

states' pasts while also spanning across the entire continent. This paper is not meant to access nor analyse all the cases surrounding the question of impunity, so much as take a critical pulse of Africa's efforts to address it. What becomes clear is that there is far greater support for truth and reconciliation commissions following major conflicts. This is an understandable reaction, as communities are being addressed and mechanisms for coping and moving on are realised. These commissions do not, however, offer deterrence to future perpetrators of war crimes and crimes against humanity, and therefore do not address the fundamental goal to combat impunity.

Furthermore, while individual states have expressed their own successes to fight impunity through their own trials, a deeper examination shows many of these cases to be fraught with corruption, politically motivated prosecutions, and double standards to the application of law. Not only are these trials deeply unjust, they establish negative precedent that has shown to in fact encourage further conflict, and with it the possibility of greater crimes against

humanitarian law. Finally, the more direct indications of states' unwillingness to address the question of impunity are seen in the public displays of anti-ICC legislation and resolution.

Both of these factors are politically motivated and have substantive explanation that goes beyond simply addressing or not addressing impunity. But once again, those concerned must return to the fundamental danger of impunity itself; it is not an isolated enigma, but instead the representation of a culture of ambivalence towards the fundamental rights of individuals. While every state and nation has the right to question the founded principles—in this case the necessity of individual accountability under law—the 'alternatives' presented by African states and scholars alike have shown to not halt or hinder the heinous crimes against their own people. The 'fight against impunity' is not so much being fought, as it is being *fought over*; the forms of justice being pursued in Africa will need to produce substantive precedent with tangible outcomes before this fight will be adequately addressed.

Africa & Climate Change

The realities of climate change's implications – paving the way to Copenhagen

Susan Humphrey

Many would argue that climate change has become the defining issue of our generation. Discussion of its implications, consequences, and potential solutions floods the airwaves of radio and television, filling the pages of newspapers, magazines, and journals. At this particular moment in time, with the United Nations Climate Change Conference set to take place in Copenhagen next month, talk of climate change is everywhere. There is talk about how newly elected US President Barack Obama will act in light of the constraints imposed on him by Congress and

Senate, and about what we might expect the European Union's position to be. Everyone is concerned about the stances that China and India's representatives will adopt once they arrive in Copenhagen on December 7, and Canadians are wondering if their Prime Minister will make Canada a leader and not an impediment to the debates this time around.

But very little discussion is taking place around the subject of Africa and what *its* position will be. Little to no academic literature has been written or published on the topic, and one must dig deep within the pages of the leading media sources to find mention of the world's poorest continent and how it plans to represent itself in Copenhagen. There is, however, a great deal of research and writing being done on the subject of how climate change will affect the countries and regions of Africa, and the results are nothing short of horrifying. There exists, then, a disconnect; much is

being written about the role that Africa will be forced to play in dealing with the *consequences* of climate change, but nothing is being said about the role that Africa must play in the discussions about taking definitive and preventative *action* regarding climate change. If it is widely known and agreed upon that Africa will pay the highest price out of any other area of the world as a result of climate change, then why do we not care about what the Copenhagen Conference means for the continent? This paper seeks to address this disconnect. It will first engage in a discussion surrounding the issue of why Africa in particular is so highly sensitive to climatic changes, discussing the ways in which the continent is dependent upon its environment. The paper will then conduct a survey of the literature and research focused on how climate change will affect the African continent. While the implications of climate change will inevitably be different for different parts of the continent, this paper will focus on the three most central and commonly discussed implications of climate change for Africa: (1) water issues such as flooding, drought, sea-level rise, coastal erosion, and their consequences, (2) agricultural issues such as food security, shortages, and prices, and (3) health issues such as an increase in cases of malnutrition, water and vector-borne diseases, as well as heightened levels of air pollution and heat stress.

In light of the detrimental effects that climate change will have on Africa, the second section of this paper will use this information to demonstrate that Africa must play a key role in the upcoming negotiations at the UN Climate Change Conference in Copenhagen. It will briefly outline the purpose of the Copenhagen Conference and what it hopes to accomplish, and will follow with a discussion of how Africa will participate in the negotiations. The position that the continent is slated to adopt will be examined, and predictions will be made with respect to the possible and/or likely outcomes of the twelve day conference and the impacts these will have for Africa. In sum, this paper will argue that the devastating consequences that climate change will inflict upon Africa give the continent all the motivation it may need to adopt a strong,

united, and demanding position at the UN Climate Change Conference in Copenhagen. It will also argue that these same consequences provide African representatives with the right to demand reasonable and just compensation, as well as financial and technological support for mitigation and adaptation strategies. Finally, it will argue that world leaders, primarily from the industrialized countries, have a responsibility and moral imperative to listen to and act upon Africa's demands.

THE IMPLICATIONS OF CLIMATE CHANGE FOR AFRICA

Climate change can have an enormous array of implications, both direct and indirect, that can vary widely from one part of the world to another. Drought, for example, may not be seen as an immediate concern for an urban area, though it can be an issue of life or death for a rural, agricultural population. Air pollution, while having negative effects for the entirety of the planet, is felt more severely in highly populated urban spaces than in sparsely populated rural regions.

This section of the paper seeks to address how climate change will affect the African continent in particular. It will first explain Africa's role in global climate change and then discuss why Africa is particularly sensitive to its consequences. The paper will then demonstrate why the continent will therefore be harder hit than any other as a result of climate change and will examine water, agricultural, and health issues, all of which are and will continue to arise as a result of climate change.

Africa's Role in Global Climate Change

It is widely acknowledged that Africa contributes the least of any continent in the world to global warming. According to the US Department of Energy, Africa emits an average of one metric tonne of carbon dioxide per person per year, a statistic which pales in comparison to the 16 metric tonnes emitted by the average American per year. In total, the United States emits 23 percent of the global total of greenhouse gases while Africa, as an

entire continent emits roughly four percent.¹ According to the African Union, the emissions of Africa's one billion people are equivalent to the emissions of the state of Texas' 30 million people², numbers which demonstrate that comparatively speaking, Africa's emissions are a very small slice of the global pie.

The consequences that Africa will suffer as a result of its emissions, however, are far from proportionate when one considers its levels of emissions. While there is much uncertainty in making predictions about how exactly climate change will affect Africa³, it is certain that "[t]he continent is more exposed to the impacts of climate change than many other regions of the world".⁴ The World Bank estimates that Africa will suffer approximately 80 percent of the damages from climate change likely to occur worldwide⁵, though it "is powerless to prevent climate change, and is left merely to respond to it. Furthermore, the nations of this region are woefully ill-prepared to deal effectively with the adverse impacts of climate change".⁶

Africa's Sensitivity to Climate Change

"It's a cruel irony that, in many experts' opinions, the people living on the continent that has contributed the least global warming are in line to be hardest hit by the resulting climate changes".⁷

¹ Fields, Scott. 2005. "Continental Divide: Why Africa's Climate Change Burden is Greater." *Environmental Health Perspectives* 113: A534-A537.

² UKAID. 2009. "Africa to have stronger voice on climate change at Copenhagen." *Department for International Development*, September 24. <http://www.dfid.gov.uk/Media-Room/News-Stories/2009/Africa-Copenhagen/> (November 21, 2009).

³ Challinor, Andrew, Tim Wheeler, Chris Garforth, Peter Craufurd, and Amir Kassam. 2007. "Assessing the vulnerability of food crop systems in Africa." *Climatic Change* 83: 381-399.

⁴ Working Group on Climate Change and Development (WGCCD). 2005. *Africa – Up in smoke?* London: New Economics Foundation. (2)

⁵ Parayre, Christophe. 2009. "Africa wants polluters to pay for climate change." *Agence France-Presse*, October 11. <http://www.google.com/hostednews/afp/article/ALeqM5gg29gPgSmlNulN17ZSb0Kbnx2cQ> (November 21, 2009).

⁶ Justice, Christopher O., David Wilkie, Francis E. Putz, and Jake Brunner. 2005. "Climate change in sub-Saharan Africa: assumptions, realities and future investments." In *Climate Change and Africa*, ed. Pak Sum Low. Cambridge: Cambridge University Press. (176)

⁷ Fields, Scott. 2005. (A535)

Why is this the case? Firstly, it is the huge number of people living within Africa that poses the biggest problem and threat to the continent, especially when one considers the proportion of these individuals who live in areas susceptible to droughts and flooding, as well as in of poverty to some degree. "[T]hose Africans who don't have sufficient wealth to buffer the effects of increasing climatic variability will plunge deeper into poverty"⁸, largely as a result of the fact that the average per capita income is lower in Africa than anywhere else in the world. This makes it difficult, if not nearly impossible, for families to adapt or bear the adverse effects of climate change, particularly if they are reliant on natural resources.⁹ "Climate change is happening, and it's affecting livelihoods that depend on the natural environment, which, in Africa, means nearly everyone".¹⁰

It is this reliance and dependence on natural environments and resources that make Africans so desperately susceptible to the harsh effects of climate change. Over 70 percent of African workers are employed in agriculture, while 40 percent of Africa's GDP is dependent upon agriculture.¹¹ The vast majority of the African economy is based on the agricultural and wild resource sectors, which are both invariably linked to the climate. With weather events expected to be much more extreme and much more difficult to predict, African governments will be left scrambling to prevent, adapt, and react to these changes. Many African governments, however, lack the technical skills, infrastructure, and fiscal ability to predict, plan and respond to climate change.¹²

"The multiple stresses on African countries, particularly from poverty, infectious disease, fragile environments, limited institutional capacities and

⁸ Fields, Scott. 2005. (A537)

⁹ Justice, Christopher O., David Wilkie, Francis E. Putz, and Jake Brunner. 2005.

¹⁰ WGCCD, 2005. (2)

¹¹ Fields, Scott. 2005.

¹² Justice, Christopher O., David Wilkie, Francis E. Putz, and Jake Brunner. 2005.

unsustainable development, mean that even modest fluctuations in weather or climate conditions can lead to severe consequences".¹³ Since Africa is so sensitive to and so highly reliant upon its environment, climate change threatens to undo even the smallest amounts of progress which have been made by some countries with respect to development. Money will need to be diverted from economic development plans to be spent on emergency care as a result of natural disasters and more slowly occurring climatic changes.¹⁴ This is not something that African states can afford to do, though may be inadvertently forced to do should the international community prove itself unable to unite and take equitable action against climate change.

WATER, FOOD, AND HEALTH: A CHANGING CLIMATE THREATENS AFRICA

Water and Climate Change

All human beings rely on water for their economic and environmental well-being. But the fact that so many Africans, who rely on water, have livelihoods so profoundly based in subsistence means that occurrences affecting water represent "a serious climate related hazard for the continent".¹⁵ Climate change *is* this hazard, as it threatens to increase temperatures, therefore altering precipitation patterns¹⁶ and increasing the evaporation process, leading to more droughts, less flow in rivers and aquifers and more water stress in some places. Other areas will receive a higher intensity of rainfall, but fewer rainy days in total, and longer periods with no rain at all.¹⁷ "Paradoxically, therefore, climate change is projected to increase the frequency of both flooding and drought"¹⁸, albeit in different parts of the continent. Areas that

already get a lot of rain, such as the equatorial and sub polar rain belts will get more, and areas that get little rain, the subtropical dry zones, will get less.¹⁹

Drought and Desertification

Of the 19 countries in the world that are classified as "water stressed", more are in Africa than in any other continent.²⁰ With 14 African countries listed under this heading and 11 more expected to join their ranks by 2030, drought poses a serious threat to the continent. By 1995, water availability across Africa was 2.8 times less than it had been in 1970,²¹ and throughout the 1970s in the Sahel, 300,000 people died during drought which is believed to have been caused by changes in ocean temperatures stemming from climate change.²² A number of examples demonstrate how these occurrences of drought and water stress are expected to be the rule and not the exception in the years to come. The Nile River, for example, is the longest river in the world, and has ten countries that share its river basin. It is the primary source of water for three of these countries, one of them being Egypt, which relies on the Nile for 95 percent of its freshwater needs. With most of its population located in high concentrations around the Nile, there is a clear and "critical dependence on this narrow lifeline".²³ It is estimated that river flow of the Nile will decrease by more than 75 percent by 2100, which poses an enormous problem as even a reduction in river flow of 20 percent would seriously threaten normal irrigation systems and practices.²⁴

By 2050, rainfall in southern Africa and the Horn is expected to fall by 10 percent.²⁵ In Darfur, decreased rainfall has already led to the desertification of large amounts of farmland and grasslands, while about 1,350 square miles of

¹³ Basher, Reid and Sálvano Briceño. 2005. "Climate and disaster risk reduction in Africa." In *Africa and Climate Change*, ed. Pak Sum Low. Cambridge: Cambridge University Press. (271)

¹⁴ Fields, Scott. 2005.

¹⁵ WGCCD, 2005. (13)

¹⁶ Challinor, Andrew, Tim Wheeler, Chris Garforth, Peter Craufurd, and Amir Kassam. 2007. "Assessing the vulnerability of food crop systems in Africa." *Climatic Change* 83: 381-399.

¹⁷ Smith, D. Mark. 2006. *Just One Planet: Poverty, Justice and Climate Change*. Rugby: Intermediate Technology Publications Ltd.

¹⁸ Smith, D. Mark. 2006. (13)

¹⁹ Fields, Scott. 2005.

²⁰ Justice, Christopher O., David Wilkie, Francis E. Putz, and Jake Brunner. 2005.

²¹ WGCCD, 2005.

²² Fields, Scott. 2005.

²³ Organisation for Economic Co-operation and Development. 2008. *Bridge Over Troubled Waters: Linking Climate Change and Development*. Paris: OECD Publishing. (101)

²⁴ WGCCD, 2005.

²⁵ Ibid.

Nigeria turns into desert each and every year.²⁶ This century has witnessed the “shocking advance of the Sahara and Kalahari deserts”²⁷, as well as, since the 1980s, a drastic decrease in rain during the transition period between the dry and rainy seasons in the

Volga delta. According to the German Institute for Meteorology and Climate Research, up to 70 percent of the delta’s precipitation is lost during certain years, while its rainy season has often been shortened by up to 30 days.²⁸ The evidence, therefore, is clear – climate change has already affected, and will continue to ravage the African continent with drought, desertification, and all of the implications they bring. Water shortages will affect the provision of drinking water, the stability of the agricultural sector, as well as sanitation and health practices for Africans.

Sea-level Rise, Flooding, and Natural Disasters

Coastal areas are also at risk to be negatively impacted by climate change. Not only are these areas already facing enormous pressures as a result of population growth, but these issues will be aggravated by the threat of sea-level rise and flooding.²⁹ Predictions range from a rise in sea-levels by 25 centimetres come 2050³⁰ to a worst-case scenario predicted of an 88 centimetre rise by 2100.³¹ There are fears that Tanzania’s 800

“With weather events expected to be much more extreme and much more difficult to predict, African governments will be left scrambling to prevent, adapt, and react to these changes. Many African governments, however, lack the technical skills, infrastructure, and fiscal ability to predict, plan and respond to climate change.”

kilometre coastline will be submerged within the next 100 years³², while Lagos, the capital city of Nigeria, is slated to be at risk from sea-level rise by 2015.³³ “More than direct land loss due to seas rising, indirect factors are generally listed as the main difficulties

associated with [sea-level rise]”.³⁴ These consequences include issues such as soil erosion, damage to coastal infrastructure, salt contamination of wells, sewage system breakdowns, loss of ecosystems and natural resources, decrease in agricultural productivity, increase in human migration³⁵, as well as a decrease in water quality, increase in water contamination and an increase in the proliferation of algae and other bacteria due to flooding.³⁶

“One of the most compelling concerns about climate change is the fact that it will lead to an increase in damaging weather events and disasters, especially for the least-developed countries, many of which are in Africa”.³⁷ The likelihood of such coastal/natural disasters is expected to increase, with the west coast of Africa being particularly exposed to and at risk of storm surges.³⁸ The costs of protecting African coastlines remain very high and usually out of reach for most African governments³⁹, meaning that governments and citizens are left to bear the impossible costs of dealing with the repercussions of such disasters.

²⁶ Podesta, John and Peter Ogden. 2007. “The Security Implications of Climate Change.” *The Washington Quarterly* 31: 115-138.

²⁷ Iringe-Koko, Naphtali. 2009. “Countdown to Copenhagen – Africa and Concerns for Success.” *The Daily Trust* (Nigeria), November 16. <http://allafrica.com/stories/200911170145.html> (November 22, 2009).

²⁸ Godoy, Julio. 2009. “Climate Change Likely To Increase African Hunger Woes.” *Inter Press Service*, November 18. <http://allafrica.com/stories/200911190077.html> (November 22, 2009).

²⁹ See Justice et al. & Working Group on Climate Change and Development.

³⁰ WGCCD, 2005.

³¹ Gommès, René, Jacques du Guerny, Freddy O. Nachtergaele, and Robert Brinkman. 2005. “Potential impacts of sea-level rise on

populations and agriculture.” In *Africa and Climate Change*, ed. Pak Sum Low. Cambridge: Cambridge University Press.

³² Citizen, The. 2009. “The Rich Cheating the Continent on Climate.” *The Citizen* (Tanzania), September 4. <http://allafrica.com/stories/200909040708.html> (November 22, 2009)

³³ Podesta, John and Peter Ogden. 2007.

³⁴ Gommès et al. (17)

³⁵ Ibid.

³⁶ Smith, D. Mark. 2006.

³⁷ Basher, Reid and Salvano Briceño. 2005. (274)

³⁸ See Gommès et al. & WGCCD.

³⁹ Gommès et al.

These repercussions will expose and exacerbate the already crippling problems faced by the continent, its governments and citizens. “Africa has suffered badly from floods and droughts over the last few decades. Mind-numbing numbers of people have been killed or affected, largely because of the region’s severe underlying vulnerabilities, arising from poverty, HIV/AIDS impacts, and not-infrequent failures of governance”.⁴⁰ It is these underlying problems and predisposed vulnerabilities that leave Africa to be so drastically and devastatingly affected by climate change and its water-related implications.

Agriculture and Climate Change

“On any continent crop failure means trouble, but in Africa it’s a catastrophe”.⁴¹ On a continent where a larger percentage of the population lives below the poverty line than not and where approximately 80 percent of the population earns a living through agricultural practices⁴², climate change threatens to “jeopardize the livelihoods of millions of people and the economic capacity”⁴³ of Africa. Climate change will primarily affect the food supply of the continent through changing rain patterns. Such changes in weather patterns will have dramatic consequences for agriculture, such as flooding and droughts destroying crops, seeds, and fields, and abnormal weather causing farmers to alter their planting schedules and routines.⁴⁴ Africa’s agriculture is extremely dependent on rainfall⁴⁵ with 89 percent of cereals, for example, being rain-fed.⁴⁶ “With [this] overwhelming dependence on rain-fed agriculture, the fate of [Africa’s] people is exceptionally sensitive to disruptions of the hydrological cycle”.⁴⁷

Drought is already known to have impacted significant portions of Africa’s population and territory, with the UN Office for the Coordination of Humanitarian Affairs citing a 3.3 million tonne food shortage during the drought of 2002-2003. An estimated 14.4 million people were left in need of assistance across Africa, particularly those in already marginalized agricultural areas.⁴⁸ Approximately two thirds of Africa is already desert or arid land and by 2080, it is estimated that as much as one fifth of Africa’s remaining farmland will be severely stressed.⁴⁹ By 2050, the International Food Policy Research Institute predicts that crop yields in Africa will decrease by a dangerous 30 percent.⁵⁰ With business as usual, climate change could put an additional 80-120 million people at risk of hunger, with 70-80 percent of these people living in Africa.⁵¹

Farmers are actually feeling the beginnings of these climate change consequences today. “Such changes are confirmed already both by farmers in Africa, and by researchers in the industrialised world”⁵², as well as by individuals like Namanga Ngongi, a farmer from the Cameroon and president of the Alliance for a Green Revolution for Africa. He stated that “global warming is already destroying African agriculture. There are more and more frequent droughts, more frequent floods, and also more destruction”⁵³. According to the World Hunger Index, measured by the Washington-based International Food Policy Research Institute, hunger has increased dramatically in nine African countries since 1990. Climate change, along with war and incorrect policy tools, were cited as the primary causes of these increases in hunger statistics.⁵⁴

⁴⁰ Basher, Reid and Sálvano Briceño. 2005. (217)

⁴¹ Fields, Scott. 2005. (A536)

⁴² Podesta, John and Peter Ogden. 2007.

⁴³ Ibid. (119)

⁴⁴ Godoy, Julio. 2009. “Climate Change Likely To Increase African Hunger Woes.” *Inter Press Service*, November 18. <http://allafrica.com/stories/200911190077.html> (November 22, 2009).

⁴⁵ WGCCD, 2005.

⁴⁶ Challinor, Andrew, Tim Wheeler, Chris Garforth, Peter Craufurd, and Amir Kassam. 2007. “Assessing the vulnerability of food crop systems in Africa.” *Climatic Change* 83: 381-399.

⁴⁷ WGCCD, 2005. (13)

⁴⁸ Ibid.

⁴⁹ Economist, The. 2009a. “A bad climate for development; Developing countries and global warming.” *The Economist*, September 19.

⁵⁰ Van Den Bosch, Servaas. 2009. “Jockeying for Position in Copenhagen.” *Inter Press Service*, November 2. <http://allafrica.com/stories/200911021490.html> (November 22, 2009).

⁵¹ WGCCD, 2005.

⁵² Godoy, Julio. 2009.

⁵³ Ibid.

⁵⁴ Ibid.

Food shortages threaten to affect Africans in more indirect ways, such as through the rise of food prices. Some claim that should we fail to take action, food prices will double as a result of the consequences of climate change by 2050.⁵⁵ “Most studies indicate that food prices would rise globally with increases in global average temperature of a few degrees or more because of the slowing in the expansion of global food supply relative to population growth”.⁵⁶ This will inevitably reduce the income of poor urban consumers and small farmers, particularly those growing in the most marginal of areas.⁵⁷ Those with little income and already mediocre prospects have little room in which to manoeuvre should food prices increase or their ability to plant seeds and grow food become compromised. “Climate change adds stress and uncertainty to crop production in Africa, where many regions are already vulnerable to climate variability. Crop production in such regions is therefore expected to become increasingly risky”⁵⁸ and exceedingly difficult, as unlike most agricultural producers, Africans do not have the economic, physical, agricultural or technological resources to adapt to climate change. “Agriculture provides food, income, power, stability and resilience to rural livelihoods”.⁵⁹ When it becomes threatened, the very foundation of Africa’s economies, societies, and livelihoods are put at risk.

Health and Climate Change

How climate change threatens to affect human health is often neglected when considering the issues and potential outcomes of climate change.⁶⁰ Climate change can negatively impact human health in more commonly considered and direct ways, such as through heat stress, increases in the number of heat waves, more air pollution, and lower air quality.⁶¹ For Africa in particular, however, the consequences that climate change

could bring about are more serious and threatening. With respect to food, we have already seen how water and its availability threaten to cut food production and distribution across the continent. Therefore, malnutrition and hunger are very realistic consequences which will be borne by the African people, consequences which lead to physically and psychologically stunted development, as well as more general health problems and often, death.⁶²

The availability of water also threatens human health in Africa when considering the important role which water plays in sanitation and the spreading of infectious diseases. With less water available to some areas of the continent plagued by drought, conservation strategies will be in effect, which may produce unhealthy sanitation strategies, or a lack thereof.⁶³ Meningitis is also thought to become more prevalent in drought-stricken areas⁶⁴, and such speculations have been proven to be the case in north-east Uganda.⁶⁵ In other areas of the continent, however, water will be in abundance as a result of natural disasters, though not in a productive form. This water will be easily and likely contaminated, giving rise to a dramatic increase in water-borne, infectious disease epidemics such as cholera.⁶⁶ Uganda’s Minister of Environment, Maria Mutagamba, has already been witness this type of occurrence, noting that “water-borne diseases were thriving because of the environmental destruction resulting from the changing climate”.⁶⁷

The majority of research that has been done concerning how climate change will affect human health in Africa has focused on the likelihood of its causing an increased number of malaria outbreaks. Annually there are between 300-500 million cases of malaria worldwide, a high proportion of these

⁵⁵ Van Den Bosch, Servaas. 2009.

⁵⁶ Smith, D. Mark. 2006. (22)

⁵⁷ See Fields, Scott. 2005. & Smith, D. Mark. 2006.

⁵⁸ Challinor, Andrew, Tim Wheeler, Chris Garforth, Peter Craufurd, and Amir Kassam. 2007. (382)

⁵⁹ Ibid. (382)

⁶⁰ WGCCD, 2005.

⁶¹ See Ibid & Smith, D. Mark.

⁶² See Smith, D. Mark & Justice et al.

⁶³ Smith, D. Mark 2005.

⁶⁴ The Economist, 2009a

⁶⁵ Tenywa, Gerald. 2009. “Climate Change Affecting Devt.” *The New Vision* (Uganda), May 12. <http://allafrica.com/stories/200905130373.html> (November 22, 2009).

⁶⁶ See Justice et al., 2005 & Smith, 2006

⁶⁷ Tenywa, 2009

occurring within Africa. There are between 1.5-2.7 million deaths resulting from malaria per year, with more than 90 percent of these being children under the age of five.⁶⁸ A disease which is thought to slow economic growth on in Africa by 1.3 percent every year⁶⁹, attempts to limit the number of new cases of malaria in Africa have been the focus of the international community for decades. Climate change and its consequences, however, threaten to undo the progress made in this area in two ways: (1) by causing higher temperatures, and (2) through the occurrence of natural disasters, which leave large amounts of stagnant water in their wake.

Increases in temperature not only make it easier for mosquitoes to breed in areas where they are normally found, but it enables them to breed in new locations at higher altitudes⁷⁰, “spreading the disease that is already the biggest killer in Africa.”⁷¹ These areas have never been exposed to malaria and its residents have therefore never built up immunity to help fight against it, leading to drastically higher mortality rates.⁷² In 1987, one highland area of Rwanda experienced a 337 percent increase in cases of malaria and 80 percent of this increase could be accounted for by changes in temperature and rainfall levels resulting from climate change.⁷³ These higher rainfall levels, as well as natural disasters, leave large amounts of stagnant water behind, creating environments that are ideal for the breeding of mosquitoes that carry the virus.⁷⁴ As a result, flooding in South Africa, for example, has doubled the area that is suitable for malaria-carrying mosquitoes to breed, putting some 7.2 million people at risk of contracting the disease.⁷⁵ Through both increases in temperature and sources of stagnant water, more than 90 million people could be exposed to malaria by 2030⁷⁶, with the number of people exposed to

malaria per month expected to rise by 16-28 percent by 2100.⁷⁷

What this Means for Africa

This section of the paper has demonstrated the devastating and increasingly threatening consequences that climate change poses for the African continent. As a result of the intimate relationship and reliance that Africa and its citizens, societies, and economies have with the environment, the costs that climate change can impose upon the continent are enormously high. “[M]ore than any other region of the world, the human toll of global climate change is liable to be most severe in ... Africa”⁷⁸, particularly with, as we have seen, respect to issues concerning water, agriculture, and human health.

In light of the evidence presented, this paper has made it clear that Africa has a lot to lose as a result of climate change and therefore has a lot to gain at the upcoming United Nations Climate Change Conference in Copenhagen. Consequently, the continent ought to be in the process of preparing a strong, united, and demanding position to put forth at the Conference. The facts speak to the need for the international community, particularly the industrialized countries, to react favourably and quickly to Africa’s position and demands. This second section of the paper will comment on these issues, concluding with how one might realistically predict the outcome and implications of the 2009 United Nations Climate Change Conference.

PAVING THE WAY TO COPENHAGEN

The 2009 United Nations Climate Change Conference

From December 7 to December 18, 2009, 193 national delegations will descend upon the Danish capital of Copenhagen in an attempt to negotiate a post-Kyoto climate change agreement for the entire planet.⁷⁹ Thought by some to be the most

⁶⁸ WGCCD, 2005

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Economist, The. 2009a.

⁷² Fields, Scott. 2005.

⁷³ WGCCD, 2005.

⁷⁴ Smith, 2006.

⁷⁵ WGCCD, 2005.

⁷⁶ The Economist, 2009a.

⁷⁷ Smith, 2006.

⁷⁸ Justice et al., 2005 (176)

⁷⁹ Earth Policy Institute. 2009. “The Copenhagen Conference on Food Security.” *allAfrica.com*, November 10. <http://allafrica.com/stories/200911100937.html> (November 21, 2009).

important world conference since the end of the Second World War⁸⁰, the Copenhagen Conference “will be an event characterized by apprehension, anxiety, enthusiasm, and serious politicking”.⁸¹ According to former UN Secretary General Kofi Annan, “the decisions taken or ducked at the climate conference will have the most profound impact on our world and our future generations”,⁸² making it a conference upon which many have placed their most sincere hopes and aspirations.

What Africa Needs to Do

Going into a conference the magnitude of the UN Climate Change Conference as a country or continent that is traditionally viewed as a minor or even insignificant power is never easy. In the case of African countries, their governments are concerned with a number of factors and potential issues:

- 1) They feel as though they lack the technical knowledge to participate effectively in the debates, as well as the political power to influence them in a significant way.
- 2) They worry that signing an agreement concerning emission level cuts will negatively constrain their economic growth and social development.
- 3) They believe they lack the professionals to analyze data and make predictions, which is required in order to launch intervention and mitigation efforts.
- 4) They are committed to the idea that the dire impacts that climate change will have on their countries means that economic development and climate policies must go hand in hand.⁸³

In order to satisfy these legitimate concerns, African leaders must take active steps in order to prepare for the Conference. These steps must include debate, discussion, consolidation of

opinion, determination of the key issues, and consensus regarding a plan of action and position.

Fortunately, it has been made clear that African states are taking charge of the crucial pre-Copenhagen discussions and debates being held within their continent, and are keen to avoid making the Copenhagen conference a repeat of the 1992 Earth Summit in Rio de Janeiro. At this conference, “[t]he continent suffered marginalization within the world body because of its failure to prepare and organize effectively before the summit”⁸⁴; funding for the resulting Agenda 21 was slashed, little of what remained was directed towards Africa, and only one percent of these funds were earmarked for projects combating drought and desertification, two of Africa’s most troubling problems. It is believe that Africans failed in to maximize their bargaining position, emerging “as supplicants rather than negotiating partners”.⁸⁵ At “a conference where it faced some of the world’s most sophisticated and experienced lobbyists”⁸⁶, Africa failed to aggressively campaign for its own cause, issues and concerns. “Reaching the final agreements in favour of Africa at the upcoming conference of parties will require a very high level of preparedness during these difficult negotiations”⁸⁷, a feat that African states are making a valiant effort to achieve. With time running short and consequences continually growing more serious, failing to take a strong and well-thought out stance at Copenhagen is simply not an option for Africa.

What Africa’s Position Will Be

“Copenhagen is our date with destiny”⁸⁸, said Mr. Mohamed Nasheen, President of Maldives. While

⁸⁰ UKAID, 2009.

⁸¹ Ibanga, Victoria. 2009. “Climate Change – Leaders Urge Global Engagement to Save the World.” *The Daily Champion* (Nigeria), November 8, 2009. <http://allafrica.com/stories/200911090832.html> (November 22, 2009).

⁸² Ibanga, 2009

⁸³ Justice et al., 2005

⁸⁴ Iringe-Koko, Naphtali. 2009. “Countdown to Copenhagen – Africa and Concerns for Success.” *The Daily Trust* (Nigeria), November 16. <http://allafrica.com/stories/200911170145.html> (November 22, 2009).

⁸⁵ Iringe-Koko, 2009

⁸⁶ Iringe-Koko, 2009

⁸⁷ Jobe, Alhagie. 2009. “SOS Cham Opens ECOWAS Climate Change Forum.” *The Daily Observer* (The Gambia), March 5. <http://allafrica.com/stories/200903060517.html> (November 22, 2009).

⁸⁸ Okenwa, Stan. 2009. “Copenhagen – Developing Countries Ambush West, China in Negotiations.” *The Daily Champion* (Nigeria), November 19. <http://allafrica.com/stories/200911190217.html> (November 22, 2009).

Maldives may not be an African country, President Nasheen was calling upon all developing countries, African states certainly included, to take a stand at the Copenhagen Conference. It is heartening to see then, that for the first time in history, Africa will send a single delegation to negotiate a global treaty on behalf of the entire continent. This delegation will be led by Ethiopian Prime Minister Meles Zenawi, and such a development is an enormous step in the right direction for Africa's attempt at having a stronger voice in international climate negotiations.⁸⁹ "We have decided to speak with one voice," said Jean Ping, chairman of the African Union commission; "[we] will demand reparation and damages".⁹⁰

Africa's position will be characterized by a "shared vision [that] calls for a fair, inclusive, effective and equitable new agreement in Copenhagen that will benefit the climate and vulnerable countries and be undertaken in the context of poverty eradication, sustainable development and the need for gender equity".⁹¹ Its position will acknowledge the fact that Africa is in dire need of assistance in adapting to and mitigating climate change, but it will stress that its priority is to ensure cuts in global emissions, particularly from industrialized countries.⁹² "Our interest is to prevent [climate change and its impacts] from happening in the first place. That is our primary interest precisely because Africa's ecosystems are amongst the most fragile in the world"⁹³, said Zenawi.

As a result, Africa will insist that developed countries reduce their emissions by 40 percent below 1990 levels by 2020, and by 80 to 95 percent by 2050.⁹⁴ They will also request that 1.5 percent of

their GDP be given to support climate change mitigation and adaptation strategies and programmes on the continent.⁹⁵ This translates into a demand for billions of dollars from rich polluting countries stemming from the damages they have inflicted and will continue to

inflict upon Africa as a result of their greenhouse gas emissions.⁹⁶ The exact figure demanded by African countries varies from \$62 billion⁹⁷, to \$65 billion⁹⁸, to \$67 billion per year by the African Ministerial Conference on the Environment.⁹⁹ While it remains unclear how this money would be allocated between the African governments who would be responsible for managing and administering it¹⁰⁰, one thing is certain – that African countries see the climate change problem as one that is rooted in ideas of fairness of history.¹⁰¹

Africa's position at the Copenhagen Conference will be founded upon the idea that responsibility and vulnerability regarding climate change are fundamentally unequal among the players.¹⁰² "Though all of humanity must play a role in reversing the grave global threat, the developed

"African countries see the climate change problem as one that is rooted in ideas of fairness of history...Africa will insist that developed countries reduce their emissions by 40 percent below 1990 levels by 2020, and by 80 to 95 percent by 2050."

⁸⁹ UKAID, 2009

⁹⁰ Parayre, Christophe. 2009. "Africa wants polluters to pay for climate change." *Agence France-Presse*, October 11. <http://www.google.com/hostednews/afp/article/ALeqM5ggg29gPgSmlNulN17ZSb0Kbmxc2cQ> (November 21, 2009).

⁹¹ Butunyi, Cosmas. 2009. "Continent Rejects New Climate Change Pact." *Business Daily* (Kenya), October 27. <http://allafrica.com/stories/200910271049.html> (November 22, 2009).

⁹² UKAID, 2009

⁹³ Ibid.

⁹⁴ Andersen, Morten. 2009. "African leaders abandon "ostrich" attitude." *United Nations Climate Change Conference News*, October 16. <http://en.cop15.dk/news/view+news?newsid=2374> (November 21, 2009).

⁹⁵ Ibid.

⁹⁶ Parayre, 2009.

⁹⁷ Economist, The. 2009b. "A green ransom; Africa and climate change." *The Economist*, September 5.

⁹⁸ Parayre, 2009.

⁹⁹ Van Den Bosch, 2009.

¹⁰⁰ The Economist, 2009b.

¹⁰¹ The Economist, 2009a.

¹⁰² Barnett, Jon. 2006. "Climate Change, Insecurity, and Injustice." In *Fairness in Adaptation to Climate Change*, eds. W. Neil Adger, Jouni Paavola, Saleemul Huq, and M. J. Mace. Cambridge, MA: MIT Press.

countries must be held responsible for their actions ... [and] must realise that they have an obligation to other nations, which are sharing the burden of their polluting development process".¹⁰³ There is a firm belief on the part of African countries that whatever comes out of the Conference must "be based on the principle of common but differentiated responsibilities and respective capabilities"¹⁰⁴, as well as the principle of equity. It is this idea of equity which must play a primary role in the characterization of the discussions at Copenhagen, providing recognition of Africa's historically low levels of greenhouse gas emissions¹⁰⁵, as well as the fact that unjust policies will bring about unfair outcomes for Africa.

How Will it All Play Out?

Throughout the research process for this paper, an enormous variety of media and academic sources were consulted in hopes of finding commentary with respect to how the industrialized countries were reacting or might be expected to react to the position adopted by African negotiators. However, little information was found. The majority of the discourse focused on the position of the United States and how Obama was bound to be constrained by Congress and Senate; on the attitudes of Canada, bound to reflect disengagement and a lack of commitment; on the stances of China and India, and who might be expected to make what declarations or demands; and even worse, on the fact that a large number of world leaders have resigned themselves to the fact that Copenhagen "will be a way station, not the end point, in the so-far elusive search for a new worldwide treaty to tackle global warming".¹⁰⁶ It is this silence, this lack of mention when it comes to the case and position of Africa that is reason for

concern. While European Union member states may have agreed to pay "their fair share"¹⁰⁷ into a global fund designed to help developing countries cut their emissions and adapt to climate change, this is hardly the outpour of support and commitment so desperately needed by Africa. "What is needed most now is that Africans are supported in their efforts"¹⁰⁸, but, using the United States as an example, "[e]conomic nationalism has trumped any ideals of justice and development in [their] position".¹⁰⁹ This seems to be the case for other developed countries as well.

"Africa wants the outcome of the Copenhagen convention to provide new, additional, sustainable, accessible and predictable finance to support a comprehensive international programme on adaptation [and mitigation] that reduces vulnerability and increases resilience".¹¹⁰ In order for this to happen, industrialized states must first open their ears, minds, and hearts to the people of Africa, and listen to, think about, and empathize with their concerns and demands. If world leaders paid any mind to the realities of climate change's implications for Africa, then it would be acknowledged that we have a responsibility to recognize that a global climate treaty must never and can never occur at the expense of Africa's development, security, and survival. "The Copenhagen meeting aims to negotiate a deal on climate change, including emissions cuts to limit global warming and finance to help developing countries cope with climate change".¹¹¹ Though it doesn't appear as though this will be the actual outcome of the Conference, we must still somehow believe that there is reason to hope.

¹⁰³ Citizen, The. 2009. "The Rich Cheating the Continent on Climate." *The Citizen* (Tanzania), September 4.

<http://allafrica.com/stories/200909040708.html> (November 22, 2009).

¹⁰⁴ Butunyi, Cosmas. 2009. "Continent Rejects New Climate Change Pact." *Business Daily* (Kenya), October 27.

<http://allafrica.com/stories/200910271049.html> (November 22, 2009).

¹⁰⁵ Smith, 2006

¹⁰⁶ CBC. 2009b. "Global climate treaty unlikely." *CBC News Online*, November 14.

<http://license.icopyright.net/user/viewFreeUse.act?uid=NTgmNDY1MQ==> (November 22, 2009).

¹⁰⁷ CBC, 2009a

¹⁰⁸ WGCCD, 2005 (1)

¹⁰⁹ Smith, 2006 (87)

¹¹⁰ Butunyi, 2009.

¹¹¹ UKAID, 2009.