 1: Governance research questions	
Informing projects	
1	What are the relevant target audiences for BBC Media Action planned governance interventions and their key needs?
2	Which are the most effective platforms and formats for engaging and influencing identified groups?
Logframe evaluation	
3	What is the audience profile of BBC Media Action governance programming?
4	What percentage of those reached report improved understanding of governance issues as a result of the intervention?
5	What percentage of those reached report that they think the programme plays a role in holding government to account?

	Beyond the logframe evaluation
6	What is the relationship between exposure to BBC Media Action governance programming and key governance outcomes and the predictors of these outcomes?
6a	What is the relationship between exposure to governance programming and individual-level accountability drivers; that is those factors which contribute to personal agency in playing a role in holding one's government to account (specifically, political knowledge, political efficacy and discursive, civic and political participation)?
6b	What is the relationship between exposure and collective efficacy?
6c	What is the relationship between exposure and individual empowerment in relation to the right to require an account?
7	What are the drivers of or influencers of political knowledge, discursive and political participation, political and collective efficacy?
8	What is the relationship between exposure and perceptions of government responsiveness?
9	To what extent is media relied upon as a primary source of information and a key input into decision making for voters?
10	What is the perceived role of media in holding government to account?

In September 2014, at the time of writing this paper, we are halfway through the grant. Up to this point, evidence has primarily been built up around research questions one to five but steps have also been taken to start to respond to question six in some countries. In the second half of the grant, attention will be focused on answering research questions six to 10 in order to evaluate the programming.

Overall, the research operates on three main levels. Firstly, research feeds into programming, informing content and production. Formative research identifies target audiences and their needs, both at the start of a project and at important conjunctures in its life. In addition to formative research, feedback gained from studio and broadcast audiences feeds directly back into production. This ongoing reciprocal relationship between research and production is a fundamental function of the research programme.

Secondly, research aims to contextualise programmes in the media landscape, by understanding how a programme both fits into and influences the local context. This is done using our own data, as well as contextual data from other sources. In Tanzania, for example, political economy analysis was

carried out in collaboration with the Overseas Development Institute to explore the dynamics of the media landscape in order to further understanding of how our work sits within this context.

Finally, through research, the impact of the interventions on development outcomes is evaluated. For governance, this means assessing how the programmes empower citizens to participate in public life and to demand and enforce accountability. One way in which the programming is monitored is through the project logframe, or logical framework, which specifies targets for the number of people we are reaching, how much audiences report the programming is increasing their knowledge and whether they perceive it is holding the government accountable. The evaluative research presented in section 3 of this paper moves beyond this basic framework to interrogate the relationship between watching or listening to BBC Media Action programming and individual-level governance outcomes, such as political knowledge and political participation.

To fulfil these multiple aims, a mixed methods approach has been adopted using complementary research methods to answer the research questions and report to the logframe while remaining appropriate to the local context and relevant to programming. Typically, our research design includes baseline–midline–endline quantitative surveys. These are complemented by qualitative research to understand how and why change occurs and may include in-depth interviews and focus groups with audiences, community assessments, participatory video and interviews with governance and media experts. As such, building up a picture of evidence is done through a variety of methods, which vary according to the country context and aims of the programming. This approach to generating an evidence base employs several methods across multiple country cases, enabling the interrogation of impact within a specific country taking into account the local context, but also providing an overarching framework of evidence across regions.

To date, our focus has been on building up evidence, largely through formative research, that helps us to understand target audiences, their key needs and how they use media. We are now halfway through the grant and our focus is shifting to understanding the effectiveness of BBC Media Action interventions in influencing governance outcomes. Building up a picture of the evidence will be done through a variety of methods including:

- Regression modelling to assess to impact of exposure on audiences
- Structural equation modelling to explore the pathways within our theories of change
- Trend analysis using statistical methods, such as propensity score matching, to examine change over time
- Qualitative impact evaluation and interviews with experts

We will also continue to collect reach, impact and outcome data to report to the logframe.

As the research programme starts to evaluate BBC Media Action programming, it is important that we have confidence in the evidence we are generating. For our quantitative research, the box below lays out a set of criteria against which evidence can be assessed.[1]

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[1] All eight criteria are important. It is difficult to satisfy all eight criteria in a single study (and instead we consider them across the grant). Fortunately, they are not all required in order to make valid conclusions about impact. The more that apply, however, the greater the confidence in the conclusion (Piotrow et al., 1997).

Box 1: 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 pathways) is supported by data?

8. Consistency/replication: Are results consistent across countries and with similar studies in the wider evidence base?

Taken from: Piotrow, et al., 1997

In addition, our qualitative research seeks to complement our quantitative research by exploring how and why change may – or may not – occur. Qualitative methods are important for helping to understand phenomena in the context of the culture, sub-culture, setting or organisation in which the phenomena take place, and they allow researchers to take account of the complexity of behaviour in naturally occurring settings.

Governance programming commenced in 2012 and at the mid-point of the grant, we have started to synthesise findings across countries, We have a specific focus on quantitative data collected to answer questions relating to understanding the governance and media contexts that we work in, who we are reaching, and how we are having an impact on audiences. Having carried out surveys in Kenya and Sierra Leone when programming was on air, we are now starting to use this data and learn about programme impact. This report synthesises some of the governance findings from the first half of the grant to explore what we are learning so far.

Governance approach

BBC Media Action's governance work aims to support more accountable, peaceful and inclusive states and societies. Lack of government accountability, the presence of conflict, and political and social exclusion can prevent people from living safely and freely, and from exercising their rights. These factors can act as significant barriers to equitable development. Accountable and inclusive government can contribute to poverty reduction and the creation of more equal societies. BBC Media Action posits that, as an institutional driver of accountability, the media can directly hold

those in power to account by acting as a watchdog over leaders and setting the agenda around certain issues. The aims of BBC Media Action accountability initiatives include:

- Provide people with trusted, accurate and balanced information
- Convene inclusive and constructive public dialogue and debate
- Require those in power to explain and answer for their actions
- Improve effective civic and political participation

The media can also indirectly hold those in power to account by equipping individuals with the knowledge, skills and confidence to participate in public life and question power holders to demand and enforce accountability. BBC Media Action's accountability conceptual model, see appendix two, posits that media can influence a range of individual and collective drivers of accountability that, in turn, reinforce each other. The individual drivers in the conceptual model have been distilled into five key constructs which are operationalised and measured in the research: political knowledge, political participation, discursive participation, interest in politics and political efficacy. Therefore, through influencing these outcomes, we conceive that media can empower citizens to hold their governments accountable. The governance research programme was developed to explore both direct and indirect influences of our programming, enabling BBC Media Action to critically reflect on and adapt assumptions underpinning our work.

Governance programming

BBC Media Action's governance programming uses media and communication to provide access to information and create platforms to enable people to interact directly with decision-makers. Governance outputs are broadcast in 10 countries, with projects in each country tailored to the specificity of the local governance and media context. The majority of the programming consists of political debate shows that are broadcast in seven countries. These bring together a panel of decision-makers, from politicians to service providers, with members of the public.   Audience members pose questions directly to their leaders and audiences include people from each country's diverse social, ethnic and religious groups.   In addition to debate and discussion programmes, magazine programmes are broadcast in four countries, which discuss a range of governance issues as well as social and cultural topics. Governance dramas are on air in Nigeria and Afghanistan, which provide role models for engaged citizenship and co-operative approaches to conflict resolution.

Figure 2: BBC Media Action governance programmes by country and type

Afghanistan	Bangladesh	Burma	Kenya	Nepal	Nigeria	Palestinian Territories	Sierra Leone	Tanzania
BBC Media Action national governance programming								
Open Jirga (debate) *New Home New Life* (drama) *Village Voice* (educational feature)	*BBC Bangladesh Sanglap* (debate)	*Lin Lat Kyair Sin* (magazine) *Lively News* (news) *Myat Maut Yay Yar Ah Phyar Phyar* (current affairs)	*Sema Kenya* (debate)	*Sajha Sawal* (debate)	*Story Story* (drama) *Talk You Own* (magazine) *Gatana Gatanan Ku* (drama) *Mutattauna* (magazine)	*Aswat Min Filasteen* (debate) *Hur El Kalam* (debate)	*Tok Bot Salone* (debate) *Fo Rod* (magazine)	*Haba Na Haba* (debate)

2. The media and governance context

This section presents insights into the governance needs and media habits of the populations in the countries where we work[2] and refers to data collected on the populations we work with, rather than our audiences. Since the Global Grant research programme is a multi-country project, this section offers a first glance at how some of our results compare across countries. Multiple challenges are inherent to conducting cross-cultural research because the way people understand, interpret and respond to surveys is highly influenced by culture, society and language. With this in mind, this section represents a snapshot of preliminary results and tentative comparisons between countries which will be interrogated in further depth through the second half of the Global Grant governance research programme.

The information contributes to our ability to answer the following research questions: what are the drivers of or influencers of political knowledge, discursive participation and political participation? What are the relevant target audiences for BBC Media Action governance interventions and what are their key needs? Which are the most effective media platforms, formats and communication activities for engaging and influencing identified groups?

Of the countries in which BBC Media Action broadcasts governance outputs, the seven in which we have collected quantitative baseline data are featured in the analysis below: Bangladesh, Burma, Kenya, Nepal, Nigeria, Palestinian Territories and Sierra Leone.

2.1 Research insights about political knowledge, interest, discussion and participation

Political knowledge[3], discursive participation[4], political participation[5] and interest in politics[6] comprise a range of outcomes, referred to as drivers, which we hope to influence through governance programming.[7] Individual drivers are central to BBC Media Action's conceptual model, which posits that shifts in outcomes such as these can empower citizens to hold governments to account. The analysis of the baseline data presented below takes a first step towards considering how the prevalence of these outcomes, and the relationships between them, compare across diverse contexts.

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[2] This section will draw on key insights into the governance and media contexts from BBC Media Action baseline survey data from Burma, Bangladesh, Kenya, Nepal, Nigeria, Palestinian Territories and Sierra Leone.

[3] This is a self-report measure of the respondents' perceived level of knowledge of political issues and current affairs.

[4] These questions aim to capture discursive participation in relation to local and national issues that matter to the respondent. A measure of frequency is used here, as in other validated scales measuring dialogue.

[5] Political participation is measured in a standardised way across countries using a scale consisting of the following survey items: frequency of participating in organised efforts to solve a problem; attending local governance meetings; contacting local or national officials and contacting local chiefs or traditional leaders.

[6] This is a self-report measure of how interested the participant is in news about political issues and current affairs.

[7] Results for political efficacy are not presented in this paper as the measure is still being developed and tested. This is a construct which will be explored in more detail in the second part of the grant period.

> **Box 2: Individual drivers**
>
> - **Political efficacy** is defined as the feeling that individual political action does have, or can have, an impact on the political process
> - **Political participation** refers to the extent to which individuals and groups within society are actively involved in the public sphere, political processes, debate and decision-making
> - **Interpersonal discussion** on politics/issues is a form of public deliberation and considered as a distinct form of civic and political engagement
> - **Political knowledge** refers to an individual's knowledge of political processes and institutions, rights, governance issues and current affairs
> - **Interest in politics** refers to a citizen's concern with or attentiveness to politics.

Knowing about politics

Building the political knowledge of audiences is an important aim of Global Grant governance programming. This objective is underpinned by literature, which suggests that people who possess higher levels of political knowledge are better able to understand political processes and are more likely to participate in public affairs. (For a review of the literature in this area, see Larkin and Were, 2013.)

BBC Media Action baseline data has shown that reported levels of knowledge of politics and current affairs [8] are highest in Kenya, where 64% of people report having "a fair amount" or "a great deal" of knowledge. In contrast, Burma has the lowest levels of self-reported knowledge with 17% of people reporting "a fair amount" of knowledge and only 1% reporting "a great deal" of knowledge. This resonates with the experiences of participants in the qualitative research [9] who reported very low levels of understanding of the reform process. Additionally, participants described the impact of low knowledge on confidence to raise issues:

Figure 4: Political knowledge

How much, if anything, do you know about political issues and current affairs?

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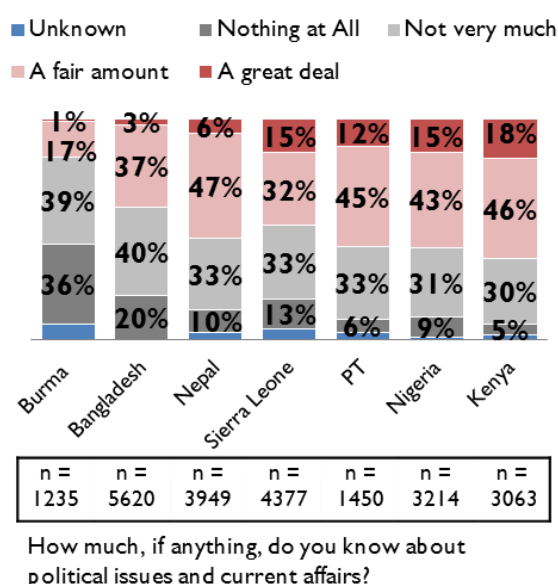
[8] Global Grant governance surveys include two measures of knowledge as standard: a self-reported overall measure, which is the most comparable and this used in the analysis above and a self-reported measure of key governance issues, specific to the country. Tested measures of factual political knowledge have also been piloted in some countries.

[9] 163 people participated in qualitative research in Yangon, Magwe, Ayeyarwady, and Karen State in Burma.

"People who have knowledge about the law speak out. For us, we mostly stay at home and we don't understand about laws, so we have to endure it, whether it is right or wrong." (Older woman, Yangon)

Understanding baseline levels of reported political knowledge has been important for designing learning objectives for programming. At one end of the spectrum, in Burma, programming has focused on building basic levels of awareness of democratic rights and political processes. However, in Kenya, the first series focused on communication objectives relating specifically to the new constitution and devolution, current developments which were identified as gaps in Kenyans' knowledge.

Talking about politics

Drawing on literature conceiving of political participation as broad and multi-dimensional, BBC Media Action's definition of political participation encompasses interpersonal discussion of political issues.[10]

Mirroring political knowledge, Burma has by far the lowest levels of reported discursive participation, with only 52% reporting ever having discussed national or local issues that matter to them with others. The qualitative research underlined that this is a legacy of Burma's history and an environment of fear surrounding the discussion of politics (Larkin and Baskett, 2014).

Figure 5: Discursive participation

How often do you discuss local or national issues that matter to you with friends, family and others?
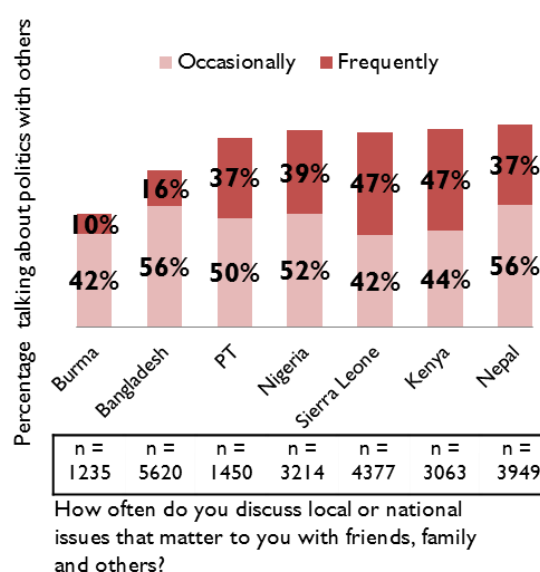
In Palestinian Territories, Nigeria, Sierra Leone, Kenya and Nepal people report discussing politics more frequently, with between 87% and 93% of respondents reporting that they talk about local and national issues with others.

Taking an interest in politics

The relationship between interest in politics and political knowledge, discursive participation and political participation varies greatly between contexts.

In Bangladesh, in spite of low levels of reported knowledge and discursive and political participation, there are high levels of interest in politics, with 70% of Bangladeshis expressing an interest in politics.

Figure 6: Interest in politics

How interested are you in news about political issues and current affairs?

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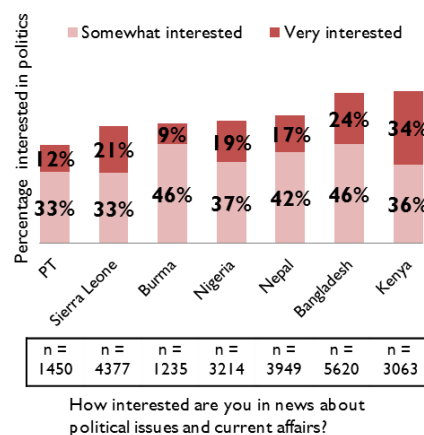
[10] BBC Media Action's definition of political participation refers to the extent to which individuals and groups within society are actively involved in the public sphere, political processes, debate and decision-making.

Conversely, in Sierra Leone, despite relatively high levels of discursive and political participation, only 54% report an interest in politics. Reflecting this context, BBC Media Action's debate and discussion programme in Sierra Leone, *Tok Bot Salone* (Talk About Sierra Leone), aims to foster interest in politics by including non-political or community issues to lead into accountability and politics, and seeking to spark an interest in politics.

Participating in politics

BBC Media Action's Accountability conceptual model posits that contributing to increased political participation is an important goal as active citizens can play a central role in supporting and demanding accountability.[11]

The baseline data reveals that there are stark differences between levels of reported participation in different countries, with only 31% of people reporting participating in politics in Bangladesh, compared to over 66% in Kenya, Sierra Leone and Nepal.

These findings warrant further investigation but one contributing factor could be the role of political freedom in enabling participation. For example, to understand low levels of reported participation in Bangladesh, we could consider the context of the data collection in December 2012, a year in which political freedom severely deteriorated (Human Rights Watch, 2013).

Taken in this context, low levels of both real and reported participation may not be surprising. On the other hand, Sierra Leone, which has the highest proportion of people reporting frequent participation, has a very different governance environment. The data was collected in 2013, a year after the parliamentary and presidential elections, which were deemed free and fair by international observers (Freedom House, 2013).

Figure 7: Political participation
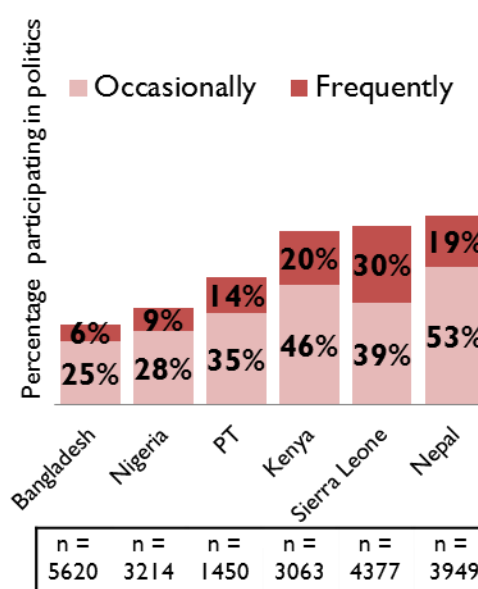
These examples from Bangladesh and Sierra Leone highlight the importance of considering the context of our work, such as levels of political freedoms and the constraints of different environments, for understanding reported political participation and the context in which media operates.

Who is participating?
All of our data is disaggregated by key demographic variables in the first instance for reporting purposes and to form the bedrock of further analyses. The results for political participation, which

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[11] Burma has not been included in the comparative analysis as the survey items are designed to measure political participation in a democratic context and are, therefore, not applicable to Burma, where the majority of respondents reported no participation at all.

were found to be most interesting, are presented here. Disaggregating reported political participation by demographics reveals that not all sections of society participate in equal measure. As illustrated in the table below, women participate less than men across all the countries, reflecting the practical and attitudinal barriers to women participating in civil society. Bangladesh has the widest gender gap, with only 15% of women reporting having participated compared to 47% of men. Although political participation is where the gap is starkest between genders, women also report lower levels of knowledge, discursive participation and interest in politics in all countries.

The relationship between income and political participation varies by country. In Sierra Leone and Kenya those with lower incomes are more likely to participate; in Bangladesh and Nigeria those with fewer resources are less likely to participate. In Palestinian Territories income does not affect participation; in a context of occupation, this may be because the factors motivating people to participate affect all sections of society, irrespective of income.

Figure 8: Political participation by income and gender
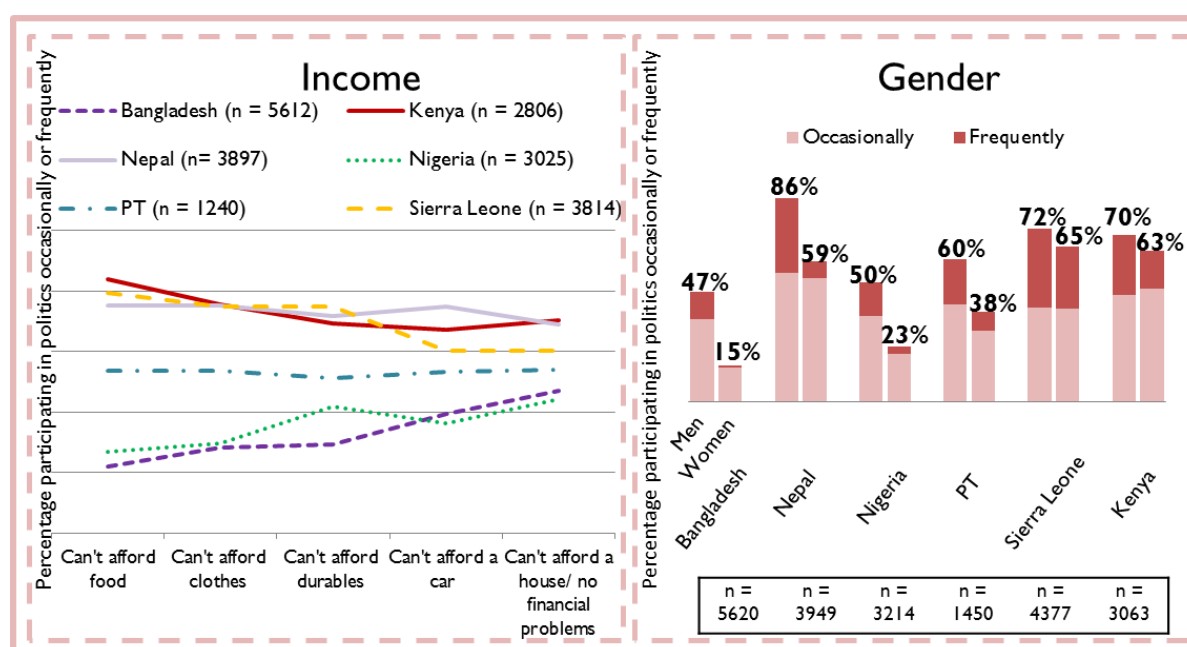
This shows that the dynamics of political participation vary across countries: in some contexts mainly wealthier groups participate, but in other contexts, people with fewer resources participate more. The reasons for these differences relate to contextual factors in each country, including tribal, political and cultural factors. Global Grant research supports country offices to understand their audiences better, and our country teams interpret this data to enable programming to be more effectively targeted, ensuring that our programmes include of marginalised groups.

Understanding the relationship between media and citizen engagement in Burma

In Burma BBC Media Action has explored the relationship between citizen engagement[12] and the potential role of media to strengthen this (Larkin and Baskett, 2014). Our regression analysis found that once accounting for other socio-demographics factors, people with regular access to public service oriented media[13] are more likely to be actively engaged compared to those who do not have regular access; those with regular access were 11 times more likely to be formally engaged than disengaged. Although this type of analysis cannot show if consumption of public service orientated media is causing higher levels of civic engagement, by controlling for confounders the results do help to shed light on our conceptual model, positing that media may play a role in contributing to people becoming more informed and engaged.

In order to better target our interventions, segmentation analysis allowed us to understand our potential audiences in terms of how different social groups engage in politics and civil society. Respondents were grouped into four segments: those disengaged, passively engaged, informally engaged and formally engaged.[14] The research found that women and young people are most likely to be disengaged, enabling programme teams in Burma to understand which groups need most support and encouragement to become more civically engaged.

2.2 Media as a source of information

Access to media is growing in the countries where we work and our research enables us to understand in further depth how people use the media and their attitudes towards it. Overall, analysis of the media context has shown that media is both a popular and trusted source of information in most countries, demonstrating its power to reach and engage large parts of the population.

Media (TV, radio, internet and newspapers) alongside personal contacts (family, friends, neighbours and colleagues), is one of the top two sources of information for politics and current affairs in all countries. Kenya, Nepal and Nigeria have the highest proportions of people (83%, 77% and 75%, respectively) using media as an information source for politics and current affairs. However, lower proportions of people use media to inform themselves about politics in Bangladesh, Palestinian Territories and Burma (53%, 57% and 46%, respectively).

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[12] This study uses citizen engagement rather than the standardised measure of political participation used across the Global Grant; these are different but overlapping constructs, as is reflected in the literature. While citizen engagement includes latent measures such as political knowledge and political participation, as well as some culturally appropriate manifest measures (such as attending a village meeting), the standardised political participation measure that BBC Media Action uses concentrates on manifest measures of participation, such as participating in an organised effort to solve a problem, contacting a national, local or traditional leader, and attending council meetings.

[13] A public service media is, by definition, one that seeks public benefit rather than commercial gain. It serves the entire population and ensures a high technical standard, with a balance of views and a range of topics. For the purposes of this study, international radio, international television, news-producing non-state local broadcast media, and non-state owned newspapers are classified as "public service oriented media". All other media, such as state and non-news- producing local media are classified as "other media".

[14] The groupings are based on how respondents answered questions in the survey on four areas; factual political knowledge; interpersonal discussion of local or national issues; attending local meetings; and raising issues with local administrators.

Figure 9: Top two information sources for politics and current affairs

In Bangladesh, Burma, Nepal and Nigeria, disaggregating these figures by gender reveals that women are more likely to use other people as a source of information for politics and less likely to use media. The largest gender gap is in Bangladesh, where 55% of men use media as a source of information for politics and current affairs and only 40% of women do. In contrast, 76% of Bangladeshi women use personal contacts as a source of information for politics and current affairs, compared with 70% of men. These results, coupled with lower levels of media access and interest in politics among women, point to the need to carefully consider the choice of platform and format in order to reach a high proportion of women. Additionally, the prominence of personal networks as an important source

Percentage citing as source of information on politics and current affairs	Media	People
Bangladesh (n = 5620)	53%	73%
Burma (n = 1235)	46%	35%
Kenya (n = 3063)	83%	63%
Nepal (n = 3949)	77%	72%
Nigeria (n = 3214)	75%	71%
Palestinian Territories (n = 1450)	57%	67%
Sierra Leone (n = 4377)	67%	80%

of information across the countries, and for women in particular, highlights the centrality of designing programmes aimed not only at reaching people directly through mass media but also at triggering interpersonal discussion.

Overall, trust in media platforms is high in most countries, with people much more likely to trust TV and radio than government officials. In Kenya, Nepal and Sierra Leone, people trust media more than friends and family, whereas in Bangladesh, Nigeria and Palestinian Territories, friends and family are the most trusted information source. In terms of platforms, people have the greatest trust in the type of media they use the most. For example, in Bangladesh, where TV access is higher than radio, 36% trust TV a lot, compared with 23% who trust radio a lot. In Palestinian Territories, however, trust in all media is relatively low with 12% and 16% of people trusting radio and TV a lot.

Key learning

This section has sketched out how the governance and media context varies between the countries in which we work. Cross-cultural research such as this has the capacity to highlight trends across countries as well as drawing attention to the uniqueness of certain contexts. Drawing data together from across contexts is starting to give us important insights into the individual level drivers which BBC Media Action programming aims to influence.

- For Burma, comparison with other countries highlights the uniqueness of the Burmese context in which levels of knowledge and participation and very low and citizen engagement in public life remains highly constrained.
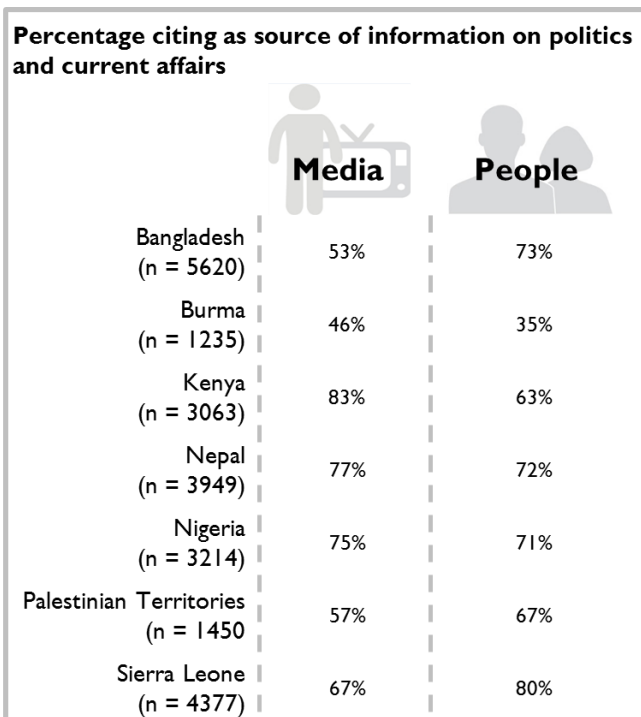
- The pattern of political participation across countries points towards the importance of considering structural factors, such as levels of political freedom, when interpreting these results.

- In all countries, women have lower levels of political knowledge and interest in politics and discuss and participate less than men, illustrating the importance of disaggregating by gender to understand governance outcomes. However, unlike for gender, our analysis shows that the relationship between income and political participation varies by country.

- The results attest to the centrality of country context in shaping how these drivers relate to each other. For example, in Bangladesh interest in politics is high but levels of political knowledge, discursive participation and political participation are relatively low. Whereas, in Nigeria, levels of knowledge and discursive participation are relatively high but political participation is low.

The findings also highlight several central implications for the governance research programme:

- The cross-cultural programme of research is allowing us to aggregate insights from across countries, explore trends and understand how national context shapes governance outcomes. However, we are aware of the diversity of the contexts in which we work and how this affects how people interpret and respond to survey items, and work is ongoing to strengthen how we design surveys and measure constructs. As we progress, qualitative research and country-specific knowledge will be crucial to facilitating the interpretation of these preliminary results.

- We intend to explore further how political knowledge, discursive participation, political participation and interest in politics relate to each other using statistical techniques such as structural equation modelling. This will allow us to understand how the inter-relationship between the individual-level drivers of accountability varies by context in order to develop our conceptual model of accountability, as outlined in the introduction.

- Standardised measurement of constructs can entail trade-offs; for example, the standardised measure of political participation reported here may not capture the contextual dimensions of this construct. To mitigate this limitation in the future, attention will be focused on developing country-specific measures to complement standardised scales.

3. Insights into our audiences

This section presents research findings about our audiences, rather than the population as a whole, using data from surveys where programmes were on air. The section seeks to answer the following research question: what is the audience profile of BBC Media Action's programmes?[15]

3.1 Who are we reaching?[16]

The global reach for our governance programming reported in 2013 was 109.4 million people. Broadcast audience profiles vary by country but, overall, programmes tend to be proportionally reaching rural audiences and all age groups, although young people are slightly under-represented in audiences in Tanzania and Burma.

In Nigeria, Kenya, Tanzania and Afghanistan, the income and education levels of the audience approximate those of the population; but in Nepal, Bangladesh, Burma and Palestinian Territories, our audience is skewed towards those with higher educational levels[17] and more resources.[18]

Figures 10 and 11 show the make-up of the regular audience (those who watch/listen to at least every other episode) for *Sanglap* (Dialogue) in Bangladesh and *Sema Kenya* (Kenya Speaks) in Kenya. These examples show how, even for two political debate programmes with similar formats, audience profile can vary substantially by country.

Figure 10: *Sema Kenya* audience profile: reached in the last 12 months

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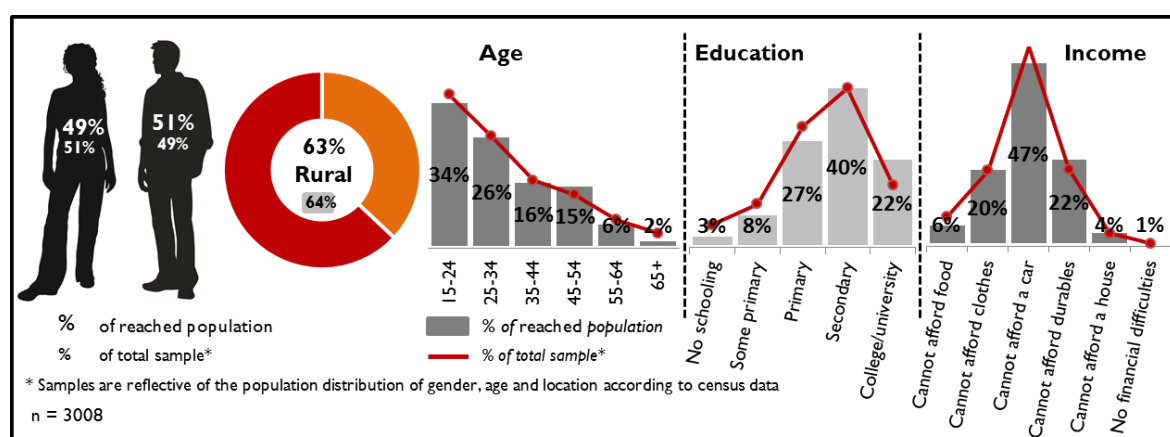
[15] This section draws on the data on our audiences reported in 2013. As such, data is included on Zambia and Pakistan, though national governance programming has since ceased in these countries.

[16] Reach refers to those who have listened or watched in the last 12 months. Regular reach refers to those who have watched at least every other episode.

[17] Education levels are measures on a 5-point scale: no schooling; some primary; completed primary; completed secondary; completed college or university.

[18] Resources are measured using the Purchasing Power Parity index: we don't have enough money, even for food; we can buy food but not clothes; we can buy food and clothes, but not household appliances; we can buy household appliances, but not a new car; we can buy a new car, but not real estate; we can buy real estate, or anything we need.

Figure 11: Bangladesh *Sanglap* audience profile: reached in the last 12 months
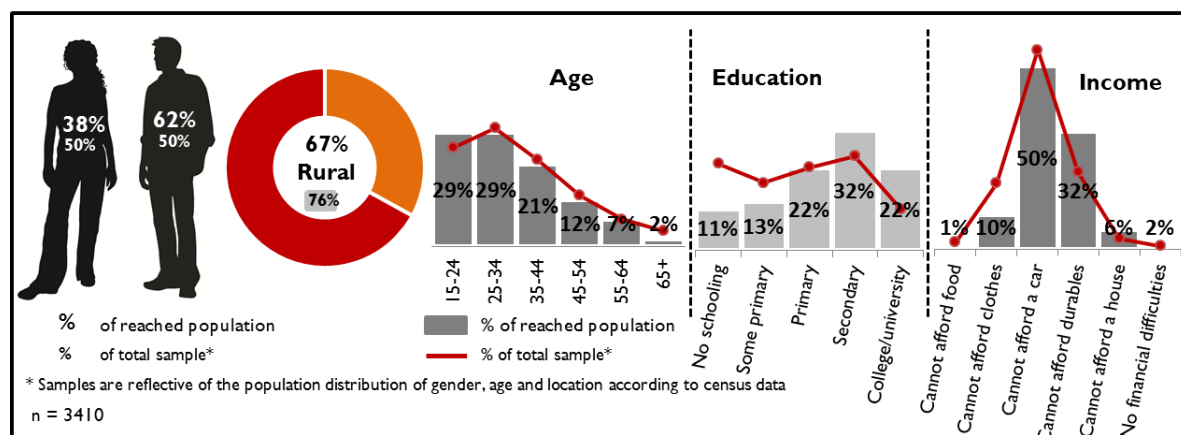
Disaggregating total measured reach[19] (88 million people) for Bangladesh, Burma, Kenya, Nepal, Nigeria, Sierra Leone and Zambia[20] by gender reveals that 42% of the regular audience are women. Women are under-represented in our audiences across all countries, with the exception of Pakistan, where 54% of the audience members were women in 2013. However, women account for at least 40% of those reached in all countries, except Bangladesh, Zambia and Tanzania (where women account for 36% to 38% of those reached in the last 12 months).

Qualitative research Tanzania in early 2013 showed that magazine programme *Haba Na Haba* (Little by Little) was not resonating as successfully with female listeners as with men. This was reflected in *Haba na Haba*'s reach figures, which showed that 36% of those listening in the last 12 months were women.[21] As a result of these findings, *Haba na Haba* recently covered topics of particular interest to female listeners, have introduced a female presenter and worked hard to increase the number of female experts featured in the programme.

Women tend to report lower levels of political knowledge, participation and interest in politics than men across countries. Therefore it is crucial to make efforts to design programmes that appeal to women and cater to their information needs. A range of factors including the time of broadcast, format, presenter and choice of topics can contribute to the programme's appeal to specific demographic groups.

Data from countries where both debate programmes and dramas are on air has consistently demonstrated that women tend to be more attracted to dramas. For example, in Afghanistan, 48% of the audience of drama, *New Home New Life,* are women, as compared with 40% of the audience of Afghan debate show *Open Jirga* (*jirga* means Assembly in Afghan languages). Similarly, in Nigeria 39% of the audience of drama *Story Story* are women, compared with 32% of the audience of magazine programme, *Talk Your Own.*

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[19] Measured or hard reach refers to estimates based on survey data where the respondent has been asked directly about watching or listening to the programme.
[20] Note that this does not include data from Tanzania collected in 2014 and reported below.
[21] This figure refers to Tanzania's 2014 reach figure, reported via the use of an omnibus survey.

4. Understanding our impact

At the mid-point of the Global Grant, we are starting to build evidence of how our programming is affecting our audiences' governance outcomes. The Global Grant project has three principle logframe indicators: output, impact and outcome. The global results below are aggregates of results from each country and are used to monitor the grant's progress. These indicators allow us to estimate how many people we are reaching and to what extent they feel the programme is increasing their knowledge of key governance issues and holding government to account. Figure 12 below illustrates BBC Media Action governance logframe results against these indicators.

Table 12: 2013 Governance logframe results	Annual review 2013
Output indicator: number of people reached with public dialogue and accountability-focused media programmes	109.4 million
Impact indicator: percentage of people reached through factual programming who strongly agree that the intervention is playing a role in holding government to account	29%
Outcome indicator: percentage of people reached by the intervention who report improved understanding about key governance or conflict relevant issues as a result of the intervention	77%

This section synthesises the results from different countries to answer the overall research question: what is the relationship between exposure to programming and individual-level accountability drivers?[22] This analysis moves beyond the indicators above to evaluate the relationship between programme exposure and political knowledge in a more robust manner.

We will first outline key findings from analysis conducted on data gathered from a midline survey carried out in Kenya and a baseline survey in Sierra Leone[23] to understand the impact of debate and discussion programmes on political knowledge and political participation, as well as findings from similar analysis carried out in Nepal in 2013. This first section draws on results from multivariate regression analysis, comparing those exposed and unexposed to our programming[24]. Second, we will

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[22] Where possible, the studies use comparable constructs and measurements, however a direct comparison of results between countries is not possible as a result of country contexts. More information on how the statistical models differ can be found in Appendix 3.

[23] In Sierra Leone programming has been on air since May 2010 under the Governance and Transparency Fund. The project has subsequently been assimilated into the Global Grant. The survey is therefore a baseline for the Global Grant but includes data on audiences' exposure to our programmes.

[24] Regression analysis is a statistical technique that controls for distorting effects to enable comparisons by exposure. Factors or characteristics that may distort the relationship are identified through four broad steps i) identification of demographic characteristics that are clear confounders, ii) identification of relevant psychographic characteristics (such as interest in politics) which may be confounders, iii) psychographic characteristics are reviewed in relation to BBC Media Actions overall conceptual model for governance and the individual country's theory of change. This is done statistically and in consultation with country teams and iv) statistical testing is then used to ensure relevance of both demographic and psychographic confounders. This is especially important due to the 'self-selecting' nature of our audiences. This analysis cannot prove that exposure to our programming *causes* a particular outcome; it can exclude other possible explanations for the

explore insights from qualitative research evaluating how drama can contribute to more collaborative conflict resolution techniques in Nigeria.

4.1 Using regression analysis to assess the impact of our programming

In Sierra Leone and Kenya, we have been investigating the relationship between exposure to BBC Media Action programming and two of the individual-level drivers of accountability: knowledge of key governance issues and political participation. To do this, multivariate regression analysis was conducted on survey data to evaluate the impact of programme exposure on political knowledge and political participation.

Programme exposure is defined as the regular audience who watch/listen to at least every other episode. Multivariate regression analysis is a way to take into account other factors, such as socio-demographic and political variables, in order to isolate the relationship between exposure to a programme and a certain outcome. This type of analysis cannot tell us if exposure to our programming is causing an outcome but it can exclude other possible explanations for the knowledge or participation of audiences being higher than non-audiences. Therefore, it can help us to gain further evidence that our programmes may be having an impact.

The aim of this work was to build an evaluative model to understand the relationship between programme exposure and defined outcomes while controlling for other socio-demographic or political characteristics. As such, variables that may be considered to be mediators (a characteristic which is thought to be on the path of programme impact, for example a programme may improve political efficacy, which then increases participation) were not included in the models. Mediators and potential confounders (characteristics which distort the relationship) were defined through a process of consultation with research and project teams in country, in which the project theory of change and country context were taken into consideration. After defining the confounders and testing their association with programme exposure, a series of binary logistic regression models were built for the different levels of each outcome. Confounding variables which were not significant at p<0.05 level were removed; as a result, the variables included in each model vary. Following this, a multinomial model was built for each outcome to assess the significance of the overall relationship between programme exposure the outcomes. Only those confounding variables identified through the logistic regression that continued to make significant contributions to the model across all levels of the outcome were retained.[25]

The results presented are from the multinomial regression models which compare those in the lowest category (low knowledge or no participation):

- First with those in the middle category (moderate knowledge or occasional participation)
- Second with those in the highest category (high knowledge or frequent participation)

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knowledge of audiences being higher than non-audiences and thus build confidence that our programmes are having an impact.

[25] The results from the multinomial, as opposed to binary, models are presented here as they allow consideration of the overall relationship between programme exposure and all levels of the outcome variables.

Through comparing these groups, the model estimates, firstly, how much more or less likely regular viewers/listeners of the programme are to fall into the middle category than non-viewers/listeners, while holding all other variables included in the model constant. Secondly, it estimates how much more or less likely regular viewers/listeners of the programme are to fall into the highest category than non-viewers/listeners, while holding constant all other variables included in the model.

4.2 Are we having an impact on people's knowledge?

The literature strongly suggests that people who possess higher levels of political knowledge are better able to understand political processes and events, and are more likely to participate in public matters (Larkin and Were, 2013). Knowledge of key governance issues is measured by survey items asking respondents to rate their knowledge of both the current situation and the background and causes of four issues. The issues are defined by the country teams to reflect subjects of contemporary importance which are addressed by the programming.

Box 3: BBC Media Action governance programmes in Kenya and Sierra Leone

Sema Kenya

Launched in October 2012, *Sema Kenya* (Kenya Speaks) is a weekly TV, radio and online panel discussion programme led by questions from a live audience. Each episode is recorded in Swahili, Kenya's national language, and is broadcast in collaboration with BBC Swahili service and KBC (Kenya Broadcasting Corporation). Kenyans from across the country are represented in the audience and on the panel. Diverse groups and viewpoints are featured and opposing views are discussed, with the aim of creating a national conversation to help to rebuild trust in the democratic process in Kenya. Kenya's midline survey estimated that 5.7 million Kenyans (23% of the population aged over 15) have watched or listened in the last 12 months, with 2.3 million tuning in regularly (9% of the population aged over 15).

Tok Bot Salone **and** *Fo Rod*

Tok Bot Salone (Talk About Sierra Leone) is a monthly audience-led debate programme which travels throughout Sierra Leone. Government officials, service providers, community officials and leaders appear as panellists to discuss particular topics in front of a live audience. The audience are able to pose questions to panellists, which are not screened beforehand. Sierra Leone's midline survey estimated that 20% of the adult population have listened in the last 12 months, with 19% listening regularly.

Fo Rod (At the Crossroads) is an hour-long weekly magazine programme broadcast live from Freetown. Government officials, service providers, community organisations and leaders are invited on the programme to discuss a range of issues. Listeners are able to call or text the programme to pose questions to guests. Sierra Leone's midline survey estimated that 10% of the adult population have listened in the last 12 months, with 9% listening regularly.

Our analysis found that regular viewers and listeners of BBC Media Action debate and discussion programmes in Kenya and Sierra Leone are more likely to report higher levels of knowledge of key governance issues. Across both countries, there is a statistically significant[26] relationship between exposure to BBC Media Action programming and knowledge of key governance issues, once accounting for various socio-demographic and political variables.[27]

For Kenya, there is a statistically significant relationship between programme exposure and knowledge of governance issues overall,[28] as well as at both levels of the model.[29] Regular *Sema Kenya* listeners and viewers are 2.1 times more likely to report moderate levels of knowledge and 3.3 times more likely to report high levels of knowledge than non-listeners.

Similarly for Sierra Leone, there is a statistically significant overall relationship between programme exposure and knowledge of key governance issues, with listeners more likely to report moderate and high levels of knowledge than non-listeners. Regular *Tok Bot Salone* listeners are three times more likely to report high levels of knowledge than non-listeners. However, there is not a statistically significant relationship between regularly listening to *Tok Bot Salone* and reporting moderate, as opposed to low, levels of knowledge.

We also explored the relationship between knowledge and exposure to two programmes: debate programme *Tok Bot Salone* and magazine programme *Fo Rod*. We found that listening to both programmes is significantly associated with reporting higher levels of knowledge, with those who listen to both programmes even more likely to report high levels of knowledge than those who only listen to *Tok Bot Salone*.

4.3 Are we having an impact on peoples' participation?

Similar analysis was also carried out to assess the impact of programme exposure on political participation. This analysis focuses on civic and democratic forms of political participation. Political participation is measured by self-reported frequency of participating in an organised effort to solve a problem, attending local council meetings, contacting local or national officials and contacting local chiefs or traditional leaders.

Regular listeners of BBC Media Action debate and discussion programmes in Sierra Leone are significantly more likely to participate in politics. However, in Kenya watching or listening to *Sema Kenya* is not significantly associated with higher levels of political participation.[30]

In Sierra Leone, overall the relationship between political participation and programme exposure is statistically significant.[31] Regular listeners of *Tok Bot Salone* are 1.7 times more likely to participate frequently than non-listeners, with those exposed to both *Tok Bot Salone* and *Fo Rod* even more likely

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[26] Statistical significance is tested at the p<0.05 level for all results.
[27] A full technical report stipulating the variables controlled for in each country can be found in appendix three.
[28] Overall significance is tested by the log likelihood ratio at the p<0.05 level.
[29] Significance at each levels of the model is tested by the Wald statistic the p<0.05 level.
[30] Overall significance is tested by the log likelihood ratio at the p<0.05 level.
[31] Overall significance is tested by the log likelihood ratio at the p<0.05 level.

to participate frequently. However, there is not a statistically significant relationship between programme exposure and participating occasionally, as opposed to not participating.[32]

Although this work takes a different approach, these results from Sierra Leone build on our previous evidence from Nepal (Larkin and Were, 2013).[33] Here we also found a significant association between listening to *Sajha Sawal* and discursive and political participation, after controlling for other socio-demographic and political variables alongside programme mediators.

For Kenya, although regular listeners are more likely to report higher levels of participation, this relationship is not statistically significant.[34] This means we cannot be confident the relationship identified did not happen by chance.

4.4 Can radio drama contribute to promoting dialogue as a means of reducing conflict in society?

Contributing to more collaborative approaches to reducing conflict is a prominent objective in Nigeria, where encouraging dialogue as a means of settling conflicts is a central aim. In the radio drama *Story Story*, storylines explore the implications of different approaches to dispute situations and model constructive and non-violent means of resolution.

Box 4: Story Story

Story Story is a long-running weekly radio drama set in a Nigerian market and motor park. The programme aims to reflect the lives of Nigerian listeners and uniquely features multiple languages. Through its storylines and characters, *Story Story* aims to raise awareness about key governance issues within Nigeria. In Nigeria, *Story Story* is broadcast by BBC World Service English network as well as approximately 100 local radio stations nation-wide. In a 2013 baseline survey, it was estimated that 16.5 million people (22%) listen to *Story Story* across Nigeria, and 10.7 million (14%) were estimated to be regular listeners, listening to at least every other episode.

Qualitative research in Nigeria aimed to understand how *Story Story* has achieved its objective to reduce conflict in society. The research was designed to facilitate the understanding of both listeners and non-listeners to conflict resolution. Sixteen discussion groups were held in six focal states: eight were groups of regular listeners and eight were groups of non-listeners. Participants were recruited to be representative of location, gender and age.

In order to work around the sensitivity of the subject, a projective role-play exercise was used: participants were presented with a fictitious scenario about a conflict between two communities over scarce resources. They were randomly assigned fictitious characters and requested to act out

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[32] Significance at each levels of the model is tested by the Wald statistic at the $p<0.05$ level
[33] Analysis in Nepal aimed to explore how the programme affected different drivers of impact and thus included variables considered as mediators in the model. Whereas, analysis from Kenya and Sierra Leone took an evaluative approach and therefore mediators were not included in the models. The results are, therefore, not directly comparable.
[34] Overall significance is tested by the log likelihood ratio the $p<0.05$ level.

their responses to a series of developments in the story.   The analysis then explored the group's response in four main respects: participants' responses to the role play; observations on the ways participants have managed controversies within the group during the session; reports on real-life conflicts encountered and lessons participants attributed to listening to *Story Story*.

The majority of *Story Story* listeners participating in the study reported that listening to *Story Story* taught them that dialogue is the only efficient way to tackle disputes. They reported learning from the programme that anger sets obstacles to the resolution of conflicts, and that they should ensure both sides take a relaxed and co-operative approach when trying to solve disputes.

Moreover, some participants reported they had applied this learning in disputes they have experienced in real life. For example, when asked how they had applied lessons learned from *Story Story* one respondent explained how she had dealt with land dispute;

> "A piece of land dispute between me and a neighbour where they turned the land to a dumping ground, I exercised patience and used dialogue to resolve the matter with my neighbour" (Woman, urban, Adamawa, age 35–45)

In addition, listeners of Story Story have attributed their rejection of violence as a means for coping with grievances to the drama, and many have mentioned the message that "violence is wrong and futile" as a key theme they recall from the programme.

> "The programme has really taught me that you cannot resolve conflicts with violence"
> (Man, urban, Enugu, age 35–45)

The examples participants gave focused on interpersonal disputes (between family members, neighbours, peers, students, etc.); no examples were provided as to how listeners had used lessons learned from *Story Story* to help resolve large-scale disputes. The impact felt in interpersonal disputes did not extend to large-scale conflicts with other communities or governmental institutions. Participants did not have confidence to manage these, leading to a lack of efficacy and a feeling of hopelessness.

Key learning

This section has summarised some of the first pieces of evidence from the Global Grant research programme which aim to evaluate how programming has an impact on governance outcomes. Referring back to Piotrow's evidence criteria (Piotrow, 1997), our regression analysis in Kenya and Sierra Leone is an example of how evaluative research can identify a change correlated with exposure to BBC Media Action programming, even when controlling for other explanations. Overall, we have learned that:

- Regular viewers and listeners of debate and discussion programmes in Kenya and Sierra Leone are more likely to report higher levels of knowledge of key governance issues. This type of analysis does not enable us to attribute causality: that listening leads to higher levels of knowledge on key governance issues or more frequent political participation. It does, however, provide evidence in support of the programme's theories of change: that debate and discussion programmes can inform audiences around priority issues.

- The results for political participation are more mixed: in both countries the relationship between programme exposure and political participation is weaker than the relationship between programme exposure and knowledge. Moreover, in Kenya this relationship is not statistically significant, once controlling for other socio-demographic and political variables, which distort the relationship. The results from Kenya and Sierra Leone are not directly comparable because of different country contexts and variables included in the models. Overall, these findings mean that the results for political participation at this stage do not meet Piotrow's criteria of replicability. This points to the complexity of influencing behaviour change and will prompt a reflection on theories of change to explore how contextual factors can enable and inhibit the effectiveness of a programme.

- The results for political participation underline the importance of using qualitative research and contextual information to triangulate the findings and enable us to understand how and why change does, or does not, happen.

- In Sierra Leone where two programmes are on air, the results suggest that exposure to multiple governance programmes is associated with higher levels of participation and knowledge.

- In terms of conflict, qualitative research from Nigeria shows that listeners of *Story Story* are applying lessons from the drama to interpersonal disputes in their own lives.

- The evaluation of *Story Story* in Nigeria illustrates how qualitative research enables us to understand what audiences take away from a programme in a more textured way. Moreover, qualitative projective techniques, such as role play, are effective for exploring sensitive issues and could be implemented in similar studies elsewhere across the grant.

5. Conclusions and next steps

The relationship between research and BBC Media Action's conceptual thinking on governance is dynamic and the research findings from the first half of the grant have prompted consideration about our organisational approach to governance. Firstly, this first glance at key governance outcomes across countries attests to the centrality of country context in shaping how political knowledge, discursive participation, political participation and interest in politics relate to each other. We aim to unpick the pathways between these individual-level drivers of accountability through techniques such as structural equation modelling in the second half of the grant.

Secondly, disaggregating these outcomes by demographic variables challenges assumptions about how wealth and access to resources influence participation, demonstrating that in some contexts a resource model or participation, which argues that those with more resources are more likely to participate, is not applicable. Additionally, disaggregation by gender shows that women have lower levels of political knowledge and interest in politics and discuss and participate less than men. As an organisation, BBC Media Action is critically reviewing how to meaningfully represent women in programming and mainstream a gender perspective into the governance issues we address.

Thirdly, the research here focuses on the population level but individuals' attitudes and behaviour do not occur in isolation and in the second part of the grant, we hope to integrate findings from audience level data with insights gained from interviews with governance and media experts to gain a more holistic view of the contexts in which our interventions operate.

Fourthly, research to date has focused on media's effect on people's participation in public life and demand for accountability. There is encouraging preliminary evidence that political debate programmes may be having a positive impact on audiences' knowledge of governance issues. Evidence for programme impact on political participation is more mixed, which may be due to the complex nature of influencing behaviour that is dependent on external factors such as opportunity and freedom to participate. We are also seeing that audiences are positively receiving governance drama *Story Story* and finding its lessons on conflict reduction easily applicable to interpersonal disputes in their own lives. However, further reflection is needed into how a more engaged and empowered citizenry may, or may not, lead to more accountable state–society relations.

Finally, as the governance work progresses the overarching conceptual model, outlined in the introduction, will be developed, and informed by research and practical experience, to capture the nuances of programming and contextual factors in different countries.

> **Box 5: Methodological challenges**
>
> - In **cross-cultural research**, local context influences how people respond to and interpret questions in a survey. Understanding the environment in each country is vital to interpret data and compare results across countries.
> - **Standardised measures** used to capture governance outcomes, such as political participation, may not be capturing contextual dimensions of a construct.
> - **Self-report measures** in surveys can be influenced by social desirability.
> - Possibilities for **triangulating with other data sources** that are not self-reported are limited for governance data, especially for constructs such as political efficacy of empowerment which rely on an individual's perceptions.
> - It is important to **expand research beyond the audience level** to interrogate the systems in which BBC Media Action governance interventions operate.

The findings presented in section 1 are a snapshot of the data generated by the governance research programme and illustrate some of the insights gained into the governance needs of the populations in the countries where we work and how they use the media. These results are drawn from the comparable quantitative baseline surveys but a wealth of formative qualitative data and audience feedback has also been collected in every country and feeds back into production on an ongoing basis.

Data presented in section 3 pertains to a different level of BBC Media Action's governance research which focuses on assessing impact. Referring back to Piotrow's criteria for assessing quantitative evidence presented in the introduction (Piotrow, 1997), the regression analysis conducted in Kenya and Sierra Leone shows that there is a change in political knowledge, which is correlated with

exposure to programming. This holds when controlling for alternative explanations and is consistent across both countries, thus meeting criteria 1, 2, 4 and 7.

However, for political participation, the evidence did not support criteria seven as the result was not consistent across countries, with a statistically significant relationship found in Sierra Leone but not Kenya, once controlling for alternative explanations. These inconsistent results regarding the effect of programme exposure on political participation is something which will be interrogated through further research and in dialogue with project teams. Qualitative findings from Nigeria have illustrated the utility of qualitative research in interrogating how audiences perceive programmes and the way they are influencing their lives.

In the second part of the grant, firstly, we aim to carry out similar regression analysis in more countries, some of which will explore the impact of programme exposure on discursive participation and political efficacy. Moreover, analysis in Nigeria, where *Story Story* is on air, will start to give insight into how watching or listening to dramas may influence governance outcomes. Secondly, we will examine the relationship between programme exposure and these individual-level drivers of accountability (answering research question 6b). We will also explore how our interventions may affect collective efficacy, empowerment to hold leaders to account and perceptions of government responsiveness (research questions 6b, 6c and 8).

Thirdly, we will employ more advanced statistical techniques to generate evidence which stands up against more of Piotrow's evidence criteria. For example, using propensity score matching to analyse data over time will enable us to ascertain if a change occurred after the intervention and the magnitude of changes in the trend. Longitudinal qualitative research may also be valuable in establishing time order: that the intervention took place prior to a change in outcome.

Additionally, creating a more nuanced measure of exposure and engagement with programming may help us to measure a form of dose response, whereby we investigate if the impact of a programme increases as the degree of exposure or engagement increases. Finally, the above methods focus primarily on exploring how media indirectly affects state–society relations by empowering audiences to demand and enforce accountability. In the latter part of the grant period, it will also be important to assess the role of BBC Media Action interventions and the media more broadly, in holding the government directly accountable through audience research, expert interviews and contextual data.

Through this multi-country, mixed method approach, by the end of the grant we hope to build up evidence to improve understanding of how media and communications can contribute to more accountable and inclusive societies within BBC Media Action and the wider sector. Evidence is tentative and probabilistic and one piece of analysis can rarely provide definitive evidence of impact. However, through using mixed methods research across multiple country case studies, the Global Grant research programme can start to build up a convincing picture of how BBC Media Action programming may be having an impact on the way audiences engage in civil society and interact with governance structures. This multi-country project affords BBC Media Action the unique opportunity to carry out similar or complementary pieces of research across different countries and regions with a view to establishing an overarching framework of evidence.

Appendices

Appendix 1: Global Grant research questions

1. What are the relevant "target audiences" for BBC Media Action Global Grant planned interventions, and the key needs of those audiences?

2. Which are the most effective media platforms, formats and communication activities for engaging and influencing identified groups?

3. What are the key "predictors" of intended outcomes?

4. How effective are BBC Media Action media and communication interventions in impacting key outcomes and the predictors of these outcomes (at audience, practitioner, organisation and system levels)?

Appendix 2: BBC Media Action Governance and accountability conceptual model – 2011

This model represents BBC Media Action's conceptual thinking around governance at the start of the Global Grant. This approach has since evolved through an iterative process.
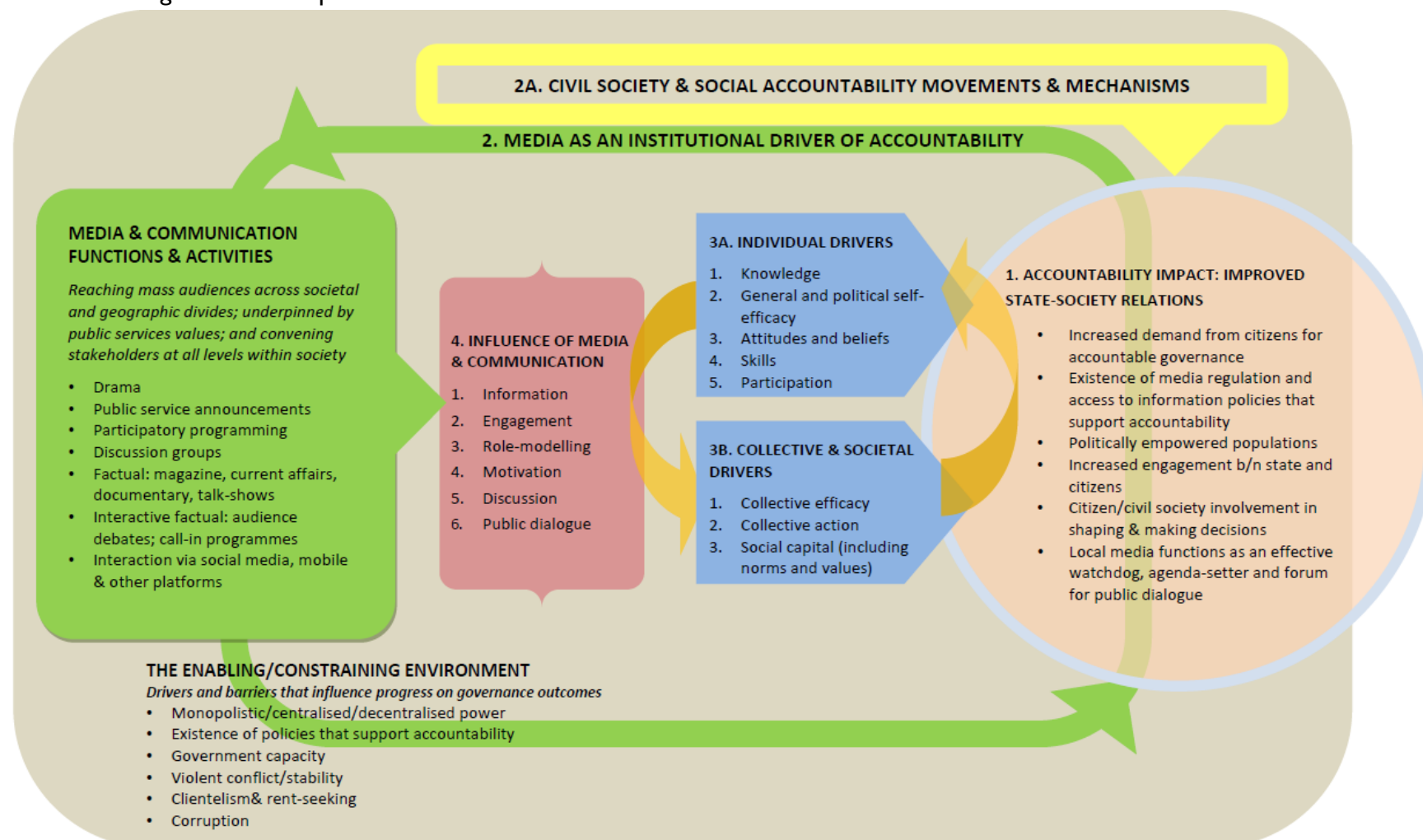
Appendix 3: Technical appendix

Kenya and Sierra Leone regression analyses summary

The following appendix details regression analyses summaries from BBC Media Action's midline data in Kenya and Sierra Leone, which is reported in this working paper.

A.   Kenya

The regression analysis in Kenya was conducted using the data from BBC Media Action's Kenya midline survey, which was conducted in August 2013 on two outcomes: **knowledge of key governance issues** and **political participation** (overall sample size 3,006 – see technical appendix below for model sample sizes).

Outcome 1: Knowledge

Three models and a final multinomial model were created to test the association of regular exposure to *Sema Kenya* with the knowledge variable. Regular exposure to *Sema Kenya* was significant at all three levels:

- Moderate knowledge levels versus low knowledge levels

- Substantial knowledge levels versus low knowledge levels

- Substantial knowledge levels versus moderate knowledge levels

The regression analysis showed that exposure to the programme was significantly associated with the difference in knowledge at all levels, even when taking into account education, gender, interest in politics, economic level, overall exposure to media or membership to civil society organisations.

These findings reinforce the associations identified in the descriptive analysis, which reflected that those audiences regularly exposed to *Sema Kenya* felt they knew more about the four main topics included in the knowledge outcome variable: devolution, unemployment, the new constitution and security.

Outcome 2: Political participation

Political participation measured the extent to which people had done a certain number of actions in the last year. These included: attending a meeting in a local town council or with other government officials, participating in an organised effort to solve a community problem, contacting an elected official and contacting a traditional chief or leader about an issue.

Three models and a final multinomial model were created:

- Participated frequently versus not participated

- Participated occasionally versus not participated

- Participated frequently versus participated occasionally

The regression analysis showed that regular exposure to *Sema Kenya* was associated with the first level listed above: people being more likely to having participated frequently as opposed to never. However, when looking at the other two levels and at the overall political participation scale or the multinomial model, other factors, such as gender or group membership, played a bigger role than exposure to *Sema Kenya*.

B.   Sierra Leone

The regression analysis in Sierra Leone was conducted using the data from BBC Media Action's Sierra Leone midline survey, which was conducted in July – August 2013 on two outcomes: knowledge on key governance issues and political participation (overall sample size approximately 4,000 – see technical appendix below for model sample sizes).

The following confounders were identified a priori and were controlled for in the models where they were associated with both exposure and the outcome: sex, age, education, income, religion, ethnicity, location, group membership, perception of freedom, media consumption, literacy and province.

The confounders were entered into the model hierarchically in blocks and were removed if they did not significantly improve the predictive utility of the model as measured through the likelihood ratio.

Outcome 1: Knowledge on key governance issues

The outcome variable for knowledge on key governance issues was an average score across eight items which asked respondents what they knew about the current situation/status of topics covered by BBC Media Action programmes and what they knew about the background/causes of these topics. These topics included political party agendas, women's rights, electricity and water service delivery, and corruption.

Three models and a multinomial model were created to test the association of regular[35] exposure to *Tok Bot Salone* and regular exposure to *Tok Bot Salone* and some exposure to *Fo Rod* with differing levels of knowledge.

1.   Substantial knowledge levels versus low knowledge levels

2.   Moderate knowledge levels versus low knowledge levels

3.   Substantial knowledge levels versus low knowledge levels

Regular exposure to *Tok Bot Salone* was significant at the following levels:

• Substantial knowledge levels versus low knowledge levels

• Moderate knowledge levels versus low knowledge levels

• There was no significant association between regular exposure to *Tok Bot Salone* and substantial versus moderate knowledge levels

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[35] Regular is defined as having listened to at least every other episode.

Regular exposure to *Tok Bot Salone* and some exposure to *Fo Rod* was significant at the following levels:

- Substantial knowledge level versus low knowledge level

- Substantial knowledge level versus moderate knowledge level

- There was no significant relationship between regular exposure to *Tok Bot Salone* and some exposure to *Fo Rod* and moderate knowledge versus low levels of knowledge

In the multinomial model, overall exposure was significantly associated with knowledge on key governance issues. Specifically, exposure to *Tok Bot Salone* and some exposure to *Fo Rod* was related to moderate and substantial levels of knowledge. Exposure to *Tok Bot Salone* only was significantly related to a substantial level of knowledge but was not significantly related to a moderate level of knowledge. However, exposure to programming was significantly related across all levels of knowledge.

Outcome 2: Political participation

Political participation measured the extent to which people had taken a certain number of actions in the last year. These included: attending a meeting in a local town council or with other government officials, participating in an organised effort to solve a community problem, contacting an elected official and contacting a traditional chief or leader about an issue.

Three models and a multinomial model were created:

1. Politically participated frequently versus not politically participated

2. Politically participated occasionally versus not politically participated

3. Politically participated frequently versus politically participated occasionally

Regular exposure to *Tok Bot Salone* was significant at the following levels:

- Frequent political participation versus no political participation

- There was no significant relationship between regular exposure to *Tok Bot Salone* and occasional versus no political participation and frequent versus occasional political participation

Regular exposure to *Tok Bot Salone* and some exposure to *Fo Rod* were significant at the following levels:

- Frequent political participation versus no political participation

- Frequent political participation versus occasional participation

- There was no significant relationship between regular exposure to *Tok Bot Salone* and some exposure to *Fo Rod* and occasional versus no political participation

In the multinomial models, in which the full range of socio-economic and other confounder variables are being controlled for, the exposure variable was highly significant according to the likelihood ratio test. The Wald statistic also shows a statistically significant positive relationship between exposure and political participation at most levels (there is not a significant relationship between regularly listening to *Tok Bot Salone* or regularly listening to *Tok Bot Salone* and *Fo Rod* on reports of occasional political participation).

Appendix 3: Technical appendix – detail of country models

This appendix details the process undertaken to build multivariate regression models to evaluate the relationship between exposure to programming and two outcomes: **knowledge of key governance issues** and **political participation**. After defining the confounders and testing their association with exposure, a series of binary logistic regression models were built for each outcome. Then a multinomial model was built for each outcome to assess the significance of the overall relationship between exposure and each outcome variable.

The odds ratios reported in the thematic and country reports are drawn from the binary logistic regression models. However, these statistics are only reported where exposure's contribution to both the binary logistic model and the overall multinomial model is statistically significant.

A. Kenya regression

Section 1 (set-up):

1.1) Variables included

       1.1.1) Outcome variables

The outcome variable for knowledge was an average score across eight items which asked respondents what they knew about the current situation/status of topics covered by BBC Media Action programmes and what they knew about the background/causes of these topics.

The topics asked about were:

1. Devolution
2. Unemployment
3. New constitution
4. Security

The outcome variable for political participation is a standardised scale used across all Global Grant governance projects which averages the following items: [36]

1. Contacted a national or local official
2. Took part in an organised effort to solve a problem
3. Attended a local council meeting
4. Contacted a local chief or traditional leader

The political participation scale has been divided into categories: the lowest category is "never participated", followed by two even categories representing occasional and frequent participation. The thresholds for the banding of the knowledge variable were based on the average tertile distribution of these items for all eight countries with baseline governance surveys.

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[36] Factor analysis helped define this standardised scale for political participation. The items included in the scale were informed by research by Finkel and Horowittz (2009).

In the multinomial knowledge model, the reference category is a low level of knowledge across all issues. For the multinomial political participation model, the reference category is "has never participated".

1.1.2) Exposure variable

There are two levels to our exposure variable:

1.   Regularly[37] exposed to *Sema Kenya*
2.   Not exposed to *Sema Kenya*

To ensure that we compared people who were as similar as possible we removed those who were media dark from the analysis as testing showed that on a number of the outcomes we were interested in and on socio-demographic characteristics, they were significantly different from people who had access to media.

Those who had watched/listened to *Sema Kenya* in the last 12 months but were not regular listeners were also removed from the analysis to ensure the clear distinction of exposed and unexposed categories.

Regular viewers/listeners are those who watch/listen to at least every other episode of *Sema Kenya* (watch/listen fortnightly).

The reference category for exposure was those who did not listen to or watch *Sema Kenya.*

1.1.3) Confounders

The confounders were selected a priori on the basis of what previous studies show as having a relationship to exposure and/or knowledge and participation. The "standard" confounders are what we as an organisation believe are likely to be related to both exposure and these outcomes regardless of country, whereas the "country specific" confounders were those chosen by the team in Sierra Leone and Kenya as potentially being relevant in that context to both exposure and knowledge and participation.

Table 1: Confounders

	Standard or country specific	Significantly related to exposure
Sex	Standard	Yes
Age	Standard	No
Education	Standard	Yes
Income	Standard	Yes
Religion	N/A	N/A[38]
Ethnicity	N/A	N/A
Location	Standard	No
Group membership	Standard	Yes

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[37] Regularly is defined as listened to or watched at least every other episode.
[38] Following discussion with the country team in Kenya, religion and ethnicity were not considered to be suited to the context as confounders. Education levels and income were considered more relevant standard variables.

Perception of freedom	Standard	No
Media consumption (TV)	Standard	Yes
Media consumption (radio)	Standard	Yes
Media consumption (internet)	Standard	Yes
Media consumption (mobile phones)	Standard	No
Media consumption (newspapers)	Standard	Yes
Political interest	Country specific	Yes

1.1.4) Testing for multicollinearity

Multicollinearity testing was conducted and all variables were acceptable, with a tolerance statistic below 0.2 in all models.

1.2) Models developed

1.2.1) Introduction

Logistic regression was used initially to test between two levels of the outcomes. This meant that there were several models, shown below. Multinomial regression was then used in the final models.

Table 2: Knowledge models

Model	Dependent variable	Reference category	Model sample size
Model 1.1	Substantial levels of knowledge across all issues	Low levels of knowledge	999
Model 1.2	Medium levels of knowledge across all issues	Low levels of knowledge across all issues	1,491
Model 1.3	Substantial levels of knowledge across all issues	Moderate levels of knowledge across all issues	1,748
Multinomial model:			
Model 3.1	Knowledge of governance issues (medium and Substantial)	Low levels of knowledge	2,245

*All models were run on a weighted dataset. Nested weights were applied for age and sex and province.

Table 3: Political participation models

Model	Dependent variable	Reference category	Model sample size
Model 2.1	Frequent levels of political participation	No participation	1,127
Model 2.2	Occasional levels of political participation	No participation	1,768
Model 2.3	Frequent levels of	Occasional levels of	1,699

	political participation	political participation	
Multinomial model:			
Model 3.2	Political participation (occasional and frequent)	No participation	2,476

*All models were run on a weighted dataset. Nested weights were applied for age and sex and urban/rural location.

The logit link function was selected for two key reasons:

1. The ease of interpretation as the betas are transformed into odds ratios that reflect the probability of success, versus a probit link function in which the coefficients are less intuitively interpretable.

2. As the outcomes of political participation and knowledge are categorical dependent variables, rather than a normally distributed variable, theoretically the probability of achieving the outcomes is directly linked to the independent variable. As the categorical variables were not created by applying thresholds to an underlying continuous and normally distributed variable, the logit rather than probit link function was the most appropriate here.

Missing data was handled using listwise deletion, whereby cases with any missing data were excluded from the analysis.

1.2.2) Logistic regression:

The logistic regression models tested the differences between each level of the.

Different confounders were associated with the different models under knowledge and political participation. Table 4 details the confounders associated at a 95% confidence level with the different models.

Table 4: Knowledge

Confounder	Regression 1.1 substantial versus low levels of knowledge	Regression 1.2 Medium versus low levels of knowledge	Regression 1.3 Substantial versus medium levels of knowledge
Sex	Yes	Yes	Yes
Education	Yes	No	No
Income	Yes	No	No
Group membership	Yes	Yes	Yes
Media consumption (TV)	No	No	No
Media consumption (Radio)	No	No	No
Media consumption (Internet)	Yes	Yes	Yes
Media consumption (Newspapers)	No	No	No
Interest in politics	Yes	Yes	Yes

Table 5: Political participation

Confounder	Regression 2.1 Frequent level versus no participation	Regression 2.2 Occasional versus low levels of participation	Regression 2.3 Frequent versus occasional levels participation
Sex	Yes	Yes	Yes
Education	Yes	Yes	No
Income	No	No	No
Group membership	Yes	Yes	Yes
Media consumption (TV)	Yes	No	No
Media consumption (Radio)	Yes	Yes	No
Media consumption (Internet)	Yes	No	Yes
Media consumption (Newspapers)	Yes	No	Yes
Interest in politics	Yes	Yes	Yes

Section 2: Logistic regression reporting

Please note, for all logistic regression models reported the odds ratios are taken from the models run on the weighted dataset. The standard error and significance levels are taken from the bootstrapped models. Unless otherwise stated there was no change in the significance status for variables between the original and bootstrapped models.

Significance testing was conducted using the likelihood ratio test and an examination of the Wald statistic in the parameter estimate tables. Bootstrapping was used to derive robust standard errors and significance levels. Where a variable significantly improved the model according to the Likelihood Ratio test but was not significant at any level using the Wald statistic we have kept it in the model and footnoted it in the relevant table.

Table 6: Kenya political knowledge and political participation logistic regression models

		Political knowledge						Political Participation					
		1.1 Moderate vs low knowledge		1.2 Substantial vs low knowledge		1.3 Substantial vs moderate knowledge		2.1 Occasional vs no participation		2.2 Frequent vs no participation		2.3 Frequent vs occasional participation	
Variables		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Exposure to programme	Unexposed	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
	Regularly exposed to *Sema Kenya*	2.009 (1.112, 3.629)	0.030	4.532 (2.294, 8.955)	0.001	1.529 (1.143, 2.045)	0.009	1.261 (0.876, 1.816)	0.232	1.607 (1.011, 2.552)	0.031	1.146 (0.832, 1.578)	0.318
Education	None			Ref.	-			Ref.	-	Ref.	-		
	Some primary			1.879 (0.726, 4.865)	0.087			0.845 (0.512, 1.394)	0.493	0.673 (0.305, 1.483)	0.291		
	Completed primary			2.61 (1.108, 6.15)	0.013			0.997 (0.632, 1.575)	0.872	0.75 (0.368, 1.532)	0.828		
	Completed secondary			3.309 (1.402, 7.808)	0.004			0.824 (0.523, 1.297)	0.720	0.599 (0.286, 1.254)	0.393		
	College/university			7.103 (2.535, 19.899)	0.001			1.519 (0.897, 2.573)	0.057	1.23 (0.529, 2.858)	0.294		
Gender	Female	0.62 (0.475, 0.809)	0.001	0.366 (0.258, 0.52)	0.001	0.609 (0.492, 0.752)	0.001	0.67 (0.544, 0.826)	0.001	0.346 (0.258, 0.464)	0.001	0.499 (0.395, 0.631)	0.001
	Male	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
Finances	Don't have enough money even for food			Ref.	-								
	Have enough money for food, but buying clothes is a serious problem			2.36 (1.086, 5.129)	0.004								
	Have enough money for food and clothes but buying durables is difficult			3.334 (1.624, 6.847)	0.001								
	Can afford main household appliances but purchasing a car is beyond means			3.745 (1.679, 8.354)	0.001								
	Earnings sufficient to buy anything except expensive purchases			3.967 (1.194, 13.179)	0.010								
	Don't face financial problems			1.714 (0.066, 44.667)	0.200								
Religious/ community group	Official Leader	1.683 (1.081, 2.622)	.024	7.868 (3.752, 16.499)	0.001	2.2 (1.409, 3.436)	0.272	2.999 (1.866, 4.821)	0.001	7.594 (4.071, 14.165)	0.001	2.994 (1.89, 4.742)	0.001
	Active member	2.791 (1.958, 3.979)	.000	3.435 (2.017, 5.85)	0.001	1.575 (1.08, 2.295)	0.027	1.548 (1.151, 2.082)	0.008	2.361 (1.492, 3.736)	0.001	1.624 (1.092, 2.415)	0.004
	Inactive member	4.308 (2.432, 7.632)	.000	1.365 (0.71, 2.622)	0.424	1.364 (0.863, 2.156)	0.002	0.953 (0.663, 1.37)	0.867	0.833 (0.469, 1.479)	0.870	1.049 (0.63, 1.747)	0.644
	Non-member	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
Internet	No Internet access	Ref.	-	Ref.	-	Ref.	-			Ref.	-	Ref.	-
	Accessed Internet yesterday or today	2.528 (1.527, 4.185)	0.001	3.463 (1.745, 6.87)	0.001	1.843 (1.398, 2.428)	0.001			0.456 (0.278, 0.747)	0.009	0.494 (0.348, 0.702)	0.003
	Accessed Internet within the last week	1.186 (0.759, 1.853)	0.558	1.034 (0.569, 1.879)	0.932	1.346 (0.954, 1.901)	0.050			0.502 (0.295, 0.853)	0.006	0.581 (0.388, 0.871)	0.032
	Accessed Internet within the last month	5.409 (2.004, 14.596)	0.006	6.421 (2.231, 18.477)	0.004	1.793 (1.172, 2.744)	0.013			0.619 (0.314, 1.22)	0.057	0.59 (0.351, 0.99)	0.065
	Accessed Internet within the last year	2.459 (1.055, 5.73)	0.025	3.627 (1.313, 10.019)	0.021	1.696 (1.038, 2.769)	0.053			0.565 (0.277, 1.152)	0.111	0.826 (0.451, 1.514)	0.691
	Accessed Internet over a year ago	1.815 (0.635, 5.192)	0.309	2.463 (0.714, 8.503)	0.250	1.461 (0.749, 2.849)	0.288			0.49 (0.166, 1.448)	0.137	0.433 (0.184, 1.017)	0.049

Table 6: Kenya political knowledge and political participation logistic regression models (continued)

Variables		Political knowledge						Political Participation					
		1.1 Moderate vs low knowledge		**1.2 Substantial vs low knowledge**		**1.3 Substantial vs moderate knowledge**		**2.1 Occasional vs no participation**		**2.2 Frequent vs no participation**		**2.3 Frequent vs occasional participation**	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
TV	No TV access									Ref.	-		
	Accessed TV yesterday or today									2.348 (1.378, 3.999)	0.015		
	Accessed TV within the last week									2.68 (1.568, 4.579)	0.002		
	Accessed TV within the last month									1.309 (0.678, 2.527)	0.604		
	Accessed TV within the last year									2.634 (1.29, 5.379)	0.031		
	Accessed TV over a year ago									2.449 (1.136, 5.278)	0.179		
Radio	No radio access							Ref.	-	Ref.	-		
	Accessed Radio yesterday or today							1.322 (0.687, 2.545)	0.153	0.758 (0.278, 2.066)	0.846		
	Accessed Radio within the last week							0.927 (0.465, 1.849)	0.781	0.397 (0.134, 1.18)	0.201		
	Accessed Radio within the last month							1.159 (0.452, 2.971)	0.631	0.792 (0.175, 3.571)	0.925		
	Accessed Radio within the last year							0.776 (0.291, 2.075)	0.998	0.174 (0.025, 1.213)	0.028		
	Accessed Radio over a year ago							0.26 (0.059, 1.141)	0.090	0.123 (0.007, 2.153)	0.111		
Newspapers	No newspaper access									Ref.	-	Ref.	-
	Accessed Newspapers yesterday or today									1.985 (1.124, 3.504)	0.059	2.668 (1.797, 3.96)	0.001
	Accessed Newspapers within the last week									1.279 (0.824, 1.983)	0.205	1.405 (1.031, 1.914)	0.049
	Accessed Newspapers within the last month									0.971 (0.591, 1.594)	0.760	1.035 (0.718, 1.493)	0.757
	Accessed Newspapers within the last year									0.547 (0.288, 1.04)	0.054	0.503 (0.307, 0.825)	0.002
	Accessed Newspapers over a year ago									0.98 (0.488, 1.969)	0.851	0.64 (0.37, 1.107)	0.318
Interest in politics	Not at all interested	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
	Not very interested	2.655 (1.851, 3.807)	0.001	3.572 (1.817, 7.021)	0.002	1.108 (0.628, 1.954)	0.857	1.276 (0.93, 1.75)	0.049	3.611 (1.914, 6.816)	0.001	2.254 (1.283, 3.959)	0.006
	Somewhat interested	5.316 (3.646, 7.751)	0.001	13.044 (6.741, 25.242)	0.001	2.076 (1.213, 3.553)	0.007	1.605 (1.177, 2.189)	0.004	4.418 (2.383, 8.19)	0.001	2.636 (1.525, 4.558)	0.002
	Very interested	4.75 (3.134, 7.199)	0.001	21.521 (10.956, 42.272)	0.001	4.204 (2.453, 7.205)	0.001	1.642 (1.178, 2.29)	0.001	7.562 (4.058, 14.092)	0.001	3.968 (2.295, 6.86)	0.001
		N = 999; Nagelkerke R = 0.196		N = 1491; Nagelkerke R = 0.537		N = 1748; Nagelkerke R =0.161		N = 1127; Nagelkerke R =0.076		N = 1768; Nagelkerke R = 0.363		N = 1699; Nagelkerke R =0.160	
		The H&L statistic: chi-square = 10.321;p value = .243		The H&L statistic: chi-square = 8.685 ;p value = .370		The H&L statistic: chi-square = 5.176 ;p value = .739		The H&L statistic: chi-square = 5.682 ;p value = .683		The H&L statistic: chi-square = 12.928 ;p value = .114		The H&L statistic: chi-square = 9.134 ;p value = .331	

Notes:

*In this model, province and media consumption were not significant at any level using the Wald statistic but were significant according to the Likelihood Ratio. As these were considered important confounders we have kept them in the model.

Section 3: Multinomial regression reporting

3.1) Knowledge: multinomial model

In the multinomial models for knowledge, regular exposure to *Sema Kenya* was significantly associated with all levels of knowledge.

Table 7: Knowledge multinomial model

Variables	Likelihood ratio tests
Exposure to *Sema Kenya*	0.000
Education	0.000
Gender	0.000
Radio consumption	0.000
Group membership	0.000
Interest in politics	0.000

For knowledge there were no differences in significance between the unweighted bootstrapped and the weighted not bootstrapped models. Internet consumption was not significant at any of the variables' ordinal levels in the bootstrapped model but was significant according to the likelihood ratio. As this was considered to be an important confounder we have kept it in the model.

3.2) Political participation: multinomial model

In the multinomial models for political participation, regular exposure to *Sema Kenya* did not have a statistically significant impact on political participation overall, according to the likelihood ratio tests. However, it continued to be significant at one level (frequent participation versus low participation) but not at the other level. These significance levels were the same in both the weighted multinomial model or the unweighted bootstrapped model.

Table 8: Political participation multinomial model

Variables	Likelihood ratio tests
Exposure to *Sema Kenya*	0.062
Education	0.021
Gender	0.000
Radio consumption	0.010
Group membership	0.000
Interest in politics	0.000

On political participation, consumption of radio was not significant at any of the variables' ordinal levels in the bootstrapped model but was significant according to the likelihood ratio. As this was considered an important confounder we have kept it in the model.

Table 9: Kenya political knowledge and political participation multinomial models

Variables		3.1 Political knowledge ("low knowledge" = reference category)				3.2 Political participation ("low participation" = reference category)			
		Moderate knowledge		Substantial knowledge		Occasional participation		Frequent participation	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Exposure to programme	Unexposed	Ref.	-	-	-	Ref.	-	-	-
	Regularly exposed to *Sema Kenya*	2.101 (1.172, 3.768)	0.017	3.295 (1.799, 6.034)	0.001	1.238 (1.78, 0.861)	.308	1.601 (2.398, 1.069)	.023
Education	None	0.317 (0.156, 0.642)	0.001	0.112 (0.044, 0.284)	0.001	0.669 (0.396, 1.13)	.067	0.752 (0.39, 1.45)	.245
	Some primary	0.34 (0.18, 0.641)	0.003	0.219 (0.108, 0.447)	0.001	0.568 (0.373, 0.863)	.001	0.496 (0.295, 0.833)	.004
	Completed primary	0.459 (0.259, 0.814)	0.006	0.337 (0.183, 0.622)	0.001	0.656 (0.459, 0.937)	.005	0.625 (0.413, 0.947)	.021
	Completed secondary	0.581 (0.337, 1.001)	0.043	0.419 (0.237, 0.742)	0.004	0.539 (0.382, 0.758)	.001	0.494 (0.333, 0.731)	.001
	College/university	Ref.	-	-	-	Ref.		-	
Gender	Female	Ref.	-	-	-	Ref.		-	
	Male	1.582 (1.214, 2.061)	0.001	2.583 (1.906, 3.501)	0.001	1.487 (1.208, 1.83)	.001	3.056 (2.357, 3.961)	.001
Religious/community group	Official leader	Ref.	-	-	-	Ref.		-	
	Active member	0.613 (0.371, 1.013)	0.112	0.454 (0.265, 0.775)	0.012	0.526 (0.349, 0.792)	.001	0.281 (0.182, 0.435)	.001
	Inactive member	0.368 (0.207, 0.652)	0.001	0.233 (0.124, 0.438)	0.001	0.327 (0.206, 0.519)	.001	0.105 (0.061, 0.181)	.001
	Non-member	0.234 (0.132, 0.415)	0.001	0.115 (0.06, 0.22)	0.001	0.334 (0.208, 0.537)	.003	0.112 (0.064, 0.197)	.001
Internet	No Internet access	0.613 (0.212, 1.767)	0.464	0.421 (0.136, 1.302)	0.185				
	Accessed internet yesterday or today	1.116 (0.35, 3.563)	0.782	1.194 (0.349, 4.086)	0.669				
	Accessed internet within the last week	0.557 (0.18, 1.723)	0.355	0.453 (0.135, 1.516)	0.272				
	Accessed internet within the last month	2.609 (0.624, 10.911)	0.170	3.049 (0.682, 13.633)	0.126				
	Accessed internet within the last year	1.249 (0.328, 4.751)	0.665	1.346 (0.327, 5.542)	0.630				
	Accessed internet over a year ago	Ref.	-	-	-				
Radio	No radio access					3.832 (0.874, 16.801)	.144	6.421 (0.385, 107.148)	0.517
	Accessed radio yesterday or today					5.05 (1.324, 19.257)	.056	6.241 (0.424, 91.888)	0.506
	Accessed radio within the last week					3.539 (0.908, 13.799)	.090	2.885 (0.19, 43.703)	0.679
	Accessed radio within the last month					4.297 (0.957, 19.307)	.099	5.421 (0.315, 93.188)	0.522
	Accessed radio within the last year					2.844 (0.615, 13.152)	.115	2.582 (0.136, 48.87)	0.815
	Accessed radio over a year ago					Ref.		-	
Interest in politics	Not at all interested	0.219 (0.145, 0.333)	0.001	0.052 (0.029, 0.095)	0.001	0.606 (0.435, 0.843)	.002	0.144 (0.081, 0.253)	.001
	Not very interested	0.591 (0.413, 0.845)	0.001	0.156 (0.103, 0.236)	0.001	0.787 (0.597, 1.038)	.072	0.442 (0.315, 0.62)	.001
	Somewhat interested	1.139 (0.788, 1.647)	0.401	0.563 (0.381, 0.831)	0.015	0.968 (0.745, 1.257)	.475	0.631 (0.466, 0.853)	.002
	Very interested	Ref.	-	-	-	Ref.	-	-	-
		N = 2245; Nagelkerke R = 0.279				N = 2476; Nagelkerke R = 0.162			
		Pearson: chi-square = 1602.884; p value = .000				Pearson: chi-square = 1542.355; p value = .000			

Section 4: Diagnostics

Model 1.1: Substantial knowledge compared with low knowledge model

ZResid score	Number of cases	Cooks value	Leverage values
Above 3.29	2	Cooks under 1	Leverage under 1
Above 2.5	8	Cooks under 1	Leverage under 1
Above 1.96	28	Cooks under 1	Leverage under 1

Model 1.2: Moderate knowledge compared with low knowledge model

ZResid score	Number of Cases	Cooks value	Leverage values
Above 3.29	1	Cooks under 1	Leverage under 1
Above 2.5	10	Cooks under 1	Leverage under 1
Above 1.96	13	Cooks under 1	Leverage under 1

Model 1.3: Substantial knowledge compared with moderate knowledge model

ZResid score	Number of cases	Cooks value	Leverage value
Above 3.29	14	Cooks under 1	Leverage under 1
Above 2.5	24	Cooks under 1	Leverage under 1
Above 1.96	28	Cooks under	Leverage under 1

Model 2.1: Frequent political participation compared with none

ZResid score	Number of cases	Cooks value	Leverage value
Above 3.29	6	Cooks under 1	Leverage under 1
Above 2.5	16	Cooks under 1	Leverage under 1
Above1.96	50	Cooks under 1	Leverage under 1

Model 2.2: Occasional political participation compared with no participation

ZResid score	Number of cases	Cooks value	Leverage value
Above 3.29	0	Cooks under 1	Leverage under 1
Above 2.5	3	Cooks under 1	Leverage under 1
Above 1.96	34	Only one case above 1	Leverage under 1

Model 2.3: Frequent political participation compared with occasional participation

ZResid score	Number of cases	Cooks value	Leverage value
Above 3.29	6	Cooks under 1	Leverage under 1
Above 2.5	24	Cooks under 1	Leverage under 1
Above 1.96	87	Cooks under 1	Leverage under 1

B.   Sierra Leone regression

Section 1 (set-up):

1.1) Variables included

       1.1.1) Outcome variables

The outcome variable for knowledge was an average score across eight items which asked respondents what they knew about the current situation/status of topics covered by BBC Media Action programmes and what they knew about the background/causes of these topics.

The topics asked about were:

1.   Political party agendas
2.   Women rights
3.   Electricity and water service delivery
4.   Corruption

The outcome variable for political participation is a standardised scale used across all Global Grant governance projects which averages the following items: [39]

1.   Contacted a national or local official
2.   Took part in an organised effort to solve a problem
3.   Attended a local council meeting
4.   Contacted a local chief or traditional leader

The political participation scale has been divided into categories: the lowest category is "never participated", followed by two even categories representing occasional and frequent participation. The thresholds for the banding of the knowledge variable were based on the average tertile distribution of these items for all eight countries with baseline governance surveys.[40]

In the multinomial knowledge model, the reference category is low level of knowledge across all issues. For the multinomial political participation model, the reference category is "has never participated".

       1.1.2) Exposure variable

There are three levels to our exposure variable:

1.   Did not listen to either programme
2.   Regularly[41] listened to *Tok Bot Salone*
3.   Regularly listened to *Tok Bot Salone* and had listened to F*o Rod*

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[39] Factor analysis helped define this standardised scale for political participation. The items included in the scale were informed by research by Finkel and Horowittz (2009).

[40] These countries include: Bangladesh, Burma, Sierra Leone, Tanzania, Nepal, Nigeria, Palestinian Territories and Kenya.

[41] Regularly is defined as listened to at least every other episode.

To ensure that we compared people who were as similar as possible we removed those who were media dark (without access to TV, radio or Internet) from the analysis as testing showed that on a number of the outcomes we were interested in and on socio-demographic characteristics, they were significantly different from people who had access to media.

Those who had listened to *Tok Bot Salone* in the last 12 months but were not regular listeners were also removed from the analysis to ensure the clear distinction of exposed and unexposed categories.

Our primary programme of interest in this analysis was *Tok Bot Salone*. The programme's larger reach enabled us to have the requisite sample size to run this regression analysis. Regular listeners are those who listen to at least every other episode of *Tok Bot Salone* (listening fortnightly).

The reference category for exposure was those who did not listen to *Tok Bot Salone* or *Fo Rod*.

1.1.3) Confounders

The confounders were selected a priori on the basis of what previous studies show as having a relationship to exposure and/or knowledge and participation. The "standard" confounders are what we as an organisation believe are likely to be related to both exposure and these outcomes regardless of country, whereas the "country specific" confounders were those chosen by the team in Sierra Leone as potentially being relevant in that context to both exposure and knowledge and participation.

Table 1: Confounders

	Standard or country specific	Significantly related to exposure at a 95% confidence level
Sex	Standard	Yes
Age	Standard	No
Education	Standard	Yes
Income	Standard	Yes
Religion	Standard	Yes
Ethnicity	Standard	Yes
Location	Standard	Yes
Group membership[42]	Standard	Yes
Perception of freedom	Standard	Yes
Media consumption	Standard	Yes
Media consumption	Standard	Yes
Literacy	Standard	Yes
Political interest	N/A	N/A[43]
Province	Country specific	Yes

1.1.4) Testing for multicollinearity

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[42] Member of religious, community or voluntary group.
[43] Following discussion with the country team in Sierra Leone, political interest was considered to be an outcome the programmes in Sierra Leone are trying to shift. As such, it becomes a moderator and something that we do not control for as with the other confounders listed.

Multicollinearity testing was conducted and all variables were acceptable, with a tolerance statistic below 0.2 in all models.

1.2) Models developed

      1.2.1) Intro

Logistic regression was used initially to test between two levels of the outcomes. This meant that there were several models, shown below. Multinomial regression was then used in the final models.

Table 2: Knowledge Models

Model	Dependent variable	Reference category	Model sample size
Model 1.1	Substantial levels of knowledge across all issues	Low levels of knowledge	542
Model 1.2	Medium levels of knowledge across all issues	Low levels of knowledge across all issues	1,733
Model 1.3	Substantial levels of knowledge across all issues	Moderate levels of knowledge across all issues	582
Multinomial model:			
Model 3.1	Knowledge of governance issues (medium and substantial)	Low levels of knowledge	989

*All models were run on a weighted dataset. Nested weights were applied for age and sex and urban/rural location.

Table 3: Political participation models

Model	Dependent variable	Reference category	Model sample size
Model 2.1	Frequent levels of political participation	No participation	1,402
Model 2.2	Occasional levels of political participation	No participation	1,799
Model 2.3	Frequent levels of political participation	Occasional levels of political participation	716
Multinomial model:			
Model 3.2	Political participation (occasional and frequent)	No participation	2,439

*All models were run on a weighted dataset. Nested weights were applied for age and sex and urban/rural location.

The logit link function was selected for two key reasons:

1.   The ease of interpretation as the betas are transformed into odds ratios that reflect the probability of success, versus a probit link function in which the coefficients are less intuitively interpretable.

2.   As the outcomes of political participation and knowledge are categorical dependent variables, rather than a normally distributed variable, theoretically the probability of achieving the outcomes is directly linked to the independent variable. As the categorical variables were not created by applying thresholds to an underlying continuous and normally distributed variable, the logit rather than probit link function was the most appropriate here.

Missing data was handled using listwise deletion, whereby cases with any missing data were excluded from the analysis.

1.2.2) Logistic regression:

The logistic regression models tested the differences between each level of the outcome (for the exact models please see Tables 1 and 2 above).

Different confounders were associated with the different models under knowledge and political participation. Table 4 details the confounders significantly associated at a 95% confidence level with the different models.

Table 4: Knowledge

Confounder	Regression 1.1 substantial versus low levels of knowledge	Regression 1.2 Medium versus low levels of knowledge	Regression 1.3 Substantial versus medium levels of knowledge
Sex	No	No	No
Education	Yes	Yes	Yes
Income	No	Yes	Yes
Religion	No	No	No
Ethnicity	Yes	Yes	Yes
Location	No	No	No
Group membership	Yes	Yes	No
Perception of freedom	Yes	Yes	No
Media consumption (radio and mobile)	No	No	No[44]
Media consumption (TV, internet and newspapers)	No	No	Yes
Literacy	No	No	No
Province	Yes	Yes	No

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[44] Removed due to quasi-separation (causing small cell counts for parameters to be estimated). All other removals were because the variable was not significant when entered in at the block level.

Table 5: Political participation

Confounder	Regression 2.1 Frequent level of versus no participation	Regression 2.2 Occasional versus low levels of participation	Regression 2.3 Frequent versus occasional levels of participation
Sex	Yes	Yes	No
Education	Yes	No	No
Income	Yes	Yes	Yes
Religion	No	No	No
Ethnicity	Yes	Yes	Yes
Location	Yes	Yes	No
Group membership	Yes	Yes	Yes
Perception of freedom	Yes	No	No
Media consumption (radio and mobile)	No	No	No [45]
Media consumption (TV, internet and newspapers)	No	No	No
Literacy	No	No	Yes
Province	Yes	Yes	Yes

Section 2: Logistic regression reporting

Please note that for all logistic regression models reported, the odds ratios are taken from the models run on the weighted dataset. The standard error and significance levels are taken from the bootstrapped models. Unless otherwise stated there was no change in the significance status for variables between the original and bootstrapped models.

Significance testing was conducted using the likelihood ratio test and an examination of the Wald statistic in the parameter estimate tables. Bootstrapping was used to derive robust standard errors and significance levels. Where a variable significantly improved the model according to the Likelihood Ratio test but was not significant at any of its ordinal levels using the Wald statistic we have kept it in the model and footnoted it in the relevant table.

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[45] Removed due to quasi-separation (causing small cell counts for parameters to be estimated). All other removals were because the variable was not significant when entered in at the block level.

Table 6: Sierra Leone political knowledge and political participation logistic regression models

	Variables	Political knowledge						Political Participation					
		1.1 Low vs moderate knowledge*		1.2 Low vs substantial knowledge		1.3 Moderate vs substantial knowledge		2.1 No vs occasional participation		2.2 No vs frequent participation		2.3 Occasional vs frequent participation	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Exposure to programme	Unexposed	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
	Regularly listens to *Tok Bot Salone*	1.671 (1.209, 2.309)	0.002	2.784 (1.517, 5.111)	0.003	1.134 (0.691, 1.862)	0.633	1.377 (0.986,1.921)	0.102	1.6 (1.099, 2.33)	0.036	1.242 (0.963, 1.600)	0.150
	Regularly listens to *Tok Bot Salone* and *Fo Rod*	1.844 (0.993, 3.424)	0.065	5.045 (1.860, 13.684)	0.010	2.397 (1.104, 5.201)	0.044	1.151 (0.649,2.042)	0.496	2.86 (1.563, 5.233)	0.001	3.049 (2.019, 4.606)	0.001
Education	None	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-		
	Some primary	1.291 (0.844, 1.975)	0.308	2.357 (0.978, 5.677)	0.035	0.965 (0.337, 2.762)	0.731	0.814 (0.51,1.296)	0.494	1.19 (0.691, 2.049)	0.380		
	Completed primary	0.82 (0.579, 1.161)	0.151	0.937 (0.439, 1.999)	0.860	0.281 (0.094, 0.835)	0.109	0.673 (0.471,0.959)	0.027	0.58 (0.374, 0.9)	0.024		
	Completed secondary	1.868 (1.415, 2.465)	0.001	1.939 (1.037, 3.627)	0.013	0.435 (0.181, 1.047)	0.236	0.618 (0.461,0.827)	0.005	0.744 (0.527, 1.05)	0.198		
	College/ University	5.031 (3.296, 7.678)	0.001	10.145 (4.621, 22.272)	0.001	0.981 (0.388, 2.482)	0.668	0.86 (0.562,1.314)	0.308	1.429 (0.895, 2.281)	0.089		
Gender	Female							Ref.	-	Ref.	-		
	Male							1.291 (1.037,1.607)	0.021	1.303 (1.005, 1.689)	0.035		
Income	Don't have enough money even for food	Ref.	-			Ref.	-	Ref.	-	Ref.	-	Ref.	-
	Have enough money for food, but buying clothes is a serious problem	1.663 (1.187, 2.331)	0.015			0.79 (0.397, 1.572)	0.827	0.884 (0.627,1.246)	0.305	0.571 (0.381, 0.856)	0.018	0.645 (0.500, 0.833)	0.012
	Have enough money for food and clothes but buying durables is difficult	2.195 (1.606, 2.999)	0.001			0.418 (0.231, 0.756)	0.035	0.767 (0.546,1.075)	0.154	0.855 (0.584, 1.252)	0.559	1.044 (0.824, 1.323)	0.507
	Can afford main household appliances but purchasing a car is beyond means	1.676 (1.083, 2.592)	0.051			0.806 (0.381, 1.704)	0.646	0.459 (0.293,0.717)	0.010	0.386 (0.228, 0.654)	0.002	0.855 (0.569, 1.285)	0.354
	Earnings sufficient to buy anything except expensive purchases	2.793 (1.029, 7.583)	0.096			1.811 (0.639, 5.132)	0.263	0.603 (0.256,1.42)	0.423	0.461 (0.175, 1.218)	0.215	1.082 (0.497, 2.357)	0.692
	Don't face financial problems	2.092 (0.223, 19.615)	0.284			1.987 (0.165, 23.938)	0.472	0.886 (0.167,4.686)	0.931	0.887 (0.132, 5.959)	0.808	1.329 (0.261, 6.777)	0.866
Literacy	Literate					4.914 (1.866, 12.945)	0.007						
	Illiterate					Ref.	-						
Urban/ Rural	Urban							0.51 (0.385,0.676)	0.001	0.644 (0.459, 0.902)	0.003		
	Rural							Ref.	-	Ref.	-		
Province	Eastern	1.491 (1.005, 2.211)	0.031	0.641 (0.276, 1.488)	0.612			1.547 (0.998,2.399)	0.034	5.901 (3.472, 10.029)	0.001	2.253 (1.537, 3.302)	0.001
	Northern	1.244 (0.895, 1.730)	0.161	1.504 (0.675, 3.348)	0.232			0.811 (0.551,1.193)	0.222	2.238 (1.407, 3.561)	0.001	1.955 (1.404, 2.722)	0.001
	Southern	1.724 (1.144, 2.596)	0.003	1.732 (0.700, 4.285)	0.085			0.615 (0.404,0.936)	0.035	0.988 (0.592, 1.648)	0.976	1.374 (0.922, 2.046)	0.190
	Western	Ref.	-	Ref.	-			Ref.	-	Ref.	-	Ref.	-
Freedom	Limited	Ref.	-	Ref.	-			Ref.	-	Ref.	-		
	Some	0.953 (0.734, 1.238)	0.717	1.152 (0.648, 2.048)	0.835			1.632 (1.251,2.128)	0.001	1.805 (1.305, 2.497)	0.001		
	Substantial	1.713 (1.305, 2.249)	0.001	2.459 (1.385, 4.365)	0.006			1.644 (1.247,2.166)	0.002	3.438 (2.451, 4.823)	0.001		

Table 6: Sierra Leone political knowledge and political participation logistic regression models (continued)

Variables		Political knowledge						Political Participation					
		1.1 Low vs moderate knowledge*		1.2 Low vs substantial knowledge		1.3 Moderate vs substantial knowledge		2.1 No vs occasional participation		2.2 No vs frequent participation		2.3 Occasional vs frequent participation	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Religious/ community group	Official Leader	3.514 (2.076, 5.949)	0.001	4.798 (1.607, 14.321)	0.003			3.236 (1.932,5.422)	0.001	14.988 (7.983, 28.178)	0.001	5.602 (3.349, 9.368)	0.001
	Active member	3.311 (2.198, 4.989)	0.001	2.516 (0.979, 6.464)	0.014			2.858 (2.038,4.006)	0.001	7.618 (4.603, 12.609)	0.001	3.244 (2.013, 5.163)	0.001
	Inactive member	1.316 (0.848, 2.041)	0.167	1.144 (0.414, 3.160)	0.659			2.835 (1.649,3.448)	0.002	2.938 (1.675, 5.155)	0.002	1.639 (0.982, 2.734)	0.070
	Non-member	Ref.	-	Ref.	-			Ref.	-	Ref.	-	Ref.	-
Media consumption (TV, internet and newspapers)	Unexposed			Ref.	-	Ref.	-						
	Low to medium			0.397 (0.160, 0.983)	0.067	0.272 (0.134, 0.552)	0.004						
	High			1.686 (0.802, 3.544)	0.118	0.609 (0.335, 1.107)	0.229						
Ethnicity	Temme	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-	Ref.	-
	Mende	0.423 (0.317, 0.564)	0.001	0.92 (0.502, 1.689)	0.757	2.254 (1.381, 3.677)	0.004	0.522 (0.388,0.702)	0.001	0.353 (0.244, 0.512)	0.001	0.697 (0.534, 0.910)	0.003
	Limba	0.62 (0.430, 0.896)	0.018	2.204 (1.027, 3.988)	0.106	2.563 (1.349, 4.869)	0.013	0.791 (0.545,1.145)	0.270	0.652 (0.417, 1.021)	0.039	0.897 (0.651, 1.236)	0.083
	Kono	1.697 (1.010, 2.852)	0.110	4.567 (1.715, 12.163)	0.005	3.502 (1.72, 7.129)	0.002	0.565 (0.334,0.957)	0.035	0.872 (0.492, 1.545)	0.412	1.371 (0.913, 2.058)	0.323
	Krio	0.453 (0.226, 0.906)	0.035	0.834 (0.246, 2.821)	0.892	0.773 (0.258, 2.321)	0.810	0.405 (0.218,0.749)	0.001	0.365 (0.156, 0.852)	0.026	0.792 (0.377, 1.662)	0.357
	Mandigo	1.437 (0.789, 2.617)	0.439	1.62 (0.406, 6.471)	0.412	0.861 (0.275, 2.691)	0.986	0.51 (0.288,0.9)	0.049	0.875 (0.462, 1.658)	0.653	1.86 (1.133, 3.054)	0.061
	Loko	0.665 (0.339, 1.304)	0.333	1.383 (0.477, 4.009)	0.479	3.499 (1.362, 8.992)	0.009	1.007 (0.472,2.145)	0.913	2.562 (1.154, 5.688)	0.025	2.415 (1.375, 4.239)	0.008
		N = 542;		N = 1733;		N = 582;		N = 1402;		N = 1799;		N = 716;	
		Nagelkerke R = 0.350		Nagelkerke R = 0.236		Nagelkerke R = 0.196		Nagelkerke R = 0.161		Nagelkerke R = 0.392		Nagelkerke R = 0.139	
		The H&L statistic: chi-square = 6.194; p value = .625		The H&L statistic: chi-square = 10.012; p value = .264		The H&L statistic: chi-square = 5.406; p value = .713		The H&L statistic: chi-square = 42.448; p value = .000		The H&L statistic: chi-square = 3.650; p value = .891		The H&L statistic: chi-square = 25.348; p value = .001	

Notes:

*In this model, province and media consumption were not significant at any level using the Wald statistic but were significant according to the Likelihood Ratio. As these were considered important confounders we have kept them in the model.

Section 3: Multinomial regression reporting

3.1) Knowledge: multinomial model

In the multinomial models, overall listening to *Tok Bot Salone* is significantly associated with knowledge, according to the likelihood ratio test.

In the final multinomial model, in which a range of socio-economic and other confounder variables are being controlled for, the exposure variable is highly significant according to the likelihood ratio test. This indicates that it has some impact on knowledge on key governance issues overall. The Wald statistic also shows a statistically significant positive relationship between exposure and knowledge at most levels (there is not a significant relationship between regularly listening to *Tok Bot Salone* and *Fo Rod* and "reports moderate knowledge").

Table 7: Knowledge multinomial model

Variables	Likelihood ratio tests
Exposure variable *(Tok Bot Salone* and Fo Rod)	0.000
Education	0.000
Perception of freedom	0.000
Media consumption (TV, Internet and newspaper)	0.000
Group membership	0.000
Ethnicity	0.000

3.2) Political participation: multinomial model

In the final multinomial model, in which the full range of socio-economic and other confounder variables are being controlled for, the exposure variable is highly significant according to the likelihood ratio test, indicating that it has some impact on political participation overall. The Wald statistic also shows a statistically significant positive relationship between exposure and participation at some levels (there is not a significant relationship between regularly listening to *Tok Bot Salone* or regularly listening to *Tok Bot Salone* and had listened to *Fo Rod* on reports of occasional political participation).

Table 8: Political participation multinomial model

Variables	Likelihood ratio tests
Exposure variable (*Talk Bot Salone* and *Fo Rod*)	.000
Education	.000
Gender	.015
Income	.009
Literacy	.000
Location	.000
Province	.000
Perception of freedom	.000
Group membership	.000
Ethnicity	.000

Table 9: Sierra Leone political knowledge and political participation multinomial regression models

Variables		Political knowledge ("Low Knowledge" = reference category)				Political Participation ("Low participation" = reference category)			
		Moderate Knowledge		Substantial Knowledge		Occasional Participation		Frequent Participation	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Exposure to programme	Unexposed	Ref.	-	-	-	Ref.	-	-	-
	Regularly listens to TBS	2.093 (1.314, 3.332)	0.003	3.043 (1.748, 5.299)	.001	1.275 (0.918, 1.772)	0.214	1.663 (1.168, 2.368)	.012
	Regularly listens to TBS and FR	1.933 (0.85, 4.397)	0.136	3.675 (1.454, 9.289)	.024	1.125 (0.638, 1.983)	0.530	2.708 (1.534, 4.778)	.003
Education	None	0.307 (0.169, 0.558)	0.001	0.086 (0.041, 0.18)	.001	1.113 (0.651, 1.902)	0.382	1.1 (0.622, 1.944)	.988
	Some primary	0.326 (0.15, 0.707)	0.004	0.208 (0.085, 0.514)	.001	0.966 (0.568, 1.641)	0.764	0.747 (0.418, 1.336)	.298
	Completed primary	0.201 (0.104, 0.387)	0.001	0.097 (0.044, 0.213)	.001	0.688 (0.448, 1.057)	0.184	0.367 (0.227, 0.592)	.001
	Completed secondary	0.479 (0.29, 0.789)	0.002	0.18 (0.1, 0.323)	.001	0.739 (0.515, 1.061)	0.263	0.465 (0.316, 0.685)	.003
	College/ University	Ref.	-	Ref.	-	Ref.	-	-	-
Gender	Female					Ref.	-	-	-
	Male					1.258 (1.015, 1.56)	.041	1.395 (1.096, 1.774)	.009
Finances	Don't have enough money even for food					1.154 (0.221, 6.013)	0.955	1.401 (0.218, 9.02)	.641
	Have enough money for food, but buying clothes is a serious problem					0.985 (0.191, 5.088)	0.857	0.849 (0.133, 5.418)	.984
	Have enough money for food and clothes but buying durables is difficult					0.852 (0.167, 4.34)	0.784	1.082 (0.172, 6.806)	.838
	Can afford main household appliances but purchasing a car is beyond means					0.54 (0.108, 2.707)	0.471	0.456 (0.073, 2.836)	.506
	Earnings sufficient to buy anything except expensive purchases					0.683 (0.123, 3.782)	0.681	0.597 (0.087, 4.116)	.736
	Don't face financial problems					Ref.	-	-	-
Literacy	Literate					0.945 (0.612, 1.461)	.857	2.203 (1.367, 3.548)	.005
	Illiterate					Ref.	-	-	-
Urban/ Rural	Urban					0.496 (0.374, 0.658)	.001	0.695 (0.509, 0.947)	.018
	Rural					Ref.	-	-	-
Province	Eastern	1.234 (0.706, 2.156)	0.345	0.689 (0.326, 1.459)	.396	1.539 (0.99, 2.392)	.037	5.244 (3.213, 8.558)	.001
	Northern	1.238 (0.759, 2.019)	0.327	1.433 (0.749, 2.74)	.207	0.753 (0.513, 1.104)	.098	2.103 (1.361, 3.25)	.001
	Southern	1.334 (0.73, 2.437)	0.082	1.771 (0.827, 3.793)	.054	0.602 (0.397, 0.912)	.019	1.061 (0.655, 1.718)	.772
	Western	Ref.	-	Ref.	-	Ref.	-	-	-
Freedom	Limited	0.491 (0.325, 0.741)	0.001	0.484 (0.284, 0.824)	.013	0.584 (0.444, 0.77)	0.002	0.354 (0.26, 0.481)	.001
	Some	0.458 (0.314, 0.668)	0.001	0.491 (0.306, 0.788)	.001	0.948 (0.722, 1.246)	0.731	0.659 (0.487, 0.893)	.018
	Substantial	Ref.	-	Ref.	-	Ref.	-	-	-
Religious/community group	Official Leader	11.083 (4.2, 29.245)	0.001	4.59 (1.582, 13.316)	.005	3.234 (1.952, 5.358)	.001	14.299 (7.755, 26.366)	.001
	Active member	7.988 (3.38, 18.878)	0.001	2.686 (1.063, 6.786)	.024	2.685 (1.922, 3.751)	.001	7.26 (4.441, 11.869)	.001
	Inactive member	3.768 (1.553, 9.146)	0.005	1.274 (0.475, 3.415)	.559	2.469 (1.713, 3.56)	.001	2.988 (1.736, 5.141)	.001
	Non-member	Ref.	-	Ref.	-	Ref.	-	-	-

Variables		Political knowledge ("Low Knowledge" = reference category)				Political Participation ("Low participation" = reference category)			
		Moderate Knowledge		Substantial Knowledge		Occasional Participation		Frequent Participation	
		OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Media consumption (TV, internet and newspapers)	Unexposed	0.573 (0.353, 0.931)	0.016	0.658 (0.349, 1.243)	.158				
	Low to medium	0.501 (0.303, 0.829)	0.003	0.217 (0.112, 0.417)	.001				
	High	Ref.	-	Ref.	-				
Ethnicity	Temme	3.024 (1.289, 7.095)	0.011	0.791 (0.3, 2.085)	.603	1.026 (0.49, 2.149)	.925	0.382 (0.182, 0.801)	.011
	Mende	1.022 (0.429, 2.435)	0.973	0.67 (0.255, 1.765)	.389	0.535 (0.254, 1.129)	.076	0.153 (0.072, 0.325)	.001
	Limba	1.768 (0.695, 4.496)	0.203	1.331 (0.472, 3.758)	.761	0.826 (0.378, 1.805)	.598	0.252 (0.114, 0.56)	.001
	Kono	3.226 (1.077, 9.66)	0.141	4.182 (1.239, 14.12)	.040	0.575 (0.243, 1.362)	.179	0.345 (0.145, 0.823)	.005
	Krio	1.497 (0.502, 4.466)	0.353	0.521 (0.137, 1.982)	.436	0.449 (0.183, 1.102)	.062	0.124 (0.045, 0.345)	.001
	Mandigo	4.232 (1.326, 13.502)	0.011	1.018 (0.222, 4.657)	.861	0.576 (0.236, 1.405)	.258	0.346 (0.14, 0.852)	.018
	Loko	Ref.	-	Ref.	-	Ref.	-	-	-
		N = 989; Nagelkerke R = 0.293				N = 2439; Nagelkerke R = 0.248			
		Pearson: chi-square = 1371.314; p value = .000				Pearson: chi-square = 3863.839 ; p value = .000			

Section 4: Diagnostics

Model 1.1: Substantial knowledge compared with low knowledge model

ZResid score	Number of cases	Cooks value	Leverage values
Above 3	5	Cooks under 1	Leverage under 1
Above 2.5	15	Cooks under 1	Leverage under 1
Above 1.96	25	Cooks under 1	Leverage under 1

Model 1.2: Moderate knowledge compared with low knowledge model

ZResid score	Number of cases	Cooks value	Leverage values
Above 3	5	Cooks under 1	Leverage under 1
Above 2.5	14	Cooks under 1	Leverage under 1
Above 1.96	50	Cooks under 1	Leverage under 1

Model 1.3: Substantial knowledge compared with moderate knowledge model

ZResid score	Number of cases	Cooks value	Leverage value
Above 3	12	Cooks under 1	Leverage under 1
Above 2.5	17	Cooks under 1	Leverage under 1
Above 1.96	30	Cooks under 1	Leverage under 1

Model 2.1: Frequent political participation compared with none

ZResid score	Number of cases	Cooks value	Leverage value
Above 3	22	Cooks under 1	Leverage under 1
Above 2.5	37	Cooks under 1	Leverage under 1
Above1.96	67	Cooks under 1	Leverage under 1

Model 2.2: Occasional political participation compared with no participation

ZResid score	Number of cases	Cooks value	Leverage value
Above 3	1	Cooks under 1	Leverage under 1
Above 2.5	8	Cooks under 1	Leverage under 1
Above 1.96	47	Cooks under 1	Leverage under 1

Model 2.3: Frequent political participation compared with occasional participation

ZResid score	Number of cases	Cooks value	Leverage value
Above 3	1	Cooks under 1	Leverage under 1
Above 2.5	3	Cooks under 1	Leverage under 1
Above 1.96	34	Cooks under 1	Leverage under 1

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