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## EFFECTS OF CLIMATE CHANGE AND THEIR INDELIBLE IMPACT ON SOCIAL WORK PROFESSION IN ZIMBABWE

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### ABSTRACT

Climate change is one of the biggest threats facing global development with the developing countries being more vulnerable due to their low adaptive capacities. Some of the effects of global climate change are evident with increased incidences of droughts, floods, hailstorms, more hot days and heat waves affecting mostly rural inhabitants. These effects have impoverished millions of people around the globe. Environmental degradation has presented a myriad of challenges to the human race and the most heinous one has been climate change. Climate change has of late presented insurmountable challenges such as poverty and food insecurity to the lives of many people in Zimbabwe particularly the rural folks. Though a lot has been written about climate change globally and in the Zimbabwean context, the objective of this paper is to reveal how it has directly and indirectly impacted on the social work profession. It has presented overwhelming pressure on the social work profession and the limited resources in most third world countries. Social workers are found engaging in developmental, relief and disaster management work in response to the effects of climate change. As a result social workers in Zimbabwe should be sensitized on the devastating impact of climate change and the stress it imposes on their profession and clients so that they are able to develop adaptive measures and promote resilience among communities. Green social work should be adopted by social work training institutions so that students are well prepared to deal with the effects of global warming.

**KEY TERMS:** climate change, global warming, social work, environmental degradation, green social work.

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## INTRODUCTION

The main thrust of this paper is on the direct and indirect impacts of climate change on the social work profession. Of significant importance to note is that the subject of climate change is controversial and a bone of contention, that is, there are differences of opinions amongst scholars as to what climate change is. According to Gukurume (2013) climate change is a process of global warming, in part attributable to the greenhouse gases generated by human activity. Manyatsi (2010) on the other hand defines the phenomenon as the long term significant transformation in the 'weather average' that a given region experiences. The problem of climate change has led to excessive use of natural resources- ecological overshoot (Peeters, 2012). Planetary warming as a result of climate change has led to ecological changes such as desertification, floods, droughts, heat waves, rising sea levels and many others. These events are expected to increase if the global mean temperatures remain on the rise (Gillis, 2014). Planetary warming taking place is anthropogenic, that is, it is directly related to human activity. The UN General Assembly (2009) for example notes that deforestation and land degradation compromise the earth's ability to absorb carbon dioxide which is one of the most dangerous toxic gases.

According to Dominelli (2011) the impacts of climate change are felt more by the world's poorest regions. Many developing countries' economies are heavily hinged on agriculture and according to Chagutah (2010), Zimbabwe's high dependence on rain fed agriculture and climate sensitive resources makes it particularly vulnerable to climate change. The rural folks are the hardest hit as they solely rely on agriculture for their survival due to sky rocketing levels of unemployment and lack of adequate resources and income to supplement their food security. The dry spells, which are a major common problem caused by climate change in Zimbabwe lead to low levels of food production which according to Gukurume (2012), are inextricably linked to widespread poverty and food insecurity in the rural areas. Other problems include flooding, for example the TokweMukosi incident, heat waves and shifting of seasons. Climate change also has a negative impact of the health of people. The heat waves cause headaches and in severe cases stroke and death. As a result, there is loss of an economically active populace as they are the ones at high risk of exposure as they go out to fend for their families.

These problems of climate change have presented overwhelming stress on the social work professionals to come up with measures to mitigate them. Addressing climate change has become a challenge for mainstream social work (Dominelli, 2011), however it is still unclear as to what may be the position and contribution of social work. Social work application however relies on the presence of resources and in the face of limited resources in Zimbabwe social workers cannot do much. To ease the pressure on the profession, social workers however should focus on the root cause of the problems and empower communities on how to adapt to the challenges brought forth by climate change rather than focusing on remedial social work.

## IMPACT OF CLIMATE CHANGE

Climate change is causing unprecedented, unpredictable and irreversible changes to the earth's ecosystem at an alarming rate (Sugirtha & Little Flower, 2015). It affects a wide range of sustainable development issues such as health, food security, employment, livelihoods, gender equality, education, housing either directly or indirectly (ibid). Climate change is not an isolated phenomenon but is part of interrelated problems such as urbanization, industrialization and armed conflicts.

People are not affected by climate change in a uniform way. The variation comes with geographic location, culture, social, economic and political characteristics of societies. Social workers respond to these effects in one way or the other. They should identify how global warming affects different populations in different parts of the world and come up with appropriate responses.

### *Agriculture and Food Security*

Eradication of hunger and ensuring food security and nutrition is upper most in the sustainable development goals and an area for social work concern. However faced with the catastrophe of climate change, achieving this becomes a daunting task. Climate change is real and its effects especially on food security of the vulnerable are already being felt globally and in Zimbabwe in particular. FAO (2008) states that mean global temperatures have experienced an unprecedented rise since about 1850 and this rise is mainly attributed to accumulation of greenhouse gases in the atmosphere. The accumulation of these gases is mainly owed to intensive agriculture which is often associated with deforestation as the need to satisfy food demand increases and the burning of fossil fuels which are the main sources of energy in many countries. This has consequently led to the climate changes being experienced today. These changes pose a serious threat to Zimbabwe's food security. This is because our food security as a nation heavily relies on rain fed agriculture. According to FAO (1996) a nation may be said to be food secure when "...all people at all times have physical or economic access to sufficient, safe and nutritious food to meet their dietary needs and preference for a healthy and active life." Even though artificial methods like irrigation, building artificial micro climates have been implored, lack of adequate resources and the decreasing

level of water in major dams and extreme weather conditions like floods and droughts reverse all the efforts. Though both the rural and urban population, are affected, the rural counterparts are the hardest hit because of their sole reliance on agriculture. Hence it is crucial to strengthen the rural people's resilience so as to empower them to cope with the looming threat.

According to FAO (2016) climate change is mainly affecting four dimensions of food security in many countries. These are food availability, food accessibility, food utilization and food systems. Food availability relates to food production, its presence in sufficient quantities and quality. Climate change has seen Zimbabwe experiencing erratic seasonal rainfalls and shifting of seasons and extreme weather conditions in the form of floods and droughts which have consequently disrupted the agricultural system. This has a head on effect on the economy as it is largely dependent on the agricultural sector and it is also the main source of livelihood for the majority of Zimbabweans as a huge percentage of the population resides in the rural areas and rely on agriculture. Brown et al (2012) estimate that farmers represent 62% of the Zimbabwean population. The situation is aggravated by the fact that majority of the people rely on rain fed agriculture and natural ways of enhancing soil quality as they lack the necessary resources such as irrigation infrastructure and fertilizers which has grossly lowered food production.

Trends in rainfall could be traced during the 1960s to around 1980 and droughts would recur at 10 year intervals (Manyeruke et al, 2013). However this trend is now a thing of the past and it is now almost impossible to predict the rainfall patterns. Zimbabwe is now experiencing a series of droughts due to climate changes. Porter et al (2014) note that climate change has also seen the establishment of pests in areas where they previously could not ordinarily survive. Sky rocketing temperatures have also caused some pests to appear earlier than is the norm leading to serious losses. This is grossly affecting food production and food security which has seen many people in the rural areas and some high density suburbs in the urban areas relying on food aid. Some parts of Zimbabwe receive food aid because during some years people fail to get good harvest and are left in the brink of hunger. Zimbabwe has also witnessed its fair share of heat waves and floods which have worsened the food and nutrition security crisis as these destroy crops and infrastructure, livestock and cause soils erosion leading to land degradation.

Of the third of all people who rely on farming as a means of livelihood, more than 60% own livestock (FAO, 2016). Livestock buttresses their food security in the face of climate shocks, are a means of farming, milk, meat and a source of financial income. This is also the case for many farmers in Zimbabwe. However much anecdotal evidence has shown that climate change has had severe effects on the livestock. Their health has been affected by heat waves and the advent of new pathogens and vectors caused by the rise in temperatures. A lot have perished in floods. Increased dry spells have left others with no water to drink or grazing lands. This has also affected food security as livestock supplement the nutrition of many people.

Another impact of climate change on food security noted by Porter et al (2014) is an increase on food prices which is inextricably linked to low productivity and a decline in yields. The price increase will consequently affect food accessibility especially for poor households and those in the rural areas with no alternative sources of income and they will have to reduce their consumption or rely on food aid. Du Toit and Ziervogel (2004) argue that there are certain types of foodstuff that cannot be produced at household level but are however acquired through trade or buying. With price increase such kinds of food are likely to become unaffordable. This will have an effect on individual's nutrition as well as health (FAO, 2008).

### *Climate Change and Health*

Climate change has serious effects on human health. It is recognized as the biggest public health threat of this century (Costello, 2009). There is a growing recognition for the need for greater attention to the health and psychosocial impacts of climate change and related environmental challenges (Kemp & Palinkas, 2015). Although some effects according to WHO (2012) may be advantageous, particularly with regards to temperate countries where temperature increase may lead to milder winters, thereby reducing the deaths caused by too much cold, much evidence however suggests that in overall climate change will negatively affect the health of humans. The impact of climate change on human health is already being felt globally. In its 'World Health Report of 2002' WHO attributes 2.4% of the diarrhea experienced across the globe and 6% of the malaria that hit middle income countries to climate change. Taking a single view on this would be myopic. This is because climate changes effects on human health act in combination with other forces such as adaptive policies, population density and social conditions. Developing countries are the hardest hit and more susceptible to climate change induced health hazards. This is because of the poor health status, lack of resources and infrastructure, lack of skilled personnel and economic underdevelopment.

In Zimbabwe El Nino induced droughts and floods are being experienced as well as increased temperatures and heat waves. The year 2016 saw Zimbabwe experiencing extremely hot and cold temperatures and heat waves. In the face of heat waves people are at risk of suffering from heat cramps, strokes, headaches caused by excessive sweat and loss of water in the body. Though no deaths were recorded, IPCC (2007) has predicted that there will be increased mortality and morbidity worldwide as a result of increased temperatures. The US Centers for Diseases

Control Prevention (2009) estimated that USA has already experienced more than 6,300 heat related deaths between 1979 and 2006, placing temperature increase as the major cause of weather related deaths.

Water borne diseases such as cholera are also expected to be more widespread as a result of erratic water supplies. The year 2008 saw Zimbabwe experiencing a cholera epidemic which is said to be the largest outbreak recorded in history. The number of people affected by the epidemic were pegged at 100,000 and those killed at 4,000 by the Government of Zimbabwe (2010). Extreme weather conditions like flooding are noted by Brown et al (2012) to have the potential of cross contaminating water and sanitation systems heightening the risk of recurrent cholera outbreaks. Available evidence also suggests that the rise in temperatures caused by climate change will lead to an increase in ground level ozone. This will have severe effects on the respiratory system and lungs and individuals with preexisting cardio and respiratory conditions are more at risk.

The range and length of mosquito activities are likely to be on the increase as a result of high temperatures and changes in rainfall leading to an increase in malaria outbreaks. There will be a geographic shift in malaria distribution in Zimbabwe due to climate change which will see areas that were previously unsuitable becoming suitable ground for malaria transmission by 2100 (IPCC, 2007). Not to be left unmentioned is the fact that some people are more liable to experiencing the health effects of climate change than others. Brown et al (2012) propound that people living with HIV are more vulnerable to diarrhea which in severe cases may weaken their immune system. The children and the elderly are more likely to suffer from malnutrition related diseases such as kwashiorkor as a result of food shortages and price increase caused by poor yields. Individuals living with other medical conditions like asthma, high blood pressure, cardio and respiratory conditions as well as people living with disabilities are more prone to succumb to changing weather conditions. According to Achstatter (2014) climate change is expected to worsen the deadly diseases that are currently wreaking havoc in developing countries. The UN General Assembly (2009) argues that ecological imbalances make more environments more conducive to bacteria and vector-carrying arthropods.

### **Women and Girls**

Women and girls are more vulnerable to climate change. A number of factors cause this and among them: the oppression of women in most traditions and cultures and their low levels of education as compared to men. Shortage of natural resources, extreme and unpredictable weather conditions due to climate change have caused significant changes coupled with hardships in the everyday lives of people in Zimbabwe. It is generally accepted that these changes and hardships affect the women the most and will further aggravate the already existing gender inequalities. Further to the imbalances of climate change induced disasters on women's mortality and morbidity, it is expected that climate change will pose serious threats on women's livelihoods by reducing their economic opportunities and female headed households will be the hardest hit (Brown et al, 2012). The impacts of climate change will also be more severe for women residing in the rural areas as compared to their counterparts in the urban areas. Despite bearing the burden of climate change, Manata and Pazu (2009) argue that there has been a lack of gender mainstreaming in the responses to climate change by the international community as women and girls are also excluded from crucial decision making.

According to Madzwamuse (2010) the livelihoods of 70% of women in Zimbabwe hinge on rain fed agriculture. Women's livelihoods are thus particularly vulnerable to the droughts, erratic rains and extreme weather conditions caused by climate change. Though men may also be facing similar agricultural challenges posed by climate change, they may migrate and find employment in urban areas, an opportunity which is largely unavailable to women due to domestic obligations (Manata and Pazu 2009). Left alone with no male assistance the work load is increased for women and the girl child. As a result of limited economic opportunities, Brown et al (2012) notes that some women in Shurugwi have resorted to beer brewing as an alternative livelihood strategy. This shift is however said to have exacerbated alcoholism and consequently led to a rise in cases of domestic violence and abuse of women.

Gender roles automatically make women and girls the managers of natural resources in both the rural and urban areas. This makes them more susceptible to the ills of climate change than their male counterparts. It is the role of women and girls to collect water and firewood. Droughts are however likely to dry up wells. The Herald (12 March 2011) reports that 65% of rural water points are out of order thereby increasing the distance they have to walk to obtain water. With the increased distance, women and girls face an additional challenge of being raped or assaulted in the bushy parts of the rural areas. The urban areas are also experiencing water shortages posing an additional burden of having to look for water. Due to the additional time needed to collect water and firewood, there is a high possibility that girls will be taken out of school, thereby affecting their education levels (Manata and Pazu 2009). Women and girls also play the care giver role. According to FAO (2008) the health problems of climate change discussed above will add more pressure on women and girls as they care for the sick.

### **THE ROLE OF SOCIAL WORK IN MITIGATING THE IMPACT OF CLIMATE CHANGE**

Though climate change is one of the most topical and cross-cutting issues of the 21<sup>st</sup> Century (Achstatter, 2014), social work has given the problems little attention. According to Sugirtha and Flower (2015:103), "Leaving global warming to scientists is like leaving poverty to economists, mental illness to psychiatrists and crime to the police". Though since its inception, social work has focused on person-in-the environment, the natural environment has not been given due attention in most cases. The International Federation of Social Workers (IFSW) calls for social workers to recognize the importance of the natural and the built environments on the social environment, to promote sustainable use of natural resources and to ensure that environmental issues gain increased presence in social work education. The Australian Association of Social Workers (AASW) has made it an ethical requirement for social workers to actively promote a health natural environment as part of their commitment to social justice (AASW, 2010:13).

Currently there is no policy that supports Zimbabweans relying on rain fed agriculture hence social workers have to work for the formulation and implementation of new policies which mitigate and enhance moves of adaptation to climate change. According to the UN's Intergovernmental Panel on Climate Change (IPCC), human activities have been the major contributor of global warming experienced in the past 50 years. Thus to ensure mitigation social workers have a huge task on their shoulders. Firstly social workers have to conscientise, educate and inform masses about climate changes, its effect and causes. This is so because armed with information people can be empowered and can also assist in the mitigation of climate change through reducing greenhouse gas emissions, avoiding deforestation and protecting green lands. Social workers also have to work towards the adaptation and strengthening the resilience of communities. To achieve this, they have to come up with innovative ways of curbing the calamities brought by climate change. Rural people can be taught on how to diversify their livelihoods and sources of income as a buffer against shocks from climate change and protection of their food security.

## THE NEED FOR GREEN SOCIAL WORK

Social workers who have been involved in environmental issues and who strive to fight environmental degradation have assumed the name green social workers. Dominelli (2012) defined green social work as "a form of holistic professional social work practice that focuses on the: interdependence amongst people; the social organization of relationships between people and the flora and fauna in their physical habitats; and the interactions between socio-economic and physical environmental crises and interpersonal behaviors that undermine the well-being of human beings and planet earth. It proposes to address these issues by arguing for a profound transformation in how people conceptualize the social basis of their society, their relationships with each other, living things and the inanimate world". Social work can play a leading role in addressing the human impacts of environmental change in four major areas; (1) disaster preparedness and response (2) population dislocation (3) community-level organizing and development aimed at strengthening local and regional capacity to respond to global environmental change particularly in urban settings and (4) mitigation, advocacy and practice engagement in addressing the underlying causes of environmental change (Kemp & Palinkas 2015; Boetto & McKinnon, 2013).

Sugirtha and Little Flower (2015) identified the roles of green social work as follows:

- Conscientise people on conservation of natural resources and reduction of carbon emissions and achieve carbon neutrality,
- Addressing social and structural inequalities the result from climate change,
- Affirming and protecting the rights of the indigenous people and the disadvantaged groups who are at risk of suffering more from the effects of climate change,
- Developing effective mitigation and adaptation strategies and create an awareness of the same among people especially the disadvantaged and vulnerable groups,
- Advocating governments for policy initiatives that reward climate change mitigation, green technology and sustainable development,
- Curb the impact of environmental racism,
- Participating in post-disaster reconstruction and recovery efforts,
- Fighting the impact of climate change and help achieve sustainable development goals.

After having analyzed the impact of climate change, a number of recommendations can be proffered. Social work training institutions should ensure that the subject of climate change is well covered in their syllabi. Students should be prepared to work with communities in adapting to and mitigating the impact of climate change. Social workers should also lobby for development agencies and the government to channel more resources so that rural people are able to adapt to climate change. There is need for further research to find out how different population groups are affected by climate change.

## CONCLUSION



Climate change is bedeviling the poor nations of the global south in a number of ways. Though the role of social work is not yet clear, climate change has impacted on the profession in a number of ways. Effects of climate change such as floods, droughts and hail storms all require some form of social work intervention. Various populations are affected by climate change in different ways. Green social work should be advanced in all social work training institutions across the globe as climate change is one of the most serious challenges of the 21<sup>st</sup> Century.

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