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Research papers

Multi-dimensional inequalities, climate governance and livelihoods in sub-saharan Africa

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Multi-dimensional inequalities, climate governance and livelihoods in sub-saharan Africa

Paper issued from the International Research Conference: **"Strong Sustainability: How sustainable are Net Zero trajectories?"**

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Abstract
Recurring drought and other severe weather events, combined with unstable energy supply in this region, jeopardize socio-economic development and livelihoods. States' abilities to provide basic services decline as resources become scarce. Simultaneously, resource-constrained countries struggle to access suitable technological solutions.

While the multidimensional nature of inequality has been relatively well documented, this paper expands the concept of multi-dimensionality to interrogate the role of climate change and climate governance in the multi-dimensional inequality framework and its relevance for Sub-Saharan Africa.

Keywords
Multi-dimensional inequality, climate governance, climate change, socio-economic development, Sub-Saharan Africa

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Résumé
Les sécheresses récurrentes et autres phénomènes météorologiques graves, combinés à l'instabilité de l'approvisionnement énergétique en Afrique subsaharienne, mettent en péril le développement socio-économique et menacent la pérennité des moyens de subsistance. Les capacités des États à fournir des services de base diminuent à mesure que les ressources se raréfient. Simultanément, les pays aux ressources limitées luttent pour accéder à des solutions technologiques adaptées. Si le caractère multidimensionel des inégalités a été relativement bien documenté, ce papier en élargit la compréhension en explorant la littérature de la gouvernance climatique au regard de l'inégalité multidimensionnelle afin de fournir des réponses sur le lien qui unie ces concepts et la pertinence de cette analyse pour l'Afrique subsaharienne.

Mots-clés
Inégalité multidimensionnelle, gouvernance climatique, changement climatique, développement socio-économique, Afrique subsaharienne

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Introduction

The societal impacts of climate change exacerbate inequalities within countries as well as between them (Islam and Winkel 2017). Societies in Sub-Saharan Africa (SSA) are particularly vulnerable as this region is the most unequal as well as most vulnerable to climate impacts in the world (WMO 2020). Recurring drought and other severe weather events, combined with unstable energy supply in Sub-Saharan Africa, jeopardize socio-economic development and livelihoods. States' abilities to provide basic services decline as resources become scarce. At the same time, new climate technologies are yet inadequately distributed to secure essential services. Upscaled diffusion of climate technologies require innovative partnerships between public and private actors. In some instances, private households and industries choose to leave or leapfrog the public water and electricity grids. Simultaneously, resource-constrained countries struggle to access suitable technological solutions.

These dynamics raise novel questions about the relationships between multi-dimensional inequalities and climate governance. The governance of climate change unfolds within political systems and institutions, which reflect historical inequalities in power, institutions, and political representation. How do existing inequalities shape climate governance? How do political actors access climate policy arenas? Who is in, who is left out? Who benefits, who loses? How do institutions distribute benefits of climate policy?

This paper assesses the literatures on climate governance and multi-dimensional inequality to provide some initial answers on this relationship. Multi-dimensionality in inequality has been relatively well understood. The research in this paper expands the concept of multi-dimensionality to interrogate the role of climate change and climate governance in the multi-dimensional inequality framework and its relevance for Sub-Saharan Africa.

1. Inequality, distributional politics and climate governance

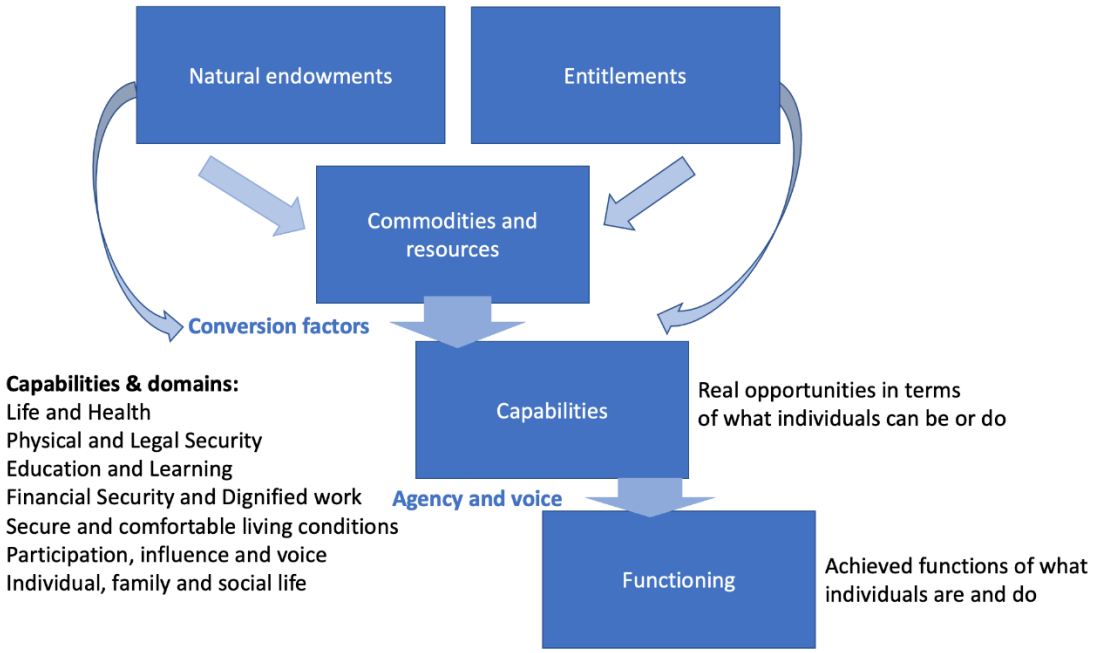
Inequality can be understood in the multi-dimensionality of capital (Piketty 2016) and livelihoods (Sen 1992). Climate change stresses environmental capital which impacts on livelihoods and quality of life, mainly in negative ways. The research literature offers several frameworks to assess social inequalities and their relationship with climate change and environmental sustainability.

1.1. "Inequality of what?" – towards multi-dimensional perspectives of inequality

Social inequalities come in many different shapes. The diverse nature of inequalities has been conceptualized in multi-dimensional frameworks which put livelihoods and human well-being at their core. This school of thought, inspired by Amartya Sen's writing, associates inequality with the various dimensions influencing human livelihood (Sen 1992). Sen's concepts of empowerment, capability and positive freedom acknowledges the multi-dimensionality of human livelihoods. Poverty and inequality deprive people from living their lives to their full potential. Sen's work breaks with the notion of deprivation understood uni-dimensionally as low income. The focus on human well-being and quality of life centres around the concepts of 'functionings' and 'capabilities'. Functionings refer to the state of a person and add up to the ability of things they manage to achieve and value (Sen 1993).

The multiple dimensions of inequalities include life and health, physical and legal security, education and learning, financial security and dignified work, secure living conditions, participation, influence and voice, individual, family, and social life. Researchers at the LSE, Oxfam and others have attempted to quantify multidimensional inequality (LSE 2018). The Multi-dimensional inequality Framework (MIF) focuses on self-determination and people's agency and choice to function according to their capabilities, entitlements and endowments. The MIF distinguishes not only between the given commodities, but also considers how these commodities support individual capabilities (LSE 2018).

Figure 1. The Multi-Dimensional Inequality Framework



The MIF conceptualizes enablers and constraints as so-called "conversion factors" which critically shape advantages or disadvantages to the capability sets of groups or individuals. Conversion factors range from social, individual and environmental factors (LSE 2018). Social conversion factors include social norms and institutions. Examples are discriminative norms and weak institutions which diminish education and wages for women, corruption which disadvantages the provision of services for vulnerable groups while advantaging elites, widening legal and financial inequalities. Personal conversion factors include age, gender, health and disabilities. Climate change and its impacts appear as environmental conversion factors including pollution, deforestation, degradation, and further unspecified climate impacts which shape individual and group capabilities (Dang 2014, Robeyns 2017).

1.2. Mutually reinforcing – environmental factors in understanding multi-dimensionality in inequalities

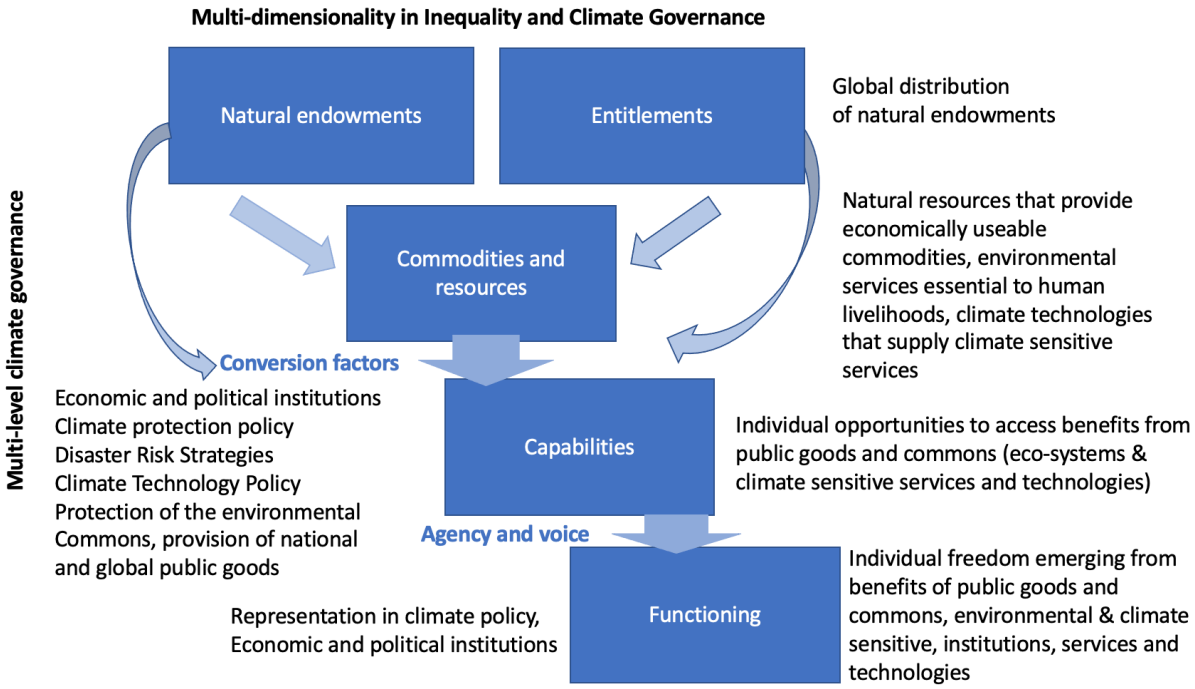
The research literature on sustainable development unpacks the relationship between social inequality and environmental factors in more detail. Climatic change acts as a stressor on environmental resources. Social inequalities combined with climate change inhabit a multi-dimensional socio-ecological space (e.g. Leach *et al.* 2018). Unequal access to limited environmental resources creates distributional conflicts, which require institutions that regulate protection and equitable access. Economic activity has always relied on the use of natural resources. Yet, governance of these natural resources has become more urgent, as the planetary boundaries are becoming increasingly unsafe in sustaining livelihoods (Biermann & Kim 2020).

Research in economics has characterized relationship between environmental and social inequalities a "vicious circle" (Chancel 2020). Chancel's five dimensions of "environmental inequalities" reach beyond climate change, but overlap with the findings in the climate change literature. The dimensions include *i)* unequal access to environmental resources, *ii)* unequal risk and exposure to harm and *iii)* unequal responsibility for environmental damage and pollution, which align with previously identified conversion factors and the environmental racism literature (Islam & Winkel 2017, LSE 2018). Further environmental inequalities refer to *iv)* unequal exposure to the effects of environmental protection measures as well as *v)* unequal representation in decision-making processes (Chancel 2018), confirmed by IPCC 2022 research (IPCC WGII, 8). Chancel's dimensions of environmental inequalities relate to climate policy and governance of public goods such as a cool climate, protection from climate induced disasters, participation and equal access to the benefits of these measures. If we link these findings back to the concept of multi-dimensional inequalities, we can find multi-dimensionality in climate governance in the following categories:

- Distribution of environmental resources, natural endowments and associated entitlements,
- Protection of the natural commons (marine, forests, carbon sinks, clean air, cool climate, natural water resources and eco-systems),
- Governance of technological innovation relevant to mitigation and adaptation to climate change,
- Capabilities, skills and jobs emerging from new opportunities while leaving others behind,
- Protection from climate shocks, disaster and impacts on social inequality,
- Empowerment and agency in access to the benefits of technological innovation, protection of environmental commons, income sensitive climate policies and job creation into livelihoods,
- Social inequalities shaping participation, representation and agency shaping inequality in climate policy outcomes,
- Provision and access to climate finance for the implementation of respective policies and measures.

Figure 2 shows elements of climate governance plotted into the multi-dimensionality of the inequality framework below.

Figure 2. Multidimensionality in Climate Governance and Inequality



Source: own compilation based on LSE 2018.

1.3. Multi-dimensional inequality and multi-scalarity in climate governance

The concept of multi-dimensionality in inequality translates well into understanding the multi-dimensional inequalities in the current climate governance regime. The climate governance regime historically evolved from acknowledging global carbon inequalities and developmental injustices (UN 1992). Climate governance is multi-scalar and ranges from a global regime that connects national climate policies with a global climate accord with global temperature and adaptation goals. The Paris Agreement aggregates national determined contributions (NDC) which summarise national policy, but leave gaps in specifying sub-national and individual contributions through lifestyle and behavioral changes.

Globally, historical responsibilities for the excessive emissions output that led to anthropogenic climate change remain with the industrialized nations mainly situated in the Global North while nations in the South continue to suffer most from the impacts of climate change. The global climate governance structures reflect these inequalities under the principle of "Common but Differentiated Responsibilities and Respective Capabilities" (CBDR) in the preamble of the United Nations Framework Convention on Climate Change in 1992. Enshrining distributive justice principles into an international treaty to such an advanced degree has been considered as unusual (Falkner 2019).

The differentiation between wealthy "Annex 1" and developing "Non-Annex 1" countries under the Kyoto Protocol surfaced inequalities in carbon intensity and wealth between the Global North and South. Significant differences in commitment and approach have fragmented the climate regime, as only the industrialised "Annex 1" countries are obliged to reduce emissions under the treaty (Falkner 2019). The logic of the Kyoto Protocol failed to accommodate the economic competition between the US and particularly China, but also Brazil, Russia, India and South Africa (BRICS). The US insisted on a market mechanism, only to decide to pull out of the agreement (Spash 2010).

The current structure of the Paris Agreement puts countries on a more pluralist footing, inviting the Parties to contribute to achieving the global temperature and adaptation goals as per their Nationally Determined Contributions (NDC) (UN 2015). However, the CBDR principle remains vague in the Paris Agreement, failing to translate this principle of distributional justice into a binding formula of differentiation. The tensions emerging from the inequalities between the Global South and North shape decision-making processes, representation, transparency and access to financial support in the implementation of the Paris Agreement. The global finance goal of providing one million USD per year has been consistently failed (Averchenkova *et al.* 2020). Climate finance surfaces inequalities between developing and industrialised countries, as developing countries can request financial support for implementing parts of the climate actions articulated in the NDCs. Developing nations can articulate to attend parts of their proposed climate action on the condition of support from industrialised countries. The implementation of the NDCs and the negotiation of financial support in exchange for "enhanced" climate action continues as one of the most contested threads in the political negotiations on climate change (Pauw *et al*. 2020).

Unequal representation and resources create disadvantages for low-income countries in the current international climate governance regime (Ciplet and Roberts 2017). While the EU, US and other dominant economic powers can send effective diplomatic corps into the negotiations, low-income countries will be able to staff their delegations with fewer public servants. Similarly, less civil society organisations can afford to send delegations of observers to the UN meetings. The underrepresentation of NGOs from the Global South in the international climate change negotiation is problematic, as these organizations represent different perspectives to their Northern counterparts (Gereke and Bruehl 2019).

The literature on national and sub-national climate policy finds significant implications on livelihoods in all areas of climate policy. The IPCC 2022's chapter on poverty, inequality and livelihoods finds at a very aggregate level that there are very close linkages between adaptation policy and inequality. Firstly, climate-sensitive livelihoods are least able to adapt. Secondly, marginalized people in precarious livelihood conditions have limited influence on decision making processes (IPCC 2022, WGII-8).

On the mitigation side, climate policies are often perceived as losses, which is why inequalities often reflect framings of equity and justice in the policy debate. Research on income sensitive climate policies, such as energy consumption, efficiency and renewable energy shows that policy design in these areas can have significant impacts on social inequalities within societies (Markannen & Anger-Kraavi 2019).

Distributive conflicts can form both barriers and support to climate policy at multiple scales (IPCC 2022, WG III). Inequalities then shape coalitions in support or opposition of specific climate policies. Successful opposition work can cause widespread resistance, which we saw resulting from Brazilian bus tariff increases and the French carbon tax. Inequalities in the distribution of emissions reduction efforts and in the impacts of mitigation policies within countries affect social cohesion and legitimacy of climate policies (IPCC 2022 WGIII - Summary).

Yet, climate policy responses both in mitigation and adaptation have shown both positive and negative impacts for marginalized groups (Olsson *et al.* 2014). The nature of these impacts depends on the multi-dimensionality of the inequalities which climate policies may address in intended or unintended ways. The socio-economic implications for climate governance has been largely framed in the climate research community in the analysis of "co-benefits", "co-impacts", "adverse" or "unintended consequences" (Uerge-Vorsatz *et al.* 2014, IPCC 2014).

In sum, we find that the concepts of multi-dimensionality and multi-scalarity resonate in both analyses of inequalities and climate governance. Combining analyses of multi-dimensional inequalities and climate policy can help to specify both the inequality impacts of a climate policy as well as understanding the negotiation processes and shaping of climate policy outcomes as results of inequality in representation, resources and power. The following section will explore the aspects of inequality of voice, agency, representation in climate governance in more detail.

1.4. Multi-dimensional inequalities, climate governance and political representation

The final piece of the framing in multi-dimensionality in inequality and climate governance is the way political representation works. How do inequalities shape climate policy outcomes? How do the different fields in economics, political economic theory, climate and political sciences conceptualise political representation?

Inequality research conceptualises distribution, process, and recognition as central aspects of governance and the ways political institutions operate (Menton *et al.* 2020). Distributional inequalities refer to the differences in access to opportunities and assets. Common indicators measure income and consumption inequalities which refer to the differences in the distribution of wealth and poverty. Distributional inequality measures commonly explain the differences in ownership and social classes and typically explain who owns what. These inequalities have also been conceptualized as vertical inequalities (LSE 2018). The ways societies distribute or fail to distribute their wealth for the well-being of its people are at the centre of the debates of welfare research, research on capitalism, distributional mechanisms and institutions (e.g., Nussbaum and Sen 1993, Hall 2001, Cortez 2021).

Procedural inequality conceptualizes differences in representation and processes. Procedural inequalities explain how distribution works and for whom? Who determines distributional measures, who is left out?

Horizontal or recognitional inequalities focus on the differences of individuals and groups across and between societies (e.g., income by level of training, gender, age, ethnicity etc.). Differences in recognition may influence procedural and distributional inequalities (Piketty 2020).

General findings suggest that inequality in many dimensions undermines democratic governance and its distributive mechanisms (Levin-Waldman 2014). Growing income inequality hampers political equality. Distributive inequality widens recognitional and procedural inequalities as the growing income gap between the rich and poor empowers the rich to set the rules of the political game (Stiglitz 2012).

The multidimensional inequalities framework conceptualizes political participation under a dimension political representation, agency and voice along similar lines. Measurements include percentages of population entitled to vote for specific levels of political office, representation in the most powerful political positions, inequality in voter turnout, percentage of seats in parliament and local government by sex, age, disability status, ethnicity, level of education and family background. Further elements are qualitative and include the evidence of powerful elites with excess influence and control over decision-making processes in public and political life as well as political privilege and evidence of undue influence and corruption. Further aspects include the participation in decision-making affecting individual households and families and well as participation in non-governmental organizations concerned with public, political and working life. The MIF indicators focus surprisingly little on the role of institutions, which could be complemented through indicators on horizontal accountability.

Similar attempts to quantify and aggregate political representation as in the MIIF come from common databases of democratic performances. Freedom House, the Economist Intelligence Unit, Polity IV and Varieties of Democracy (V-Dem) offer central indicators for democratic performance which include political rights (political participation), civil rights (civil liberties, freedom of expression and belief, individual rights and rule of law), the electoral regime and horizontal accountability (Judicial and legislative control, functioning of the government) (EIU 2021, Freedom House 2021). Quantitative democracy research can be useful for understanding the general institutional landscape, openness and to compare of many countries in international democracy rankings. Whether high rankings in quantitative democracy measures translate into individual agency and freedom is questionable and depends a lot on the data, sample size, questions and freedom of respondents to participate in the data collection processes. Quantitative data showing the structures of political participation, organization and vote can then become valuable entry points for research finding out why people seek political representation and how.

The research literature in policy analysis and political economic research identifies distributional inequalities and conflicts at the core of political conflicts and processes. Distributional conflicts motivate political actors to organize themselves in coalitions that represent their interest and ideas with the intention to influence political outcomes towards their benefit (Hall & Thelen 2009, Sabatier and Jenkins-Smith1993, Sotirov and Memmler 2012). Institutions, rules and regulations emerge from public policy processes in democratically ruled societies. Inequalities in the means to participate in these processes can influence these outcomes. The ability of actors to influence these processes and their outcomes

depends on their respective power. Power is a relational concept, which refers to the ability of an actor or group to influence the actions and decisions of others. Power relates to access to assets and capabilities. Power assets include access to financial, military and knowledge resources. Strategic access to energy and environmental resources can also strengthen relational power positions. Capabilities include the ability to self-organise in groups and coalitions, to formulate and to express political claims to the relevant audiences in the decision-making processes as well as occupying a political agenda (Knight 1992, Lukes 2007). Hence, inequality in access to power, assets and capability influences policy outcomes. Institutional arrangement largely depends on the distribution of relative power between political actors and their ability to influence the policy process (Lukes 2007).

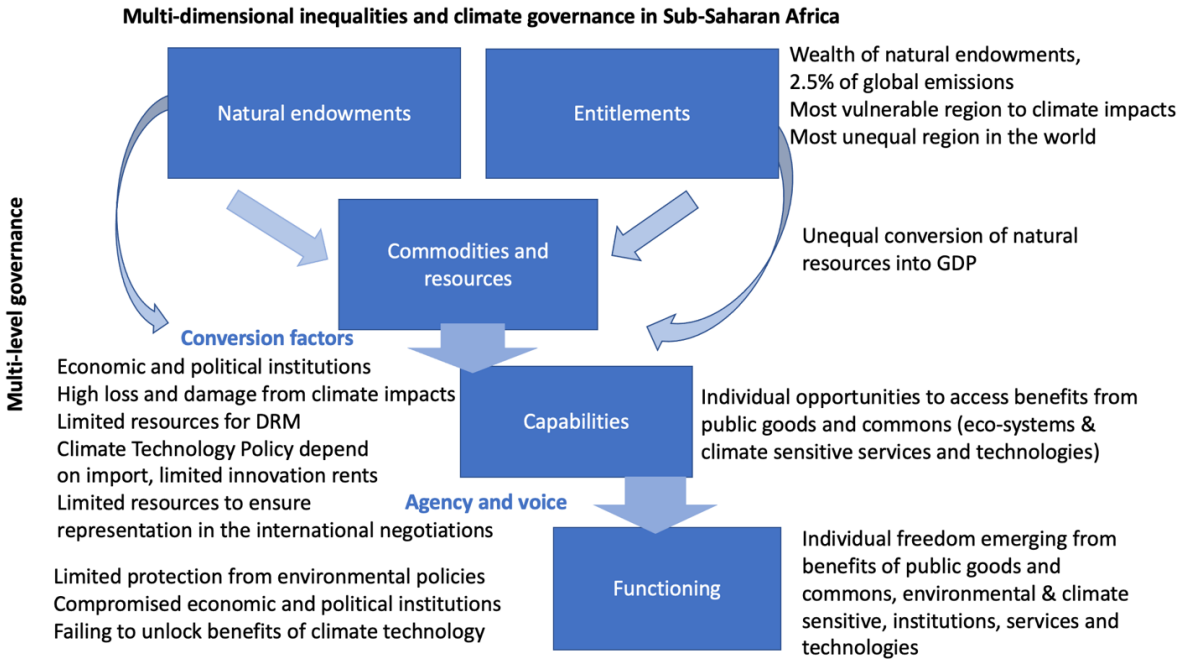
Few authors have applied these or similar approaches to analysing climate policy, specifically. The COMPON project has compared twenty countries, mainly from Europe, North America and East Asia, with the objective to find answers to the question why some countries have more ambitious climate change mitigation policies than others (Ylä-Anttilaa *et al.* 2018). Further case studies analysed climate policy networks on specific climate policies such as wind energy in the UK, climate legislation in Australia, coal plant development in Tanzania and Kenya, as well as renewable energy and carbon taxation policy in South Africa (Mander 2008, Boulle 2019, Rennkamp 2019, Jacob 2017).

A value in analysing public climate policy networks is to surface actors in systematic structures to understand how the different distributional, recognitional and procedural inequalities unfold in specific countries within the multi-scalarity of climate policy.

2. Inequality Multi-dimensional inequality, conversion and agency in Sub-Saharan African climate governance

Systematic analysis of agency and inclusion in climate policy arenas is rare in Sub-Saharan Africa, where democratic rule comes with its own historical challenges. The following section will link the outlined conversion factors and agency in the multi-dimensional inequality framework with the central concepts in public policy analysis and present examples of multi-scalar climate governance in Sub-Saharan Africa.

Figure 3. Multi-dimensional inequalities and climate governance in SSA



Source: own based on LSE 2018.

2.1. Endowments, entitlements, commodities and resources

Global carbon and income inequalities affect Sub-Saharan Africa (SSA) disproportionately. SSA counts as the most vulnerable region of the world to the impacts of climate change (ND-Gain, 2018). In 2016, over 70% of Sub-Saharan Africa's adult livelihoods depended on agricultural incomes (Moyo 2016). Rural livelihoods are extremely vulnerable to changing rainfall patterns, land degradation and other climate impacts. Climate change impacts can severely increase poverty in SSA (Hallegate *et al.* 2016), which is already home to the poorest nations in the world. While agricultural activities continue to dominate large parts of

income generation in the region, migration to the cities continues. Demographic changes in SSA countries may accelerate this development. Estimates foresee that the share of the urban population will double by 2050, generating half of the region's GDP (UN 2017). These dynamics challenge the distributional mechanisms for the provision of climate sensitive services such as access to clean water, sanitation, electricity, transport, housing and waste removal.

Research on carbon inequality has established that growing societies and increasing consumption will lead to growing emissions if incomes grow and consumption and production patterns remain the same (Grigoryev *et al.* 2020). Higher consumption by bigger populations increases both emissions and inequalities especially within countries (Piketty and Chancel 2015). Sub-Saharan Africa's overall emissions are still low, adding about 2.5% to the global emissions burden (IBRD 2018). South Africa alone contributes about half of the region's reported emissions and counts as one of the most unequal societies in the world. Growing urban populations in Sub-Saharan Africa's 143 cities will increase the demand for infrastructure for education, health care, water, sanitation, food and electricity supply under rising climate stresses (Cartwright *et al.* 2018).

Recent research shows that two decades of economic growth in many Sub-Saharan African countries have reduced poverty to an average of 5% across the region (Montes & Newhouse 2020). Income and consumption inequalities have increased over the same period, as distributive mechanisms have not fully translated the benefits of economic growth into equal gains at both ends of the income distribution (Atta-Ankomah *et al.* 2020).

2.2. Geopolitical drivers of inequality in Sub-Saharan Africa's distributive mechanisms

How do environmental and political "conversion factors" shape African inequalities and climate governance? The African continent is closely embedded in the global economy, which shapes opportunities for Sub-Saharan African livelihoods. Historically, some Sub-Saharan African societies were sheltered from these influences and known for their lifestyles in harmony with nature (Suzman 2019). Colonialism significantly contributed to the unequal distribution and extraction of resources and commodities in Africa. The governance and trade of Africa's environmental resources has been heavily influenced by European legislation. The governance of rivers, construction of dams and building of the electricity infrastructure became critical components of the colonial states (Diamond 2005, Showers 2011).

Colonial governance systems excluded many local people from formal political participation. Equal voting rights were achieved in South Africa as late as 1994, as an example. As a result of the exclusion from the formal political system, parallel rules and institutions emerged and continue to coexist with the formal state. European colonial powers ruled over their colonies in different ways which shaped their political system to the present. The British colonies replicated British rule which resulted in single party systems in the nations of Southern Africa. The Portuguese crown held on to their colonies until the 1960s. Competing parties embarked into civil wars.

Compared to Western democracies, Sub-Sahara Africa's democracies are relatively young. The rise of democracy in the region followed from independence after centuries of colonial rule. The nation building processes were not easy and intersected with violent conflicts, periods of military rule throughout the 1960s to 1990s. Ghana was the first country to reach independence in 1957. Her constitution only came into effect in 1991.

When the Sub-Saharan African nations attained their independence, many of the previous colonial powers supported their nation building processes through "overseas development aid" (ODA). The intention to support infrastructure and economic development led to mixed results. Especially, the "lost decades" in the 1980s and 1990s dominated by the controversial Washington Consensus, did not deliver the desired prosperity and human well-being. These decades left many African democracies in a semi-sovereign state, as Western nations continue to operate legitimately through their "donor agencies" and provide financial support on condition of certain policy changes. At the same time, war and violent conflict required intervention from the international community in various instances and the UN built a permanent presence on the continent (Young 2018).

Development cooperation spins along a fine line from "helping the poor", fulfilling historical responsibilities to conditional financial support in return for certain policies and regulations which align with the interests of the donors, accountability and respect for the sovereignty of nations. Activist voices call for "decolonizing aid" through processes of building mutual trust in local practitioners, values and knowledge free from structural racism and discrimination (Peace Direct 2020).

ODA and international climate finance increasingly merge, as "donor agencies" increasingly administer climate projects on behalf of their national governments. The same organisations operating with similar instruments and institutional logics form new climate finance partnerships (e.g. UKCOP26 2022). It remains to be seen what change can be expected if the same agencies administer climate finance through similar instruments used in the administration of ODA including loans and conditionalities.

ODA is a small fraction of the trade volumes between African nations and the rest of the world. Africa still holds 30% of the known remaining mineral resources (Page 2011). Numerous multi-national companies operate in Africa, listed on foreign stock markets, accumulating wealth without benefiting local economies. Resource abundance in mineral and natural resources very rarely translates into local wealth. The "natural resource curse" affects many resource-rich countries in Sub-Saharan Africa whose natural endowments translate into GDP levels of low-income countries (Mulwa and Mariara 2016).

Historical inequalities between the Global North and South, particularly European – African colonial histories, have recently been somewhat diluted by the Chinese presence in Africa. The Chinese Belt and Road Initiative (BRI) is a government driven infrastructure program which facilitates building mainly energy, road and transport in Africa. China's controversial "debt trap diplomacy" has linked prospects to

critical infrastructure and access to finance, natural resources and endowments (Green 2019). 43 of Africa's 54 nations have signed agreements with the Chinese government as part of the BRI by 2020. The Chinese interest in access to natural resources in Africa may have created some competition between Western and Asian actors in Africa, which has not necessarily translated into more effective governance of natural resources.

2.3. Democratic climate governance in SSA: capabilities and institutions

The research literature identifies several characteristics in the political systems of African systems, which may compromise the distributive function of democratic institutions. A central component of African democracy is the co-evolution of formal and informal institutions. Colonial forms of governance often excluded indigenous people from formal participation and marginalized previous forms of governance. The notions of formal vs. informal institutions and modern vs. traditional rules have invited criticism to the extent that formality and modern institutions are preferable to traditional rules (Adejumobi 2018a, Ostrom 2009, North 1992). Institutional analysis preferably focuses on understanding how traditional and modern institutions blend in generating certain policy outcomes, instead of judging one over the other. Colonial governance structures explicitly excluded the representation of local people and led to parallel governance systems that blend in post-colonial societies (Adejumoni 2018b, Mamdani 1996).

Similarly, the conceptualization of African presidentialism as one of many institutions in the political system helps to analyse democracy and its distributive mechanism from a systemic perspective. The notion of so-called "big man" politics suggests highly unequal political power in state-citizen relationships, which often misses to conceptualise presidentialism as one of many in a complex web of formal and informal institutions (Salih 2018).

Associated concepts of "patron-client networks" and "neopatrimonialism" suggest variants of democracy which associated political votes with immediate distributive gains determined by ethnicity and patriarchy. The vote and gain association went both ways: political leaders buying votes from voters, and voters casting their vote with the expectation of a tangible gain (Wrong 2009, Mustapha 2015). These notions of African democracy stem from narratives about distribution and casting of votes along ethnic lines (e.g. Chabal & Muñoz).

At the same time, the number of countries ruled by dominant party systems in Sub-Saharan Africa has increased. Predominantly, formerly British and French ruled colonies shaped up dominant party systems despite modern constitutions, which still continue to rule South Africa, Namibia, Botswana, Lesotho, Cameroon, Senegal and Zimbabwe. Portugal left Angola and Mozambique tightly controlled in rivaling party systems. Kenya and Ghana, on the other hand, were also under British rule, but developed rivaling party systems (Riedl 2014).

Climate policy in Sub-Saharan African countries typically started off as a niche exercise, under the domain of the respective ministries of environmental affairs. Governments perceived climate change was perceived as an environmental policy issue rather than a socio-economic matter. The ministries of environment became the designated focal points to liaise with the UN Framework Convention on Climate Change. These ministries are not central to the governments' budgeting and power. As a result, climate change remained a marginalized issue on many African political agendas. Climate issues often merged with the "development agenda" driven by ODA provided to governments and their agencies. As a result, climate policies and strategies run the risk of turning into delinked "tick box" exercises requested by international donors and international reporting commitments. The lack of experience in the sector fueled an international consulting industry specializing in climate policy, NDC and sustainability reporting (HBR 2021, UN jobs 2021, NDC partnership).

At the same time, choices of infrastructure investments are on the decision-making tables of the different ministries, finance, economic planning or energy, or directly with the president. Departments of environment often remain on the margins. In this way, investments into significant infrastructure can polarize national capital and turn into stranded assets or lead to so-called utility death spirals (UNU 2019).

Many political systems in Africa remain vulnerable to decision-making processes on large infrastructure investments with little or no public scrutiny or public input. The functioning of distributive institutions central to the ways natural resources may generate wealth or poverty locally. Evidence in the research literature shows that resource rich economies may focus on trading natural resources rather than building human resources and productive systems, which can create weak institutions enabling "grabber-friendly" economies and rent-seeking (Mehlum 2016, Khan 2004). "Resource curses" and dominance of foreign multi-national companies spark narratives that victimize African societies in seemingly endless post- and neo-colonial dependence (Mehlum *et al.* 2005).

In sum, democracy is not freed of contestation in Sub-Saharan Africa, possibly because authoritarian regimes operate under the umbrella of democracy. The "promotion of democracy" through the US and Western Europe has also let to criticism, especially in countries where peace and democratization measures through the presence of the Western military has failed. Yet, it is problematic to "cure the defects of democratic practice through authoritarianism and the suppression of public reasoning" as Amartya Sen points out, anti-democratic practices make societies more vulnerable to disasters, including famine (Sen 2003).

2.4. Livelihoods, agency and voice

How do current structures of representation shape climate policy in SSA countries and individual livelihoods? Individuals often find themselves trapped in situations with little agency and representation into broader policy processes as well as in climate policy processes. Freedom to associate with political

groups freely has decreased in the continent's leading democracies - including Namibia, Ghana, Benin, South Africa - over the past decade. Similarly, freedom of expression -generally, but particularly in political speech - has declined. About two thirds of the respondents in Afrobarometer surveys in 34 countries indicated that they were "often" or "always" cautious about expressing their political views, how they vote and which organisations to associate with (Logan and Penar 2019).

Recognitional inequalities translate into political participation. A gender gap in civic and political participation continues to persist. Yet, research has identified some factors that for gender empowerment. The more access women have to education, the more likely they can develop an interest in public affairs. Pre-pandemic Afrobarometer data indicates that the gender gap has been closing by 3.7% between the different survey rounds between 2010-2014. (Amoateng *et al.* 2014). Research on female kinship confirms that long term access to resources can shift gender norms in conducive ways to female participation in public affairs (Robinson and Gottlieb 2019).

Access to resources has also been identified as a central factor in persistent gender gaps in agricultural productivity (UN Women 2019). The agricultural sector is central to most livelihoods in Sub-Saharan Africa and already experiencing impacts from climate change. Afrobarometer data shows that a majority of respondents perceive a change in rainfall patterns that has made flooding and droughts worse. Half of the respondents have seen a decrease in the conditions for agricultural production. About 60 percent of respondents were familiar with the concept of climate change, while others may have observed changes in weather patterns, but had not heard of climate change yet (Selormey *et al.* 2019).

Once again, people with less access to education and resources turned out to be less aware of climate change. The authors further distinguished between awareness and climate literacy - as in understanding the implications and causes of the phenomenon of climate change rather than having heard the term (Selormey *et al.* 2019). At the same time, local knowledge is critical for successful adaptation to climate change, especially if combined with scientific research and forecast (Ayal & Chanza 2014).

The recent research on climate change awareness, political voice and agency in Sub-Saharan Africa shows a worrying combination of trends for climate governance in the region. Freedom of expression of political views and in political association declines while those who remain deprived of access to resources and education remain also less aware of the climate crisis.

3. Conclusion

The findings from the review of existing literature and evidence suggest that current governance systems in the region are rarely prepared to act on climate change, despite climate commitments having been made and policies put in place. The persistent inequalities in access to resources and education translate into unequal agency and voice in climate policy and unequal likelihood to be affected by climate change impacts. Increasing and protecting livelihoods through deploying climate technologies inclusively and softening the impacts of climate will require addressing persistent inequalities in access to resources and education as much as inclusive climate action itself. The deep connection between social inequalities and climate policy needs to urgently be recognized in the development of climate and economic policy and political institutions. Climate policy requires inclusive design which caters for the diversity of its beneficiaries. Simultaneously, economic policy geared towards empowerment and reduction of inequalities require mainstreaming of climate issues so that climate policy no longer remains a niche in environmental policy, but empowers people to act in inclusive ways.

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