IJPS Interdisciplinary Journal of Partnership Studies
Volume 7, Issue 2 Fall/Winter
pubs.lib.umn.edu/ijps

MANAGING CLIMATE CHANGE: THE ROLE OF MULTI-STAKEHOLDER PARTNERSHIPS IN BUILDING CLIMATE RESILIENCE IN SUB-SAHARAN AFRICA

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Abstract

Research increasingly suggests that climate change has intensified the frequency of droughts, floods, and other environmental disasters across sub-Saharan Africa. In response to the resulting array of climate-induced challenges, various stakeholders are working collectively to build climate resilience in rural and urban communities and trans-continentally. This paper examines key climate resilience-building projects that have been implemented across sub-Saharan Africa through multi-stakeholder partnerships. It uses a vulnerabilities assessment approach to examine the strategic value of these projects in managing the mitigation of climate shocks and long-term environmental changes. There are still many challenges to building climate resilience in the region, but through multi-stakeholder partnerships, sub-Saharan African nations are expanding their capacity to pool resources and build collective action aimed at financing and scaling up innovative climate solutions. This article contributes to ongoing interdisciplinary academic, management, and policy discourses on global climate adaptation focused on populations and landscapes most at risk.

Keywords: Climate Change; Multi-stakeholder Partnerships; Climate Resilience; Climate Financing; sub-Saharan Africa

INTRODUCTION

There is growing evidence that large swaths of sub-Saharan Africa are experiencing climate disasters that threaten the wellbeing of people and the environment (Barrios et al., 2006; Coulibaly et al., 2020; Rigaud et al., 2018). Extreme floods, sea-level rise, and accelerated desertification are among the myriad climate risks spread across the region (Hedlund et al., 2018; White, 2012). The resulting climate shocks and environmental changes are adversely impacting the economic livelihoods, health, and water and food security of the region's most vulnerable populations (Baarsch et al., 2020; Tumushabe, 2018).

Furthermore, as a region comprising mostly developing countries, these extreme weather events have the potential to set back socioeconomic development and climate adaptation progress experienced by some African nations in the last decade (Schipper et al., 2020). In response to these challenges, several stakeholders are working together strategically to enhance climate resilience, from the grass roots to the transcontinental level. Similar to other regions, advances in climate science, technology, interdisciplinary research, and policy action have proved essential in expanding climate resilience in sub-Saharan Africa (Fady et al., 2019). However, without adequate resources and collective action, many climate resilience programs would remain in the ideas phase (Moser et al., 2019a). Multi-stakeholder partnerships are increasingly being utilized for pooling the economic and technical resources needed to finance and scale up innovative climate resilience projects in developing countries (Morsink et al., 2011; Palazzo et al., 2017). Therefore, multi-stakeholder partnerships represent an important strategy in building climate resilience, especially in severely impacted geographies that might also be experiencing structural constraints. Using an integrated approach to climate resilience, this article examines key examples of multi-stakeholder partnerships that are being used to manage and mitigate the recurring climate shocks and long-term environmental changes impacting sub-Saharan Africa.

CLIMATE RESILIENCE AND PARTNERSHIPS

Climate resilience is the capacity for a socio-ecological system to absorb pressures and maintain function in the face of external stresses imposed upon it by climate change (Folke et al., 2010; Moench, 2014; Shamsuddin, 2020). It also includes the ability and capacity of an ecosystem to adapt, reorganize, and evolve into more desirable configurations that improve the sustainability of the system, leaving it better prepared for future climate impacts (Carpenter et al., 2001; Folke, 2006). An integrated climate resilience-building framework is useful in this regard, because it takes a holistic look at the various factors and intervening variables associated with climate change and its impacts (Gallopín, 2006; Tambo, 2016a). An integrated approach considers all dimensions of the problem and identifies the resources and institutions necessary for implementation, coordination, and longevity of solutions (Hölscher et al., 2019). Integrated climate resilience-building also focuses on building capacity to respond to recurring climate shocks, like floods, while allocating the resources needed to rebuild climate-intuitive communities for the people most at-risk (Tambo, 2016b). Furthermore, it calls upon stakeholders to pay closer attention to the implications of pre-existing structural vulnerabilities such as conflict, governance inadequacies and level of development (Hölscher et al., 2019; Tacoli, 2009).

In the developing world, an integrative multi-stakeholder approach seems to be often necessary to build climate resilience and mitigate disaster risks (Biagini & Miller, 2013; Pinkse & Kolk, 2012a). Similar to other developing countries, some sub-Saharan African nations often do not have the fiscal space in their national budgets to provide the additional human and technical resources needed to implement and scale up climate resilience projects (Denton, 2010; Naess et al., 2015). To overcome this, governments, which in most cases are the primary actors in national-level climate governance, have gradually partnered with research scientists, local farmers and landowners, business leaders, non-governmental organizations (NGOs), regional and international organizations (IOs), and civil society groups (Holler et al., 2020; Mikulewicz & Taylor,

2020; Moser et al., 2019b). As a result, in the last decade, there has been a proliferation of multi-stakeholder partnerships that serve as platforms for social innovation on climate change (Rodima-Taylor, 2012; Selsky & Parker, 2005). These collaboratives create opportunities and synergies for sharing information, developing ideas, problem solving, and the finances needed to implement, scale up, and sustain climate-smart initiatives nationally and regionally (Mulgan et al., 2007). As a region comprising mostly developing countries, the proliferation of multi-stakeholder collaborations in sub-Saharan Africa echoes their strategic importance in expanding climate resilience in developing countries.

FINANCING CLIMATE RESILIENCE PROJECTS

Droughts and floods are among the most extreme weather events facing sub-Saharan Africa, and climate change has increased the force and frequency of these disasters (Lumbroso, 2018; Ongoma et al., 2018). This is particularly challenging for agriculture-dependent communities, as these extreme or prolonged weather events often result in food shortages and loss of household income (Afifi et al., 2014). In building resilience to climate shocks, multi-stakeholder partnerships are helping to provide Climate Risk Financing (CRF) to threatened communities across the region (Davis & Vincent, 2017). CRF providers often include regional organizations, developed donor countries, international development organizations, and private insurance corporations (African Devlopment Bank [AfDB], 2019; Pauw, 2015; Moser et al., 2019a). These entities, through special programs, offer disaster insurance to governments responding to climate shock in their respective countries.

CRF programs are now established in several African countries and are also operationalized at a trans-African scale, facilitated by regional and sub-regional organizations (Jegede et al., 2020; White, 2012). For example, the African Disaster Risks Financing (ADRF) programme set up by the AfDB has contributed to mitigating climate shocks and to rebuilding communities in the aftermath of disasters across the

region. ADRF provides parametric weather insurance for AfDB and African Union (AU) member countries. The facility provides governments with the institutional and emergency resources that they need to adequately respond to climate-induced disasters. Over a four-year period from 2019 to 2023, the program is expected to provide financing of up to 50 percent of the annual premium for member countries accessing the facility (AfDB, 2018b). As of 2019, African countries have taken out coverage of approximately USD 13.4 million from the ADRF program and paid USD 60 million in premiums (African Risk Capacity, 2019). Meanwhile, at the country level, multi-stakeholder partnerships, like the Upper Tana-Nairobi Water Fund (UTNWF) established in Kenya are also helping to fill climate financing gaps. Kenya spends a significant percent of its annual GDP responding to droughts and flooding (Chapagain et al., 2020). In countering the resulting water insecurity, the UTNWF brings together local corporations, Kenyan government agencies, local farmers, and NGOs, pooling their resources to protect and restore water quality and supply to parts of Kenya's arid yet vastly populated capital city (Rouillé-Kielo, 2019; Vogl et al., 2017).

SCALING UP CLIMATE RESILIENCE PROJECTS

In addition to droughts, floods, and other climate shocks, desertification impacts about 46 percent of the African continent and is accelerating due to climate change (Prăvălie, 2016). The resulting loss of soil fertility and biomass adversely impacts the health and economic livelihoods of communities, particularly those located in high-risk arid regions of the Sahel and Southern Africa (Mueller et al., 2020; Negev et al., 2019). In recent years, regional environmental agendas to combat desertification are increasingly being operationalized through multi-stakeholder arrangements (Asongu et al., 2018; Jonker & Robinson, 2018). Through collective enterprise, multi-stakeholder partnerships are creating the 'ways-how' and 'knows-how' of tackling climate challenges that are common across African nations. The Great Green Wall (GGW) initiative is the latest and most ambitious continent-wide resilience-building project that is being implemented to reduce the long-term climate risks posed by accelerated desertification (African

Union, 2015; UNCCD, 2019). Launched in 2007, the GGW initiative aims to increase biomass on 10.5 million hectares of land in the Sahelian belt south of the Sahar (Dia & Niang, 2010). This is expected to "significantly increase the number of rainy days by 9 percent and the intensity of heavy rain, while decreasing extreme dry spells by 4 percent" (Saley et al. 2019,1).

Since its inception, the GGW initiative has expanded from 11 to 21 countries bordering the Sahara and Sahel. These countries include Cameroon, Ghana, Algeria, Benin, Cape Verde, Egypt, Gambia, Libya, Somalia, and Tunisia (GGW, 2019). This is in addition to the Pan-African Agency of the Great Green Wall (PAGGW), which brings together Burkina Faso, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan, and Chad (GGW, 2019; UNCCD, 2019). The path of the GGW has also expanded since 2007 to include the most recent reforestation goals of each participating African country (Goffner et al., 2019). The proposed path of the Green Wall strategically meanders along the driest zones across these participating nations. Many of these arid zones are rural agricultural-dependent geographies, as well as densely populated metropolitan areas, which stresses the need for such an initiative. The GGW is funded through several environmental protection programs coordinated by international development organizations, like the United Nation's (UN's) Food and Agricultural Organization (FAO) and the World Bank, along with commitments made by governments of the 21 African nations. Several other environmental protection programs are also being coordinated as part of the GGW initiative. These include the Action Against Desertification; Building Resilience through Innovation, Communication and Knowledge Services (BRICKS), and the United Nations Convention to Combat Desertification's Front Local Environnemental pour une Union Verte (FLEUVE) project, which is funded by the European Commission (GEF, 2014; UNCCD, 2019). At the sub-national level, the GGW also brings together several global environmental research institutes, civil society groups, and local landowners to support different aspects of the massive reforestation

targets. Governments of countries outside the region, such as France and the Republic of Ireland, have also contributed to the GGW initiative (GGW, 2019; UNCCD, 2019).

The construction of the Great Green Wall in these arid zones is expected to exponentially improve the wellbeing of people and the region's environment. Through its objectives and expected impacts, the GGW integrates several mechanisms associated with sustainability, poverty alleviation, and the reduction of economic and environmental displacement (Dia & Nian, 2010). Its implementation has therefore created important synergies with various development programs already underway in the region, while promoting sustainable natural resource governance (African Union, 2015; O'Connor & Ford, 2014). The GGW also benefits from data previously collected by national and regional programs that relate to land degradation and desertification. To date, more than USD 8 billion dollars has been mobilized to fund the project, which is now about 15 percent complete (UNCCD, 2019). In the coming years, it is expected that funding for the GGW initiative will expand as more stakeholders come on board to support its implementation, especially given its potential contribution to global climate stabilization (Al-Saidi, 2020).

Despite the relative success achieved through the GGW Initiative and similar projects, there are still many limitations to climate resilience-building in sub-Saharan Africa. These limitations often require deeper systemic transformations before multi-stakeholder partnerships can develop. For example, in some cases there are relatively few national policies on climate change to begin with, or, where such policies are in place, they are not adequately implemented or enforced (Grineski et al., 2012; Ndesanjo at al., 2020). In other cases, pre-existing political situations, such as violent conflicts or deeply rooted sectarian political cultures, make it difficult to bring diverse stakeholders to the table to begin the dialogue on climate resilience (Rudincová, 2018; Scheffran & Battaglini, 2011). This is particularly concerning for governments of countries in this situation, because they are still expected to effectively manage

climate issues in the public's interests despite not having the political capital to do so. Also, in countries where the economy is dominated by non-climate-friendly industries, such as crude oil or forestry, governments sometimes experience debilitating push-backs from the private sector (Pinkse & Kolk, 2012b; Rothenberg & Levy, 2012). Lack of private sector buy-in is particularly challenging in the developing country context, as private sector investment in building climate resilience is often a necessity. Understandably, in such circumstances, financing and scaling climate resilience projects is a much more complex and long-term process (Bauer et al., 2012).

THRIVING MULTI-STAKEHOLDER PARTNERSHIPS

Relatively successful multi-stakeholder partnerships for building climate resilience can be found in different countries around the world, both in industrialized and developing ones (Bäckstrand, 2006; Elia et al., 2020). Research on the specific characteristics that make some partnerships more successful than others, in terms of delivering on their stated goals and objectives, is still emerging (Buckup, 2012; McNamara & Buggy, 2017). However, some key features of successful stakeholder collaborations can be surmised from previous literature. Thriving multi-stakeholder partnerships tend to move away from traditional intergovernmental models. Instead, an increasingly decentralized and participatory structure is preferred, in which all stakeholders have equal levels of accountability and are involved at every stage of the project (Brancalion et al., 2016; Geekiyanage et al., 2020). Partnerships also thrive where there are specific and well-defined project aims, objectives, location, and deliverability timeframes, and when expected outcomes are at least proportional to the amount of resources invested. In such situations, stakeholders are better able to monitor and evaluate project achievements, adjust resources where necessary, build trust, and mitigate coordination challenges (Sun et al., 2020).

A high degree of community ownership is another key feature of thriving partnerships for building climate resilience (Biekart & Fowler, 2018). Community ownership is when

the people who are the primary beneficiaries feel a sense of responsibility for the project and its success. One of the fundamental ways to achieve higher levels of community ownership is to ensure that project goals align with the aspirations, values, and needs of the respective communities (Marschütz et al., 2020). For example, some climate resilience building projects established in African rural communities integrate local and indigenous knowledge about environmental protection and stewardship into project aims and expectations (Melore & Nel, 2020). More successful models of partnerships also seem to have some form of adaptive governance mechanism. This primarily comprises guidelines, protocols, and institutional flexibility that allows for the incorporation of new stakeholders, ideas, and new approaches to climate resilience building, like climate justice (Fazey, 2007; Smucker & Nijbroek, 2020). This adaptive or learning framework helps to add value and maximize meaningful stakeholder engagement and project outcomes. Considering these factors, multi-stakeholder partnerships established to manage climate change can, over time, become very complex and varied organizational structures.

CONCLUSION

Multi-stakeholder partnerships are proving to be an increasingly valuable strategy for building climate resilience in sub-Saharan Africa. Indeed, there is need for more research that systematically evaluates the sustainability of these climate resilience projects being implemented across the region. Nonetheless, evidence suggests that by establishing these collaborative partnerships and frameworks, African countries are expanding their capacity to respond to recurring climate shocks like floods, droughts, and storms, while potentially addressing long-term environmental changes like desertification, at a continental scale. Effectively implementing these innovative projects contributes to safeguarding the life and economic livelihoods of populations spread across some of the region’s most disaster-prone landscapes. The increasingly multi-scale and multi-stakeholder format of these partnerships in sub-Saharan Africa, highlights their potential in building climate resilience in other regions comprising

mostly developing countries, as well as the complex dynamics involved in global efforts to manage the socio-ecological impacts of climate change.

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