

COMPREHENSIVE REPORT: A Research Framework on Gender and Socio-Cultural Inclusion in Global Change Research

Africa Institute of South Africa (AISA) department in the
Human Sciences Research Council (HSRC)

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ACKNOWLEDGEMENTS

This has been a successful project which has contributed significantly to multi-disciplinary debate around global change. As such, we would like to take this opportunity to thank the National Research Foundation (NRF) for awarding the funding that made this worthwhile project possible. We are encouraged that in the awarding of this grant, the NRF has shown a commitment to opening up more avenues of multi-disciplinary debate, engagement and research, and the recognition that the mainstreaming of inclusive paradigms such as gender and socio-cultural inclusion in global change research, as being some of the most paramount of our time. We are empowered to have been part of not only the global debate on this matter, but the African one too.

We are also grateful for the opportunity to have attended the 2nd *National Conference on Global Change* which was held in Port Elizabeth from 1-5 December 2015 (pg.41). Although this conference was after our *National Workshop on Gender and Socio-Cultural Inclusion in Global Change Research* it was invaluable in terms of learning more about South Africa's Global Change Policy landscape and how our framework can be further refined as we move forward. Thank you to Dr Theresa Moyo for joining me at the conference and for helping to represent the objectives of our project.

While we were in Port Elizabeth Dr Elizabeth Rasekoala was in Kigali, Rwanda, presenting on our framework at the *Expert Group Meeting on Bioenergy Gender Mainstreaming & Localisation of Clean Energy Technologies in Africa*, 2-4 December 2014 (pg.45). Elizabeth gained important insights into the interest around the framework from high-level strategic policy-makers and experts on the African continent, as well as how it may be refined in future. It also provided an excellent opportunity to 'road-test' the applicability and adaptability of the framework to specific sectors within the global change arena – in this case, the energy sector. This is important because although comprehensive, the framework remains a project in progress. I would greatly like to thank Elizabeth, my fellow leader in this project, for her enthusiasm never waned and she has been a key driver of the project's vision.

On that note, thank you to Ms Mapula Tshangela from the Department of Environmental Affairs for giving a presentation at our National Workshop which helped to cement our objectives and drive home the policy relevance of this project. Her presentation (pg.10) was informative and she raised critical questions regarding gaps in South Africa's current global change plans. She expressed excitement at our team's willingness to take up such a complicated challenge.

Staying with the National Workshop, I want to thank those who applied and participated. It was an eventful three days which involved deep discussions. Most participants displayed a keenness to learn across disciplinary boundaries and continue to work on the framework with the development of papers, which is currently underway.

These papers would not be showing so much promise without the dedication of members from the Research Reference Group (pg.6). Members act as mentors and advisors in the development of this crucial process which

acts as both a capacity building exercise and knowledge generation endeavour. Importantly, these same individuals functioned as contributors to this report. They went to great lengths in providing relevant information. The richness of the information in this report, its comprehensive bibliography, as well as its academic flexibility are their doing as they share information from their own disciplines as well as explain, in simple terms, complex concepts and theories. Their willingness to commit themselves to the project in both academic and mentoring capacities has been exceptional.

A special thank you to Mrs Claudia Towne Hirtenfelder for her academic contribution as well as her skill in compiling and editing this report as well as for creating, supervising and chairing sessions on this subject at the *2015 African Young Graduates Conference*. Thank you also to Ms Mapula Tshangela for her participation in our National workshop, her compelling foreword and, most importantly for expressing the how excited the Department of Environmental Affairs is about our endeavours.

Lastly, we would also like to thank the staff and administrators at the HSRC for their efforts in helping to ensure that we had everything we needed for the smooth functioning of our workshops and beyond. These include Octavia Rorke, Masego Masenya, Sam Lekala, and Elsie Maritz for their administrative and logistical assistance as well as Elize Van As and Oliver Hirtenfelder for their technical help with developing the framework image.

I would like to take this opportunity to thank a special member of our team who passed away in December 2014, Dr Roseline M. Achieng; her death was a great shock and loss to the team. She introduced other project participants to the concept of Afrocentricity and was enthusiastic about the project and it's potential. She is sorely missed and we give our deepest condolences to her family.

This project has proved to be both a challenging and rewarding experience and its success was made possible by the aforementioned people. It has been my pleasure to work with such a diverse and dedicated team.

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PREFACE

This Report is the product of a project attempting to design a framework which would better enable the mainstreaming of gender and socio-cultural components in research on any global change phenomenon. It is our hope that this is only the beginning of a much bigger project and we are currently working to secure further funding to make this vision a reality.

This Comprehensive Report builds on the *Preliminary Report: The Development of a Research Framework on Gender and Socio-Cultural Inclusion in Global Change Research* which was an accumulation of ideas garnered from the *Research Reference Group Meeting* which took place in August 2014 (pg.6). This early report focused on the initial development of the conceptual outline and framework for this project. It included an introduction to the lack of gendered consideration in global change research an explanation of the presentations made at the *Research Reference Group Meeting*, as well as the first designs of the framework and why we envisioned particular concepts to be of significance in any global change research seeking to better mainstream socio-cultural matters.

Therefore, there are large sections of text in this Comprehensive Report which also appear in the Preliminary Report because one document succeeds out of the other. The Preliminary Report was drafted and published in record time so that it could be made readily available to those who participated in the *National Workshop on Gender and Socio-Cultural Inclusion in Global Change Research* hosted at the HSRC from the 29th-31st of October 2014 (pg.10). This Comprehensive Report has addressed some of the referencing and grammatical issues which were missed previously but, more importantly, has deepened the contributions.

The framework

At the *National Workshop* the flexibility and usefulness of the framework became apparent. However, it also became clear that there was a need to illustrate more of the limitations of the framework as well as to be transparent regarding the points of divergence raised between members. Consequently, this report has been written in such a way that these arguments come to the fore. I have attempted to be honest regarding points on where concession was not yet met as well as to tease out what the varying arguments are.

The framework's greatest strength is its flexibility and its desire to not prescribe set definitions but to rather guide those seeking to conduct research in any global change arena on how to develop research questions which are methodologically designed to be more sensitive to how global change is gendered and otherwise social. In this regard the conceptual toolbox (pg.19) is an asset as it provides researchers or policy makers with concepts which we, through discussions, believe to be critical.

That said, however, we made a conscious decision to not give set definitions for these concepts as many of them (such as 'intersectionality', 'sustainable development', and even 'mitigation') come with several arguments which are currently being thrashed out in academic circles. We have endeavoured in this report to

bring some of these debates to the fore for the benefit of the reader. Further, concepts which are used need to be conceptually useful for the question at hand. Therefore, anyone attempting to use the framework would need to be clear on how *they* define concepts and to ensure that these speak to one another.

This ‘speaking to one another’ is important because the framework premises that in order to mainstream gender and socio-cultural inclusion in global change research one will need to ensure that their concepts, theories, methods, methodology, and values are in tandem (pg.19). Critically, ‘Afrocentricity’ has been placed at the apex of the framework (pg.21) to illustrate the connections between knowledge generation, location, agency, and power. This is a powerful concept and methodology but once again, those wanting to use it should ensure that it is done in a way which speaks to other concepts, such as gender equality for example (see more on the discussion: Box 2, pg.22)

In one of the concluding chapters of this report, several strategies on *how* the framework can be used are outlined (Box 8, pg.41 and Box 9, pg.45). We suspect that this list will continue to grow as workshop participants continue to develop papers and we learn more about the complexity of multidisciplinary research.

It is our intention that this framework will assist with any global change research project (whether the focus is on climate change, drought, soil erosion, agriculture, etc.) making it more sensitive to how the causes and effects of such environmental changes are not only social but shaped through and influence gendered and cultural practices.

Layout of the Report

The Comprehensive Report is laid out in temporal fashion where the problem statement, motivation, and objectives of the project are outlined in Chapter 1 before explaining the gatherings which helped to develop the framework (Chapter 2: The Research Reference Group Meeting and Chapter 3: The National Workshop). Chapters 2 and 3 discuss in details the presentations that were made by speakers as well as outlines the debates which emerged.

Chapter 4 is dedicated to the discussion on the framework and although different parts of these were developed and debated at the *Research Reference Group Meeting* and *National Workshop* they have been compiled here so that readers only interested in the framework can jump straight to Chapter 4 without having to read Chapters 1-3, although that would be ideal. Chapter 4 discusses the main nodal points of the framework and several of the core concepts identified in the conceptual toolbox before outlining its limits and how it can be used.

Chapter 5 provides a brief conclusion and synthesis of the Comprehensive Report and outlines what is still ahead for this project and how we envision the idea of mainstreaming gender and socio-cultural inclusion in global change research, particularly in South Africa, moving forward.

The Bibliography is also noteworthy because it is extensive and in itself is a valuable resource for anyone hoping to carry out research which mainstreams gender and/or socio-cultural inclusion in any global change research projects.

Therefore, this Comprehensive Report, like the Preliminary Report, acts as a resource for both academics and policy practitioners regarding how gender interacts with socio-cultural issues can be better incorporated into global change research by highlighting what we consider to be some of the most critical concepts and methodologies in achieving that goal. It remains, however, a project in progress and any feedback on the report and framework would be most welcome.

Those who conceptually contributed to the report during the *Expert Reference Group Meeting* have been acknowledged in the contributors section but as Editor I would like to take this opportunity to thank the exceptional and thorough written contributions made to the main body and information boxes by Professor Heidi Hudson, Professor Louise Vincent, Dr Elizabeth Rasekoala, Dr Olga Bialostocka, Dr Theresa Moyo, and Ms Lesley Gittings together with the keen corrections by Professor Phindile Lukhele-Olorunju and Dr Vuyo Mjimba. This report would have been a shadow of itself had it not been for the dedication of these individuals.

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FOREWORD

As the Senior Policy Advisor: National Sustainable Development with the Department of Environmental Affairs, my connection to the work of Africa Institute of South Africa (AISA) in the Human Sciences Research Council (HSRC) comes as a result of our drive to promoting the evidence based policy making and science-policy interface approaches. This project was clearly identified from the national global change conference organised through collaboration between the Departments of Science and Technology and of Environmental Affairs in 2012. The comprehensive report is evidence that it is possible for policy agenda to inform research agenda and vice versa.

The conceptual framework outlined in this report is not only important for mainstreaming of gender and socio-cultural components in global change research, but it also provides for practical example on encouraging collaborative efforts towards identifying, communicating and addressing policy relevant research. The framework unpacks the global change research plan knowledge challenges on understanding a changing planet, reducing human footprints, adapting the way we live and innovation for sustainability. It consciously recognises the need for accessibility of research outputs by policy makers. Support for such research efforts will thus go a long way in accelerating gender and socio-cultural solutions in policies such as sustainable development, green economy, biodiversity, climate change and waste management. This comprehensive report is timely as in addition to these policies, the DEA is implementing the environment sector research, development and evidence framework as a response to the global change research plan. The DEA is also implementing the sector sender framework that will integrate initiatives and work with more partners beyond Government.

As appropriately concluded in this comprehensive report, “the framework could serve as a theoretical, analytical, and conceptual tool in the development of any project seeking to better mainstream gender and socio-cultural inclusion in global change research... [The framework] is not only intended for researchers but for policy practitioners too”. The initiators, research experts and participants in this important project are applauded for their unapologetic, courageous and innovative initiative to reach out to key stakeholders on research approaches to address gender and socio-cultural issues in global change relevant policies.

Ms Mapula Tshangela
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1. INTRODUCTION

In 2012, during the *1st National Conference on Global Change*¹ it emerged that there was little consideration of gender and socio-cultural perspectives within the South African global change policy space, including the *South African Global Change Research Plan* (DST, 2010). This prompted Dr Elizabeth Rasekoala, during the Plenary Panel on ‘Multidisciplinary Approaches to Global Change Research’ to recommend that there was a need to:

“enable the innovative design of multi-disciplinary research working frameworks and approaches, to engender, frame, sustain and resource, an inclusive, gender-balanced, socio-cultural action programme and understanding to address global change adaptation and mitigation challenges in South Africa, with transferable added-value benefits for the rest of the African continent.” (Rasekoala, 2012).

Following the presentation, Rasekoala was encouraged by the NRF to follow-up the development of the project proposal through the NRF funding systems and this report is a product of those efforts. The need for multidisciplinary frameworks, such as the one showcased in Chapter 4 of this report, relates to the invisibility of gender and socio-cultural matters within the global change research arena despite the four cross-cutting challenges (found within the *10-Year Global Change Research Plan for South Africa*) being inherently social (Table 1).

Although superficially, these challenges appear to be squarely within the realm of natural sciences. Upon further inspection, however, one notes how the impacts and causes of such challenges have varying cultural and gendered consequences. Under patriarchy, a system of male dominance and control, women are generally more adversely affected by global change than their male counterparts (of the same age, racial, and class backgrounds) as they tend to be more engaged in issues of health, agriculture and community development (among others). Women’s involvement in these areas, and men’s in others, are borne out of unequal gender relations which incline to privilege the needs of men.

Motivated by the necessity to develop a research strategy that addresses the challenges of gender inequality in global change adaptation and mitigation systems, amongst others, this project enabled a space that was germane to the discussion of global change matters and how gender and culture methodologies and concepts can aid in furthering the understanding of such below mentioned challenges.

¹ Organised by the Department of Science & Technology (DST) and the National Research Foundation (NRF) in collaboration with the Department of Environmental Affairs (DEA)

Table 1: The four knowledge challenges (and selected research focus areas) as identified in the 10-Year Global Change Research Plan for South Africa

| Challenge | Selected research focus areas raised under each knowledge challenge |
|------------------------------|---|
| Understanding the planet | Understanding the nature of change: what are the critical thresholds, what would the consequences of such change be and what indicators can be used to detect them? |
| | What earth observation network models are best suited for detecting critical thresholds and promoting appropriate knowledge dissemination and action? |
| | What are the priority forms of change on the land that will directly or indirectly affect atmospheric, estuarine and marine dynamics? |
| Reducing the human footprint | What are the alternative solutions (policy, economic, and technological) for increasing waste minimisation and reuse for priority waste streams? |
| | Understanding ecosystems and their services – how have the region’s ecosystems and the societies that live within and depend upon them evolved; what are the links and what do changes in ecosystems mean for their resident societies? |
| | What management and governance models would be best suited to the management of the ecosystems and their services; and how can these models be promoted? |
| | What are the priority environmental and developmental issues that require integration? |
| | How do we develop context specific interventions (policy, technological, institutional and integrated approaches) to do more with less? |
| | How do we provide evidence-based research that will assist policy makers, businesses and trade unions on how we can better do more with less? |
| Adapting the way we live | What methods should be developed to better understand uncertainty and risk? |
| | What are the important secondary effects of a changing climate on water security? |
| | How do we best change human behaviour in terms of existing wasteful and inefficient ways of supplying (storing, transmitting) and using/consuming water? |
| | What role can market mechanisms, such as payments for ecosystem service and water trading, play to facilitate water security? |
| | Which wild plant and animal species are important sources of food? How will these be affected by climate change, and do alternative sources of food exist to replace such species? |
| | What are the factors that would determine urban resilience? The research could consider the ways in which ecosystem concepts such as diversity, redundancy, vulnerability and ecological variability apply to the urban social-ecological system, and should include biophysical factors as well as social factors such as regulations, values and aspirations? |
| | How does a city’s physical form and infrastructure affect its resilience? |
| | What would be appropriate monitoring and assessment tools with which to evaluate a city’s on-going resilience? |
| | What are the implications of climate change risks and declining ecosystem service for decision making and policy development regarding resources allocation, settlement planning and design development in rural areas and growth and management of major cities? |

| | |
|-----------------------------------|--|
| Innovation through sustainability | How do we effectively utilise ecological engineering/industrial ecology approaches to providing municipal services (e.g. energy and potable water supply, storm water management, the collection and treatment of waste, and the harvesting of resources such as energy, water, materials and nutrients) that would achieve multiple objectives of social development, ecosystem regeneration and climate mitigation and adaptation? |
| | How do we develop the management/control systems and business models for such approaches to the provision of municipal services and harvesting of resources? |
| | How do we develop novel ecological technologies, system of technologies and design solutions that respond to the pressure and problems introduced by global change, especially climate change? |
| | The dynamics of innovation processes are central to resilience and capacity-building: How do we determine progress towards creating the most appropriate environment for innovation as a means for building resilience and capabilities for sustainable living? |

These discussions culminated in the development of a conceptual ‘toolbox’ (pg.19) and framework (pg.20) to assist global change research efforts to better understand the social, cultural and gender issues in this space. Approaches to addressing global change concerns in South Africa need to explore the diverse socio-cultural perspectives embedded in our indigeneity, in order to generate emancipative and transformative African-centred approaches and solutions, which will engender the sustained buy-in of both rural and urban communities. As such, it is envisaged that the framework developed in this project will assist in generating research activity and programmes at universities as well as research bodies which identify gaps of gender and socio-cultural considerations in global change research, particularly in South Africa. Thus, the project was also motivated by the need to produce new knowledge (through research) which is required to improve the global change related adaptive capacity and to develop adequate and appropriate adaptation or mitigation strategies. Specifically the project seeks to achieve the following objectives:

1. To engender the creation of a multidisciplinary research hub/community working to deliver innovative research-based tools, capacities, and methodologies, for the advancement of gender perspectives and priorities, in the global change arena in South Africa. Therefore, to enable enhanced networking that grows the capacity and critical mass of the research pool by bringing like-minded people, from different disciplines, together to stimulate new thinking, and to foster innovation in the advancement of existing ideas.
2. To provide networking opportunities for women within socio-cultural inclusion in global change research, as a means of growing the capacity and critical mass of the research pool. We hope this will aid with the advancement of women’s participation in global change research, as practitioners, Principal Investigators’ (PI’s), Co-PI’s, etc.
3. To develop and advocate for an Afrocentric paradigm that fosters, inculcates and promotes socio-cultural and multidisciplinary research discourse, pedagogy and mind-sets within the global change agenda in South Africa.

4. The establishment, support and sustained co-ordination and implementation of research frameworks for the delivery of systematic programmatic good practice initiatives and research projects that advance gender balance and equity in the global change arena in South Africa.
5. Develop an online portal which is rich with information and research data (both quantitative and qualitative) on gender, global change and innovative approaches to understand their relationship.²
6. A compilation of draft papers by April 2015 which, once completed, will raise awareness and provide information about how environmental changes can be researched and understood as social.

In order to realise these objectives the project activities involved a series of detailed conceptualisation forums, intensive workshops, and academic outputs. These activities are presented in Table 2:

Table 2: Detailed project outline

| Date | Who's involved? (number of participants) | Brief description |
|---------------|---|---|
| 03/06/2014 | NRF, AISA in HSRC | Grant from the NRF signed and the project begins. |
| 09/06/2014 | ACNST, AISA in HSRC | Project Core Group (PCG) is finalised – These individuals were tasked with additional conceptualisation of the project as well as its operationalisation. |
| 17/06/2014 | Various outlets | Call for experts distributed. |
| 23/07/2014 | Expert Reference Group (7) | Seven experts selected to form part of the Expert Reference Group (ERG). This group was tasked with providing theoretical and conceptual expertise to the development of the framework as well as acted as mentors and advisors in the later stages of the project. |
| 11-12/08/2014 | RRG (14) | Research Reference Group (RRG) Meeting: The group of 14 spent two days brainstorming and debating the development of a conceptual framework which assisted with the inclusion of gender and socio-cultural dimensions within global change research. Their multidisciplinary discussions further enabled them to act as mentors and advisors later in the project. |
| 25/08/2014 | Various outlets | Calls for National Workshop participants are distributed. |
| 10/2014 | RRG (14) | Release of the project's Preliminary Report |
| 10/10/2014 | RRG (14) | Successful applicants identified and notified. |
| 29-31/10/2014 | RRG (14) National Workshop participants (22) | A three day intensive National Workshop which involved presentations, group work, and debates to further enhance the framework already developed in the RRG Meeting. Groups from across disciplines, together with mentors (from the RRG), synthesize their ideas which are later used in the development of papers. |

² This is the only one of our objectives not achieved due to circumstances beyond our control. This had to do primarily with the restructuring of AISA's GIS department itself. We have left it here because it was part of our original goals and we do hope that we will be able to secure additional funding so as to make this a reality.

| | | |
|--------------|--------------|---|
| 1– 5/12/2014 | RRG (2) | Two RRG members attend the 2 nd <i>National Global Change Conference</i> in Port Elizabeth, South Africa. |
| 2-4/12/2014 | RRG (1) | One RRG member attends the <i>Reflections from the Expert Group Meeting on Bioenergy Gender Mainstreaming & Localisation of Clean Technologies in Africa</i> in Kigali, Rwanda |
| 03/2015 | AISA in HSRC | A panel on gender and socio-cultural inclusion in global change was secured for the <i>African Young Graduates (AYGS) Conference</i> , chaired by an RRG member. It ensured that younger scholars also had the opportunity to write on and learn from the subject. |
| 04/2015 | All | Drafts of papers discussed at the <i>National Workshop</i> are synthesised and submitted to NRF. This compilation included detailed information relating to the conceptual framework, concepts, and innovative approaches. These papers are now at various stages of entering review process to be published in a variety of journals. |

Against this background the rest of this report will focus on the *Research Reference Group (RRG) Meeting*, the *National workshop*, and the framework developed at these meetings. Consequently, the remainder of the report is structured as follows:

- **Chapter 2** explains who the main role players are in this project including the Expert Reference Group (ERG) and Project Core Group (PCG) and how together they form the Research Reference Group (RRG). It then goes on to provide a detailed explanation of the *Research Reference Group Meeting* held from 11-12 August 2015 including a description of the presentations made during Day 1. Much of this meeting was dedicated to establishing the initial skeleton for the framework and conceptual toolbox but many of these debates have been transplanted into Chapter 4 to enable a standalone chapter for the framework
- **Chapter 3** delves into the presentations and debates which were undertaken at the *National Workshop* in October 2014, 29-31 October 2014. This workshop acted as a capacity building exercise and was hugely beneficial to identifying some of the operational challenges involved in the framework as well as picking up on gaps not previously identified in the *Research Reference Group Meeting*.
- **Chapter 4** is the main by-product of this project. The chapter identifies the framework and conceptual toolbox as they currently stand after debates in both sets of meetings. An outline of the framework is given before entering a more theoretical and conceptual debate regarding some of the identified terminology. The chapter ends by identifying the delimitations of the framework as well as the potential ways in which it could be utilised.
- **Chapter 5** provides a summary of the report and revisits the objectives mentioned in the introduction and comments on our performance thus far before offering a way forward.
- **Chapter 6** is a comprehensive bibliography which is a useful tool for anyone interested in the intersections of gender, socio-cultural inclusion and global change.

2. RESEARCH REFERENCE GROUP MEETING (11-12 AUGUST 2014)

The South African Global Change Plan (DST, 2010) fails to adequately account for the ways in which global change is gendered and experienced differently by diverse social groups when discussing its four grand challenges.³ As stated in the introduction, the project seeks to develop a framework which could serve as a starting point for including gender and socio-cultural dimensions in global change research, and these challenges more specifically.

After being awarded the grant by the NRF, Rasekoala and a small team of researchers from AISA were mobilised to facilitate further conceptualisation and operationalisation of the project to form what is referred to as 'The Project Core Group (PCG)'. Deliberations by the Project Core Group revealed the need to incorporate experts from the fields of gender studies, socio-cultural studies and global change research. This was done to ensure that the developed framework would be a fair representation of key conceptual and methodological components from each analytical area and to further facilitate rich cross-disciplinary discussions. Following a call for experts in June 2014, seven experts were selected - all of who displayed strong theoretical and conceptual knowledge in their respective fields. They also demonstrated a keenness to engage in capacity building, a core outcome of this project. These individuals formed what is called 'The Expert Reference Group' (ERG). Together these two groups are the 'Research Reference Group' (RRG) (Table 3).

Table 3: Research Reference Group

| Research Reference Group (RRG) | |
|--|---|
| Project Core Group Members (PCG) | Expert Reference Group Members (ERG) |
| Phindile Lukhele-Olorunju, Prof (HSRC) <i>Project leader from AISA and agriculture specialist</i> | Heidi Hudson, Prof (University of the Free State) <i>Centre for Africa Studies</i> |
| Elizabeth Rasekoala, Dr (ACNST) <i>Project leader from ACNST and global change expert</i> | Louise Vincent, Prof (Rhodes University) <i>Dept. of Political Science and International Studies</i> |
| Claudia Towne Hirtenfelder, Mrs (HSRC) <i>Project coordinator and gender analyst at AISA</i> | Munyaradzi Mujuru, Dr (University of Limpopo) <i>Department of Water and Sanitation</i> |
| Shingirirai Mutanga, Mr (HSRC) <i>GIS portal administrator and climate change researcher</i> | Roseline Achieng, Dr (TMALI) <i>The Thabo Mbeki African Leadership Institute</i> |
| Trynos Gumbo, Dr (University of Johannesburg) <i>Sustainable development science researcher</i> | Tawanda Runhare, Dr (University of Venda) <i>Foundations of Education Department</i> |
| Dineo Segga, Miss (HSRC) <i>Intern at AISA: interests in governance</i> | Theresa Moyo, Dr (University of Limpopo) <i>Turfloop Graduate School of Leadership (TGSL)</i> |
| Sibusiso Nkosi, Mr (HSRC) <i>Intern at AISA: interests in food security</i> | Vuyo Mjimba, Dr (University of South Africa) <i>Business and Climate Change Research Fellow</i> |

³ Motivated by these lacunae in perspectives, this research project was initiated by Dr Elizabeth Rasekoala who together with researchers from the Africa Institute of South Africa (AISA) worked on the concept note and sought funding from the NRF to achieve the primary goal of facilitating multidisciplinary research in the area of global change.

The role of the RRG was critical to the delivery of the objectives of the project, in that it acted as the ‘think-tank’ for the initiative. The expertise of the RRG also facilitated the development and transfer of research skills to national workshop participants and provided them with mentorship in the development of papers.

The initial development of the conceptual framework was achieved at the *Research Reference Group Meeting held* at the HSRC from 11th to 12th of August 2014. The intensive two day gathering began with presentations which served to ‘set the scene’ thereby facilitating cross-disciplinary understandings and discussions. The debate led to the development of a theoretical/conceptual framework for mainstreaming gender and socio-cultural inclusion in Global Change.

2.1 PRESENTATION ON GENDER METHODOLOGIES

The first presenter, Professor Louise Vincent, argued for researchers to not exceptionalise debates on gender but rather to view gender within a wider context of social research. Vincent broadly discussed ontology, epistemology and methodology and how these can shape the areas of interest researchers find pertinent. Fissures in what constitutes good research are often about what (theoretical debates) and how (methodological debates) research is conducted.

Vincent then went on to discuss gender methodologies in particular. She stipulated that the basis on which gender is researched in the social sciences varies and is often dependent on the definition of gender the given researcher is applying. For example, some may define gender as *biological* where as others might consider gender *roles* or how gender is prevalent in *language*. Importantly, Vincent challenged the researchers to question whether they were analysing gender in isolation or as intersecting with other social constructs such as race, and class in a commonly used feminist methodology, called ‘intersectionality’ which was first coined by Crenshaw (1991). As a starting point for discussion, Vincent raised Wharton’s (2005) conceptualisation of gender:

A multi-level system of social practices that produces distinctions between men and women and organises inequality on the basis of those distinctions. It is a powerful principle of social life that is visible throughout the social world.

There was some debate among the RRG about aspects of this definition including whether it is justified to include ‘inequality’ in a definition of gender and whether this does not presuppose such an inequality before conducting research into it. No consensus was reached on this point but the debate did illustrate the complexity of gender and its subsequent definitions. Thereafter Vincent highlighted what she believed to be some of the key concepts that are of relevance in gender research including: equality, difference, choice, and experience.

2.2 PRESENTATION ON SOCIO-CULTURAL STUDIES

The second presenter, Dr Roseline Achieng, provided an account on paradigmatic positions. Achieng defined a paradigm as the philosophical intent or position which underlies one's study. This in turn shapes researcher's methodology and methods. She went on to stipulate that there is a paucity of new knowledge generation, particularly across disciplines.

Achieng explained the overarching differences between positivism and interpretivism. These were interesting to compare within the context of the meeting which was designed to bring people from the natural and social sciences together. Achieng then discussed three key paradigms within socio-cultural studies:

1. The Interpretive/Constructive paradigm posits that reality is socially constructed and can best be accessed by understanding human experience. This is achieved mostly by gathering and analysing qualitative data that helps to reflect participants' own views. Examples of positions within the Interpretive paradigm include: Hermeneutics, Social Constructivism, and Phenomenology
2. The Transformative Paradigm seeks to achieve social reform which is informed by a political agenda and often makes use of mixed methods as a means of doing so. Examples of positions within the Transformative Paradigm include Feminism, Critical Race Theory, and Advocacy.
3. The Pragmatic Paradigm focuses on the research problem and seeks to understand the issue at hand so as to inform policy changes. This is more practice oriented and tends to employ mixed method approaches.

As opposed to using one of the above paradigms, Achieng believes that for the purpose of developing a framework which is multidisciplinary we should make use of Afrocentricity⁴ as a paradigm:

Afrocentricity is "a consciousness, quality of thought, mode of analysis and an actionable perspective where Africans seek, from agency, to assert subject place within the context of African history" (Asante, 2007: 16).

In principle, using an Afrocentric paradigm will ensure that the process of developing the framework as well as the later utilisation of the framework is viewed as Afrocentric knowledge generation located within African cultural experiences thereby giving credit to Africans as agents "rather than spectators to historical revolution and change" (Asante, 2007: 17). Transhistorical, comparative, multidisciplinary, discursive and gender analyses are methodological stances privileged by Afrocentric paradigm. This provides a powerful nexus between natural and social sciences through African agency.

⁴ Please note that 'Afrocentricity' and 'Afrocentrism' are not the same. Afrocentricity is a position that tries to understand the African as a subject matter. It is an approach that prioritises African agency, African positionalities and African experiences, whereas Afrocentrism is an ideology concerned with African values and value systems, customs, habits and traditions of African people. It can be directly compared to Eurocentrism: "The term 'Afrocentrism' was first used by the opponents of Afrocentricity who in zeal saw it as an obverse of Eurocentrism. (...) the use of 'Afrocentrism' reflected a negation of the idea of Afrocentricity as a positive and progressive paradigm" (Asante, 2007: 17).

2.3 PRESENTATION OF GLOBAL CHANGE

The third presentation, given by Dr Elizabeth Rasekoala, focused on the challenges raised in the *10-Year Global Change Research Plan for South Africa* (DST, 2010). It sought to highlight how the existing discourses on global change are parading as universal thereby failing to account for the complexity of people causing and experiencing such changes. The four key challenges of global change are:

- 1) Understanding a changing planet
- 2) Reducing the human footprint
- 3) Adapting the way we live
- 4) Innovation through sustainability

While discussing these four core challenges of global change, Rasekoala posed the research questions found within Plan (see Table 1). Throughout her presentation Rasekoala asked: Who benefits? What are the risks and for whom? And what are the alternatives? Rasekoala challenged researchers to be cognisant that the answers to these questions are gendered and based on socio-cultural worlds. The central theme of her presentation was the call for novel global change responses and solutions that are cognisant of the central and critical role of, human beings and their social lives.

2.4 A MULTIDISCIPLINARY DIALOGUE

The three presentations set the scene and illustrated some of the methodological and conceptual differences between the social and natural sciences. More importantly they demonstrated the willingness of participants to learn and practice across disciplines. What followed were intensive debates surrounding what should be included in the multidisciplinary framework. As with any group endeavour, the achievement of a unified framework required compromise and, more importantly, a willingness to argue for and against the inclusion-exclusion as well as best placement of such concepts.

The RRG followed a deductive process and generated over 80 concepts through discussion. These concepts were refined and collectively sorted into four non-mutually exclusive conceptual categories (see 'tool box' pg. 19) before being shaped into a visually stimulating framework (pg.20). Both the toolbox and framework underwent debate at the *National Workshop* which was particularly helpful in fleshing out avenues of global change focus and to further deliberate around the controversial nature of some concepts, such as Afrocentricity.

3. NATIONAL WORKSHOP ON GENDER AND SOCIO-CULTURAL INCLUSION IN GLOBAL CHANGE (29-31 OCTOBER 2014)

*The National Workshop on Gender and Socio-Cultural Inclusion in Global Change*⁵ held on 29-31 October 2014 was the next core phase of the project. It served as a platform from where the framework design could be deepened and further knowledge circulating its strengths and limitations could be debated.

‘Setting the scene’ presentations, similar to those given during the *Expert Reference Group Meeting* in August 2014 (pg.6) were given. Following the first day of ‘initiation’ to the project and its goals, day two was primarily smaller thematic groups discussing the framework as well as future development of papers (under the guidance of the RRG). Groups made brief presentations on the framework and their thematic areas which furthered empirical and theoretical contemplation. Participants were exposed to knowledge paradigms from numerous disciplines and encouraged to learn from each other thereby directly contributing to the capacity building outcome of this project. Day three involved consolidation of the first two days as well as further group time to facilitate best practice moving forward in the development of draft papers and a special edition journal contribution

3.1 DAY ONE: SETTING THE SCENE

Professor Lukhele-Olorunju welcomed all participants and gave a summary of the Preliminary Report (Hirtenfelder, 2014). She drew particular attention to the goals and objectives of the project (pg.3). Lukhele-Olorunju’s emphasis on discussion and policy relevance was a great link to a presentation by Ms Mapula Tshangela, the guest speaker at the workshop and representative from the Department of Environmental Affairs (DEA) South Africa.

3.1.1 SOUTH AFRICAN GOVERNMENT AND SETTING THE SCENE

Tshangela explained the challenges of government departments addressing global change from a policy perspective. She implored that policy makers not be side-lined in academic discussions but, rather, viewed as a partner in any multidisciplinary approach. In this, Tshangela bemoaned the Policy/Expert/Researcher divide in knowledge production and dissemination in what she called the ‘ugly-baby’ syndrome – *don’t tell me that my baby is ugly when yours is ugly too....* Tshangela highlighted some of the positive developments currently underway in her department. Namely, the setting up of a Sector Gender Unit and a Young Scholars Forum in

⁵ Young, emerging and mid-career level academics and researchers, particularly women, were encouraged to apply to participate. To be considered they needed to submit their CVs, a letter of motivation, as well as an abstract and/or short paper (3,000-5,000 words) discussing/critiquing/utilising the framework. The Call was sent out August 2014 and all applications underwent a stringent review process in which each submission was reviewed by three RRG members. Following the review process and logistical arrangements 22 applicants (including the two core group interns) were invited to a *National Workshop on Gender and Socio-cultural Inclusion* held on 29-31 October 2014.

the DEA, which will facilitate more engagement and enhance gender and youth mainstreaming in the department's policies.

That said, Tshangela then conceded that gender and culture are hugely underrepresented in South African environmental policies in general and pointed out that this is particularly apparent in *South African 10-year Global Change Research Plan* which does not mention 'gender' at all. As much as the invisibility of gender and socio-cultural matters in environmental policies and documents is widespread due to poor understanding of such matters; Tshangela expressed that it is compounded by the dearth of gender dis-aggregated data. Lack of such information makes it challenging for policy makers to adequately address issues of gender inequality and equity.

With the aforementioned in mind, Tshangela voiced her desire for gender to be systematically incorporated into sector approaches and was critical of initiatives that only focused on women during 'women's months'. She further noted the need for symbiosis across government departments so as to effect more collaborative partnerships. From this, Tshangela commended the project for its scope, vision, and capacity-building before pointing out the project's strategic fit into focus areas of existing development plans at national level. As well as its contribution to social learning through its multi-disciplinary framework and its transformative and emancipative gender justice angle.

Following Tshangela's presentation, Rasekoala acted as a discussant noting the seamlessness of issues relating to sustainable development, the importance of gender disaggregated data, as well as the complex nature of political alliances that try to tackle issues of global change. Rasekoala highlighted the strategic plan of the community of practice set up by the project, to add value to the work of various government departments such as the DEA and the DST; the vision in the project to take multi-disciplinarity from rhetoric to practice, via the development of innovative tools, methodologies and methods to engender practical implementation; and the drive for new African-centric knowledge generation to infuse transformation, and African agency and emancipation into the global change arena.

Much of these sentiments were reiterated in the Q&A session with particular mention being made of StatsSA and their role in the collection of disaggregated data. Different perspectives were also voiced with some mentioning the lack of leadership from the Department for Women; the political/economic dynamics which impact global change; as well as how cultural/structural dynamics can conflict with African agency on gender equality. This plenary session and discussion aptly illustrated the importance and the involvedness of the project at hand which was nicely supplemented with presentations which helped to conceptually set the scene.

3.1.2 PRESENTATION ON SOCIO-CULTURAL STUDIES

Dr Achieng repeated her earlier presentation from the August *Expert Reference Group Meeting* (pg.6) on the importance of socio-cultural inclusion, highlighting how different areas of knowledge are generated. She concluded by expressing the need for adopting an Afrocentric paradigm so as to bring out the core issue of African agency.

During the discussion, questions were raised on what other socio-cultural methodologies there are, how one can reach a state of self-consciousness and how one can come to understand African agency in a diverse world. Further questions were asked about whether Afrocentricity does not slip into essentialism. The overarching discussion points were about how Afrocentricity could be utilised in the natural sciences and how perceptions of trust between the natural and social sciences can be mediated. No consensus was reached on these critiques but they provided distinct discussion points for the rest of the workshop.

3.1.3 PRESENTATION ON GENDER AS A CONCEPT

Dr Theresa Moyo discussed some of the divergences in defining the concept 'gender'. She noted that there are different opinions as to how one can operationalise a gender analysis and she herself took a social constructivist stance stating that gender is a 'social construct' which results in an unequal distribution of power and resources. She noted that any gender analysis needs to privilege the importance of personal experience as well as avoid oversimplifying what is meant by 'woman' and 'man', that is, one must note that there are differences between women and men and that they should not be illustrated in a binary, essentialist relationship to one another. She called for more research which deconstructs the social inventedness of gender relations and the inequality it, in turn, recreates.

Participants were quick to caution against collapsing 'woman' and 'gender' together and that gender as an analytical concept encourages exploration of the relationships between women and women, men and men, as well as women and men. Furthermore, it was mentioned how ethics forms a deep part of feminist methodologies which call for more reflexivity on the powerful position of the researcher in the research process.

3.1.4 PRESENTATION ON GLOBAL CHANGE

Rasekoala gave the same presentation which she had made at the *Expert Reference Group Meeting* (pg.6) on how deeply social and gendered the global change challenges are and encouraging participants to constantly ask "who benefits?", 'who decides?' and to be critical of how choice is gendered and grounded in socio-cultural contexts. To further highlight and illustrate the complex interlinkages between these paradigms, Rasekoala outlined a case study (in the form of a story) of a water sector project that she had been involved with.⁶

Rasekoala spoke of how male, European engineers who implemented the project only consulted Village Chiefs and Elders (who were all male) regarding where a communal tap (which would supply clean water) should be placed in the community. It was decided to put the taps a short walking distance from the village homes with the well intentioned rationale of 'saving' women the time used for their daily 'onerous' trek to the river to get water (which they use to boil for safe drinking). Upon return to inspect the utilisation of the tap the male,

⁶ The project was funded by a European government AID Agency, conceptualised and delivered by a European-based Water NGO, and targeted at rural communities in West African countries. Her story indicated some of the challenges of moving beyond good intentions and well-meaning rhetoric to the practical delivery of gender and socio-cultural inclusion, in a scenario of unequal power and economic relations characterised by male domination of decision-making structures.

European engineers were surprised to find it unused. After receiving no answers from the Village Chief and Elders regarding this underutilisation the men finally consulted the village women. It soon emerged that the women valued their walks to the river which were not viewed as ‘onerous’ but rather formed a major part of their social life and provided an outlet for stress. It was their ‘fun’ time, a time for friendship, sharing laughter, recipes and food. When the male, European engineers asked the women where they would have put the tap their answer was, unsurprisingly, by the river. Unfortunately, the budget for the project had been fully spent by this time and there were no funds left to make the requisite changes that the women required, and thus, the well-intentioned initiative ended up failing due to a lack of gender sensitivity and understanding of socio-cultural realities. According to Rasekoala, this story illustrates challenges of climate change and its adaptations and mitigation without understanding historical and contemporary logics of domination, marginalization and exploitation/

This led to some debate during the Q&A session about the history of the natural sciences and what effect colonialism may have had on their generation. Some made calls for a move back ‘to a time before the white man’ where ‘African spirituality’ was ‘purer’ while others questioned the utopian nature of such statements asserting that one cannot erase history. This, in turn, steered the debate back to one of Afrocentricity, where participants asked a number of critical questions, such as: who constitutes an African in statements like ‘we are Africans’ or ‘as Africans’ and whether one needs to be African in order to adopt an Afrocentric paradigm. The response to this was that an Afrocentric view is one that needs to be struggled⁷ for and is about what Africans say about themselves and their history. That does not mean someone of non-African descent cannot adopt an Afrocentric paradigm that acknowledges African agency and attempts to challenge the unequal systems which recreate structural disadvantages for the continent.

An additional avenue of debate was around the placement of health in discussions on global change. It was stated that health has an intimate relationship with gender and matters of global change and that one could focus on one global change phenomenon (whether it is issues of water, climate change, or soil erosion) and ask questions about their change in a more socially sensitive fashion. For example one’s health may be impacted by the declining amounts of water, and in turn the increased walking distances. Alternatively, one’s health may be compromised if the soil in which crops are planted does not have necessary nutrients or has poisonous elements that can be traced to the food consumed or even pollution of the environment especially in mining areas. Furthermore, who collects the water, plants the crops, is gendered.

Lastly, it was identified, critically, that globalisation and issues of international politics appear to be absent from the workshop debates’ on global change. Participants asked for closer attention to be paid to the global

⁷ The word ‘struggle’ was used ‘in solidarity’ with feminist theories and methodologies which state that for someone to see the world from a perspective which goes against their conception of the norm it is a view that needs to be ‘struggled for’. For example, just because you are a woman it does not mean that you will necessarily see gender inequality (take for example the current anti-feminist views) but that in order to see structural inequalities it is something you need to struggle for because it is not immediately apparent. This word is also loaded in that it implies that just because you are African it does not necessarily mean you have an Afrocentric view but it is something you need to immerse yourself in and struggle to see. It also, on the other side of the coin, states that even if you are not African if you struggle against current ways of seeing and thinking about the world (struggle) then you may be able to adopt an Afrocentric view. As Asante (2007) and Mazama (2001: 389) both stated: not all Africans are necessarily Afrocentric: “One may practice African customs and not be Afrocentric because Afrocentricity is conscientization related to the agency of African people”.

power dynamics which exacerbate matters of global change, who contributes most to them, and who is most affected by them.

3.1.5 PRESENTATION ON MULTIDISCIPLINARY RESEARCH

The last presentation of the day was another given by Achieng, this time on the importance of multidisciplinary research. Achieng attempted to illustrate how initiatives such as this are not ‘non-disciplinary’, nor are they trying to add one discipline on top of another. Rather, the developed framework is trying to encourage reaching across disciplines and learning how to integrate different knowledge systems. She noted that this project was synthetic in design as it tries to encourage methodological cooperation.

Participants then asked how it is possible to move forward without ‘solid’ definitions of concepts. This practice was defended on the premise that it allows for diversity and flexibility in the framework. That is not to say the framework panders into relativism but rather encourages any global change project to define the concepts which have been identified as critical to their analysis. Rather, researchers from across disciplines are joined in their views on gender and social justice illustrating a move toward more holistic and inclusive research. There was, however, a critical question of how such projects can manage tensions between ‘cultural justice’ and ‘gender justice’ which are not always synonymous with one another, another factor on which researchers’ would need to be reflexive of during their research process.

3.2 DAY TWO: GROUP DISCUSSIONS AND PRESENTATIONS

After a brief crash course on the RRG developed framework and some of the core areas of focus, much of day two (and day three) was dedicated to smaller group discussions. The groups were divided according to thematic areas which were identified based on participants’ applications:

1. Gender, Socio-Cultural Inclusion, water and vulnerability
2. Gender, Socio-Cultural Inclusion, politics and conflict in global change
3. Gender, socio-cultural inclusion, language and discourse in global change
4. Gender, socio-cultural inclusion, health, agriculture, and vulnerability

Groups were then given the opportunity to discuss their submissions. During this time they were tasked with 1) identifying a critical aspect they would like to make a presentation on and 2) identifying papers they would like to work and collaborate on later in the day.⁸ A summary of each group discussions in presented below.

⁸ These smaller groups allowed for deeper, more focused debate which was facilitated by mentors, members of the RRG. Each group was allocated at least two mentors and two advisors (different RRG members). The mentors provide early support to group members and the advisors’ role is to provide support after the papers have been drafted so as to facilitate conceptual accuracy and serve as an internal review mechanism

3.2.1 GROUP 1: GENDER, SOCIO-CULTURAL INCLUSION, WATER AND VULNERABILITY

Group one gave a general presentation on how they view the framework. Broadly, the members mentioned that social cohesion is critical and that any analysis on global change attempting to mainstream gender and socio-cultural inclusion must be highly contextualised. The group also spoke of how global change needs to be positioned within wider discourses of sustainable development which are cognisant of social cohesion, community education and empowerment. They believe that the outcome of making use of a multidisciplinary framework which mainstreams gender and socio-cultural inclusion in global change research will allow Africa to have a better voice in global communication exchanges.

Group one's discussion was largely about water scarcity and how it affects both men and women, therefore encouraging a need for issues of equity and social mobility to take the foreground. They stated that the multidisciplinary nature of the framework assists in finding tangible solutions that can ensure that the general lifestyles of women and men are not ordained by a lack of access to water on an equitable basis. They further noted that in adopting Afrocentricity as a lens one must be cautious to not romanticize or eulogize it. According to them, Afrocentricity needs to be understood within the context of pre-colonial, colonial and contemporary African history – as an evolving and evolved paradigm that has been profoundly and continues to be impacted upon by the dynamics of the colonial, neo-colonial and globalisation experiences. They stated that the intrinsic challenge for Africans is how to manage the process and outcomes of its evolution so that it engenders and drives African agency in strategic development paradigms such as gender and socio-cultural inclusion.

3.2.2 GROUP 2: GENDER, SOCIO-CULTURAL INCLUSION, POLITICS AND CONFLICT IN GLOBAL CHANGE

The group felt strongly that the existing framework failed to locate global change within a global political order, therefore, they urged for political economy to be included in the framework. They discussed how competition for resources and power relations are intimately part of global change and can lead to conflict. Furthermore, they suggested a need for an institutional focus, i.e. one that looks at the key actors in the global change arena paying attention and being sensitive of how their work is organised and gender issues are considered. The gendered nature of conflict in international political economy is something which has been explored but which needs to be better located within debates on environmental issues.

Additionally, even though knowledge is produced in Africa, it is not afforded with the same status as other knowledge due to global power dynamics and the political economy of knowledge and ideas, which points to a much deeper, methodological consideration of conflict.

3.2.3 GROUP 3: GENDER, SOCIO-CULTURAL INCLUSION, LANGUAGE AND DISCOURSE IN GLOBAL CHANGE

Group three had an interesting debate on how language is used and that it can hide subjects and agency. For example, note the difference in agency in the following phrases: "China goes to Africa" versus "Africa lets China in". Therefore, the broad question becomes whose agency is revealed in current discourses of global change? Language is powerful and analysing the current discourses in global change debates may highlight how it is constructed, according to who, and for whose benefit.

Another noteworthy comment was about the primacy of English in debates on gender and global change without being reflexive that other languages, particularly African languages, may not be gendered in the same way. Therefore, language is a powerful tool in defining and determining concepts of gender and culture while analysing the current discourses in global change. Additionally, there is a need to look at not only how language is used, but silence too, and how it disturbs and disrupts inclusivity. Lastly, one should think about how language forms part of resistance to oppression. The group discussed several examples in relation to global change and language namely how male dominated and racialised South Africa's wildlife and sporting industries are. They then pointed out how dominant discourses in these industries are propped up, although differently, using male discourses of the environment and how it should be related to.

3.2.4 GROUP 4: GENDER, SOCIO-CULTURAL INCLUSION, HEALTH, AGRICULTURE, AND VULNERABILITY

Group four located health and agriculture within broader debates of livelihood and considered how global change affects agriculture, which in turn has health and gender consequences. Gender and health are also intricately interrelated and will also affect agriculture. Furthermore, they identified that different people in a specific communities are affected by global change differently depending on their social standing, making understanding vulnerability difficult to analyse. Group four felt that indigenous knowledges⁹ could be a useful way of trying to understand and analyse livelihoods. The group further felt that existing policies and practice are not adequate in relation to the increasing environmental constraints people feel. That is, global change and is the main cause of low productivity in agriculture which contributes to lower provisions for people to sustain themselves. This then also becomes a question of food security and how lack of access to good food may hamper health. Therefore, one might seek to ask: If agriculture is being affected how is it shaping women and men's social roles in managing it?

For the group, the framework will adequately encapsulate the conceptualization needs of their work (from methodology, method to application). They also drew attention to their considerations of how they would like to move forward. One such area is considering how the framework can be used to address policy considerations (either directly or emerging from the aforementioned research). Group four believes that the framework provides an opportunity for better understanding how such effects are felt socially because in order to achieve sustainable livelihoods one needs to understand local knowledges and adaptation strategies.

3.3 DAY THREE: CONSOLIDATING THE DEBATES AND THE WAY FORWARD

Day three was dedicated to further group discussion before consolidating debates and mapping the way forward as envisioned in Table 4:

⁹ This was written as 'knowledges' for a reason. There has been a lot written on how matters that are written in singularity, 'knowledge' for example, give the illusion that there is one way of knowing and one reality. There are multiple indigenous knowledges. This again is a discursive shift, which many feminists encourage, that is cognisant of a multitude of epistemologies and ontologies which exist both within and outside of academia

Table 4: Initial stages of paper development

| | |
|------------|--|
| 01/12/2014 | Deadline for participants to send concept notes to their mentors |
| 19/12/2014 | Deadline for mentors to give feedback to participants on their concept notes |
| 02/02/2015 | Participants to send the first draft of their papers to their mentors. Mentors to also distribute to advisors if they see fit |
| 23/02/2015 | Mentor to give necessary feedback to participants on their first drafts |
| 16/03/2015 | Participants to send through their second drafts and abstracts to their mentors. |
| 30/03/2015 | Mentors send back feedback to participants from themselves and advisors |
| 10/04/2015 | Participants send their third draft and abstracts to their mentors. These should be relatively well polished. |
| 15/04/2015 | Deadline to send the draft papers to the NRF for consideration. Then the beginning of the review process for submissions to respective journals. |

The framework remained largely unchanged during the course of the workshop, with the exception of adding the concepts ‘international political economy (IPE)’, ‘globalisation’, and ‘difference’. Several avenues of interest for global change research, as were identified at the National Workshop, include looking at water, health, agriculture, and language. Nonetheless, the debates on the existing concepts and methodological considerations were deepened, as can be seen in the next section.

4. A THEORETICAL/CONCEPTUAL FRAMEWORK ON GENDER AND SOCIO-CULTURAL INCLUSION IN GLOBAL CHANGE RESEARCH

The below mentioned framework and conceptual toolbox were developed at both of the aforementioned meetings. Although the images themselves have changed little since the *Expert Reference Group Meeting* (page 6)¹⁰ the concepts and debates surrounding the framework and its usefulness have been further thrashed out following the *National Workshop on Gender and Socio-Cultural Inclusion* in October 2014.

The RRG followed a deductive process and generated over 80 concepts through discussion. These were refined to 49 and collectively sorted into four non-mutually exclusive conceptual categories: 1) Theoretical/Analytical concepts, 2) Methodology/Method concepts, 3) Value concepts, 4) Outcome/Purpose concepts. After debates at the National workshop an additional three concepts were added: ‘international political economy (IPE)’, ‘globalisation’ and ‘difference’ (Figure 1) taking the total number of concepts to 52.

Again, it is important to note that the aim of this framework and conceptual toolbox is to highlight important concepts which would assist in the creation of research methodologies which would be better equipped to mainstream gender and socio-cultural inclusion matters in global change research and design. It would be impossible to make use of all of the concepts in practice but being sensitive to them and acknowledging their relationship would result in more complex and indeed better informed research on global change.

Not only will a researcher aiming to make use of this toolbox have to be cognisant of the concepts they use but also of how these concepts relate to one another, ensuring that they are not conflicting. This would require deep conceptual focus and understanding at the preliminary stages of a project. For example, one could be pressed to ask what is hidden behind the notion of ‘normative agenda’ and how can this be reconciled with some Afrocentric theorists’ resistance to normative social science in which they see “normative social sciences approaches [as] lack[ing] a culturally appropriate and realistic interpretation of Africana reality” (Pellerin, 2012: 153). Thus, one must be careful to presume that because all of these concepts are within the same conceptual toolbox and framework that they ‘hang together’ unproblematically. Each concept comes with its own theoretical and methodological debates which would need deep thought before being utilised in a research project. This type of conceptual debate would help to charter new ways forward of thinking about research and its capacity to mainstream gender, culture, and social relations in global change research but it must be done in a fashion which is sensitive to and debates with knowledge which has preceded it. That is, informed by theoretical and conceptual contributions from the fields of gender studies and socio-cultural scholarship this framework provides an opportunity to better answer multidisciplinary questions, such as those highlighted in the *10-Year Global Change Research Plan for South Africa* (pg.2).

The toolbox, therefore, illustrates the porous nature of the concepts (particularly between analytical-theoretical and method-methodology quadrants) as well as their relational character. Discussion around the location of these concepts initiated the final stage of the framework’s development. Once consensus was

¹⁰ See the Preliminary Report (2014) in which the initial conception of the framework was developed and stated.

reached that the below concepts, theories, methods, and methodological components were most central to the objective of this study it culminated in a visual framework which is able to highlight core concepts vital to any study aiming to mainstream gender and socio-cultural inclusion in global change research.

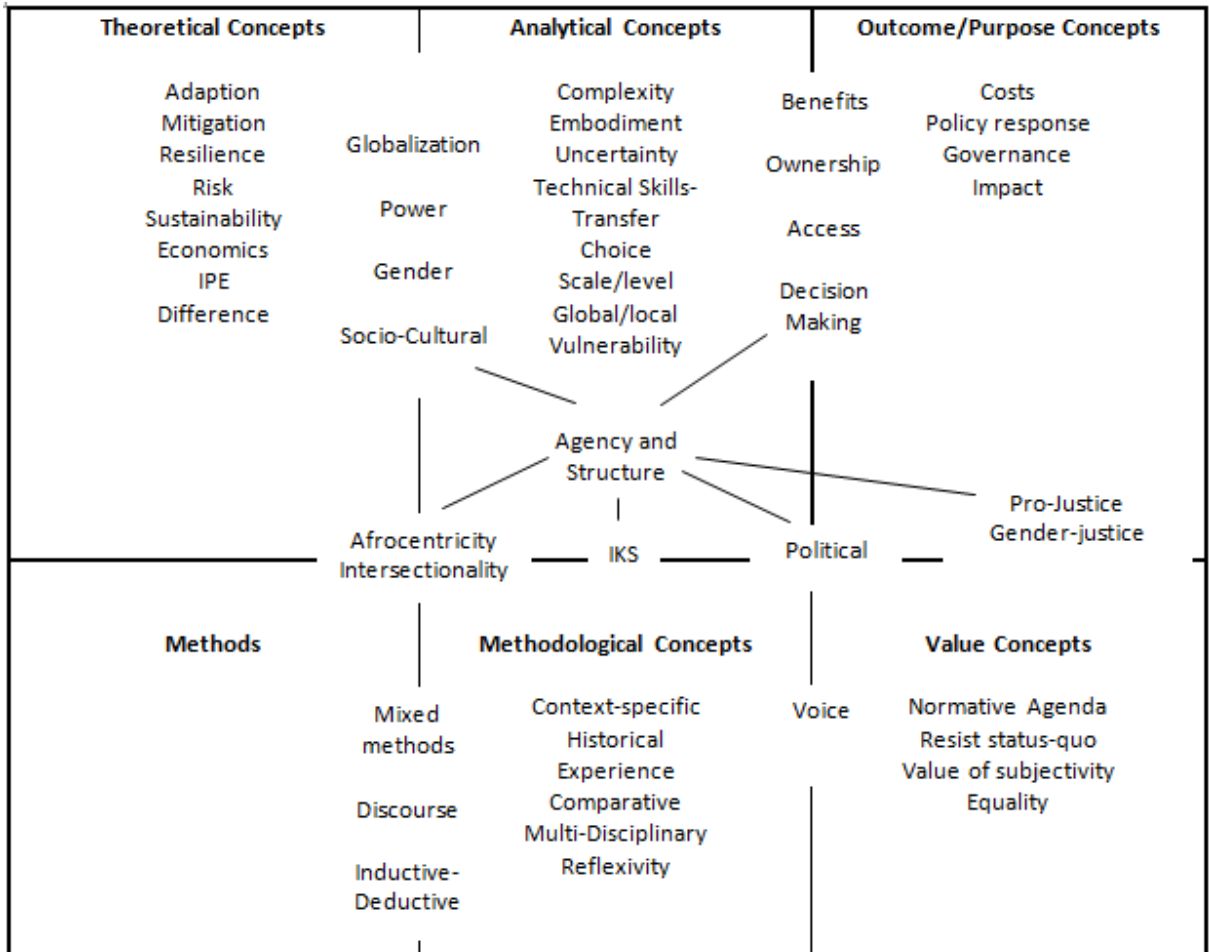


Figure 1: Important concepts in mainstreaming gender and socio-cultural inclusion in global change research

Figure 2 is the final product of lengthy debates and discussions at the RRG Meeting in August 2014 (pg.6) and the National Workshop (pg.10). It illustrates what the group posits to be the most vital elements for research to explore the social-cultural and gendered causes and consequences of global change.

The core tenets of the framework (gender, socio-cultural inclusion and global change) help to form the foundation of the structure as the primary research arenas. The arms of the triangle are solid indicating the firm connection between these four key nodes of the framework. Lastly, the porous rings enveloping the triangle show that the framework is shaped by values, methodology, methods, theories, and concepts which best achieve the mainstreaming of gender and socio-cultural inclusion in global change (the base of the framework).

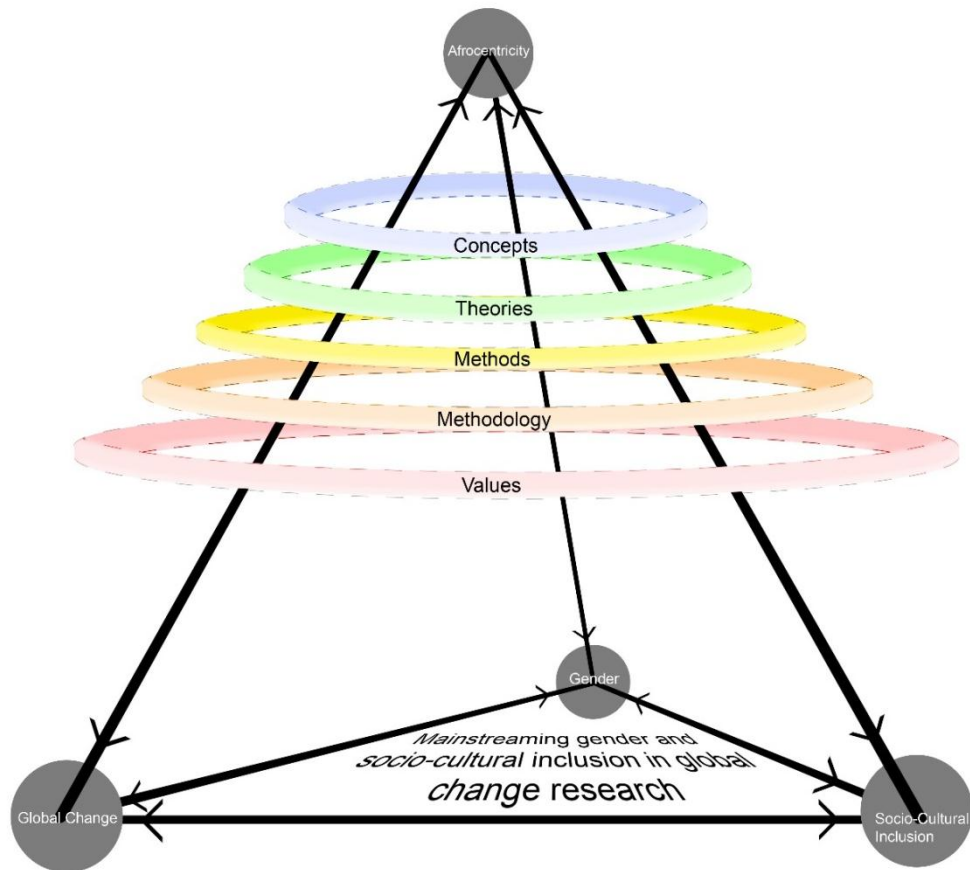


Figure 2: Vital elements of gender, socio-cultural and global change inclusive research

The only addition made to the figure during the course of the workshop were the ‘arrows’ to further drive home the relationship between the key nodes. There was some debate, however, about which node should be at the apex. It was argued that ‘global change’ should potentially be at the apex as the research is on *mainstreaming gender and socio-cultural inclusion in global change research* as opposed to *mainstreaming global change in gender and socio-cultural research*. This was a highly critical debate and although it was noted that global change is indeed privileged, because of the objectives of the project, it was decided to keep ‘global change’ at the base with ‘gender’ and ‘socio-cultural inclusion’ because together these inform and shape one another in mutually constituting ways even beyond the focus of the project.

Furthermore, it was important to the project organisers that it be clear that the framework is a product of Afrocentric knowledge production (indicated by the apex) and serves as a tool to further aid Afrocentric research and debate. That is, ‘Afrocentricity’ is in a privileged position because the framework is believed to be

forged out of a normative agenda which seeks to resist a scientific status quo which has tended to make invisible and universal the causes and impacts of global change.¹¹

This section is dedicated to explaining the four key nodes of the framework (Afrocentricity, gender, socio-cultural inclusion, and global change) and how they are shaped by particular values, methodologies, methods, theories, and concepts. This is followed by an overarching debate on the framework, how these nodes are connected, and what some of its limitations might be.

4.1 THE APEX: AFROCENTRICITY

Afrocentricity is frequently collapsed with blackness and thought to be a concept which encapsulates the repositioning of black people as 'subjects' and 'agents' as opposed to 'objects'. However, the whole idea of *African* meaning *black person* is not that obvious, different Afrocentrists refer to it in various manners. Molefe Asante (2007: 24), frequently thought of as the 'father' of the conceptual development of 'Afrocentricity', for that matter, states that:

...it is not the identifying or not identifying with blackness that is at the core of Afrocentricity.... Afrocentricity begins with the idea that African people should be at the centre of their own history in every conceivable situation where Africans are involved.... So it is not a 're-centering on blackness' that is at the heart of Afrocentricity, but the re-centering of the African person in the centre of his or her own historical context, reality, and time'.

Asante (1995: 3) has openly expressed that Afrocentricity is not about 'colour consciousness' but rather the 'orientation of centeredness'. Further, paraphrasing Ama Mazama (2003) he added that "an Afrocentric paradigm is not merely a worldview, (or even a theory as such), but rather a paradigm that results in the reconceptualization of the social and historical reality of African people" (Asante 2007: 9). This, asserts the centrality of Africa to human history and further posits that the philosophy and teachings of African scholars should be given greater prominence in higher education institutions (Asante, 1986: 104).

Box 1:

The codes of Afrocentricity

By: Dr Roseline M. Achieng

- 1) Reconceptualisation of the social and historical reality of African people
- 2) Revolutionary shift in thinking and constructural adjustment
- 3) That casts ideas, concepts, events, personalities, political and economic processes in the context of African people as subjects and not as objects
- 4) A consciousness, quality of thought, mode of analysis and actionable perspective that seeks to bring to the fore African agency
- 5) A methodology that consciously operates within African ways of knowing and existence
- 6) Derivation of concepts, ideas that spring from the life experiences of African people

Therefore, Afrocentricity is a structural methodology engendering a culturally appropriate conceptualisation of African reality and serves as “a governing tool of active agency, which informs new approaches in interpreting social phenomenon and can aid in the redevelopment of social science research” (Pellerin, 2012:149). This rejects discourses which frame Africans as culturally, politically and economically inadequate and deficient (ibid) and opposes marginalisation of African knowledges and cultures. Therefore, while there are variations of Afrocentric paradigms, their common feature, as argued by Asante (2007:2), centres that there is “an intellectual perspective that privileges African agency within the context of African history and culture, trans-continentially and trans-generationally.” Mazama (2001: 399-400) goes on to provide seven criteria for such an Afrocentric methodology:

- 1) “The African experience must guide and inform all inquiry;
- 2) The African spirituality must be given its due place;
- 3) Immersion in the subject is necessary;
- 4) Holism is a must;
- 5) Intuition is a valid source of information;
- 6) Not everything that matters is measurable;
- 7) Knowledge generated must be liberating.”

As such, key elements of Afrocentricity, include the recovery, recollection and reconstruction of African cultures while also privileging ideas of harmony and interdependency, collectivity, and spirituality (Ndungi wa Mungai, 2013: 47; Schiele, 2000: 25; Graham, 2002: 69). In the article *The Afrocentric Paradigm* (2003), Mazama states that the Afrocentric paradigm involves three aspects: 1) affective, cognitive, conative; 2) structural; and 3) functional. Pellerin’s (2012: 150) review of Afrocentric literature subsequently mentions:

The affective, cognitive, conative aspect is understood as the navigating principles that function as the basis for inquiry into African phenomena. This aspect equips the scholar with necessary methodological tools and principles to conduct research that is liberating for continental and diasporic Africans. The institutionalization of organizing principles generates a basis for methodological approaches that are rooted in Africana people’s realities.

The intention here is not to say that the agency of all Africans is the same, as that would be essentialist (Afrocentrism). Rather, the intention is to highlight that Africans are relevant and important generators of knowledge and thus have agency in finding solutions to some of the world’s¹² most pressing challenges, including those found within global change. Consequently, this framework encourages Afrocentric knowledge generation and is intended to aid further Afrocentric research on gender and socio-cultural inclusion in global change. According to Reviere (2001: 709), “Afrocentric methodologies are intended to be used to investigate pertinent research questions legitimately and effectively (that is, truthfully and inclusively)” and using the other components of our framework we would be inclined to privilege those that possess embedded assumptions

¹² Afrocentricity is a culture specific methodological tool where context is emphasised. Thus, one may be led to ask how can it be generalised that it can help find solutions for the whole world. However, changes in the environment often have effects far beyond social and political borders and effect the whole world. Therefore, a methodological tool which is framed at addressing matters within Africa will, undoubtedly, have impacts beyond the continent.

about race and culture' and phenomena such as global change. This project, therefore, adopts an Afrocentric position to the extent that it fundamentally values African voices, perspectives and agency. The framework should subsequently be used in collaboration with African people's historical and cultural lives.

Box 2:

Debating the boundaries of Afrocentricity

By: Dr Olga Bialostocka

A lot of precepts of Afrocentricity are based on the concepts developed in Ancient Egypt (Kemet), for instance, harmony or African intellectual principle within the Afrocentric paradigm is referred to as *Maat*, place is called *djed*, which are both words describing notions developed by ancient Egyptians. Varied other ideas used by the Egyptians are being 'called back' to life to constitute the basis of the 'African identity' as understood by Afrocentrists. Yet, all of these concepts are known and interpreted nowadays through the worldview rejected by Afrocentrists, knowledge produced by the Europeans. Not only was the hieroglyphic alphabet deciphered by a European with the help of Greek script, but the transliteration system itself used by Afrocentrists has been invented by Europeans too. To what extent thus can such a 'second-hand' language, from an Afrocentric point of view, be of use when searching for the 'true roots' of African culture?

Moreover, Afrocentricity is occupied with African identity from the perspective of Africans themselves and emphasises the need to involve the community in the research so that research subjects as agents can take control over the process (Mkabela, 2005: 182-184). Yet, the world of ancient Egyptians cannot be described through an emic perspective prescribed by Afrocentrists. The whole spiritual life of Egyptians, beliefs around life and death, the role and position of gods and pharaohs are interpreted from the present time, place and perspective, not the 'original' one. How valid, and indeed feasible, is the Afrocentric search for the authentic past of African people? Is the entire concept not utopian in that it tries to imagine and reconstruct the past without taking into account the socio-historical context? It is impossible to re-enact the world long gone without reference to our own understanding of the present reality; especially the spiritual, non-material world is difficult to grasp and thus its interpretation is based on our perception of the divine. Similarly, it is idealistic and unrealistic to try and reinterpret the 'African great past' as if colonisation never happened, as suggested by Asante (2009). Time, so important in the Afrocentric method (Jackson II, 2003: 122), cannot be moved back. Likewise, cultures do not develop in a vacuum but in relation to one another. Therefore they cannot be seen or described as completely independent entities.

Finally, one may ask if the Afrocentric standpoint does not reify culture when it claims to 'espouse the cosmology, aesthetics, axiology, and epistemology that characterise African culture [oriented towards] the centrality of the community, respect for traditions, a high level of spirituality and ethical concern, harmony with nature, the sociality of selfhood, veneration of ancestors, and the unity of being' (Mazama, 2001: 393-394). Would an African who consciously chooses not to live by those norms be deemed un-African, disoriented and decentred, as Asante wants it, or simply not Afrocentric?

4.2 THE FOUNDATION: GENDER, SOCIO-CULTURAL STUDIES, AND GLOBAL CHANGE

In order to achieve the objectives of this project, it is important to have a good understanding of the core components that form the base. However, before discussing gender and socio-cultural inclusion one must first understand the realm in which they are to be considered, global change.

4.2.1 GLOBAL CHANGE

‘Global change’ is a fluid concept with no singular definition. This is because it refers to a variety of changes with the earth’s systems which may include fluctuations in population, shifts in the economy and environmental changes (of which there are many). Nonetheless, the *10-Year Global Change Research Plan for South Africa* (2010: 5) defines global change as:

“refer[ing] to an interconnected set of phenomena, resulting largely from human actions which have altered the environment over virtually the entire planet at an accelerating rate during modern times. It includes changes to the composition of the atmosphere; the nutrient loading of the biosphere; the global, regional, and local climate; the distribution and abundance of species; the cover and use of the land surface and the use of main resources; the size, location and resource demands of the world’s human population, as well as it’s patterns of governance and economic activity”

This means that global change is a broad concept including various elements of planetary changes and how human action is involved in such changes. There are many facets to and components of global change which can be researched (as were identified at the *National Workshop*, pg.10) including a focus on institutions which make mitigation decisions; focusing on the organisation and execution of agricultural processes and the effects thereafter; understanding how water is changing, as well as access to it, and how this affects people’s lives differently and the mitigation strategies available to them; considering how any environmental change can have health consequences which do not affect all people equally and then considering the ways in which livelihoods can be adapted to prevent them; or focusing on the language used to propagate global change agendas themselves and the power dynamics within them; not to mention a focus on energy and how differing access means that some people are better equipped to weather environmental changes than others.

Within the context of global change (most prominently climate change) two terms; mitigation and adaptation have become popular (see box 3, pg.27 for other critical concepts). Mitigation generally refers to anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases, GHGs (IPCC, 2001, Goklany, 2005; Klein *et al*, 2011). On the one hand, energy generation, especially coal fired power plants, adds to the emission of GHGs. Hence, measures to mitigate climate change could focus on reducing fossil fuel generated electricity consumption. Adaptation, on the other hand, refers to all adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (IPCC, 2001). The aim of these adjustments is to moderate the adverse effects of climate change and/or to exploit any arising opportunities. Laukkonen *et al* (2009) summarise the different approaches as being that, whereas mitigation aims to avoid the unmanageable, adaptation aims to manage the unavoidable.

Global change discourse and the language it uses are firmly related to sustainability, more specifically sustainable development which is most famously defined as “Meeting the needs of the present without compromising the needs of future generations” (WCED, 1987). This definition has since been subject to a range of criticisms some of the most fervent around the notion of ‘needs’ – Whose needs? Do these needs stay static over time? Who decides which needs are most paramount? Others, such as Barry Munslow, have tried to be more inclusive and critical in their definitions of sustainable development:

Sustainable development is all about improving the human resource management of the natural resource base in order to maximize human welfare and maintain the environment now and for the future. In this regard two concerns are uppermost in people’s minds. Firstly, existing development pathways have left many people poor. The benefits of development are unevenly distributed in an unacceptable manner. Too many people are not receiving the food, clean water, housing, healthcare, and education that they need. Secondly, until recently, the environment has been treated as a free good: nature is there to be used.the environment has been seen as a cupboard that never becomes bare (Barry Munslow in Coetzee *et al*, 2001: 498-499).

Therefore, sustainability, generally speaking, requires that practices are economically, environmentally, and socially geared toward not only maintaining but improving the Earth. Sustainable development therefore is about how society can use available resources in a manner which satisfies human needs equitably or fairly while also protecting the natural environment (land, forests, ecosystems, water). This protection is needed to safeguard ecosystems and ensure that natural resources are available for human survival both today, and in future. Importantly, however, distribution to and access of such resources should be just and fair with provisions for all members of society irrespective of gender, age, race, ethnicity or class status.¹³ Injustice breeds instability in any society and therefore threatens continuity, which is an important pillar for sustainability.

The notion of a ‘gendered political economy’ reminds us that gender is everywhere and that no economic value is ever innocent or gender neutral, i.e. devoid of social, political and other implications. A gender analysis helps us to understand that all socio-economic processes and the global political economy as a whole are gendered (Griffin, 2010). Feminist IPE scholars often point to the link between women and men’s lived experiences of economic processes and the skewed gendered nature of the global political economy. They expose the fact that mainstream international economic policy on issues such as debt, labour, migration and the effects of globalisation are driven by gender assumptions with dire consequences for groups that often have no say in the making of the rules of the global political economy. A gendered political economy approach is useful to understanding some of the sub-themes in this project, namely international policy on climate change and climate-induced conflict as well as peace building as one of the responses.

¹³ Interesting to note Afrocentrists perceive African societies as free of class conflict. "Afrocentrists reject the revolutionary exclusiveness of Marxist analysis and its language" (Gocking1993: 44). In the words of Asante (2003: 18): "Only in traditional western societies are there conflicts between classes". Anyone wanting to adopt an Afrocentric lens while also being sensitive to differences in class would need to consider such divergences and take a stand on their position in the debate – which would, of course, need to be justified.

While sustainable development indicates a popular turn away from considering development in purely economic terms, researchers such as Sen (1999), among others, have emphasized that development is about people and must be people centred. Thus, there is now more focus on human development rather than just economic development which is concerned primarily with production and consumption of goods and services. However, as can be seen from Box 3 (pg.27), despite human footprint and action being visible in the core concepts of global change (as well as development and sustainable development) there is little explicit reflection that the contributions to and impacts of global change are both gendered and socio-culturally determined.

This is, of course, not to say that no work has been done on creating and determining the connections between environmental changes, social relations, cultural practices and gendered processes. *Agenda 21* was a defining document in this regard, particularly Chapter 24 *The Global Action for Women towards Sustainable and Equitable Development*. In fact, gender has become increasingly pronounced in international gatherings where it was recognised¹⁴ as critical to the achievement of sustainable development. Gender, or women to be more accurate, were flagged as crucial to the achievement of sustainable development at the 1992 *UN Conference on Environment and Development*, the 1993 *UN Conference on Human Rights*, the 1994 *UN Conference on Population and Development* and the 1995 *World Summit on Social Development* – and it has remained a constant feature on international debates since. However, gender may often be ‘added’ onto to projects and merely ‘stirred in’ without any deeper consideration as to how the project and even problem themselves were conceived through particular lenses and ways of knowing. It is here where methodologies emanating from gender and socio-cultural studies become paramount and should be a forming part of a project attempting to mainstream gender and socio-cultural practices, not one that is superficially added as an afterthought.

¹⁴ Together with poverty – a relationship which has been severely criticised by scholars such as Sylvia Chant (2006) as well as Cameron and Gibson-Graham (2003)

Box 3:

Important concepts in Global Change

As defined by the IPCC, 2014

Adaptation:

The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate harm or exploit beneficial opportunities. In natural systems, human intervention may facilitate adjustment to expected climate and its effects.

1. Incremental adaptation: Adaptation actions where the central aim is to maintain the essence and integrity of a system or process at a given scale.
2. Transformational adaptation: Adaptation that changes the fundamental attributes of a system in response to climate and its effects.

Mitigation:

Mitigation (of climate change): A human intervention to reduce the sources or enhance the sinks of greenhouse gases. Mitigation (of disaster risk and disaster): The lessening of the potential adverse impacts of physical hazards (including those that are human-induced) through actions that reduce hazard, exposure, and vulnerability.

Resilience:

The capacity of a social-ecological system to cope with a hazardous event or disturbance, responding or reorganizing in ways that maintain its essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.

Risk

The potential for consequences where something of human value (including humans themselves) is at stake and where the outcome is uncertain. Risk is often represented as probability of occurrence of hazardous events or trends multiplied by the consequences if these events occur. This report assesses climate-related risks.

Vulnerability:

The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

Taken from the glossary of "Climate Change 2014: Impacts, Adaptation and Vulnerability"

Box 4:

Locating the relevance of this framework for policy

By: Ms Lesley Gittings

Sherwood & Freeman (1970) suggest that social policy, the realm of policy in which gender and sociocultural inclusion in global change research is situated, can be understood in the following ways:

1. A philosophical concept
2. A product
3. A process
4. A framework for action

The above understandings of social policy are relevant to this project's work. The framework's inclusion of gender and socio-cultural issues are particularly relevant in inserting social considerations into the South African global change policy area (which to-date has poorly considered of these factors). Workshop policy discussions focused on how the model could interact with the policy environment, how policy makers might use the model, and how the project could make research stemming from the model accessible and useful to policy makers. Specific questions regarding the framework and policy environment include:

- What is the intention for policy makers in using the framework?
- What are the desired outcomes of using the framework in relation to policy?
- Who are the intended (policy) stakeholders?

Discussion also centred on the importance of clarifying policy objectives of the project and model. Oftentimes research considers policy as an after-thought or assumes that government will draft and implement policy based on findings. This assumption may be based on a rational actor model where it is assumed that the policy process is a logical, reasoned and neutral way that problems are suggested, solutions discovered and courses of action are carried out. The rational actor model has been heavily critiqued on the basis that what is considered 'rational' or valued to one individual may be different for another. In addition, the model is overly simplistic in its consideration of human behaviour and the role of external factors. It also fails to account for the role of power in policy-making.

The issue of power is of central consideration in the realm of global change, gender and socio-cultural inclusion. It is important to consider not only how gender and socio-cultural inclusion feature in global change policy but also how these factors themselves shape the policy process. Indeed, public policies develop out of given socio-political contexts. Decisions about which issues to address and how to do so occur in the same socio-political contexts where the issues exist (Cloete & Wissink, 2000). Despite ideals which advocate for equal access to the policy agenda across a society, power often determines policy direction (ibid).

Participants discussed the importance of considering how to make the research accessible to policy makers. Conversation focused on the different ways that policy is conceptualized (for example 'bottom-up' vs. 'top-down') and the importance of considering policy implementation and evaluation (rather than just getting the issue on the government's formal agenda, formulating and adopting the policy). This is especially true in the South African context, which despite having a strong policy framework often has significant gaps between policy and implementation (Mokate 2013).

4.2.1 GENDER STUDIES

‘Gender’ is subject to a wide variety of definitions depending on the purpose of a study and the components of gender which are being researched. Nonetheless, gender is one of the biggest organisers of social life and the core debates circulating gender and gender inequality are often around issues of access, ownership, and decision making power. When studying gender some may choose to focus on embodiment whereas others may look at structural differences and/or the discursive realm.

At the *descriptive* level, gender refers to the social organisation of the relationship between the sexes, traditionally associated not with sex but with the social roles of masculinity and femininity assigned to men and women or as Scott (1986: 1067) argues, it is a “constitutive element of social relationships based on perceived differences between the sexes”. But description does not help us in understanding why these relationships are constructed as they are, how they work, or how they change (Scott, 1986: 1056-1057). Gender as an *analytic category*, however, refers to the fact that the concept signifies relations of power. Gender becomes implicated in the conception and construction of power itself.

Consequently, one of the most distinctive features of feminist social research is that it focuses on gender and gender inequality. Feminists presuppose that there is widespread oppression of women by men and by patriarchal social patterns and that this oppression is not natural or inevitable but can be changed. Recent scholarship also considers multiple inequalities based on race, class, and other factors. These theoretical assumptions imply a strong political and moral commitment to reduce inequality. As such, feminist methodology is engaged, not detached or value free (Babugura, 2010) and often endorses ‘gender mainstreaming’ in research and policy (see Box 4).

Gender mainstreaming implies that gender (needs and interests of both men and women) must be taken seriously in all policy and practice. In 1997, the United Nations Economic and Social Council (ECOSOC) adopted the following definition:

Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality (Charlesworth, 2005: 4).

Charlesworth (2005: 13) however argues that the definition is very narrow, in that it assumes symmetry of position between women and men and does not address “the complex way in which gender is created and sustained by social and power relations”. In United Nations gender mainstreaming practice ‘gender’ has come to mean ‘women’ or ‘womenandchildren’¹⁵ (Enloe, 1990) which is problematic as it tends towards essentialism.

¹⁵ Enloe has deliberately chosen to collapse women and children into one word illustrating women and children have come to be conflated and their relationship unproblematised.

Important to note here is how sexuality and what Judith Butler (2002) would term the ‘Heterosexual matrix’ comes forward in debates on gender. Gender is constructed in a sexual binary of male and female which discursively fails to account for those who do not identify as being either/both of these (such as intersexual and transsexuals). Further, these discursive constructions frequently frame women and men in opposition with one another without necessarily taking cognisance of how the relations between those of the same gender are still constructed through power due to how it is intersected with, by and through other identity constructions and processes (such as age for example).

Power is intimately related to gender but gender is not the only socio-cultural component reflected in this framework even though gender inequality has displayed tenacity in its existence in various nations, communities, and social strata. One of the issues that any form of gender analysis faces is what might it mean to employ the category of ‘man’ or ‘woman’ in analysis when the experiences of people differ so greatly – a black working class woman from Lilongwe faces very different life circumstances as compared with say, a white wealthy woman from Sandton. Can the categories of ‘men’ and ‘women’ really describe all the diverse experiences of those whom we place into these categories? Therefore, it is neither possible nor desirable to separate out gender from the other identity positions that a person occupies. Crenshaw (1991) argued that justice for black American women could only come by looking at their experiences at the intersection of racism and sexism. Following from this, intersectionality therefore refers to the “forms of inequality that are routed through one another and which cannot be untangled to reveal a single cause” (Grabham *et al*, 2009: 1).¹⁶

Noting, however, that Afrocentricity does not automatically translate into ‘black’ or ‘race debates’, an important discussion to have here is how feminist scholarship and Afrocentricity may, or may not, ‘hang together’. Importantly much of early feminist work was criticised for portraying the needs and concerns of ‘women’ as uniform using the white, European women’s ‘experience’ as the basis of all arguments. Chandra Mohanty (1988, 2014) is one of the most prolific critics of this practice and her *Under Western Eyes* is frequently cited for its charge against such thinking. Also notable in re-thinking feminism in African contexts is Signe Arnfred (2004, 2011) who has done extensive work on African sexualities and initiation rituals. Arnfred (2004: 11), like others (Tamale, 2011; Parpart, 1988), raises concerns around how Gender and Development (GAD) discourses continue to be colonial continuities which still discuss progress under the basic understanding of a homogenous ‘universal female subordination’ instead of one which is contextually nuanced. Nigerian feminist thinkers such as Ifi Amadiume (1987) and Oyèrónké Oyěwùmí (1997) have done much to disrupt ‘female subordination’ as the starting point for analysis and criticise Western gender dichotomies as being too simplistic for African contexts.

Mazama (2001: 400) would go so far as to suggest that the word ‘feminism’ itself is a Western construct which should be abjected in favour of ‘Africana womanism’ which was first coined in 1987. Importantly, Mazama’s (2001: 401) rejection of ‘feminism’ is due to its epistemological and metaphysical principals which are located in European history and context. That said, with the proliferation of ‘intersectionality’ as a concept far more

¹⁶ There are intense debates circulating intersectionality and its usefulness in research. However, at its most basic intersectionality is about recognising that identity constructs do not exist in isolation from one another. Rather, identity constructs such as gender, race, age, class, religion, nationality, ablebodism, sexuality, and ethnicity (amongst others) intersect with and shape each other. The constructs which individuals and groups define as being most important are context specific and informed by history.

contextual nuance has emerged in gender analysis across the world which, as part of the postmodern turn, is sensitive to how not only the experiences of women and men in 'Europe' and 'Africa' may differ but how even those within the same village and city may be vastly different depending on how they come to be understood in and through other social structures (McClintock, 1995).

'Intersectionality' has a long list of critics especially when one tries to consider which 'intersections' to include and the somewhat static construction of how they are thought to interact. Despite this it remains a powerful analytical concept for its potential in illustrating how understanding what one's gender is simultaneously informed through how one understands their nationality (Collins, 1998; McClintock, 1991, 1995; Yuval-Davis, 1993, 1996, 1997, 2005;), age (Krekula, 2007, McMullin, 2004), sexuality (Arnfred, 2004; Butler, 2002; Connell, 1990), class (Acker, 2006; Cameron & Gibson-Graham, 2003; Gottfried, 1998; McDowell, 2006), body (Butler, 2011; Connell, 2005), and so forth. Depending on the research question at hand, the given researcher will need to draw analytical lines of reference, but this does not stop them from conducting analysis which itself asks 'the other question' (Bhabha, 1996). This can still have 'Afrocentric rigour' which can only be achieved provided the researcher has methodological harmony.

Box 5:

Gender mainstreaming and three different approaches to gender equality

By: Professor Heidi Hudson

In the same way that we could argue that different interpretations of gender lead to different policy interpretations, we can make a case for the theory and practice of different models of gender mainstreaming being fundamentally linked to the specific understanding of the concept 'gender equality'. The issue of gender equality is a contested notion. The kinds of answers that we come up with when we advocate for gender and socio-cultural inclusion in the global change agenda are therefore guided and informed by the way we view notions of gender and gender equality. Broadly we can identify three perspectives on gender equality, each with its own implications for gender mainstreaming (Rees, 1998; Walby, 2005; Squires, 2005; Verloo, 2005; Verloo and Lombardo, 2007: 21-49):

Firstly, gender equality as sameness: This is linked to the political strategy of equal treatment, opportunities and inclusion. This strategy draws on liberal feminist thinking and is often criticised for its perceived gender-neutrality, a world in which women are treated as if they were equal to men. Yet, in this world the dominant male norm is not challenged, or as Theresa Rees (1998; 2005) puts it, we simply 'tinker' with the system by adopting 'add women and stir' approaches.

Secondly, gender is used as a tool to affirm difference from the male norm, questioning the fact that women are often expected to imitate this norm. This is described as a reversal strategy, in that it seeks recognition for a specifically female gendered identity. This perspective or conceptual framework falls within the radical feminist frame. Rees (1998; 2005) refers to it as 'tailoring'. In practical terms, this approach includes so-called positive gender actions, related to for example, employment criteria and equitable participation in decision-making institutions (and favouring, in cases of equal merit, a woman over a man). This vision frequently is associated with radical and cultural feminists (Squires, 1999; Verloo, 2005).

Lastly, gender is used as a vehicle for the transformation of all established norms and standards of what is/should be female and male. In this regard one could speak of ‘gendering’ (as a verb) rather than ‘gender’ (as a noun). This (postmodern) approach is also described as a displacement strategy seeking to deconstruct those political discourses that engender the subject by adopting diversity politics. In this version of mainstreaming “it is the gendered world itself that is problematised, not only the exclusion of women or the existence of a male norm” (Verloo, 2005). This approach therefore argues that the divides between equality and difference are fictitious.

Now that we have established the conceptual link between a particular view of gender/gender equality and their respective strategies for gender mainstreaming, it is possible to identify more specifically and practically the three mainstreaming approaches, namely the integrationist, agenda-setting and transformative approaches.

1. The integrative/integrationist model is known for a focus on experts and the bureaucratic creation of evidence-based knowledge in policy-making (Squires 2005:371). This model incorporates women’s experiences into existing neoliberal policy frameworks. It starts off with a statistical audit of ‘where are the women’ in policies and programmes (collection of gender-disaggregated data) and then proceeds to develop organisational strategies to fill the gaps. A practical consequence is then that women’s and feminist groups are absorbed into ‘the mainstream’ and then either cease or decrease resistance. The integrative model is narrowly woman-focused. While a women-focused model may promote greater visibility of women in the political sphere, it conceals the exclusion of women’s experiences at the private level. A problem-solving methodology blocks a critical examination of gender relations and negates the implications of overlapping identity differences. So in the absence of gender and power analyses, planners become fixated on technical and bureaucratic processes (Sainsbury and Bergqvist, 2009) complete with workshops, handbooks and toolkits.
2. The second model, the agenda-setting model, entails a focus on the participation, presence, and empowerment of disadvantaged/marginalised groups (usually women) via consultation with civil society organisations (Squires, 2005: 371).
3. The third model, namely the transformative approach is more difficult to discern in theory and practice (Squires, 2005: 371-372), yet seeks to transform existing legislative and institutional frameworks to reflect a gender perspective, indicative of both men and women’s experiences. A transformational strategy concentrates more on the long-term strategic analysis and transformation of gendered power relations placed within the broader transformational context of societal change (Sainsbury and Bergqvist, 2009). Gender mainstreaming as transformative strategy values normative shifts and is directed at changing cultural (attitudinal), structural (institutional) and behavioural (direct) patriarchal patterns. This process is incremental as it has to balance top-down with bottom-up methods and requires commitment and the ability to see the bigger picture.

4.2.2 SOCIO-CULTURAL STUDIES

Gender is not the only feature which alters how people experience their environments and their related stresses. Culture is a central component as to how people understand and/or respect their environment. Where an animal in one context may signal an omen or bad luck, in another it could be a sign of fertility and rain. All contexts have a historical and indeed cultural relationship with their environments and how these relationships are formed is not always apparent and requires more sensitive research. Gender is part of social practices and, as has already been mentioned, must be understood through other social structures and process. How gender is understood and practiced is further informed by the cultural contexts in which it is navigated – hence the relationship between these different components is at the base of the framework.

According to Afrocentrists, cultural environment also influences social phenomena. Speaking about social problems as seen through Afrocentric lens, Mazama (2001) refers to the writing of Jerome Schiele (1996) who suggested that people struggle with problems caused by ‘culture’. “Of particular concern to Schiele are spiritual alienation, which is fragmentation and desacralization of life and the subsequent disconnection of people, as well as racism and its attendant oppression. These are the products of ‘Western culture’, with its emphasis on materialism and individualism and its negative view of human being” (Mazama, 2001: 401). The scholar concludes by saying that “What is labelled ‘social problems’ may very well, in the end, prove to be ‘cultural problems’” (Mazama, 2001: 402). Mazama (2001) here is nuanced enough to illustrate that ‘culture’ and ‘social’, although related, cannot and should not be collapsed into one another; much like ‘gender’ and ‘women’ should not either. Nonetheless, what becomes central in both this section and the previous one on gender is ‘difference’ (see box 5) and how categories and practices of difference relate to and shape one another.

The employment of intersectionality, therefore, means that an analysis will consider how categories of difference are intertwined or related in influencing social phenomena. These human diverse differences should not be viewed as independent of one another but instead as interrelated forms of social factors that can build up multiple forms of socio-political and socio-economic discriminations in society. Intersectionality refers to how categories of difference (such as gender, class, race or sexuality) are interwoven as well as how they can mutually strengthen or weaken each other (Winker and Degele, 2011: 54).

Intersectionality is crucial, then, for a holistic and comprehensive analysis of gender, socio-cultural inclusion and global change (which also speaks directly to the tenets of Afrocentricity). Whereas gender analysis may focus on the differential impact of climate change on women and men, intersectionality deconstructs these categories into a number of other empirically-based and/or verified categories which are more consistent with reality. How do those empirically-based categories interact with each other and how does global change impact on those interactions?

Box 6:

Three approaches to studying categories of difference

By: Professor Heidi Hudson

In the literature one comes across references to double and triple oppressions as Hancock (2007) in Hudson (2012) explains:

Three approaches to the study of race, gender, class and other categories of difference, namely the unitary, multiple and intersectional approach. Firstly, the unitary approach works with one category of identity at a time, based on an implicit hierarchy. The multiple approach acknowledges the need to reflect on more than one category at a time, but the categories are also viewed as static, matter equally in a predetermined relationship to each other, and remain conceptually independent. It means identifying multiple sites of oppression in the name of inclusivity, with the assumption that there is a correlation between the number of oppressions and the extent of marginalisation of the individual in a compound sense. (Hudson, 2012: 107-108).

In contrast, intersectionality views the relationship between the categories as “an open empirical question and the categories themselves are conceptualized as resulting from dynamic interaction between the individual and institutional factors” (Kantola and Nousiainen, 2009: 469). The first key feature of intersectionality is its plasticity, conceptually being able to bridge disciplinary (liberal vs. critical) as well as levels of analysis (from local to global) divides. Intersectionality is a critical (feminist) tool to think about difference in terms of individual identity and experiences *and* theorise about structures and cultural discourses. Hancock (2007: 74) concurs when she states that “intersectionality bridges part of the theoretical gap between critical theory, which often faces the dilemma of overemphasis on structural [institutional] explanations, and liberalism’s privileging of the atomized individual” (agency). Intersectionality captures everyday practices and subjectivity in a way that it is locally situated yet globally underpinned. In this regard it is important to not assume that women in conflict areas always prioritise gender equality. Often family and community concerns are more important (Hudson, 2012: 102). In fact, if research is done through Afrocentric lens community *must* take priority. In African societies’ collective identity takes precedence over individual identity (Jackson II, Richardson, 2003: 120).

Race and class inequality are rife in South Africa, as well as patriarchy, a system that privileges men and that which is considered ‘masculine’ over women and what is constructed as feminine’. Marginalized groups hold less power in society, and their interests are thus often overlooked. The model provides for a unique space to consider diverse interests in global change research. It also has the potential to serve researchers and policy implementers in considering the interconnected nature of global change, gender and socio-cultural inclusion.

Therefore, in order to better incorporate gender and socio-cultural dimensions into research on any global change phenomenon it is important that identity constructs are not considered in isolation as they may emerge as being intimately related to the given phenomena. Central to understanding the intersections of identity constructs and their relation to global change is, methodologically, the privileging of experience and of participant's voices recognising the value in their day to day lives and subjective experiences. However, it is also important to remain reflexive (box 6) throughout the research process as to how the identity of the researcher/s can influence participants because of their own identities and historical experiences.

The incorporation of the above mentioned theoretical and conceptual factors ('gender equality', 'intersectionality', 'reflexivity', 'mainstreaming') is also related to the framework's Pro-Justice/Gender-Justice stance which will help to shape policy responses and ensure that research on global change has social impacts. The notion of 'gender justice' should feature in every dimension of justice. This concept comprises three types of justice, namely legal, restorative and distributive justice. Legal justice speaks to the normative framework that discriminatory laws and practices against women (e.g. inheritance laws that prevent women from owning property) are based on; restorative justice is aimed at addressing the violation of women's rights; and distributive justice targets structural and systematic inequalities of a political, economic and social nature (Heyzer, 2004: 26). In the post-conflict phase there is a tendency to concentrate on restorative justice only. Care should be taken to also align rule-of-law institutions with reconstruction agenda. Foregrounding the gender dimensions of all these aspects of transitional justice therefore acts "as an important integrative tool to facilitate the coherence of the overall transitional process" (Hudson, 2006).

'Social justice' is a concept that addresses the inequalities in the distribution of resources. However, different views exist on how these means should be shared, according to whose needs and values (for the historical development of the idea, see: National Pro Bono Resource Centre, 2011: 4-8). Accordingly, some scholars emphasized the inequality based on social status (Utilitarians), others focused on the individual's moral responsibility (Miller, 1999), some put accent on the equality of opportunities (Rawls, 1971), others on the individual's capabilities (Sen, 2009).

Inclusion is rooted in social justice. It is an approach asserting that everyone should have enough resources to participate in the life of a society – economically, socially, culturally and politically (the core tenets of sustainable development). According to Ruth Levitas (1998: 7), three discourses exist around social exclusion: a redistributionist discourse that revolves around poverty, a moral underclass discourse that is concerned with morality and behaviour, as well as a social integrationist discourse that centres on work. The three categories stipulate a different element of exclusion and, concomitantly, inform the idea of social inclusion. Speaking about social exclusion and inclusion, Levitas raises an important issue of the intrinsic dichotomy of the two terms which tends to redirect the focus of policy makers from addressing structural inequalities to simply moving the 'borders' to make the society more inclusive (Levitas, 1998: 7).

Box 7:
Reflexivity?

By: Dr Theresa Moyo and Mrs Claudia Towne Hirtenfelder

The sociologist, Pierre Bourdieu's (2004: 89) notion of reflexivity pointed to the effort on the part of social scientists to be vigilant and aware of the factors that might bias research, an effort whereby social scientists use their own instruments to understand and check themselves. Reflexivity in research involves reflection on self, process, and representation, and critically examining power relations and politics in the research process, and researcher accountability in data collection and interpretation (Sultana, 2007: 376). The reflexive process involves introspection, a deep inward gaze into every interaction. It entails the ability and willingness of researchers to acknowledge and take account of the many ways they themselves influence research findings and thus what comes to be accepted as knowledge. In research, reflexivity implies the ability to reflect inward toward oneself as an inquirer; outward to the cultural, historical, linguistic, political, and other forces that shape everything about inquiry. For feminist theorists, reflexivity increases research credibility, positing that there is no such thing as the unbiased, neutral research. That said, there are some authors, such as Shaw (2000: 16), who use reflexivity to mean as much:

“Research is not only about collecting data or information from those who are selected as participants. Because it involves interaction between the researcher and participants, inevitably some responses from the participants may be totally different from the researcher’s prior positions or conceptualisations of the studied phenomenon. In order to avoid being partial, a researcher has to engage in self-reflection in order to arrive at an unbiased construction on reality” (Shaw, 2000: 16)

It is important then to note that not all researchers use reflexivity in the same way and that depending on the discipline there may be different conceptions of its use. That said, there are a number of authors who have written about the transformative potential of feminist reflexivity both for academia and the field of inquiry (Adkins, 2003; Alvesson, Hardy & Harley, 2008; and Sultana, 2007)

Reflexivity is not an easy methodological and analytical tool to adopt, it involves transparency of the research process and an honesty of how power is ingrained within it but it is one that holds promise of illustrating the ambiguity and ambivalence experienced within the research process and for illustrating how researches, and their histories, are a core to it.

Cultural inclusion is inherently linked to cultural diversity. As a response to the latter, the concept of multiculturalism has been formulated within the field of political philosophy. It asserts that the cultural diversity of people should not only be acknowledged and tolerated, but the differences, and therefore also varied rights, have to be recognized by the society and accommodated within it. Opponents of multiculturalism (such as Barry, 2001; Huntington, 2004; Sen, 2006a-b) criticise the concept claiming that it enables conflicts between different groups by creating a situation where people live in isolation. Proponents (such as Taylor, 1992; Kymlicka, 1995; Parekh, 2000) believe that multicultural approaches can be helpful in stimulating social unity by recognising diversity.

Obviously, the idea of cultural accommodations (or ‘group-differentiated rights’ as named by Kymlicka, 1995) induces the discussion on moral relativism which distinguishes between ethics and moral judgments of people from different cultures, in contrast to moral universalism, according to which objective moral standards can be established (such as universal human rights). Moral relativism seems aligned with the Afrocentric Paradigm, as it rejects the idea of transcendent values and focuses on the context, emphasising the need for an emic approach to the study of cultures (one which prioritises the agency of the person within the culture studied), as opposed to an etic one (in which the researcher analyses the cultural phenomenon from outside) (Headland, Pike, Harris, 1990).

Like Afrocentricity, multiculturalism rejects the idea of one valid worldview. However, unlike Afrocentricity, which is “unipolar, a world with a centre, Africa, multiculturalism is multipolar, a universe of many centres” (Mazrui, 1993: 3). Thus, a multicultural paradigm speaks directly to the idea of socio-cultural inclusion, recognizing the agency of a variety of actors. This once again paints the need of a researcher, before starting a research project, to be clear about the concepts they are using and how they, in turn, shape their methodology. Being reflexive, a researcher is empowered to delimit the avenues of a specific theory or concept they employ. Failing to provide any methodological reflection a researcher may quickly slip into a situation where they find their research contradictory. The relationship between concepts of ‘gender’, ‘culture’, ‘social’, ‘Afrocentric’, and the ‘environment’ provide huge analytical promise but the seamlessness of their relationship to one another should not be considered immediately apparent and; it requires detailed and close inspection where the given researcher finds conceptual symmetry.

One should not be dismayed by this need for methodological focus because once one is able to understand the varied ways in which concepts are utilised to understanding any phenomenon, in this case those relating to global change, one is better equipped to be critical of findings and to illicit change, where needed which is informed rather than ‘one size fits all models’. Therefore, the discussion on the apex and foundation of the framework are based on values, methodologies, theories, and concepts which would help to achieve the goal of mainstreaming gender and socio-cultural inclusion in global change (the base).

4.3 THE POROUS RINGS – METHODS

On closer inspection of the porous rings one notes that in the above discussion we have tapped into theoretical and methodological considerations one needs to consider when mainstreaming gender and socio-cultural inclusion in global change research but further, that they must take a normative stance shaped by ‘African’ values. That is, this framework takes a stand that one’s values (whether societal or individual) inform and shape one’s methodological considerations all of which can only be accessed and expressed through the use of well-developed concepts and theories.

The one area left untouched up to this point is the consideration of methods. There are many methods one can use to utilise the framework. One will easily note that the conceptual toolbox (pg.19) has no single method within its quadrant but rather three concepts overlapping the method-methodological quadrats. ‘Mixed methods’, ‘discourse’ and ‘inductive-deductive’ were flagged in particular for several reasons. Firstly, however, there is a need here to differentiate between what is meant by ‘method’ versus ‘methodology’.

4.3.1 A BASIC DIFFERENTIATION OF METHOD AND METHODOLOGY

A method, simply put, is the ‘practical how’ whereas methodology is the ‘knowledge how’. When one starts to enter the realm of methodology, one is starting to ask ‘how can you know what you know’ (epistemology) as well as ‘how can you know it is real’ (ontology). Methodology is a much broader and much deeper conceptualisation of what knowledge your research can generate and how one can determine the validity of that knowledge. In the preceding chapters it was noted that one needs ‘conceptual harmony’, this is the realm of methodology. There are many ways to know, to ask, and to answer questions – considering and establishing these within your research is critical to the symbiosis of your arguments.

Frequently methodology and method are collapsed into one another; however, method is much narrower and straighter forward than methodology. That said, however, the methods used in a research project and the justification for their use should be in line with one’s methodological considerations. For example both positivists and social constructivists can make use of interviews (method) in conducting their research but how they ‘measure the data’ or ‘interpret the information’ is done differently and informed by different ways of knowing (and certainly may require varied language!). Where for positivists one believes that one can only know what is real by accessing it through our senses and that reality exists beyond how people think about it; a social constructivist believes that what we know as reality/ies is constructed through our social understanding of it and there is no understanding reality outside of the social production of it. This argument has been put simply here – there is much debate between positivism and social constructivists as well as within them regarding the boundaries of knowledge, reality and existence. The point here, however, is to draw inference to the fact that methodology and method are not one and the same. It is for this reason that discourse and mixed methods straddle both the quadrants of method and methodology; because they lend themselves (as discussed at the *Expert Reference Group Meeting*) more to the strategies of this project of mainstreaming gender and a variety of other socio-cultural considerations in global change research.

4.3.2 MIXED METHODS

Mixed methods spans both quadrants because it is frequently thought of as being just the combining of a variety of methods, methods which often emanate from both qualitative and quantitative paradigms (such as surveys, interviews, statistical analysis) (Sosulski & Lawrence, 2008). However, mixed methods go beyond ‘just’ a combination of methods. Mixed methods are when a project attempts to be truly innovative and move to a space where there is participation and synergy across methodologies (Burke, Onwuegbuzie & Turner, 2007: 113).

Campbell and Fiske in Johnson *et al.* (2007: 113) introduced the idea of triangulation, referring to ‘multiple operationalism’, in which more than one method is used as part of a validation process that ensures that:

The explained variance is the result of the underlying phenomenon or trait. It was argued that the convergence of findings stemming from two or more methods enhances our beliefs that the results are valid and not a methodological artefact.

This idea is reinforced by Sechrest and Sidana, also in Johnson Onwuegbuzie, and Turner (2007: 116), who identify four reasons why methodological pluralism is useful:

1. for verification purposes,
2. to provide some basis for estimating possible error in the underlying measures,
3. to facilitate the monitoring of data collected, and
4. to probe a data set to determine its meaning.

That said, there remains debate circulating mixed methods. Johnson *et al* (2007: 123) conducted a meta-analysis of definitions (19 in total) after considering the multitude of ways in which it is used (as a mixture of method, methodology, places, studies, etc) they created their own definition:

Mixed methods research is the type of research in which a researcher or team of researchers combine elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration.

What becomes apparent in their concluding definition, however, is that mixed methods goes far beyond only combing some methods which generate numbers and others which generate words and explanations to a deeper conceptualisation of how such numbers and words can be understood and analysed across disciplines.

4.3.3 DISCOURSE ANALYSIS

Like mixed methods discourse analysis covers two quadrants because it involves both quadrants. It is both a method and a methodology depending on how it is used within the given project and its respective delimitations. For Foucault the genealogy of discourse was important for understanding how it is both productive and restrictive. Building on this type of 'archaeology of knowledge', Laclau and Mouffe (Jørgensen & Phillips, 2002: 7) write about what they call the 'archaeology of silence'. For these theorists, everything is discursive. There is no understanding reality or ability to conceive of it beyond language. To bring this across Laclau and Mouffe make use of a variety of concepts:

[W]e will call *articulation* any practice establishing a relation among elements such that their identity is modified as a result of the articulatory practice. The structured totality resulting from the articulatory practice, we call discourse. The differential positions, insofar as they appear articulated within a *discourse*, we will call *moments*. By contrast, we will call *element* any difference that is not discursively articulated (Laclau and Mouffe, 1985: 105 italics in original)

As useful as the ideas of 'element', 'discourse', 'moment', and 'articulation' are Laclau and Mouffe spend little time conceptualising them as analytical concepts (Jørgensen & Phillips, 2002: 24). However, not all discursive theorists believe that everything is constituted in discourse, one of the most popular being Fairclough (1992: 8) who argued that:

Discourse constitutes the social. Three dimensions of the social are distinguished – knowledge, social relations, and social identity, and these correspond respectively to three major functions of language ... Discourse is shaped by relations of power, and invested with ideologies.

Similarly, discourse has been described as ‘language in use’ and thereby ‘socially situated’ (Candlin & Maley, 1997). Jaworski and Coupland (2014: 3) expand it to be:

language in use relative to social, political and cultural formations – it is language reflecting social order but also language shaping social order and shaping individuals’ interaction with society.

Therefore again, like with all the concepts that have been mentioned in the document, the author using the framework will need to be critical and nuanced with their conceptual use. Once this conceptual terrain has been tackled one is able to develop thought-provoking research which mainstreams gender and culture within global change research. Mixed methods and discourse analysis provide two of the exciting channels through which it can be achieved.

4.4 DELIMITATIONS OF THE FRAMEWORK

As with any other framework, the framework on gender and socio-cultural inclusion in global change has to be contextualised to particular situations than applied in a wholesale manner. Although one of its strengths is its complexity, this could also be viewed as a limitation in that any researcher wanting to make use of the framework may be overwhelmed by the number of concepts and methodological considerations. In the interest of keeping the framework flexible, making it readily applicable to research of any global change phenomena, meant that as much as the framework has to be pinned down to some definitions (such as mitigation) it also required theoretical flexibility. It is for this reason that no single definition of gender, socio-cultural inclusion, and power were provided. While these concepts are ‘must haves’ for anyone undergoing research in global change they must be defined and applied within the context in which research in global change is pursued. For example in this framework selected definitions are highlighted to suit the research project’s theme of gender and socio-cultural sensitivity to global change. Furthermore, the definitions selected are also largely dependent on what components of gender and socio-cultural contexts are in focus.

While the framework for mainstreaming gender and socio-cultural inclusion, like most frameworks, is not without its faults, needless to say it remains an important contribution to the field of global change research in South Africa and offers a promising example of Afrocentric knowledge generation and one which may enable the generation of Afrocentric knowledge in future.

Importantly, the framework is not ‘a finding’ but should be used as a starting tool in analysing global change. Using this tool the analysis will be more nuanced and sensitive to the epistemological and ontological premises found within gender and socio-cultural studies rather than adding them as superficial afterthoughts, which provide skewed analysis of the relationship between human relationships and their environments.

Box 8:
Reflections from the Second National Conference on Global Change
1-5 December 2014
By: Dr Theresa Moyo

The participation of Phindile and myself at the *Second National Conference on Global Change in December 2014* was a very useful experience. For me, it made me understand better, the underlying thinking and thrust of the DST Global Change Project and as I reflected on what additional thematic issues could be included under our specific project on Global Change, Gender and Socio-Cultural Inclusion, the background information acquired from the conference becomes very important. It became quite clear that the entire project is anchored around these four thematic areas, namely:

1. Knowledge Challenge A: Understanding a changing planet – which considers adaptive management, Earth Systems, Oceans and model predictions.
2. Knowledge Challenge B: Reducing the Human footprint – which looks at waste management, biodiversity and institutional integration.
3. Knowledge Challenge C: Adapting the way we live – which considers security, sustainable development and future preparations.
4. Knowledge Challenge D: Innovation for Sustainability - which involves innovation, capacity-building and alternative development options

One of the members of the Project Committee (National Conference on Global Change), responded to a question on the scope of the DST Global Change Project and stated quite categorically that the focus was on these 4 themes and while they embraced multi, inter-and trans-disciplinarity, the Project was not going to broaden its scope into wider political, economic and social issues. The Humanities and Social Sciences were welcome to take up that agenda but it would not be a part of the National Global Change agenda. Thus, although our project team was quite correct in interpreting global change as being much broader than the more natural sciences/physical approach, we really do not have the leeway to deviate from the DST Global Change Agenda. That means that even though issues of globalisation and international political economy are important elements of global change, they are outside the scope of the prescribed thematic focus. However, to the extent that we can identify those issues that relate to globalisation and international political economy, to the four thematic areas and in the context of South Africa/Southern Africa, then we are within the scope. I also gathered from the discussions that the focus of the research should be South Africa/Southern Africa. This is also evident from the specific issues to be researched under each broad thematic area.

So, for our own specific project, while the gender and Afrocentricity framework is still relevant, it must be applied to the specific context of South Africa. And that is indeed feasible because we would be asking ourselves the question, from an Afrocentric perspective (South African context), how do we mainstream gender and socio-cultural inclusion into the global change agenda?

With that understanding (i.e. the four thematic areas) as the 'boundary' of the DST Global Change Project, we can therefore explore what other important issues within that boundary, our own project could address. Below I list some of the relevant issues under each of the four challenges before also proposing some potential areas where research, using our framework, could be directed:

Knowledge Challenge A: Understanding a Changing Planet

In terms of the DST TOR, this thematic area covers issues of observation and monitoring, dynamics of the oceans around Southern Africa, dynamics of the complex internal Earth Systems linking the land, air and sea and improving model predictions at different scales. The theme may largely be technical and natural science-oriented. However, there are aspects which our project could research into. For example:

- Develop a conceptual framework on 'Understanding a Changing Planet from a gender perspective'. The focus of such a research should be to theorise gender in the context of a changing planet so that we recognise that the changing planet is not just a natural or physical phenomenon which is removed from the daily lives of women and men but something that is in fact integral and central to their survival and livelihoods.
- Would also be useful to explore inclusive approaches to building the knowledge base and capacity of municipalities in South Africa's coastal areas. Coastal areas are most vulnerable to climate change. How prepared are the municipalities located in those areas, to deal with the challenges in a gender and socially-inclusive manner? When the Western (and Northern?) Cape experienced floods which devastated wine lands; the government almost appeared too helpless to assist. What did that mean for the many women and men working on those farms? How can future disasters be avoided through more climate resilient local institutions?
- Floods and other hazards also affect inland areas. There is need to develop nationwide education/awareness campaigns to make the nation understand the changing climate and how society can better adapt to those changes. A possible research theme then is how is the education system (formal and informal, e.g. via ABET) responding to the demands of a changing planet? Is the education curriculum responding sufficiently to this challenge and how gender and socio-culturally inclusive are the emerging climate-responsive curriculum (if they exist) and if they do not, what needs to be done?

Knowledge Challenge B: Reducing the human footprint

Core issues under this challenge include: Waste minimization methods and technologies, Conserving biodiversity and ecosystem services, Institutional integration to manage ecosystems and ecosystem services, Doing more with less, development' to 'climate compatible development', government, entrepreneurs, research centres, education institutions and researchers, must behave differently in order to achieve this innovation. Possible sub-themes for research:

At global/international level, there is pressure for countries to reduce the carbon footprint. Africa is paying the price for mitigation and adaptation, yet is one of the lowest in terms of GHG emissions. Resources are diverted towards developing alternative non-fossil based energies. What are the costs to women and men? What are the gender issues related to the shift towards clean energy? In South Africa, the government plans to introduce a carbon tax. What are the likely gender impacts and how can these be averted? As such, Specific sub-themes in relation to the issues outlined under thematic area D:

- Gender, socio-cultural inclusion and waste management
- Inclusive and equitable approaches to conserving biodiversity and ecosystem services
- Local government, gender and climate change

- Reducing the carbon footprint: Mainstreaming gender and socio-cultural inclusion into public transportation and infrastructure systems
- Mainstreaming gender and socio-cultural inclusion into local government and green economy strategic planning and budgeting
- Development of gender inclusive climate change awareness campaigns/programmes
- The Renewable Energy Sector:
- Gender and access to climate finance. Globally, climate funds have been established by international organisations (e.g. UN agencies), multi-lateral banks (World Bank and International Finance Corporation), and others and for purposes of mitigation and adaptation. But how accessible are those funds to women who tend to be more marginalised from international systems and information? What are the implications of World Bank lending for climate related mitigation and adaptation? What new conditionalities are attached and what is their gender impact? It has also been noted that there is more climate financing into mitigation as compared to adaptation which is equally important particularly for the poor, rural women and many disadvantaged communities in South/Southern Africa. This is an area to explore and make recommendations on how gender can be mainstreamed into emerging climate financing initiatives.

Knowledge Challenge C: Adapting the way we live

Issues raised under Challenge C include: Preparing for rapid change and extreme events; Planning for sustainable urban development in a South African context; Water security for South Africa; Food and fibre security for South Africa. Consequently, possible sub-themes for research are:

- Globalisation, global change and food security: In recent years, there is a trend towards free trade which is resulting in the influx of cheap goods and services. Cheap rice from Asian producers is dumped on the African market at prices way below what local producers charge. The result is worsening of food insecurity in addition to losses suffered due to climate change. Protectionist policies of the Industrialised countries pose a barrier to exports from developing nations and reduce efforts to increase government revenues that could be used in national climate responses. Research on global policies of protectionism and free trade and how they affect South/Southern Africa's climate responses. Protection of Northern agriculture affects rural subsistence farmers (as sector dominated by women) in terms of lost income opportunities and livelihoods. This must have negative effects on their adaptation strategies.
- Integrating gender and socio-cultural inclusion into sustainable urban development programmes. In South Africa, local government is responsible for delivering services such as water, electricity and sanitation. How gender responsive and how socio-culturally inclusive are those interventions (in the context of adaptation and mitigation) and if not, how can the situation be improved.
- Working-for-Water Programmes-Assessment of gender and socio-cultural inclusion
- Food and fibre security-Gender is central to food security. Research could be to examine various initiatives on food security and to assess their gender and socio-cultural inclusivity.
- Mainstreaming gender and socio-cultural inclusion into climate mitigation and adaption programmes (focus on smallholder and subsistence farmers who are the most vulnerable and also where women are the dominant players).

Knowledge Challenge D: Innovation for Sustainability

Topic D concerns involve: Dynamics of transition at different scales - mechanisms of innovation and learning; Resilience and capability; Options for greening the developmental state; Technological innovation for sustainable social ecological systems; Social learning for sustainability, adaptation, innovation and resilience. Possible sub-themes for research

- Globally, innovation is a 'buzz word' but typically, there seems to be an assumption that innovations are achieved by the corporate world? Yet, if we recognise the value of indigenous knowledge systems, innovations also emanate from multiple sources. Women and men in developing regions have knowledge that could be harnessed in combating the effects of climate change. Research could be done for example on 'Theorising Gender and Socio-Cultural Inclusion in Innovation for Sustainability'. The research would inform innovative approaches to global change.
- Currently, there are emerging innovations towards sustainability (for example, technologies and knowledge for clean energy/renewable energies). What are the gender dimensions of those innovations? South Africa has introduced the Green Fund (managed by DEA and DBSA). Research could explore how the fund is promoting green innovations and the extent to which those efforts promote gender equality and equity.
- What case studies can be developed to show case successful models of resilience, mitigation and adaptation in the context of gender and socio-cultural inclusion.
- What innovations are taking place in subsistence agriculture and how do they mainstream gender and socio-cultural inclusion?

Box 9:

Reflections from the Expert Group Meeting on Bioenergy Gender Mainstreaming & Localisation of Clean Technologies in Africa, Co-organised by the African Union Commission (AUC) and the UN Economic Commission for Africa (UNECA), 2-4 December 2014, Kigali, Rwanda

By: Dr Elizabeth Rasekoala

Through my participation in this *Expert Group Meeting (EGM)*, I was able to gain important insights into the interest around the framework from high-level strategic policy-makers and experts on the African continent, as well as how it may be refined in future. It also provided an excellent opportunity to ‘road-test’ the applicability and adaptability of the framework to specific sectors within the global change arena – in this case, the energy sector. This is important because although comprehensive, the framework remains a project in progress. The opportunity to participate in and contribute knowledge to this critical EGM was highly fortuitous because it enabled the delivery of one of our key aspirations for the project, to:

“...enable the innovative design of multi-disciplinary research working frameworks and approaches, to engender, frame, sustain and resource, an inclusive, gender-balanced, socio-cultural action programme and understanding to address global change adaptation and mitigation challenges in South Africa, *with transferable added-value benefits for the rest of the African continent.*” (Rasekoala, 2012).

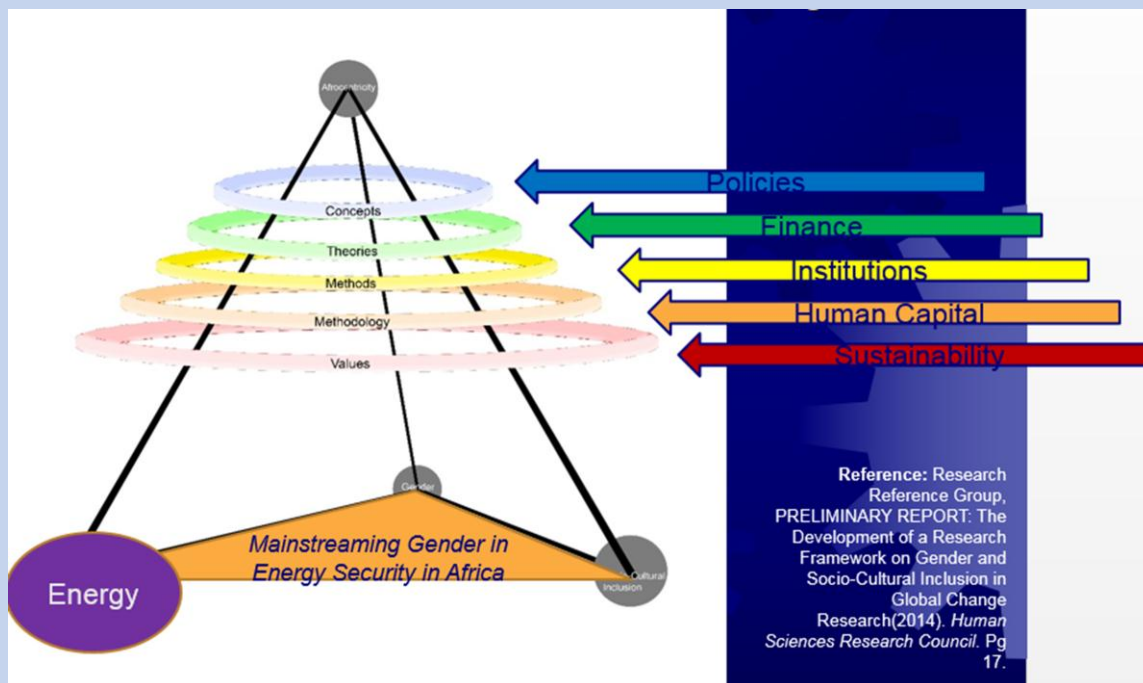
Through participation in this EGM we were able to demonstrate that our project’s innovative framework and African-centric knowledge development paradigm has been able to deliver substantial transferable added-value benefits for the rest of the African region, in enhancing and enriching the policy and programmatic frameworks of the African Union Commission and the UN Economic Commission for Africa – whose representatives responded very positively to our contribution and indicated that it would be included in the formal report of the EGM.

During the EGM, I Chaired three Sessions: *Session 2: Gender, Rural energy infrastructure, and the role of Women; Session 3: Case Studies of Gender Mainstreaming; and Session 9: Facilitative Environment for Localisation of Clean Energy Technologies.* I also contributed to the knowledge development by delivering three presentations.

My first presentation on ‘*How important are the Considerations of Gender in Energy Development in Africa?*’ enabled me to outline, elaborate and elucidate the multi-disciplinary framework development processes and innovative concepts from our specific project on Global Change, Gender and Socio-Cultural Inclusion.

The second presentation on, ‘*How do we institutionalize gender in the energy sector?*’ allowed me to showcase the applicability and multi-level approaches for the utilisation of our innovative framework model, to address the multiple challenges inherent in the Global Change arena, in this case, the Energy Sector.

I re-aligned the framework model to show how it could be applied to addressing Gender Mainstreaming in the Energy sector in Africa, as highlighted in the figure below. The Five Porous rings surrounding the Framework were modified from research-based themes to those relevant to development frameworks, such as: Policies; Finance; Institutions; Human Capital and Sustainability. For each of these development indicators, I then outlined the key requirements, contexts, tools, and enabling environments for the effective mainstreaming of gender equality in the energy sector in Africa – including key questions to be addressed. These are detailed below the modified Framework diagram.



Key Elements of Gender Mainstreaming in the Energy Sector

1) Policies:

Innovative Policies framed on the premise of empowering perspectives such as ‘who benefits? And who decides?’; Regulations; Legislation; Affirmative Action; Gender Disaggregated Data Recording, Analysis & Dissemination Systems; Procurement Equity; Price Controls; Value Chain Analysis; Monitoring, Review and Evaluation, etc.

- What laws, policies and regulations shape and influence the current situation? and what are the differential impacts on gender and socio-cultural inclusion?
- Power relations between women and men (intersect with class, age, identity, ethnicity, etc.

2) Finance:

Investments; Incentive schemes to drive gender mainstreaming and equity and promote social learning and behaviour change; Funding; Loans; Grants; Public Private Partnership's (PPP's); Private sector; Public sector; Donor Agencies; Multi-lateral Agencies, Development Banks, etc.

- What access to resources do women and men have (intersect with class, age, identity, ethnicity, etc.)?
- What are the different needs and priorities of women and men (intersect with class, age, identity, ethnicity, etc.)?

3) Institutions:

Institutional Capacities: Expertise, track-record, Accountability, Transparency, Service ethos, Human Capital, etc.

Institutional Locations: Local, Provincial/State, National, Sub-regional, Regional/Continental, Multi-lateral, etc.

- Where are the women and men located in these Institutions (intersect with class, age, identity, ethnicity, etc.)?

4) Human Capital:

Human Capital Requirements: Scientific, Engineering & Technological Education, Expertise, Skills, Know-how; Academic Researchers/Research Expertise; Gender Research, Analysis, Policy development and implementation expertise; Expertise in Monitoring, Review and Evaluation; Entrepreneurship Skills – SMME's in the Energy Sector; Epistemic expertise on Socio-cultural and Afrocentric paradigms, etc.

- What are the prevailing cultural norms, beliefs, values, and practices as pertaining to the roles of women and men (intersect with class, age, identity, ethnicity, etc.)?
- What is the gender division of labour and how does it affect women and men in relation to capacity to operate within the energy sector or to respond to the energy sector (intersect with class, age, identity, ethnicity, etc.)?

5) Sustainability:

Targets: How do we know when we have achieved Gender Mainstreaming in the African Energy Sector? *Key drivers:*

- Technological innovation for sustainable social ecological systems.
- Social Learning for sustainability, adaptation, innovation and resilience.

5. CONCLUSION AND WAY FORWARD

In this Comprehensive Report we have mapped both the progress of the project as well as the development of the framework. The document aptly illustrates how the framework is contingent on information from a variety of disciplines but also how the framework could serve as a theoretical, analytical, and conceptual tool in the development of any project seeking to better mainstream gender and socio-cultural inclusion in global change research. The field of global change is broad and involving a variety of environmental processes but hoping to understand how such processes are social requires ingenuity.

The framework is complex and may appear overwhelming but it is in this richness where it houses its most potential. A project utilising the framework is not ‘tied down’ to utilising all concepts identified but is given a dynamic conceptual context from which to start and to develop. Therefore, for researchers, this Report serves as a guide in helping to not only identify how global change problems are social but how trying to understand they can be conceptually operationalised. Complex problems have been presented simply here but not without also highlighting the contentions and debates which exist within them. It is our argument that any research hoping to fruitfully research global change must also be aware of the methodological debates housed within the concepts that are being used and to reflect on what this means for their outcomes – as much as global change is social, the research process is too, and both are characterised by institutional processes shaped by varying power relations. Nonetheless, the Report acts as a useful introductory tool into how these different disciplines come together and will be wonderfully supplemented by literature mentioned in the bibliography.

The framework, however, is not only intended for researchers but for policy practitioners too. The framework highlights the connectivity of a variety of issues and illustrates the shortcomings of the Global Change Agenda. Specifically, this policy area is complex and could benefit from greater consideration of inclusion in the stages of the global change policy cycle (agenda setting, formulation, adoption, implementation and evaluation). This framework provides a helpful step in that direction. Additionally it can be used to further analyse the interrelationship between these stages and the role over power and privilege in the global change policy space. We are proud of the framework as it currently exists but also aware that it is not without its faults. That said, we see it as a useful contribution, one which is able to both facilitate and inspire further debate on the complexity of environmental change. The next phase of this project involves developing academic papers which help to further the debates and arguments raised in this report and to better place it within the academic and policy arenas. The papers promise to deepen the discussion on the theoretical and conceptual usefulness of the framework as well as highlight how it may be operationalised.

In addition to the papers, we are also working on securing additional funding so that this project may be extrapolated and expanded further, incorporating more partners and further facilitating debate. Grappling with new and different methodological considerations is never easy and for fuller impact it is our hope that the project will be spanned over a couple more years where we can engage with a variety of practitioners in numerous platforms. It is our hope that this Comprehensive Report has been useful to you and that it has broadened your own epistemological considerations on what constitutes global change and how methodological approaches from outside of the natural sciences can be used to better understand South Africa, and indeed Africa’s global change arena.

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