

Environment-Conflict Nexus: The Relevance of Thomas Homer-Dixons Environmental Conflict Theory in Africa

Wiriranai Brilliant Masara¹

¹Institute of Peace and Security Studies, Addis Ababa University, Addis Ababa, Ethiopia
Global and European Studies Institute, Leipzig University, Leipzig, Germany.
¹ billymasara@gmail.com; <https://twitter.com/billywmasara>

¹Wiriranai Brilliant Masara is a PhD Candidate in Global and Area Studies: with a special emphasis on peace and security in Africa. He is enrolled in a joint programme between the Institute for Peace and Security Studies under Addis Ababa University and the Global and European Studies Institute of Leipzig University.

Cite As: Masara, W.B. (2021). Environment-Conflict Nexus: The Relevance of Thomas Homer-Dixons Environmental Conflict Theory in Africa. *African Journal of Empirical Research*, 2(2), 170-175. 10.51867/ajer.v2i2.42

ABSTRACT

Using practical examples, the paper examines the relevance of Thomas Homer-Dixons Environmental Conflict Theory within an African context. It outlines that Homer-Dixon's Environmental Conflict Theory is to some extent valid, but it suffers significant shortfalls that make its applicability and generalizability questionable. The paper has shown that the abundance of resources in Africa contributes more to violent conflicts than their scarcity. Resources in Africa are vast, and so are environmental conflicts. The paper underscores factors that aggravate environmental conflicts such as depletion, degradation, social cleavages, population growth and environmental scarcity and recommend solutions on how they can be redressed.

Keywords: Environment-Conflict Nexus; Africa; Peace and Security; Homer-Dixons Environmental Conflict Theory

I. INTRODUCTION

Environmental conflicts emerge as a critical issue challenging the peace and security of Africa. Environmental conflict, in several forms and directions, can be broadly understood as social conflict emerging due to environmental issues. It can be conflict over access and control of environmental resources. Through the environmental conflict theory, Thomas Homer-Dixon (1994) revealed an existential causal relationship between population growth, environmental scarcity and violent conflict. Dixon argues that the increase in population initiates scarcity of renewable resources leading to the depletion and scramble of natural resources and violent conflicts.

1.1 Problem Statement

The historical and contemporary circumstances behind conflicts in Africa have, to some extent, been interpreted through environmental and resource lenses. Thomas Homer-Dixons (1994) Environmental Conflict theory is a case in point. Albeit widely celebrated and refined in 1999, the theory has shortfalls. Therefore, taking into accounts its merits and demerits, the paper uses practical – historical and contemporary – examples drawn from African countries to evaluate the applicability of the theory.

1.2 Objective

The paper assesses the applicability of Homer-Dixon's Environmental Conflict Theory to Africa.

II. METHODOLOGY

This paper employs a desk review of extant literature. It qualitatively looks at the relevant literature on the subject under investigation. Primary and secondary sources of data were consulted.

III. DISCUSSION

3.1 Homer-Dixon's Environmental Conflict Theory and Africa

According to Homer-Dixon (1994), resource depletion and degradation are significant challenges facing humankind. He argues that the depletion and degradation will lead to five general types of violence as developing countries will not adapt to environmental problems. Firstly, there will be an upsurge in intensification in disputes arising from local environmental degradation such as dam construction. An epitome of Homer-Dixon's academic position is the current geopolitical conflict between Egypt, Ethiopia and Sudan over the construction of the Grand Ethiopian Renaissance Dam.

Based on the 1929 agreement signed between Egypt and the United Kingdom and the subsequent 1959 treaty between Egypt and Sudan, the former country has for a long time claimed a historical right to an annual quota of 55.5 billion cubic meters of the Nile waters despite the river being shared by eleven countries. These claims exclude Ethiopia that produces eighty-five per cent of Nile waters through Atbara and the Blue Nile. The plans to develop a dam were initiated in 1970, but Egypt used three strategies to sabotage the construction.

Population growth and geopolitical developments have accelerated the current tension in the countries mentioned above. The population of the involved east African riparian countries, except the Democratic Republic of Congo, is estimated to grow to constitute half of Africa's population (Homer-Dixon, 1994). The upsurge in population numbers is directly affecting water, food and energy supply and threatening national economies. While Homer-Dixon provides a sounding environmental conflict theory, the environmental conflict between the involved eleven countries and primarily Egypt and Ethiopia have not turned violent. Therefore, although there is conflict, there is no violence. Some scholars like Paisley and Henshaw (2013) go at length to suggest that the dam could facilitate enhanced cooperation than violent conflict. While resource scarcity is a factor to consider in the above case example, it can also be argued that the tension between the countries is politically oriented towards ownership, historical entitlement and sharing of resources.

Secondly, Homer-Dixon (1999) states that ethnic clashes will manifest due to deepened social cleavages, population migration and environmental scarcity. The scarcity of resources such as land and water provokes ethnic rivalries that jeopardise a country's stability to democratic stability and prosperity. The ecological marginalisation of an ethnic minority by a powerful elite further affects resource distribution leading to scarcity. Homer-Dixon states that this results in rebellion by environmentally excluded ethnic groups and repression by the State triggering serious communal and anomic violence (Homer-Dixon, 1999).

Homer-Dixon cautions that inter-ethnic clashes are still yet to manifest since environmental scarcity is not a significant factor influencing conflict yet. While acknowledging the theoretical contributions made by Homer-Dixon on the relationship between scarce resources and conflict, it has to be noted that its applicability has limitations. Homer-Dixon conceptualised the Environmental Conflict Theory in 1994 and perfected it in 1999. He ignored the historical context of violent conflicts that had transpired, for example, New Imperialism.

Homer-Dixon (1999) projects to violent environmental conflicts yet to come while ignoring those already passed. Drawing back, the Scramble and Partition of Africa in 1884 was over Africa's natural wealth, although some can argue it was over the expansion of power. Africa had proven to have more resources than Europe. Hence, the unavailability of resources in the latter continent led to the colonisation of the former continent. Homer-Dixon's theory succumbs to another shortfall of limiting violent environmental conflict to ethnic clashes and rivalries.

To some extent, these historical and contemporary claims are valid in cases such as Mfecane in 1815 and the recurring Maasai Land Wars in Tanzania and Kenya, where ethnic clashes and rivalries are continuously recorded over resources such as land and water. However, the Second Congo War of August 1998 to July 2003, although having many causal factors, surpassed ethnic rivalry as nine African countries and twenty-five armed groups were involved in the war (Soderlund, Briggs, Najem, & Roberts, 2013). The war also became known as the Great War of Africa, with 5.4 million casualties.

Despite its many causes, environmental causes aggravated the violent conflict, showing that the relationship between resources and violent conflict is complex (Maphosa, 2012). Contextually, Africa's environmental clashes interact with the economic, social and political background to generate violent conflicts. Therefore, Homer-Dixon's Environmental Conflict Theory is to some extent valid, but it suffers major shortfalls which make its applicability and generalizability questionable.

Thirdly, Homer-Dixon (1999) posits that environmental scarcity leads to civil strife that directly affects economic productivity, threatens people's livelihoods, and affects the State's ability to adapt and address the challenges. Homer-Dixon lists coup d'état, insurgency and banditry as epitomes of civil strife. Homer-Dixon argues that although

scarcity leads to social conflict, it might not always be a bad thing as civil strife can ‘produce useful change in the distribution of land and wealth and in institutions and processes of governance’ (1999, p. 5). He further says environmental scarcity can stimulate institutional change, technological entrepreneurship, international cooperation and political change.

While constructive change can be a product of scarcities, African countries have been overwhelmed by increasingly complex environmental scarcities driving societies into social fragmentation and a spiral of violence. This is epitomised by a band of dictators who mushroomed in regional Africa on the promise to redistribute environmental resources but further alienated average men and women. These include the likes of Robert Mugabe, Mobutu Sese Seko, Teodoro Obiang Nguema Mbasogo, General Sani Abacha, Yahya Jammeh, Blaise Compaore, Haile Mariam Mengistu et cetera. The civil strife during their reigns opened opportunities for people to challenge the State, thereby posing a security dilemma to their countries through a series of violent conflicts and or serial coups.

Using the case of Zimbabwe, the Liberation War of 1964 to 1979 was fought on the premise of ‘taking back the land’ from the white minority. The Land Reform’s emphasis was redressing past land alienation and promoting equal access to land (Moyo, 2004). It was also aimed at achieving economic growth by reducing land assets per individual and reallocating land to multiple and diverse beneficiaries. Robert Mugabe’s government forcefully redistributed land from the hands of the minority people to black Zimbabweans. However, land recipients were not largely ordinary and average civilians as the lands were distributed through a patronage system. Beneficiaries were limited to those loyal to the regime.

The distribution results failed to address the scarcity as it created a new social class of political landowners juxtaposed to an alienated, cut off and impoverished population. Emerging results were social upheavals, violent conflicts and yearning for political change. While the land reform question was fundamental to the re-integration of resource alienated Zimbabweans, attempts to resolve the question created more questions and widened the environmental resource distribution gap. The civil strife posited by Homer-Dixon is plausible but not entirely a sufficient condition. Many African cases have proven that sometimes it is not the scarcity of resources that lead to violent conflict, but violence can be a consequence of the abundant presence of these environmental resources (Omeje, 2016). This shall be looked into later in the paper.

Fourthly, Homer-Dixon (1999) states that scarcity will lead to interstate war over the fight for resources. The river water was outlined as the most renewable resource that was most likely to stimulate interstate war. This is supported by scholars such as Gleick (1993), who argue that since river water flows from one area to another, one country’s access can be affected by another’s actions. Homer-Dixon adds that conflict is most probable when a downstream country depends mainly on the river. This is supported by Myers (1989), who posits that the situation is dangerous if the downstream country believes to possess military power to rectify the circumstances.

To put this in context, the relationship between Egypt and Ethiopia; and South Africa and Lesotho are of concern. In 1980 then president of Egypt, Anwar Sadat, threatened to attack Ethiopia. He said, ‘If Ethiopia takes any action to block our right to the Nile waters, there will be no alternative for us but the use of force’ (Myers, 1989, p. 32). Thus, Egypt threatened to attack Ethiopia through force, isolated Ethiopia from external funding to develop the dam and destabilised Ethiopia by supporting rebel groups (Bitsue, 2012).

The case of Lesotho and South Africa has been outlined as Southern Africa’s first water war. In 1986, amidst severe drought conditions and increased water demand in South Africa, a military coup was orchestrated and facilitated against Lesotho’s Prime Minister Jonathan Leabua. A water development plan was set through the Lesotho Highlands Water Project and the construction of the Katse Dam. A large amount of water, through a pipeline, was diverted from Lesotho to South Africa’s capital Pretoria and its industrial heartland Johannesburg. In September 1998, South Africa invaded Lesotho on the pretext of restoring order amidst vote-rigging allegations.

However, according to International Rivers Network (1998, p. 2), ‘a major factor behind the military intervention was protecting the LHWP’s Katse Dam- South Africa’s largest investment in the region.’ Seventeen Lesotho soldiers were killed near the Katse Dam, and chaos engulfed Maseru, the capital city of Lesotho. Although assertions by Homer-Dixon are evident in the cases presented, they fail to address how resource scarcity can also lead to cooperation rather than violent conflict. It fails to account for cooperation cases such as the construction of the Kariba Dam between Zambia and Zimbabwe. The Zambezi River drains from eight countries and is the largest river in Africa that flows into the Indian Ocean. The projection by Homer-Dixon also fails to account for the cooperation between Angola, Botswana and Namibia in the Okavango Basin despite the three countries having severe water scarcity problems. Through the Okavango River Basin Commission (OKACOM), the three countries maintain environmentally friendly cooperation of shared interest water.



Fifthly, Homer-Dixon (1999) argues that environmental scarcity also leads to conflict between developed and developing nations. These North-South conflicts manifest due to adaptation and mitigation of issues such as ozone depletion, threats to biodiversity and global warming. These are said to directly impact cropland scarcity, tropical deforestation, scarcity of fresh water, a decline of fish stocks and loss of biodiversity. Homer-Dixon identifies three primary resources of environmental scarcity, which are reduced supply, rising demand and skewed distribution. However, he fails to picture how these global events will lead to conflict between developed and developing countries.

Although climate change is a defining issue of our time, some countries still doubt the reality of its nature. Regardless, it has brought countries together rather than cause violent conflict. Intergovernmental organisations such as the United Nations endeavoured to address the challenges through legal instruments such as the United Nations Framework Convention on Climate Change of 1992, the Kyoto Protocol of 1995 and the Paris Agreement of 2015. The level of cooperation rather than violent conflict can be traced to 175 world leaders signing the Paris Agreement, making it the largest number of countries to sign an international agreement on a single day. The agreement was later ratified to include all world countries. Hence, cooperation at this level points to addressing the problem amicably and collectively.

3.2 Factors Aggravating Environmental Conflict in Africa

The Environmental Conflict Theory by Homer-Dixon focuses much on population growth, resource scarcity and violent conflict without looking on the other side of the problem. Scarcity does not always lead to conflict, as vast African states have proven otherwise. Homer-Dixon ignores how the availability of resources can factor in environmental conflict. He casts a blind eye on the resource curse and paradox of plenty, coined by Richard Auty (1993) and Terry Karl (1997), respectively, to show how countries with rich resources often develop slowly, more corruptly and more violently. Homer-Dixon also ignores the Rentier State Theory (Mabro, 1969; Mahdavy, 1970; Beblai & Luciani, 1987), a typical embodiment of a resource curse.

Putting this into context, the extraordinary concentration of mineral wealth in the eastern Democratic Republic of Congo made David Van Reybrouck (2010, p. 119) describe it as a 'geological scandal.' This also helps to explain why the country has experienced deadly wars amid abundant natural resources. In the aftermath of the Second Congo War, the war had caused 5.4 million deaths, thereby making it the deadliest conflict worldwide after the Second World War and 'Africa's deadliest conflict' (Soderland, Najem, Briggs, & Roberts, 2013, p. 1). Therefore, the scarcity of resources does not always result in violent conflict. The above has demonstrated that the abundance of natural resources can also aggravate violent environmental conflicts.

Circumstances beyond scarcity can also aggravate environmental conflicts. The distribution of natural resources is another major cause of violent conflict. Maphosa (2012) states that structural scarcity represents unequal access to and distribution of natural resources where less powerful groups are marginalised from equal access to specific resources. A skewed distribution of resources continues to facilitate finance and sustain grievances. There is a big difference between a skewed distribution and scarcity. The intersection of need, greed and greed has disadvantaged civilians and placed some communities to the peripheries of resource reach.

Tribal politics and patronage towards the distribution of resources fuel grievances. A case in point is Cameroon's Anglophone crisis or the Ambazonia war. Despite producing vast natural resources, Southern Cameroon is marginalised by the Franco-Yaoundé government. The inequality of the north and south towards resource distribution has fed into the grievance of the latter region. The grievances have led to the violent conflict between the state security apparatus and the civilians of the south. The grievances resulted in a violent conflict that claimed an estimated 3000 lives (CrisisGroup, 2019). The role played by resources in the Sudan civil war has been well documented. Oil has been a significant factor of contention in the long-lasting conflict between North and South Sudan. Regardless of abundant resources, political leadership can create substantial vulnerabilities which marginalise and threaten the sustenance and livelihoods of people. Therefore, the nexus between overarching political trajectories and the (mis)management of natural resources can aggravate the environmental conflict.

Environmental conflict might have different trajectories and specificities, but control of the resources is at the centre (Markakis, 1998). According to Cascão (2018), manipulation and competition of resource control have often been used with political intention to control, maintain or expand power. The struggle to exploit and control natural resources is also aggravated by external actors who finance chaos to control or loot resources. War loads in eastern DRC are a case in point. According to Rufanges and Aspa (2016, p. 10), the war in DRC has seen 'warlords paid by local politicians or notables' and have 'attacked other communities and areas to obtain economic benefits and control or participate in the exploitation of natural resources.'

These motivations provide definitive explanations of armed group motivation and environmental conflict.



Natural resources play a key and significant role in triggering and financing conflict. Collier and Hoeffler (1999) argue that there is a statistical correlation between the occurrence of civil war and a country's natural resource endowment. Collier and Hoeffler argue that civil wars are motivated either by greed or grievances. Utilising the economic theory, rebellion is perceived as an industry that generates profit from looting. Every conflict is unique in its way, but many scholars perceive the struggle over control and access to natural resources as highly probable grounds for aggravating environmental wars in Africa (Brundtland, 1987; Collier, 2000).

IV. CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

In reviewing Homer-Dixon's Environmental Conflict Theory in the context of Africa, the paper laid out how the theory is to some extent applicable and relevant. The scarcity of resources, as a result of depletion and degradation, can lead to violent conflicts when people compete for control and access to resources. However, it has to be pointed out that Africa's environmental clashes interact with the economic, social and political background to generate violent conflicts. Therefore, Homer-Dixon's Environmental Conflict Theory is to some extent valid, but it suffers major shortfalls which make its applicability and generalizability questionable. The paper has shown that the abundance of resources in Africa contributes more to violent conflicts than their scarcity. Resources in Africa are vast, and so are environmental conflicts. Therefore, it will be a miscarriage of evident truths to suggest that scarcity of these resources is entirely causing violent conflicts in Africa.

4.2 Recommendations

There is no one size fits all solution to mitigate and address environmental conflicts. Solutions designed must be contextualised to address the conflict specifically. However, grievances such as unequal access to and the skewed distribution of natural resources have triggered and sustained environmental conflicts in Africa. Therefore, a simple way of addressing this challenge will be to disband patronage systems and allow every citizen to access, legally, the natural resources of their own country. The integration of environmental factors and natural resources in conflict prevention, management and peacebuilding should be taken into account to prevent the triggering and financing of violent conflict.

A lack of viable livelihood alternatives can contribute to conflict. Limited natural resources that are poorly managed provoke incompatibilities and competition. A provision of diverse, multiple and viable livelihoods alternatives may limit conflict scenarios, for instance, between agriculturalists and pastoralists. The installation of strong institutions can be a possible solution. Civil society actors and the government have a mandate to oversee the sustainable management of resources and responsibly monitor the management of the same resources. This will ensure equitable distribution and management of environmental resources while strengthening and sustaining livelihoods.

The paper has outlined how external actors finance environmental conflict as a way to loot natural resources. According to Kok, Lotze, & Jaarsveld (2009), the illegal extraction of resources contributes to conflict, and non-state actors and foreign companies will benefit from the chaotic conflict. The access they gain to extract resources because of a vacuum of state authority will make them finance conflict to safeguard their interests. Therefore, addressing the role of external actors and resource extraction can redress environmental conflicts.

REFERENCES

- Auty, R. (1993). *Sustaining development in mineral economies: the resource curse thesis*. London: Routledge.
- Beblai, H., & Luciani, G. (1987). *The Rentier State*. London: Croom Helm.
- Bitsue, K. (2012). *The Nile: From Mistrust and Sabre Rattling to Rapprochement*. Pretoria: Institute for Security Studies, Paper No. 238.
- Brundtland, G. (1987). *Our common future: World Commission on Environment and Development*. Oxford: Oxford University Press.
- Cascão, A. (2018). Resource-based conflict in South Sudan and Gambella (Ethiopia): when water, land and oil mix with politics. *Centro de Estudos Internacionais*, 143-164.
- Collier, P. (2000). Doing well out of war: An economic perspective. In M. Berdal, & D. Malone, *Greed and Grievance: Economic agenda in civil war* (pp. 91-111). Boulder: Lynne Rienner Publishers.
- Collier, P., & Hoeffler, A. (1999). *Justice-seeking and loot seeking in civil war*. Washington, DC: Mimeo.
- CrisisGroup. (2019). *Cameroon's Anglophone Dialogue: A work in Progress*. Yaoundé: Crisis.



- Gleick, P. (1993). Water and Conflict: Fresh Water Resources and International Security. *International Security*, 18 (1), 79-112.
- Homer-Dixon, T. (1994). Environmental Scarcities and Violent Conflict: Evidence from Cases. *International Security*, 19 (1), 5-40.
- Homer-Dixon, T. (1999). *Environment, Scarcity and Violence*. Princeton, New Jersey: Princeton University Press.
- International Rivers Network. (1998). 17 Killed at Katse Dam. *World Rivers Review*, 13 (6), 1-16.
- Karl, T. (1997). *The Paradox of Plenty: Oil Booms and Petro-States*. California: University of California Press.
- Kok, A., Lotze, W., & Jaarsveld, S. (2009). *Natural Resources, the Environment and Conflict*. Durban: ACCORD.
- Mabro, R. (1969). La Libye, un Etat rentier? *Projet*, 39.
- Mahdavy, H. (1970). Patterns and Problems of Economic Development in Rentier States: The Case of Iran. In M. Cook, *Studies in the Economic History of the Middle East*. Oxford: Oxford University Press.
- Maphosa, S. (2012). *Natural Resources and Conflict: Unlocking the economic dimension of peacebuilding in Africa*. Pretoria: Africa Institute of South Africa, Policy brief No. 74.
- Markakis, J. (1998). *Resource Conflict in the Horn of Africa*. London: Sage Publications.
- Moyo, S. (2004). Land Movements and the Democratisation Process in Zimbabwe: Contradictions of Neo-Liberalism. In M. Masiwa, *Post Independence Land Reform in Zimbabwe: Controversies and Impact on the Economy* (pp. 193-215). Harare: Friedrich Ebert Stiftung.
- Myers, N. (1989). Environment and Security. *Foreign Policy*, 74, 28-41.
- Omeje, K. (2016). Natural resource rent and stakeholder politics in Africa: towards a new conceptualisation. *Commonwealth & Comparative Politics*, 54 (1), 92-114.
- Paisley, K., & Henshaw, T. (2013). Transboundary governance of the Nile River Basin: Past, present and future. *Environmental Development*, 7, 59-71.
- Reybrouck, D. (2010). *Congo: The Epic History of a People*. New York: Ecco.
- Rufanges, J., & Aspa, J. (2016). *Democratic Republic of Congo: A review of 20 years of war*. Barcelona: Centre Delas D'Estudis Per La Pau.
- Soderland, W., Najem, T., Briggs, E., & Roberts, B. (2013). *Africa's Deadliest Conflict: Media Coverage of the Humanitarian Disaster in the Congo and the United Nations Response, 1997-2008*. Ontario: Wilfrid Laurier University Press.
- Soderlund, W., Briggs, E., Najem, T., & Roberts, B. (2013). *Africa's Deadliest Conflict: Media Coverage of the Humanitarian Disaster in the Congo and the United Nations Response, 1997-2008*. Waterloo: Wilfrid Laurier University Press.