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GENDER & CLIMATE CHANGE ASSESSMENT IN URBAN CITIES

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GenderCC
Women for Climate Justice
Southern Africa

Non Profit Organisation Registration no. 082-775 NPO

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Images courtesy of:

City of Johannesburg

City of Tshwane

Earth life Africa

Greenhouse Project

Non Profit Organisation Registration no. 082-775 NPO

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1. INTRODUCTION

"Climate change is life or death. It is the new global battlefield."

Nobel Peace Prize winner and environmentalist - Wangari Maathai[1]

Gender CC international commissioned this desktop study to explore the nexus between gender issues and the impacts of climate change in cities. In particular, this study forms a basis to explore the specific climate change challenges that women are exposed to in cities and urban areas. While there is an increased recognition of the impacts of climate change on women, gender issues are rarely considered in urban climate policy. There is thus a need to review and intervene on climate change policy at a local government level.

Gender CC International has initiated the Gender into Urban Climate Change Initiative (GUCCI) project in an attempt to close this gap and explore options for integrating gender and social issues into urban climate policies in several pilot cities. Conducting a gender assessment of local climate policies is not just about finding out whether gender is already considered. It is a learning process, which allows for gaps in awareness and knowledge to be identified, discussed and addressed by a range of local actors.

This desktop study provides a bird's eye view of the socio-economic issues, the city level climate policies and the gender dimensions of climate change in each of the pilot cities selected. There are two pilot cities that have been identified in South Africa – City of Johannesburg and City of Tshwane.

The report concludes with an assessment of gender considerations in urban climate change policy in South Africa, highlighting some of the gaps and challenges.

[1] http://www.globalresearch.ca/climate-change-the-greatest-challenge-of-our-time/5360852

2. SOUTH AFRICA'S RESPONSE TO CLIMATE CHANGE

"The destruction of the earth's environment is the human rights challenge of our time".

Emeritus Archbishop Desmond Tutu

South Africa has a moral obligation to reduce its GHG emissions. It is the 11th highest emitter of greenhouse gases in the world and is largely dependent on coal for its energy supply.[2]

It is not surprising then that the South African government committed to reducing its GHG emissions at the 2009 UNFCCC meeting in Copenhagen. South Africa pledged to reduce its emissions by 34% by 2020 and 42% by 2025. The country would see growth of carbon emissions peak up to 2020, plateau between 2020 and 2030 and then decline from 2035. ([3];[4])

South Africa's commitment to reducing its GHG emissions looks very good on paper. The country has produced a plethora of policies and strategies to fight climate change such as the National Climate Change Response Strategy for South Africa, the White Paper on Renewable Energy, The National Development Plan, The Long Term Mitigation Strategy, The Integrated Resource Plan, and the Intended Nationally Determined Contributions (INDC). These policies recognize that the country is both a contributor to climate change and is also significantly impacted.[5]

The main criticism against the government has been from civil society organisations who believe that SA plays a duplicitous role. It commits to reducing its emissions at an international arena but then also commits to building more coal power at a national level.[6] Furthermore, the country has been criticized for poor implementation of its various policies and legislation.

2.1 GOVERNANCE

South Africa is a constitutional democracy with a three-tier system of government and an independent judiciary. The national, provincial and local levels of government all have legislative and executive authority in their own spheres that are interdependent. The Constitution designates the environment as

[2] National Climate Change response Policy 2009, http://www.joburg.org.za/images/stories/2014/June/climate%20change%20adaptation%20plan_city%20of%20joburg.pdf
[3] http://www.thesouthafrican.com/copenhagen-deal-not-acceptable-africa-to-be-hardest-hit-by-climate-change/
[4] https://mg.co.za/article/2015-03-20-00-responding-to-climate-change-in-south-africa
[5] Dada R 2015, https://mg.co.za/article/2015-03-20-00-responding-to-climate-change-in-south-africa
[6] https://mg.co.za/article/2015-03-20-00-responding-to-climate-change-in-south-africa

an area of concurrent national and provincial responsibility with a general trend to decentralize environmental management functions from national to provincial and local levels.

While the issue of climate change falls under the National Department of Environmental Affairs, there is a recognition that all government departments will be affected and thus should have a focus on climate change. There is thus a Cabinet level committee, the Inter-Ministerial Committee on Climate Change to ensure alignment of actions with national climate policies and legislation. In addition, there is an Intergovernmental Committee on Climate Change to foster sharing of information, agreement and support among the different spheres of government.

At a provincial and local level, there are senior level Ministerial political and technical structures and committees that is supposed to foster cooperation and coordination on cross-cutting issues. Municipalities are represented in the National Council of Provinces by the South African Local Government Association (SALGA). The South African Local Government Association (SALGA) represents and advises local government on the integration of adaptation and mitigation actions into the main local government plan – the Integrated Development Plan (IDP). It is accepted that most of the implementation will take place at a provincial and municipal level and thus the IDPs at municipal level are key to informing strategies and actions. South Africa has provisions that require public consultation in sectoral policies as well as specific development activities. All Integrated Development Plans require public involvement processes however, there is insufficient and inappropriate engagement with poor, disadvantaged or rural communities. This would be the one of the key mechanisms to input into city policies on gender and climate change.

3. CLIMATE CHANGE IN CITIES

Figure 1: Earth life Africa protest more coal power stations

Climate change is one of the biggest challenges facing the world. The images that are conjured up when discussing climate change are of parched land, polar bears floating on melting ice and poor rural communities. While these images are not to be scoffed at, they have made it difficult to explain the impacts of climate change to people living in cities and urban areas.

Half of the world's population lives in urban areas and it is estimated that 70% of the world's population will be living in cities by 2025.[7] Cities also contribute to climate change as they use at least 78% of the world's energy and produce more than 60% of greenhouse gas emissions - mainly through energy generation, vehicles, industry, and biomass use. Cities can play a significant role in mitigating climate change through the reduction of energy consumption and promotion of renewable energy.[8]

Cities are also considered as quite vulnerable to climate change in terms of extreme weather related disasters such as heavy rains, floods, more frequent and stronger storms, extreme heat and cold. There

[7] http://resilientcities2015.iclei.org/fileadmin/RC2015/files/City_of_Tshwane_Vulnerability_and_Adaptation_Plan_draft.pdf

[8] https://unhabitat.org/urban-themes/climate-change/

are additional concerns in urban areas such as incidences of water-borne diseases, migration and resource wars.[9]

The impacts of climate change will not be felt equally across the planet as they are multi-layered and differ between regions, generations, class, and genders. There are numerous studies that have mapped out the impacts of climate change on rural populations, a key focus being women. It is clear that women in rural areas are being negatively affected as they have to spend more time and travel greater distances to find food, energy and water. However, an analysis of climate change impacts on women in urban areas is seriously lacking in South Africa. Gender issues are rarely considered in urban climate policy, although there is considerable evidence that it is both necessary and strategic for local policy makers to do so.

It is thus imperative to understand the impacts of climate change on cities and the most vulnerable being poor and women within those cities.[10]

[9] https://unhabitat.org/urban-themes/climate-change/
[10] Alber G 2011, Gender, Cities, and Climate Change, https://unhabitat.org/wp-content/uploads/2012/06/GRHS2011ThematicStudyGender.pdf

4. PILOT CITY: CITY OF JOHANNESBURG

Figure 2: Flooded Johannesburg highway

The City of Johannesburg, like most large cities, is filled with contrasts. It is a city of rich and poor, multinational companies and local 'spaza' shops, world class infrastructure side by side with areas without access to basic water and sanitation services. While some may see it as a place of hope, others may see it as the place that crushes dreams.

People have been migrating to this city since the discovery of gold in 1886, hence its nickname 'Egoli' which means "City of Gold". This migration continues today as people from all over South Africa, Africa and the rest of the world still find their way to the city in the hope of finding work and improving their lives.

Geographically, Johannesburg is the largest city in South Africa located 1,700 metres above sea level within the smallest of the country's provinces, Gauteng Province. It is the commercial, industrial and financial hub of the country and is the economic powerhouse of South Africa. It generates 17% of the country's gross domestic product, mostly through the manufacturing, retail and service industry sectors.

The legacy of apartheid has defined the challenges being faced in Johannesburg today and reflects the social and economic divisions that are based on race, class, gender, nationality and age.[11]

The population statistics are emblematic of a migrant city. Johannesburg is home to almost five million people (4,676,731[12] to be a bit more exact) and accounts for about 36% of provincial population and 8% of the national population. It is the most densely populated and urbanized municipality in South Africa, with an urbanization rate of 97%. The Sex Ratio (Males per 100 females) is 100.7 implying that there are more males than females in Johannesburg. The population pyramid also indicates that the city's population is predominantly young.[13]

At least 25% of Johannesburg residents live in abject poverty, in informal settlements that lack proper roads or electricity or any kind of direct municipal services. Another 40% live in inadequate housing, with insufficient municipal services. In addition, 16% of households lack proper sanitation services, 15% do not have electricity, 3.6% do not have water supplies, and the expanded unemployment rate is approximately 40%.[14] Women in Johannesburg constitute the majority of the poor and unemployed. There is a high level of female-headed households of about 36.2%[15], and these households are generally poorer than male-headed households.[16]

4.1 CLIMATE CHANGE IN THE CITY OF JOHANNESBURG

The geographic location of the City of Johannesburg has largely protected it from the most severe climate change impacts. The city is not located on a coastline, river or in an area heavily affected by major weather-related natural disasters such as hurricanes. Johannesburg is apparently the fourth best placed city out of 21 major cities from Asia, the Middle East and Africa in terms of exposure to climate

change-related risks.[17] Despite this, the projected impacts for the City of Johannesburg are still significant and include increased temperatures, health risks, flooding and water supply shortages. The

[11] https://www.uj.ac.za/faculties/humanities/csda/Documents/Johannesburg%20Poverty%20and%20Livelihood%20Study.pdf
[12] http://mfma.treasury.gov.za/Documents/01.%20Integrated%20Development%20Plans/2014-15/01.%20Metros/JHB%20City%20of%20Johannesburg/JHB%20City%20of%20Johannesburg%20IDP%202014-15.pdf
[13] De Wet T et al 2008, Johannesburg Poverty and Livelihoods Study, University of Johannesburg, https://www.uj.ac.za/faculties/humanities/csda/Documents/Johannesburg%20Poverty%20and%20Livelihood%20Study.pdf
[14] De Wet T et al 2008, Johannesburg Poverty and Livelihoods Study, University of Johannesburg, https://www.uj.ac.za/faculties/humanities/csda/Documents/Johannesburg%20Poverty%20and%20Livelihood%20Study.pdf
[15] http://www.statssa.gov.za/?page_id=1021&id=city-of-johannesburg-municipality
[16] http://www.joburg.org.za/images/stories/2013/April/women%20development%20strategy%20elec%20%20brochure_1.pdf
[17] Joburg 2040 Growth and Development Strategy, City of Johannesburg metropolitan Municipality

city will also be affected by impacts that occur elsewhere – in particular with respect to food shortages, drought and climate change driven migration.[18]

Climate model projections for Johannesburg indicate that temperatures for Johannesburg will be 2 – 3 degrees Celsius higher than present. The increased temperatures will witness an increase in the demand for energy to cool buildings and homes and with serious impacts on human health. Furthermore, the changing temperatures could alter the geographical distribution of insect vectors that spread infectious diseases such as malaria, air borne diseases, drought related illnesses and in some instances led to outbreak of diseases such as cholera, particularly in areas suffering from water scarcity and where sanitation services are inadequate.[19]

There is also a substantial risk that Johannesburg will experience an increase in annual rainfall, a higher frequency of storm events and a longer rainy season. The increased rainfall adds to the City's vulnerability as it will and already is resulting in episodic urban flooding and compromising key infrastructure.

Climate change will pose serious challenges and risks to the livelihoods of the poorest and most vulnerable in Johannesburg, in particular people living in informal settlements as they have the least resources to withstand the impacts of climate change. It is no surprise then that local government has understood that poverty alleviation, including the relocation of settlements located within floodplains, the extension of basic housing and infrastructure, the expansion of job opportunities, and the improvement in education and primary health care delivery services are the most important measures that can be undertaken to reduce the exposure of these communities to the impacts of climate change. This understanding however, has not unpacked the vulnerable sectors to give a specific focus on the impacts on women.

4.2 GHG EMISSIONS IN THE CITY OF JOHANNESBURG

The City of Johannesburg is amongst the biggest emitters of greenhouse gases in South Africa mainly from industrial, transport and residential (domestic) activities. The city conducted a GHG emissions inventory and established that most of Johannesburg's GHG emissions are CO_2 which makes up 92.4%

[18] http://www.joburg.org.za/images/stories/2014/June/climate%20change%20adaptation%20plan_city%20of%20joburg.pdf

[19] http://www.joburg.org.za/images/stories/2014/June/climate%20change%20adaptation%20plan_city%20of%20joburg.pdf

and 6.6% of Johannesburg's CO_2 (eq) emissions are from methane (CH4), largely from the disposal of waste in landfill sites. At least 67% of Johannesburg's emissions are from electricity usage. Other activities including heating and cooling of buildings, the use of fuel in transportation and the disposal of the City's waste accounts for 29% of the emissions. Less than 4% of emissions are from inter-city rail transport and aviation.

Table 1: Johannesburg's emissions by greenhouse gas[20]

	Emissions (tonnes)	Emissions CO_2e	Percentage
CO_2	25,151,699	25,151,699	92.4%
CH_4	85,706	1,799,823	6.6%
N_2O	838	249,097	0.9%
Total		27,211,337	

Civil society organizations raised concerns about the national GHG inventory, including the lack of public participation, links to existing climate change policies and emission targets, complicated presentation of data and relevance of data in the report.[21] Similar comments can be made about the City of Johannesburg's GHG inventory, especially the public involvement in the process and the presentation of the data. Furthermore, the Johannesburg inventory compares the city to other cities in Africa and then to developed countries. It needs to look at comparative cities in terms of size and development. Johannesburg is far more industrialized than other major cities in Africa.

4.3 A CITY'S RESPONSE

The City of Johannesburg's approach to climate change flows from the National Climate Change Response Policy or simply the Climate Change White Paper. The White Paper aims to reduce the rate at which climate is changing to levels that occur naturally, and especially reducing the atmospheric concentrations of Greenhouse Gases (GHGs) and responding to the adverse effects of climate change.

[20] http://carbonn.org/uploads/tx_carbonndata/GPC%20Report%20for%20the%20City%20of%20Johannesburg_01.pdf
[21] http://earthlife.org.za/www/wp-content/uploads/2015/01/Earthlife-Africa-and-groundWork-comments-on-the-National-GHG-Inventory-August-2014-2.pdf

The key climate change policies for the City of Johannesburg are:

- The City of Johannesburg Energy & Climate Change Strategy
- Action Plan (2011)
- Approved Adaptation Plan
- Green House Gas Emissions Inventors for the COJ Report
- State of the Environment Report 2008
- Air Quality Reports

The Johannesburg Climate Change Strategy aims to diversify its energy sources especially through renewables, enhance energy efficiency, promote a green economy, and create resilience through strategic adaptation interventions. The city has invested in retrofitting existing government buildings, installed solar water heaters in homes, and established food gardens.[22]

The city has put in place relevant policies to guide its climate change plan. A Johannesburg Climate Change Adaptation Plan (CCAP) for the City was completed in 2009. Adaptation initiatives that have emanated from this plan include a Vulnerability Assessment and Risk Assessment Plan, Flood modeling, early warning system and Disaster response. It has gone further to integrate the CCAP recommendations into both long-term city strategy and day-to-day operations. In addition, the City has developed a Joburg 2040 strategy, which is based on building a sustainable, resilient and thriving city.

The city has an institutional capacity to reduce vulnerability to climate and disaster risk including departments such as Emergency Management Services, instruments such as Joint Operation Centres, Early Warning Systems, Disaster Centres, Stakeholders Management Systems and Resource Mobilisation Systems.

[22] http://www.joburg.org.za/index.php?option=com_content&view=article&id=8936

5. PILOT CITY: CITY OF TSHWANE

Figure 3: women in urban areas do not have easy access to clean affordable water

The City of Tshwane (CoT) is the metropolitan municipality that includes Pretoria, the country's administrative capital city. Pretoria has its different ironies of being the seat of the Apartheid government and the birth place of South Africa's democracy.

'Wathint' Abafazi, Wathint' Imbokodo' - (you strike the women, you strike the rock). These words stem from the women-led march in 1956 when twenty thousand women from all over South Africa marched to the Union Buildings in Pretoria (Tshwane municipality) to protest against the extension of the notorious pass laws to include black women. It was the largest anti-apartheid demonstration of women and came

to symbolise the courage and strength of women who fought against oppression in South Africa.[23] Gender equity became a key component of the democratic government in 1994.

Of the three metros in the Gauteng province, the City of Tshwane is the largest in terms of geographic space, that is, 6,345 square kilometres (13% of Gauteng province), which makes it the third largest municipality in the world. Tshwane is one of the metropolitan municipalities that are made up of a significant amount of rural land, which must be managed together with its urban responsibilities. While this size allows for opportunities for different land uses and development, it also poses big challenges for basic services such as water, sanitation, electricity and social facilities.[24]

In terms of population numbers the municipality only has about 3.1 million people. This is largely made up of youth given the large student population in the City. Approximately, 61 percent of Tshwane's population is younger than 35, with 35 percent being between the ages of 15-34. Senior residents (65+ age group) in Tshwane only account for approximately 6 percent of the total population. On average, the gender breakdown is evenly distributed across all age bands.[25]

Tshwane remains an unequal city with pockets of wealth, and widespread poverty. Inequality as is the case in South Africa is particularly prevalent in townships, informal settlements and merged areas in the north of the city. Poverty in Tshwane is mainly visible through the homeless, marginalized and high rates of unemployment. The proportion of people living in poverty is almost 27.9%.[26] Unemployment in Tshwane is about 24.2% and has a Gini Coefficient of 0.63 highlighting high levels of inequality.[27]

Tshwane has an estimated 65% to 67% urbanisation. Many people migrating to Tshwane settle in informal settlements or squatter camps. Squatter camp dwellers live in poorly-built shacks, and have no access to basic services such as water, electricity and sanitation. Tshwane is the only metro in Gauteng that incorporates former homelands; population statistics show that 0.4 per cent of its population live in a traditional dwelling. Female headed households are 35, 8% of the City's population.

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[23] http://www.saha.org.za/women/national_womens_day.htm

[24] http://www.tshwane.gov.za/sites/Council/Ofiice-Of-The-Executive-Mayor/201621%20Draft%20IDP%20Ward%20Meeting%20schedule/Annexure%20A%20Draft%20IDP%20document%20and%20Annexure%20B%20SDBIP%20Score%20Card%202016%2017.pdf

[25] http://www.tshwane.gov.za/sites/Council/Ofiice-Of-The-Executive-Mayor/201621%20Draft%20IDP%20Ward%20Meeting%20schedule/Annexure%20A%20Draft%20IDP%20document%20and%20Annexure%20B%20SDBIP%20Score%20Card%202016%2017.pdf

[26] Cronje et al. (2014:60)

[27] http://www.tshwane.gov.za/sites/Council/Ofiice-Of-The-Executive-Mayor/Approved%20IDP%2020112016/IDP%202011-2016.pdf

Interestingly, the economy of the City of Tshwane is the fourth biggest municipality in South Africa and second biggest in Gauteng in terms of gross value added by region with gross value add of R243.4 billion. In 2014, City of Tshwane contributed 25 percent to the provincial economy. However, Tshwane's economy is experiencing jobless growth, partly due to the tendency to produce more capital intensively. The City of Tshwane has prioritised the strategic national goals of job creation, sustainable growth and striving for a green economy.[28]

5.1 CLIMATE CHANGE IN THE CITY OF TSHWANE

The City of Tshwane region is expected to experience an increase in temperature of between 2 - 3°C 2050 and less rainfall. The city will be exposed to extreme weather related events such as droughts, floods, hailstorms and heat waves that will occur more frequently and greater intensity. As mentioned previously, the vulnerable population groups will be the most affected.

The city is already experiencing flash floods that have caused damage to roads, bridges, homes, and that have also exacerbated the risk of sink holes in parts of the metro due to the dolomitic geology. Vulnerability assessments have provided useful information that allows informed decisions to be taken on managing the built and natural environment as well as to take advantage of opportunities presented by climate change.[29]

The climate vulnerability risk assessment identified eight priority areas for the City of Tshwane. [30] These are:

- loss of ecosystem goods and services,
- an increase in energy demand
- increase in diseases affecting human and animal health
- Damage to public infrastructure (storm water systems, roads, bridges)
- Water insecurity
- Flooding and damage to human settlements and private property

[28] http://www.tshwane.gov.za/sites/Council/Ofiice-Of-The-Executive-Mayor/201621%20Draft%20IDP%20Ward%20Meeting%20schedule/Annexure%20A%20Draft%20IDP%20document%20and%20Annexure%20B%20SDBIP%20Score%20Card%202016%2017.pdf

[29] SACN (2015), City of Tshwane Vulnerable Assessment to Climate Change

[30] http://www.tshwane.gov.za/sites/residents/Services/EnvironmentalManagement/Pages/Climate-Change.aspx

- Increase in sinkholes in dolomite areas
- Decrease in productivity of agro ecosystems affecting food security

Within the identified areas, the City is monitoring the risks in order to continue the implementation of its mitigation and adaptation programmes, such as conservation and rehabilitating degraded ecosystems, listing of indigenous trees, and clearing of alien vegetation, renewable energy investment, retrofitting buildings, and flood vulnerabilities amongst others.

5.2 GHG EMISSIONS IN THE CITY OF TSHWANE

The City of Tshwane GHG emissions inventory has only carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) emissions considered. Most emissions in the city are from transport, industry, households burning coal for cooking, and electricity generation.[31]

5.3 A CITY'S RESPONSE

As mentioned above local governments and municipalities have developed their climate change strategies in line with the National Climate Change Response Policy (2009). The City of Tshwane has developed policies and strategies to mitigate and adapt to the impacts of climate change that would simultaneously help to alleviate poverty. An important aspect of the policies that have been developed is the attention and focus given to the key risks and vulnerabilities due to climate change that include informal settlements, child headed and female headed households, education rates, unemployment, households living below the poverty line, age dependency ratio and number of people per household.

Tshwane has adopted a number of mitigation and adaptation policies. This includes the key long term sustainability vision, called Vision 2055, which forms an important aspect of the city's transition towards a low carbon, resource efficient and climate resilient city. To bring this vision into reality, the *Green Economy Strategic Framework*, which identifies a number of mitigation and adaptation actions, was developed in 2013. Other policy instruments for the City of Tshwane include the Sustainable Energy and Climate Change Action Plan; Spatial Planning Land Use Management Act and Food Security Policy. It is against this backdrop that the greenhouse gas inventory and vulnerability assessment were undertaken.

[31] http://www.tshwane.gov.za/sites/residents/Services/EnvironmentalManagement/Pages/Climate-Change.aspx

The City Sustainability Unit was developed to implement the Climate Change Response Strategy (CCRS) and the Climate Action Plan. The City of Tshwane has embarked on an outreach programme called ‘Tshwane Green’ aimed at robust awareness raising on “climate change” and “sustainability” among the public.

Some of the key actions undertaken by the City of Tshwane include using the vulnerability assessment to identify vulnerable areas, make use of resilient designs & building material as well as the relocation of existing developments in high risk areas. In addition, the City has established an early warning system to inform municipalities of impending floods and droughts.

The city has proposed an internal management tool that focuses on monitoring, reporting, verification and evaluation (MRVE). This system aims to monitor progress of the implementation plan and identify any gaps in the adaptation plan.

6. GENDER CONSIDERATIONS

"Women should be part of any agreement on climate change — not as an afterthought or because it's politically correct, but because it's the right thing to do. Our future as humanity depends on unleashing the full potential of all human beings, and the full capacity of women, to bring about change."[32] UNFPA Executive Director Thoraya Ahmed Obaid

The threat of climate change is a global priority and as mentioned previously, the most vulnerable countries and people will be hardest hit – from rising sea levels in the South Pacific, to extended drought in Kenya, to increased occurrences of flash floods in the cities of Johannesburg and Tshwane.

Within vulnerable sectors of society, attention must be focused on the gender perspectives of climate change. Men and women will be faced with different vulnerabilities to climate change impacts and thus have different abilities to respond to the effects thereof. [33] At a global level, there is a clear linkage between gender equality, poverty and climate vulnerability. At a regional level there is evidence of a gender dimension to climate change. At the 34th SADC Heads of State Summit held in Zimbabwe, the Protocol on Environment Management for Sustainable Development was adopted and important to note that the Protocol has a gender equality article.[34] However, there is still a very long road to travel on a national and municipal perspective in South Africa.

In trying to understand gender and climate change in the context of South Africa, it is important to understand the ways in which colonialism, capitalism and apartheid have divided the country along racial, class and gender lines, divisions that still exist twenty years after democracy.[35]

The constitution together with a range of policies and legislation have put in place mechanisms to deal with gender inequity, including affirmative action, child support grants, and increasing women representation in key government structures.[36] In spite of the major gains, there still remain enormous disparities and inequalities between men and women. Currently there is insufficient knowledge

[32] http://www.feministpeacenetwork.org/2009/12/08/women-and-climate-change-links-and-quotes/
[33] http://genderlinks.org.za/what-we-do/sadc-gender-protocol/the-sadc-gender-protocol/gender-and-climate-change/

[34] http://genderlinks.org.za/what-we-do/sadc-gender-protocol/the-sadc-gender-protocol/gender-and-climate-change/
[35] https://za.boell.org/2014/02/03/gender-and-climate-change-south-africa-case-study-climate-change
[36] https://za.boell.org/2014/02/03/gender-and-climate-change-south-africa-case-study-climate-change

regarding gender differentiated impacts of climate change. In particular, there is a need to understand the effects on gendered roles in urban areas so as to design effective climate change polices.

7. GENDER DIMENSIONS IN CLIMATE CHANGE IN THE PILOT CITIES

Figure 4: Organisations like the Greenhouse Project are educating and training women in renewable energy

As gender equity is a strong pillar of the bill of rights and constitution, there is a strong commitment for both the City of Johannesburg and City of Tshwane to play a more proactive and supportive role in promoting the inclusion and development of women in each City.

The City of Johannesburg has a Gender Mainstreaming mandate that was introduced in June 2012 and looks at Institutional Transformation, Service Delivery and Societal Transformation. The mandate intends to shift the City from theoretical understanding of gender mainstreaming to practical

implementation. This is mostly in terms of employment and employment conditions within the municipality. The City has made efforts to balance gender internally pushing for 50/50 in top and management positions. Women comprise 43% of the working population in the City. The City of Johannesburg is looking at ways to increase women's control over water and energy resources. In terms of climate change the gender dimensions of climate change are is not very well studied in general and even less on gender dimensions in urban areas.

Similarly, gender dimensions in the work place and in development issues are a top priority for the City of Tshwane. For example, the Tshwane Women Economic Empowerment Strategy provides guidance, focus and specific recommendations for the support required to ensure women's full participation in the economy. However, on climate change there is very little focus or emphasis on gender.

Both the City of Tshwane and the City of Johannesburg have a key focus on women and poverty. This may be the door to open and link to the impacts of climate change on women in the cities.

8. GAPS AND CHALLENGES

Figure 5: Stronger links between poverty and climate change needed

South Africa's history has placed gender front and centre on the political and economic agenda with most policies dealing with employment equity, political equity and in some instances on issues related to health, poverty and education. While the country has made progress, there is room for improvement. One such area is on climate change.

The problem is the 'siloism' within government that sees each issue as separate and not linked. Climate change is thus viewed as an environmental problem and not as a cross cutting issue of poverty, gender and development. The policies on climate change may mention vulnerable communities, and possibly women in rural areas but very little is done to understand the plight of women affected by climate change in urban settings.

One of the key challenges is to make climate change more mainstream and for ordinary South Africans to understand the impacts and how to adpat to these impacts.

9. PRELIMINARY CONCLUSIONS

This desktop exercise of compiling baseline information on the two cities has indicated that gender has not been taken into consideration when it comes to the climate change policies, strategies and programmes. The cities have been grappling with mainstreaming climate change internally within the various departments, responding to climate denialists in key positions within in government and not being able to do much need awareness raising and work externally within the communities and various stakeholders.

Needless to say there are a pocket of activities on climate change which are not well known by the communities and other stakeholders. The activities are being implemented in a piece-meal approach and not integrated to general development and poverty alleviation projects. In addition, there are many projects that can be defined as climate change related but because of the very separated spheres of government and departments they are not documented as such.

The lack of understanding of the cross-cutting nature of climate change begs the question of whether the cities will be able to take on and implement the recommendations of the GUCCI project which requires them to review their already existing climate change policies, strategies and plans to ensure that gender is mainstreamed. This question is further compounded by the fact that the climate change units in the two cities are under-capacitated and under resourced.

GenderCCSA through the SEA (Sustainable Energy Africa) project has noted numerous local grassroots community or citizens groups that have been actively lobbying and mobilising communities around issues of service delivery including access to energy, water, food, waste removal, etc. These groups are very important stakeholders in the cities and it will be very important for GUCCI project to interact with them on climate change.

There are strong lessons that can be learnt from organisations like Earth life Africa that have a focused group of women who work together to understand the challenges of climate change and to then spread the messages through awareness raising campaigns.

Some key recommendations and future actions:

- Gender CC must put gendered dimension of climate change in the IDP and table it at the Gauteng Climate Change Forum.
- Understand both men and women's impacts in a developing country context?
- Assess how funders dictate the type of projects taken up at a local level
- Promote the use of simple language as well as communication in different languages on issues of climate change.
- Inclusion of indigenous knowledge and experience in climate change action plans.
- In a developing country like South Africa, it is necessary to include a perspective on child headed households together with women.
- Use existing local community networks and structures to create awareness and education on climate change
- Policies must not only view women as victims but must make them part and parcel of spearheading the solutions.