The Struggle for Livelihood: How Social and Cultural Factors Affect the Way South African Audiences Understand Climate Change

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Abstract

The way audiences form perceptions about climate change has become a widely studied topic. The fact the there is still a reluctance among people to believe and act on very concerning scientific projections about the effects of climate change has led to a surge in research about the reasons for this. While much work has been done in developed countries, little is known about how people in developing countries make sense of climate change. In South Africa, development issues such as poverty and health inevitably frame any discussion about climate change. This article looks critically at how cultural considerations and social factors influence the way people make sense of climate change. By making use of focus groups, the researcher looked at the ways typical vulnerable audiences negotiate the importance of climate change relative to other, more pressing issues. Its primary finding is that these audiences have a vague understanding of the science and its relevance to them, and that cultural and social priorities overshadow the way they view climate change.

Key words: *climate change, vulnerable audiences, cultural, social and ideological considerations*

I. Introduction

Since the issue of climate change appeared on the global agenda the communicating thereof has been a contentious issue. Even though the developing world will be hardest hit by the impacts of climate change, research indicates that in the Global South not only citizens, but decision makers as well lack insight into the problem and the 'environmental literacy' that aids public response and sustainable policy changes (Memon, 2008). A study done involving discussions with over 1 000 people and approximately 200 opinion leaders in Africa indicated that outside major urban centres Africans have a very limited understanding of anthropogenic climate change (BBC WST, 2010a). Part of the reason for this is that climate change scientists

communicating the facts through the mass media use a type of language that makes use of conservative estimates and terms of uncertainty. At the same time we know that audiences avoid messages that communicate uncertainty (Camerer and Weber, 1992) and ambiguous information and perceived uncertainty about the science have possibly counteracted responsible behaviour so far. The way audiences negotiate information about public issues is also influenced by a range of factors including the community's socio-economic priorities, cultural practices and ideological beliefs. Which begs the question, how do these factors influence the typical ways in which media consumers or audiences, in particular those that are most vulnerable, make sense of climate change information?; what influences their perceptions and the way they prioritise addressing the impacts of climate change? While media effects constitute a complex subject, it can be said that the effects of political communications are not only determined by the content of the message, but also by the historical context in which they appear, as well as and especially in the prevailing political environment of the time. As McNair (2011, p. 10) puts it: "The quality of the message, the skill and sophistication of its construction, count for nothing if the audience is not receptive." This paper proposes that the current communication of climate change information to the public will unlikely lead to an increased understanding and a subsequent change in behaviour. Instead, audiences' interpretation and understanding of climate change is dependent on their social, cultural and ideological backgrounds (Bulkeley, 1997; 2000; Macnaghten & Jacobs, 1997; Moser, 2009).

In 2013 the fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) confirmed it is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forces (IPCC, 2013). The report indicated

that not only has human influence been the primary cause for the observed warming of the atmosphere and the ocean since the mid-20th century, but it has also lead to changes in the global water cycle, reductions in snow and ice, global mean sea level rise, and changes in some climate extremes. The evidence for this is even more now than with the release of the previous report, leaving little doubt that climate change will be one of the world's biggest challenges moving into the 22nd century. The developing world, while still contributing relatively little to climate change compared to industrialised countries, will be hardest hit by its knock-on effects. Africa is the continent most vulnerable to the impacts of climate change due to the fact that natural resources to a large extent drive national economies. The continent's poorest inhabitants will be most adversely affected since they have the lowest adaptive capacity (Madzwamuse, 2010).[1] Other factors that compound the impacts of climate change while undermining the ability to adapt include illiteracy and lack of skills, limited infrastructure, weak institutions, lack of technology and information, poor access to resources, low management capacities and, as this paper argues, cultural and social contexts. Climate change further threatens to undo the gains of sustainable development with the most drastic impacts expected to affect sectors of central importance to economies.

South Africa's complex cultural and social context provides a unique background for research into audience perceptions among the vulnerable. Even though the country has one of the biggest economies in Africa, around 26 percent of people are unemployed, and 32 percent live below the poverty line (Stats SA, 2010). The fact that 56 per cent of black people live in poverty compared to 2 per cent of white people speaks to the country's past of racial inequality which is still very much part of the national public discourse, adding another dimension to the urgent need

[1] Report prepared by the Heinrich Böll Foundation on three studies commissioned in Botswana, South Africa and Zimbabwe to evaluate the state of preparedness for climate change adaptation in the region.

to address socio-economic inequalities (Stats SA, 2010). At the same time, observation records indicate that South Africa's average temperature has been increasing annually and average precipitation has been decreasing slightly every year from 1970 to 1990 (McSweeney, New, & Lizanco, 2010). Significant changes in rainfall variability and intensity are projected throughout the country that, in turn, has serious implications for the incidence of floods and droughts. These changes are likely to have sizeable impacts on water and sanitation, health, agriculture, residential, transportation and tourism sectors (UNICEF, 2011). As a developing country, its socio-economic and environmental contexts will create unique challenges and exacerbate already existing development issues for the poor, who make up roughly half of the South African population (Stats SA, 2010).[2] The issue of climate change can seem remote when compared to immediate problems such as poverty, disease and some of the highest crime rates in the world[3]. As proof of this, public perception surveys indicate a lack of insight into the local relevance of the climate change threat (HSRC, 2007; BBC WST, 2010a). Surveys indicate that even though many people are aware of climate change, and even acknowledge it as an urgent concern that requires immediate action, they fail to realise how close to home the potential impacts will hit (Government of South Africa,

[2] A study conducted by Statistics South Africa (2014) analysing trends in poverty and inequality between 2006 and 2011 showed that altogether 32,5 per cent of citizens are living below the lower-bound poverty line of R433 per month (Stats SA, 2014). Altogether 10,7 per cent of the population lived below the international poverty line of $1,25 per day and 36,4 per cent survived on less than $2,50 per day.

[3] According to the most recent crime statistics by the South African Police Service, more than 177 000 people in South Africa have been murdered since 2004. Altogether 15 609 people were murdered in 2012 alone (Crime Stats SA, 2014). In 2013 HIV prevalence in adults was 19.1 per cent (Unaids, 2014). It is one of the countries with the highest Aids prevalence in the world (Unaids, 2014).

2000). These surveys show that people associate climate change with images of melting ice caps, rising sea levels, hurricanes, and the possible flooding of low lying countries like the Maldives and Bangladesh. Many South Africans do not make the connection between climate change and possible impacts on South Africa or even the rest of the African continent (BBC WST, 2010b).

II. Theoretical Foundation and Literature Review

How people make sense of climate change in their personal spheres becomes greatly relevant given the socio-economic context explained above. Public discussions, according to diffuse and integrate into varying degrees of personal understanding and behaviour. The first US Environmental Protection Agency (EPA) administrator William Ruckelshaus said "If the public isn't adequately informed [about climate change], it's difficult for them to make demands on government, even when it's in their own interest" (Ruckelshaus, 2004). How climate change information is interpreted and translated into decisions and potential behavioural change is complex, dynamic and contested; and there is a great deal of evidence that knowledge does not necessarily lead to action in the case of climate change. The first step toward understanding this dynamic is to investigate how the audience itself interprets climate change information and, secondly, what part the media plays in shaping this understanding.

To this end, an early report on the attitudes and beliefs about the severity of climate change, in which researchers did telephone interviews with 1 413 adults, found that beliefs about climate change were based on three main factors: first-hand experiences (e.g. personal exposure to weather disasters), perceived effects of climate change (e.g. relative vulnerability) and information from informants (e.g. the media) (Krosnick et al., 2006). The authors of the study used these empirical results to postulate a mechanism that links knowledge and action: "knowledge may have increased certainty, which in turn increased assessments of national

seriousness, which in turn increased policy support … knowledge about an issue *per se* will not necessarily increase support for a relevant policy. It will do so only if prevailing attitudes and beliefs about human responsibility is in place to permit the necessary reasoning steps to unfold" (Boykoff & Roberts, 2007; Krosnick et al., 2006). Media thus face the important challenge to educate, convince, and dynamically engage diverse constituents on the topic of the impacts of climate change (Moser, 2008).

The various obstacles audiences face when confronted with information about climate change are increasingly acknowledged (Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; Moser 2009; Moser & Dilling 2007; Ockwell, Whitmarsh, & O'Neill, 2009; O'Neill & Nicholson-Cole, 2009). Psychologists concur that it takes a significant cognitive attempt to really understand the causes of climate change, as well as its political, economic, social and personal implications. Add to that the often conflicting information provided by the media, and it becomes a big ask for a person to draw the correct and desired conclusions about climate change, its causes and its effects (Moser, 2009). When confronted with too much and contradictory information, people are inclined to fall back on their existing mental shortcuts and the cues they receive from framing, language, imagery, and the types of media they consume to help them draw conclusions or make decisions (e.g. Kahneman 2003; Kahneman, Slovic, & Tversky, 1982; Krosnick, 1991).

The notion that climate change is as much a concept influenced by culture and ideology as it is a physical one is explained in a compelling way by Mike Hulme in his book *Why we disagree about climate change* (2009). Hulme argues that ancient societies interpreted the function of the climate from a cultural perspective, but this view was largely discarded when the Enlightenment movement intellectually divorced the physical world from cultural interpretations. Hulme proposes that the concept of the climate can only be fully understood if the physical and

cultural dimensions of climate are allowed to interact and mutually shape each other. Treating climate purely as a physical concept, to be accessed only through natural science, i.e. to remove cultural symbolism from the climate's physical anchors, denies something essential about the idea of climate (Hulme, 2009, p. 32) and perhaps hampers a helpful understanding of the human relationship with the natural environment.

In an attempt to explore why scientists' claims about climate change were dismissed for so long and then suddenly considered to be correct in 1988, Ungar's (1992) work explains that the way a risk is perceived is dependent on different audiences, emphasising the importance of audience receptiveness. As Hulme puts it, "One of the reasons we disagree about climate change is because we evaluate risks differently", and our culture plays an important role in this (2009, p. 181). In "The rise and decline of global warming as a social problem" (1992) Ungar explains that there is a disparity between the way experts understand and express risks, and how the public comes to dread something (Kaprow 1985; Perrow 1984; Slovic, Fischhoff, & Lichtenstein, 1980; Slovic, Layman, & Flynn, 1991). This is because the two groups apply distinct rationalities when evaluating risks. Whereas experts use a so-called "absolute rationality" that portrays risks in an objective, factual manner, the public employ a "social rationality", which makes a distinction between obligatory and voluntary risks, which in turn determines how much a risk is dreaded (Ungar, 1992; Perrow, 1984, p. 325). Hulme (2009) posits that the idea of dangerous climate change can only be approached by combining insights from science and social psychology, as projected danger and experienced danger could lead to completely different ways to frame what behaviours need to be avoided and what should be done to adapt.

In an attempt to explain a lack of public engagement with climate change from the perspective of the politics of engagement, Moser (2009) argues that the cost of increasing public

engagement is enormous. Moser posits that a tremendous effort is required to surmount existing human habits, replace infrastructure, modify economic practices, change technological dependencies, alter policy beliefs and try to reshape people's personal perceptions of self-interest. Together, she argues, these social and structural aspects form the foundation for the politics of public understanding and engagement with climate change (Moser, 2009, p. 9). They determine (a) the cost of supplying information, education for individuals, and attempting to increase their understanding and concern about climate change – a highly debatable and political activity, and (b) the cost to individuals in acquiring knowledge, deepening their understanding of specific issues and the connections among them, and tolerating the cognitive and emotional effect of considering and digesting information like this. All of these costs have cognitive, psychological, social, political, and economic attributes, and intersect with the behavioural, social, economic and institutional costs incurred when increasing functional engagement (Moser, 2009, p. 9).

Therefore, risk perceptions aren't simply the result of quantifying the risk, communicating the resulting evaluation, and creating universal appreciation of the associated dangers. Instead, the particular social groups an individual belongs to will determine the different kinds of risks that person will focus on, thus placing culture at the centre of climate change risk perceptions (Douglas & Wildavsky, 1982). Douglas's well-known theory on the ever-changing relations between the 'group' and 'grid' of a culture or community can be aptly applied. In short, group refers to whether an individual is a member of bonded social units and to what extent the individual absorbs the group's activities. Grid, in turn, refers to what extent a social context determines the individuals' behaviour. The combination of the two determines an individual's 'way of life'. The perception of risk is seen as a collective phenomenon (Weber, 2006) and these different dangers are defined by how they influence the group's particular way of life. Each

culture will therefore attend to different threats, while ignoring others, in the same way as ideology influences individuals or groups' perception of risk. It suggests that culture teaches individuals which variables to consider as risks in accordance with where the collective groups interests lie (Weber, 2006). Kahan and Braman (2006) argue that cultural commitments take priority over factual beliefs when it comes to political matters that have high stakes. Additionally, academic work in risk perception, cognitive psychology and how cultural influences affect both, indicate that people see new information through a 'cultural lens'. In other words, they assess and make sense of information through a filter that is framed by their worldviews and social commitments, and what they regard as right and wrong (Moser & Dilling, 2011). Moreover, "culture is prior to facts in the cognitive sense that what citizens believe about the empirical consequences of those policies derives from their cultural worldviews" (Kahan & Braman, 2006, p. 148). In other words, when it comes to significant issues such as the dangers of a changing environment, people will evaluate scientific assertions about the outcomes of related policies depending on what they think constitutes a proper society (ibid, p. 148). Kahan and Braman posit that information about climate change may be accepted or rejected upon an intuitive judgment if the information present any sort of danger to a person's self-interests, i.e. if it objects to his or her strongly held beliefs or those of the group he or she belongs to (Kahan et al., 2007). This theory might shed some light on the reasons for the tremendous ideological disunity about climate change, despite the existence of strong consensus on the science (Jost, Ledgerwood, & Hardin, 2008).

It is also important to bear in mind that people contextualise climate change with perspectives that are not always linked to the environment. In developing countries, for example, biosphere reserve managers have indicated that illegal activities such as poaching posed a much

bigger threat to the environment than climate change (Schliep et al., 2008). This and similar studies emphasise how individuals' perceptions of climate change are connected to contexts such as development, equity, and perceived economic power (Wolf & Moser, 2011, p. 552). People are not "blank slates" who receive information about climate change risks and interpret it at face value. Rather, the interpretation of this information is invariably influenced by their existing cultural worldviews (Hulme, 2009; Kahan & Braman, 2006). Regardless of how strong scientific consensus is about the real "objective" risks of climate change, a scientifically compelling argument will not necessarily influence how people perceive and prioritise climate change in their lives. The knowledge, values and beliefs related to climate change are invariably linked to combinations of wider cultural and psychological conditioning (Hulme, 2009, p. 191).

III. Methodology

The importance of identifying and understanding the audience that influences and ultimately decides on an intended communication objective cannot be overstated. The level and nature of an individual's thought reactions to the external information they receive can be even more important than the information itself. The use of focus groups was decided on as this method of data gathering has, in the past, successfully addressed research questions that analyse people's personal and lay representations, common-sense beliefs and experiential understandings – this in a setting that facilitates individual revelations and the co-production of meaning (Wilkinson, 1998). Focus groups also allowed for an examination of the interactive context in which the larger population's perceptions are formed, which in turn provided essential insights into the social and cultural nature of how climate change perceptions are accepted, refuted and discussed (Hanson-Easey et al., 2013). This is the type of data that could not be gathered through any other method (Morgan, 1996) as it was produced by the method's interactive nature, and by the fact that

participants' own interpretations can be assessed in the analysis that follows. This provides significant phenomenological insight into their 'lifeworlds' (Wilkinson, 1998). It offers a method for analysing what participants bring to the group, and constitutes "thinking societies in miniature" in which the process of joint sense-making may be studied in action (Wibeck, Öberg, & Abrandt-Dahlgren, 2007). Five focus group populations were identified and selected on the criteria that all participants are from communities living in the Western Cape Province of South Africa, and are particularly vulnerable to climate change. Vulnerability was defined as high exposure and low resilience to changes in the climate that pose a threat to people's livelihoods, i.e. their means of income and place of living. Participants also had to consume some sort of news media. Vulnerable groups were identified from the Western Cape Climate Change Strategy and Action Plan devised by the provincial Department of Environmental Affairs and Development Planning (2008; 2014). The Strategy describes vulnerability as a function of exposure to climate features, sensitivity to change and ability to adapt to that change. Vulnerable systems are classified as systems that are "highly exposed, sensitive and less able to adapt" (DEADP, 2008) as defined by the IPCC in a special report titled *Managing the Risks of Extreme Events and Disasters To Advance Climate Change Adaptation* (IPCC, 2012).

The communities identified for this research were urban shack dwellers from the flood prone township of Makhaza in Khayelitsha; farmworkers in the rural Winelands near Paarl; small scale farmers from iThemba in the Somerset-West area; the fishing community in Still Bay on the South Coast; and eco-tourism employees in the Algeria Nature Reserve in the Cederberg. To gather the focus groups the researcher made use of five non-probability samples consisting of five to ten members from communities in the identified vulnerable areas. The aim was to make 'ideal typical generalisations' about the data in an attempt to deduce typical ways in which

audiences understand climate change in the designated area (i.e. vulnerable areas in the Western Cape Province) as explained in the theoretical foundation of the dissertation.

Table 1*: Focus group composition*

Group no.	**Participants**	**Size**	**Male/ Female**	**Age range (Average age)**	**Level of education***
1	Urban shack dwellers from Makhaza	11	5 male 6 female	26 – 63 (43)	Grade 10
2	Farmworkers in rural Winelands	6	4 male 2 female	30 – 50 (41)	Grade 6
3	Small-scale farmers from iThemba	7	5 male 2 female	47 – 64 (55)	Grade 10
4	Fishing community in Still Bay	5	5 male 0 female	31 – 50 (42)	Grade 12
5	Eco-tourism employees in Algeria Nature Reserve	9	8 male 1 female	25 – 54 (39)	Grade 10

A total of 18 pre-determined questions were used to guide the discussion although these questions were rephrased, replaced with different questions or completely left out, as required by each discussion. Questions were designed to capture how people think about climate change, and what social and cultural factors shape their perceptions. The first question remained the same in all instances: What do you think it means when you hear people talking about climate change? The other questions aimed at this research question were: Do you believe that the climate is really changing and how do you know this?; How do you think this affects work/life?; What can we as regular people do to adapt to the changes in the environment?

* Calculated median

Data was coded under specific themes (Hanson-Easey et al., 2013) using the operational variables, and analysed after a repetitive process of close reading and re- reading to identify repeated linguistic constructs. The themes identified through analysis were determined by their combined prevalence and salience, or their 'keyness' (Braun & Clarke, 2006). That is to say, when identifying patterns of participants' meaning (themes), analysis sought to consider both the frequency of the theme (prevalence) in the data set, and the meaningfulness (salience) of the noted theme. This joint decision for considering what is and what is not a theme (and related sub-themes) was essentially made on the basis of how well the theme captured something meaningful about the data in relation to the research objectives.

IV. Findings

It is the primary finding of this research that the understanding of climate change among typical audience groups in South Africa is diluted and vague, and that this is primarily due to a lack of an integration of audience interests into the communication of climate change information. This has led to a very basic understanding of climate change. Because the facts have not been integrated with audiences' existing cultural and social interpretation of the world it remains of limited relevance to them. In other words, even though this basic understanding of the climate issue has led to some feelings of being at risk (i.e. concern), this concern becomes abstract and irrelevant when measured against matters of real concern to the South Africans in question.

i. Understanding of the science

The lack of education and limited understanding of climate change has led to a heavy cognitive burden for people to make sense of the climate change phenomenon (Rucker & Petty, 2006). People rely on mental shortcuts based on their cultural backgrounds to clarify for themselves the causes and impacts of climate change, and therefore often draw the wrong

conclusions (e.g. cutting down trees exposes the ground to more sun, which leads to drought and climate change).

> There's an elderly father who is selling meat, but he buys cows and then debones them and then burns the bones. So now they did go to him and told him that this is wrong. So they organised like bins … but the municipality didn't pitch to come fetch and that metal thing was full so he went back to burning his bones. (Participant 3, group 1)

The data showed that 'conventional wisdom' clearly affects understandings of climate change, e.g. one participant from group 2 explained that the "soot" produced by burning fire actually "draws rain", and indicated that this was what his forefathers had taught him. Similarly with overpopulation, people reason that more people leads to more pollution which leads directly to the harming of the atmosphere and the depletion of the environment, e.g. building more houses would damage the environment where they are built, which would in turn lead to climate change.

ii. The importance of community

A local or community outlook on climate change as well as the politics of climate change, was clearly observed in all five groups; this led the researcher to the conclusion that climate change, as all other issues that affect an entire community, is viewed through a cultural lens, making it biased toward the group's interests. For instance, in the fishing community, climate change was seen as mainly affecting fish resources; in the farming community, it was seen as affecting the soil quality.

> So all I'm saying is, in my opinion, is this year we didn't experience that much rain in winter. So my opinion is that, um, climate change affects us in that manner. Because springtime is supposed to be … Here in Makhaza we're supposed to have winds close to 45 km/h, but we didn't experience that. It was summer. I mean it was winter here in

> September. It's vice versa now, from my side. And then summertime can even come later. Like round about March instead of January, December. (Participant 6, group 1)

In each case the group's sense of obligation to help protect the environment for future generations was their main motivation for wanting to act against climate change. Those participants who expressed passion about the fact that something has to be done to mitigate the impacts of climate change as their communities would not be able to withstand any factors that would compound their existing socio-economic problems. A strong sense of community (an inherently African characteristic) possibly dictated these responses with participants explaining how it is their custom to help each other financially in times of need. For example, small-scale farmers would lend each other livestock and farming equipment. Fishermen indicated concern for each other's children in future or for new fishermen who are bound to go under financially due to changes in the fishing patterns. They also expressed enthusiasm for getting involved in efforts to do so, but weren't sure how to go about this.

> I am now 50 years old. Now I have a daughter that turns 16 now. When she gets to 30 years, how will the world be then, when I'm not there anymore? How is the world going to be then? (Participant 2, group 2)

> … people are willing. People are very willing to do something about it. It's just that the people there, who are in high places who are supposed to help the people, don't give them the time of the day to do so. (Participant 7, group 1)

> And of course it will be a big blow for the farming industry … So the future looks bad if you really look at the whole situation of global warming. (Participant 1, group 3)

iii. The role of God

The role of God or a higher power was spontaneously brought up in groups 2, 3 and 5, all

with Christian connections, and with participants discussing whether climate change is part of God's plan, and equating God with Mother Nature. With a large majority of the population being religious (85% of South Africans identify as religious), this was not surprising.[4] Participants expressed a sense of impending doom, linked to the will of God, unless humans change their behaviour. Group 5's participants discussed the idea that the changing of the climate is God's doing; that he is warning the human race that their actions have consequences, and that they should be careful how they treat the environment. This discussion boiled down to the fact that climate change is not part of God's original plan. Rather, it is God's response to humans mistreating the planet. Another interesting exchange took place in group 2, where two participants differed about whether climate change is part of God's predetermined plan for the world, or whether it is the doing of humans and should therefore be corrected by humans, echoing the debate between skeptics and climate scientists, but from a religious point of view rather than a scientific one. In essence, they summarised the debate that humans are interfering with God's plan because they have become too smart. They agreed that our hubris would be our downfall, attributing climate change to human actions, but grouping it with other major issues that affect the whole world.

> [Group 5:]
>
> I believe ... for me personally, that it is like you say that God's works are busy, it is God's plan. This warming, I believe that … God speaks to us as people to show us what he can do and what he is capable of doing. That's what I think. Not that I am a better person, but

[4] Religion was not included in the 2011 census as it was not deemed a high enough priority. The 2001 census is thus the last official count of religious affiliation among South Africans, although private surveys have found this figure to have decreased since 2001 (Stats SA, 2001).

that's me. (Participant 5) Anyone else? (Moderator)

Everything is definitely busy changing on earth. (Participant 6)

People are getting too clever, hey. (Participant 7)

He wants to test and stretch everything. (Participant 2)

[Group 2:]

Look, God plans everything out for us people. See he's already put everything out for us. He put out the rain for us. He put out the heat. So he's put it out for us. We can't say maybe there's bad weather; we can't tell him no, it shouldn't rain. (Participant 3)

But according to global warming people are the cause of that thing ... That wasn't God's plan. It's the humans that make that it is like this. Now they're fighting, now they again have a better thing ... We have to fix it, yes. (Participant 1)

[Group 3:]

Because nature complies if you are willing to play along. Because that's why God is becoming a bit worried about the direction the world is going in. That's why God, that's why he is letting nature ... the environment is speaking to us. The moment nature starts talking then you have to take note. And think, hey, we're doing something wrong. (Participant 7)

iv. Climate change as a social issue

Participants interestingly grouped climate change with other social issues rather than seeing it as a separate environmental issue. One farmer referred to the culture of service delivery protests that have become a popular way of making known a group's demands to government, and suggested that climate change is not a big enough priority for the challenges associated with

it to be solved. If it were, people would be protesting about it as they do when they feel strongly enough about issues such as housing, job creation, etc.

> And that's where the toi toi comes in in South Africa. As soon as a certain group is affected, the toi toi starts. That's the only way we can resolve this thing at the end of the day. (Participant 7, group 3)

Acutely clear from the focus group data is the limited attentional resources of these audiences when it comes to issues in the news. Climate change enjoys a much lower priority in the minds of people compared to issues such as health, job security, safe public transport, etc. This became clear as the topic of discussion always seemed to gradually migrate from climate change to other social issues such as housing, poor public services and health issues.

> Most of us do think about it, but I think for most of the people it just doesn't matter anymore, like everything else where we live. Because we don't know what to do. You don't know where to go to, to stop this. So it just doesn't ... it doesn't matter, because you know there's something wrong there, and everyone knows there something wrong here, but no-one's doing anything about it. Not because people don't want to do anything about it, because people don't know how to deal with it or what to do or where to go to get rid of this thing. (Participant 7, group 1)

> Yes look a lot of the pollutions come from our farm houses. [3 agree] Um we don't have toilets that work. A lot of the houses have to use the bucket system … the outlet pipe where the water comes out that runs out of the bath, he doesn't lead directly to a drain [5 agree – no drain, yes]. It runs here down the wall, then it runs down in front of the door. Now that is a lot of germs and things. (Participant 2, group 2)

This is reflected in local news coverage, with issues such as crime, corruption, poverty

etc. receiving much more frequent and more prominent coverage. While this might seem like an obstacle, it is the position of this research that it actually provides an opportunity for effective communication of climate change, as the phenomenon will to a large extent manifest as a social problem (IPCC, 2014).

Although people expressed concern over climate change, the overall sense was one of powerlessness, with participants pointing out that the problem is out of their control. It is possible that because the impacts of climate change are understood as something distant, personal efforts to adapt and mitigate seem futile. I.e. the perceived discrepancy between the size of the climate change problem and personal ability to do something about it is too great. And so instead of being more concerned, the perceived risk decreases, and even though there would have been willingness to change behaviour, other immediate problems such as making ends meet become a higher priority. While awareness of their lack of agency increased their concern about climate change during the time of the discussion, it still did not motivate them to do something about it. Several participants mentioned, for example, that now that they are really thinking about climate change for the first time, they are very worried about it. Much of their concern stems from uncertainty about how they will be affected and, while they have basic knowledge about climate change, the desire to know how this information applies to them was expressed. A better awareness of the local impacts of climate change would therefore aid a decrease in the sense of powerlessness when people realise the tangible causes and impacts.

V. Conclusion

Communication that empowers audiences with helpful knowledge to make the possibility of responding in a responsible way has to consider the various factors that influence the receptiveness of these audiences. When this happens responses to climate information could then

take place in one of two ways: (1) public mobilisation to push for action at government level, and (2) implementing personal behavioural changes consistent with the necessary mitigation and adaptation strategies (Moser, 2009). One way this could be done is by employing a sense of a shared experience with climate change through specific cultural and social lenses. In the case of South Africans in typical vulnerable populations, religion, family and community play an important role in the way people perceive climate change. The fact that the perceived impacts of climate change are very much shaped by current social issues inevitably frames how people think of solutions and possible responses. Audiences are only likely to respond to media messages when they are motivated and able to do so, and climate change communicators should therefore communicate in a way that enables audiences to become an active part of the communication process by facilitating dialogue about climate change causes, effects, uncertainties and responses.

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