

Climate change and policy making in Zimbabwe. In search of evidence based policy making?

Cambio climático y la elaboración de políticas públicas en Zimbabwe.
¿Se busca la formulación de políticas basadas en la evidencia?

Ignatius Gutsa*

ABSTRACT

This paper examines the capacity of Zimbabwean policy makers to access and use climate change research outputs for evidence based climate change policy making. Due to impacts of climate change on developing countries, many stakeholders are now calling for crafting of national climate change strategic plans to mitigate and adapt to the impacts of climate change. However one of the main challenges affecting policy makers is access to research evidence in order to come up with evidence based policies. To achieve the study objective, a mixed method approach was adopted. Findings show that there are a number of challenges facing researchers and policy makers in Zimbabwe which are inadvertently affecting evidence based climate change policy making. These challenges range from the general weak and non performing economy which over the years has created an environment not conducive for research as well as minimizing avenues for accessing state of the art research around climate change issues. Low Information, Communication Technologies literacy is also limiting access to databases and online sources with topical issues on climate change.

RESUMEN

Este artículo examina la capacidad de los responsables políticos de Zimbabwe para acceder y utilizar las investigaciones sobre cambio climático para la formulación de políticas públicas en el tema basadas en evidencias. Debido a los impactos del cambio climático en los países en desarrollo, muchos inversionistas hacen un llamando a la elaboración de planes estratégicos de cada nación para mitigar y adaptarse a los impactos del cambio climático. Sin embargo, uno de los principales desafíos que afecta a los encargados de tomar las decisiones es el acceso a la información de investigación en el tema, a fin de llegar a formular políticas públicas basadas en evidencias. Para lograr el objetivo del estudio se adoptó un enfoque de método mixto. Los resultados muestran que hay una serie de desafíos que enfrentan tanto los investigadores como quienes toman las decisiones en Zimbabwe, que está afectando, de forma inadvertida, la formulación de políticas de cambio climático con base en evidencias. Estos desafíos incluyen una disfuncional y débil economía, que con los años ha creado un ambiente impropio para la investigación, así como las mínimas vías de acceso al estado actual de la investigación en torno a las cuestiones del cambio climático. Tanto la poca información, como la falta de alfabetización en tecnologías, están limitando el acceso a bases de datos y fuentes en línea con temas de actualidad en materia de cambio climático.

INTRODUCTION

This paper examines the capacity of Zimbabwean policy makers to access and use climate change research outputs. On a global level evidence is overwhelmingly reflecting that over the past centuries the earth's climate has been changing due to the anthropogenic release of greenhouse gases. Furthermore, global warming will continue into the foreseeable future due to factors such as increased greenhouse gas emissions (Held, Delworth, Lu, Findell & Knutson, 2005). For Eriksen, O'Brien & Rosentrater (2008), Eastern and Southern Africa's vulnerability to climate change is shaped by the complex interaction of social, political, economic, cultural and environmental factors. On a country level, Zimbabwe is currently experiencing the

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* Sociology Department, University of Zimbabwe. P.O Box MP167, Mt. Pleasant, Harare, Zimbabwe. Email: igutsa@sociol.uz.ac.zw

impacts of climate change which are creating vulnerability among the population (Governance and Social Development Resource Centre [GSDRC], 2009). In Zimbabwe vulnerability to climate change is mainly being caused by shifting rainfall patterns which are leading to decreased rainfall activity across all seasons. As a result increased incidences of drought are now a major problem. Other key potential climate change challenges include increased temperatures (especially in the dry season), localized floods and decreased/varying river flow.

The reliance of the vast majority of Zimbabweans on rain-fed agriculture and the sensitivity of major sectors of the economy to a favorable climate makes Zimbabwe particularly susceptible to climate change (Chagutah, 2010). Despite this reality, there is generally limited research activity on climate change in Zimbabwe specifically examining the national climate change policy making process (GSDRC, 2009). In order to effectively develop national mitigation and adaptation strategies to reduce the population's vulnerability to impacts of climate change it is important to have a national climate change policy framework in place. For this research the main starting point was the realization that currently there is no climate change strategy document to guide the national response to climate change in Zimbabwe while on the other hand policy makers are often accused of engaging in uninformed policy making.

Climate change and evidence based policy making

The United Nations Framework Convention on Climate Change (UNFCCC) came into force in Zimbabwe on 5 november 1992 after being signed in june 1992 and ratified on 3 november (UNFCCC, n.d.). Even though Zimbabwe has acknowledged the need to incorporate climate change in its development policies (Government of Zimbabwe, 1998) as well as the need to develop a national climate change strategy Government of Zimbabwe Second National Communication to the United Nations Framework Convention on Climate Change, (2012). However twenty years later by end of 2013 there is still no national climate change policy framework in place to specifically guide the national climate change response mainly as a consequence of limited resources due to a non performing economy. Currently existing on the ground are legislative and programmatic adaptation responses contained in various development policies, strategies and action plans

of various government sectors. These include the environment and natural resources management, water resources management, agriculture and disaster management sectors (Chagutah, 2010). Consequently the development of climate change policies and legislative frameworks is important in order to remove barriers that may affect the protection of vulnerable groups from the impacts of climate change (Madzvamuse, 2010).

As noted by Madzvamuse & Matonho (2011) a national climate change policy is a requirement for Zimbabwe to access funding from the Global Environmental Facility and other sources of Climate Change Funds. In july 2012 a local Non Governmental Organization missed out on a US\$1 million grant as the country does not have a national climate change policy in place. As a result Zimbabwe continues to lag behind in the implementation of climate change programs compared to its other regional neighbors like Mozambique, Zambia, Malawi and Tanzania where either national climate change policies or strategies make it possible for donors to channel climate change funds to these countries.

On the other hand one of the major drawbacks affecting evidence based decision making is the fact that "there has been little systematic research in the development field about the communication needs of developing country policy-makers and how such research can be used to inform policy brief content and design" (Jones & Walsh, 2008). Furthermore as acknowledged by the European Commission (2010). evidence-based policy making depends, first of all, on the existence and availability of reliable evidence. No less importantly, it requires that researchers and policy makers communicate with each other effectively. Both parties stand to benefit from this interaction. However despite the positive contribution of evidence based policy making there is a dearth of knowledge regarding climate policy integration both in scholarly literature and in policy practice (Ahmad, 2009). Therefore in the context of climate change it is important that decisions are made on evidence for policies to be effective.

Research Questions:

This study was shaped by the following research questions:

- i. To what extent are climate change policy outputs in Zimbabwe informed by research?
- ii. Do policy makers have the capacity (skills and abilities) to make use of evidence-based research?

- iii. How do policy makers in Zimbabwe get research inputs needed to inform climate change policy making?
- iv. What are policy maker's needs in respect of climate change in Zimbabwe?
- v. What can researchers do to meet the needs of policy makers in Zimbabwe?
- vi. What can researchers and policy makers do to improve their communication to come up with evidence based policies?

METHODOLOGY

This study adopted a mixed methodological approach (quantitative and qualitative). The following primary and secondary data gathering methods were made use of; a review of written policy outputs (policy briefings and select committee reports) on climate change in order to assess the use of evidence by policy makers on climate change related writings. These documents were also reviewed for quality of their references, bias as well as clarity. Interviews were also carried out with policy makers to evaluate their ability to access/use climate change research. Operational definition of policy makers as interviewed in this research are employees in the Ministries of Environment and Tourism; Justice, Legal and Parliamentary Affairs; Transport and Communications. During interviews policy makers were asked to indicate the nature of their sources of information on climate change as well as their understanding of the quality of these respective sources. Policy makers were further given tasks to do in order to evaluate their ability to complete them. This was achieved by giving them a range of sources of information on climate change e.g. newspaper articles, policy briefings and blog articles and asking them to evaluate how useful these were.

In order to evaluate policy makers' understanding of research methodology and/or climate change a diagnostic test was administered on nineteen policy makers. Eight Focus Group Discussions (FGDs) were held with an average of 10 participants per FGD in Harare, Bulawayo, Mutare and Masvingo provinces. Purposeful, convenient sampling was employed to target the respondents from the various ministries responsible for environment/climate change issues. Of the total respondents to the diagnostic test 26% were Parliamentary researchers, 16% were Parliamentary librarians, 21% were staff from the Scientific and Industrial Re-

search Development Centre (SIRDC), while 37% were policy makers from Ministries of Environment and Tourism, Justice, Legal and Parliamentary Affairs and Transport and Communications.

Data Presentation and Discussion of Findings

Access to Information and Ability to Use Research

Generally the relationship between information literacy and the ability to produce research is viewed as crucial for evidence based policy making. The definition of information literacy adopted in this study is "The ability to identify what information is needed, understand how the information is organized, identify the best sources of information for a given need, locate those sources, evaluate the sources critically, and share that information" University of Idaho (n.d.). The document review undertaken reflects that Zimbabwe currently does not have a national climate change policy document in place. What is also evident is that due to a number of challenges the capacity of policy makers to make use of evidence-based research on climate change issues is currently limited. Major challenges range from the poor performance of the economy over the course of a decade from the year 2000 to the present 2013. A result of this is that workers and government ministries have failed to get access to state of the art resources coupled with depressed poor remuneration levels.

In this study policy makers can be grouped into different categories based on their capacity to access research evidence. This classification is determined by their computer literacy, access to computers and reliable internet access. From the diagnostic test 26% of respondents indicated that less than 25% of the time the internet would not be working at their place of work with 26% reporting half of the time internet not working at the workplace; 5% indicated that 75% of the time the internet would not be working and 11% indicating that even though they had internet connection at their workplace the internet would not be working all the time. Also 32% of respondents indicated that there was virtually no internet connection at their workplace. Power cuts during normal working hours are also limiting access to the internet at workplaces. Crippling power cuts have been experienced in Zimbabwe since 2000. As a result 68% of respondents indicated that 25% of the time they had no electricity at their workplaces. 11% of respondents also indicated that more than 75% of the time they did not have electricity at the workplaces. As a result power cuts are affecting access to state of

the art research on climate change. 32% of respondents indicated that they had own computers connected to the internet at their workplaces with 5% of respondents having own personal computers in the office which were however not connected to the internet. 26% shared a computer connected to the internet with colleagues. On the other hand 5% of the respondents had a computer shared with other colleagues which was not connected to the internet while 32% had no computer at all. This situation is different between senior and junior policy officers as most junior officers have limited access to personal computers compared to senior officers who enjoy access to personal computers sometimes with internet access. So if access to Information and Communication Technologies (ICTs) as demonstrated by increasing numbers of online open access journals and databases is very crucial to bridge the climate change knowledge gap by policy makers it is therefore crucial to guarantee ready access to these services by policy makers if evidence based policy making is to become a reality. As a result most policy makers have limited capacity to access climate change research evidence due to factors such as lack of access to Personal Computers, no or limited access to the internet and online resources all this compounded by acute power outages.

Even though currently the leading mobile phone operators Telecel, Econet and NetOne and other operators are offering broadband internet, access is very expensive and mainly limited to accessing the internet over the mobile phone thereby making sustained efforts at online research, a challenge as using a desktop computer or laptop is not cost effective. Econet Wireless is currently providing 3G internet access data bundles with a 1.2 Giga Bytes data bundle priced at US\$90. Considering the low salaries (just below US\$300) of most civil servants in Zimbabwe, such high internet access charges in a non performing economy are therefore not sustainable. As a result most people have largely restricted broadband mobile internet access to checking emails, linking up and chatting on various social networks like Facebook, Gtalk, WhatsApp and Yahoo Messenger. As a result of these challenges being experienced in accessing the internet for research inputs for policy making processes the sources being used are mainly coming from old archive material. During the FGDs it also emerged that policy makers in Zimbabwe are also calling upon their social networks to access and push different information within their networks. Popular networks for this are Research Gate and LinkedIn.

On the other hand, workers at the Parliament of Zimbabwe have potential to access research evidence

on the internet with computers at their workplaces as part of the United Nations Development Programme (UNDP) extended funding to parliament, an aggressive e-government capacity building initiative. General observations for those with internet access shows that it is generally very slow due to limited bandwidth at the work places. However, respondents noted that internet connectivity is usually at its best after hours or during lunch time as most people would be offline during these times. As a result, most respondents indicated that there were in the habit of hanging around during lunch time and after hours in order to get unrestricted access to the internet.

One of the tasks administered for the diagnostic test was to request policy makers to type in the web address www.inasp.info/eipm to assess the time this page took to open. For 11% of the respondents it took less than 5 s to open the website while it took between 6 s - 20 s and between 21 s to 60 s for 21% of the respondents to open the website. From the above it can therefore be concluded that the lack of personal computers, slow internet connections coupled with continuous power cuts experienced by policy researchers most of the time have an impact on access to state of the art research and online information sources for evidence based policy making on climate change.

Awareness of sources of research inputs for climate change policy making

There appears to be a general lack of appreciation of relevant sources of information available on the internet. There is also a lack of appreciation of different research methods, corresponding research terminology, the advantages and disadvantages of using different types of research methodologies and methods among policy makers. For example 26% of diagnostic tests respondents acknowledged that they were aware of websites with good quality information on research/science topics while 74% of respondents noted that they were not aware of websites with good quality information on research/science topics. The popular sources of information/science topics on the internet ranked by popularity by policy makers were mainly Wikipedia, Google, Health InterNetwork Access to Research Initiative (HINARI), Medline, www.researchgate.com and www.researchcouncilzim.co.zw websites.

Some policy researchers failed to distinguish between different research methods and associated terminology. For example in the diagnostic test some policy researchers indicated that a Key Informant Interview is a study which compares the effect of an

intervention. 5% of Parliamentary researchers failed to distinguish a randomized controlled trial. A further 5% of staff of National Council for Science and Technology and Parliamentary Librarians failed to distinguish a randomized controlled trial while 11% of Staff of National Council for Science and Technology did not know what a systematic review is. 11% and 16% of Parliamentary Researchers and Staff of National Council for Science and Technology respectively failed to distinguish what a Key Informant Interview is. This therefore is indicative of the low levels of research methodology literacy among the policy makers.

Relationships between policy makers and researchers

A number of studies have noted that in general, policy makers are now recognizing the importance of integrating climate change adaptation measures into all spheres of public policy-making (Madzwamuse, 2010). This is supported by the realization that ideally for evidence based climate change policy making processes to be effective there is need to have ready access to both researchers and research outputs. However, in this study only 21% of the policy makers in the study who acknowledged that they are expected to use research evidence in their work confirmed that that they do speak to academics regularly either face to face or on the phone. On the other hand 16% of staff from the national council for science and technology centre strongly agreed that they are also expected to use research evidence in their place of work. However from this study, it appears that there is no evidence of sustained communication channels between policy makers and researchers/academics and therefore limited sharing of information on climate change issues in Zimbabwe. For example, in response to the question asking policy makers' work and their levels of engagement with academics either on the phone or face to face only 11% of the parliamentary researchers agreed that they do speak to academics most of the time; with 11% of Parliamentary Librarians strongly agreeing that they do speak to academics often.

Providing climate change research evidence to policy makers

According to Carden (2009) personnel turnover can challenge institutions anywhere, but it tests Southern institutions more severely. Turnover tends to be higher where the work is unrewarding, both financially and professionally. In research organizations this tends to encourage emigration to better jobs and prospects. In government departments, it can lead to insufficient understanding of the insights that research can bring to policy problems. As noted by Vincent &

Cull (2009) the need to strengthen institutional and individual capacity applies both to research institutions and also to government structures. For example, 42% of policy makers in the diagnostic test noted the need to give equal weighting to each side of an argument when presenting information with 58% agreeing on the need to balance arguments according to the weight of presented evidence. In the study the favourable responses that emerged regarding giving policy makers advice and giving evidence was the need to give equal weighting to each side of an argument and balancing arguments according to the weight of the evidence. From the FGDs most policy makers acknowledged the need to gather information from various sources ranging from peer reviewed scientific journal articles, independent think tanks as well as from blogs on the net to come up with evidence based climate change policies.

Understanding policy maker's needs in the context of climate change

In order for climate change policy integration to be a reality, there is need for policy makers to place more emphasis on climate change issues in the planning and execution of general and sector specific policies (Mickwitz *et al.*, 2009). This is important because as noted by Carden (2009) research can broaden policy horizons. However policy is often frustrated by limited choices. Therefore, research can improve the intellectual framework surrounding policy making through introducing new ideas to the policy agenda by ensuring that information comes to policy makers in a form and language they can quickly grasp and use fostering helpful dialogue between researchers and decision makers. As a result, researchers win the respect and gratitude of policy makers by providing new insight or information that can unlock those zero-sum, 'either-or' policy dichotomies which seem to constrict debate and decision. From the research it can be deduced that there is need for increased awareness on the need for evidence based policy making on climate change issues if policy makers in Zimbabwe are to come up with meaningful position papers, as well as to effectively articulate the national climate change agenda. Furthermore, the capacity of policy researchers also needs to be strengthened to ensure that availability of research evidence can be guaranteed into the future.

What can researchers do to meet the needs of policy makers in Zimbabwe?

As noted by Madzwamuse (2010) most countries in Africa lack a coherent policy framework to guide climate change adaptation measures. This problem

is also compounded by the fact that most climate change research is not guided by national knowledge gaps on climate change Madzwamuse (2010). According to Diaz & Hurlbert (n.d.), studies in northern Chile and in western Canada also found that there is serious lack of integration between researchers and government agencies tasked with environment and climate change issues. Therefore in the case of Zimbabwe this challenge can be overcome by making research evidence available to policy makers through improving the lines of communication between researchers and policy makers. Consequently, in the context of climate change it is important to make research outputs available to a wider audience in order to increase policy makers' access to climate change related resources. Currently there appears to be limited research on climate change issues in Zimbabwe despite the urgency of the issues surrounding it. As a result most writings are not specifically focusing on Zimbabwe. For example respondents noted that most researchers in the country were publishing in international journals without also communicating their research outputs directly to the local policy actors. As a result, most policy makers were not aware of key researches on climate change that had been written by local scholars focusing on Zimbabwe as a case study. In light of this gap there is need to create synergies and linkages between the researchers and the policy actors to ensure that climate change research outputs are readily available on the local scene.

Climate change policy making in the Parliament of Zimbabwe

A desk review of Hansards from the Parliament of Zimbabwe indicated that only eight Hansards had evidence of debate on climate change issues in the life of the Parliament of Zimbabwe. Namely (i) during the Third Session, Sixth Parliament 2007-2008; (ii) During the Presidential speech address debate in the Parliament of Zimbabwe on 16 October 2008; (iii) during the Second Session, Seventh Parliament 2009-2010; (iv) Parliament of Zimbabwe Report of 9 December 2010 where the full House of Assembly heard the Report of Rural Economy, Agriculture, Natural Resources and Environment Committee giving a background report on instruments used in Climate Change Negotiations (namely UNFCCC framework and the Kyoto Protocol), the Ad Hoc working Groups on Kyoto Protocol and the Bali Roadmap. The deliberations led to the establishment of a Climate Change Interest Group which presently has 66 members; (v) on 9 February 2010 in the House of Assembly one MP moved a motion to establish irrigation facilities in every district to reduce the impacts of

the frequent droughts being witnessed attributable to global climate change; (vi) During presentation of the 2010 budget the Finance Minister noted the need to strengthen governance systems to overcome challenges of climate change. (vii) Finally on Tuesday 15 June 2010 one Senator moved a motion to read the declaration made in Nairobi, Kenya in 2009 at the summit for the Pan African Parliamentary Network on Climate Change. Considering this limited attention being paid to climate change in the Parliament of Zimbabwe it is important to reflect on Diaz & Hurlbert's (n.d.) observation that there is need for more systematic attention to the science/policy interface. This can be achieved through a three way relationship between scientists, policy makers and the wider community if the challenges posed by climate change are to be effectively tackled. It is also encouraging to note that there are some organizations that are also working hand in hand with the Parliament of Zimbabwe to raise awareness on climate change issues among policy makers. A notable example is the Association of European Parliamentarians with Africa (AWEPA) which did the following:

1. It facilitated a seminar on Climate Change in November 2012 for the Committee on Environment, Natural Resources Management, Tourism and the Hospitality Industry on Climate Change, European Parliamentarians with Africa (2012).
2. It further provided support to members from the Zimbabwean parliamentary committee on environment, climate, water and tourism to enable them to attend the 2013 UN Climate Change Conference (COP19) from the 25th to the 27th of November 2013 in Warsaw, Poland, European Parliamentarians with Africa (2012).

In light of the above it can be argued that initiatives such as these are important in conscientising policy makers on climate change issues in Zimbabwe in order for them to meaningfully contribute to climate change policy making process in the country.

Child Parliament of Zimbabwe and climate change policy

According to the Zimbabwe Youth Council Parliament Election Manual (n.d.), The Junior Parliament/Child Parliament in Zimbabwe was established in 1991 by the Government to enable children's participation in issues of direct concern to them. The Junior Parliament in Zimbabwe marked its 21st session in 2013. Leadership of the Child Parliament is drawn from the country's ten provinces. The Child Parliament is significant as it gives children a chance to interact with

senior government officials and present their challenges aside from working as a potential platform to provide an opportunity to groom future leaders able to articulate their ideas to the people. Considering the critical role that the Child Parliament plays in articulating issues that affect children, it is therefore important to ensure that climate change issues are also debated in the Junior Parliament as it conducts its sessions just like the adult parliament thereby allowing Child Parliamentarians to present their concerns to their adult counterparts as well as the general public. However the Child Parliament has also not taken up climate change issues in its deliberations. Considering the significant and widespread impact of climate change it is therefore important to ensure that the Child Parliament is conscientise on climate change issues as well as the need for evidence based policy making.

CONCLUSION

This research examined the capacity of Zimbabwean policy makers to access and use climate change related outputs in the formulation of climate change policies in Zimbabwe. Findings show that even though Zimbabwe ratified the UNFCCC convention on the 5th of november 1992, more than ten years down the line there is still no national climate change strategic document in place to guide the country's mitigation and adaptation process. Policy makers are not taking up the issue of climate change due to a number of challenges. These challenges mainly include low ICT literacy levels which are limiting capacity to search for and use current online sources of climate change information. On the other hand the limited internet connectivity challenges mainly caused by power cuts and high costs of accessing the internet and limited bandwidth are also acting as contributory factors. All this is also compounded by the weak performance of the economy which over the years has failed to create an enabling working environment for policy makers. Considering the critical role of the Junior Parliament in Zimbabwe it is also important to ensure that climate change sensitization workshops are also conducted with the Junior Parliament to ensure wider coverage of climate change awareness at the early ages.

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