Exploring Pathways to Private Sector Investment in Climate Change Adaptation and Resilience in Africa

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Abstract

The objective of this paper is to explore ways in which African governments can engage the private sector to successfully create conditions and incentives for accelerated private sector investment in climate change adaptation and resilience activities in their countries. The paper is based on a critical review of both grey and published literature, with arguments being supported by cases of experiences in different African countries. The paper finds that while there are clear opportunities for private sector involvement in climate change adaptation and resilience efforts in Africa, there are also several critical financial and non-financial barriers that have to be dealt with, to ensure that private sector players successfully tap into the available opportunities. The paper recommends the setting up of coherent and coordinated policy and regulatory frameworks towards creating a conducive environment for private sector investment in climate change adaptation and resilience activities in Africa.

Introduction

Significant discussions and analyses regarding investment in climate change adaptation and resilience activities in the developing world in general and in Africa in particular have gained momentum.[1] Most of these discussions, however, have focused on the public sector. Knowledge of, and academic engagement in private sector involvement in climate change adaptation activities in more advanced economies are also growing, but the evidence base for private sector engagement in climate change adaptation in developing countries remains weak.[2] This paper seeks to contribute to the process of closing this gap by focusing on the role of the private sector in climate

change adaptation and resilience in Africa specifically. This is because private sector involvement in climate change adaptation and resilience activities in Africa is increasingly becoming crucial from both a development and a strategic climate finance perspective. From a development perspective, the main areas of private sector activity and investment in Africa coincide with sectors that are most vulnerable to climate change.[3] From a strategic climate finance perspective, successful private sector engagement will catalyse greater and more frequent investments. This will widen the funding base of key national adaptation and resilience activities, leverage government efforts and accelerate the replication of climate-resilient technologies and approaches in core economic sectors. Opportunities for private sector investment in climate change adaptation and resilience in Africa are, however, mostly under-explored and remain untapped. This is, to a certain extent, because adaptation and resilience have often been viewed as the responsibility of the public sector and in part because of several obstacles and disincentives for active private sector involvement. The paper outlines the rationale for private sector involvement in climate change adaptation and resilience efforts on the continent, the barriers involved as well as pathways to incentivising private sector involvement in this field in African contexts.

The private sector is defined broadly in this paper as the part of a country's economy that is run by individuals and companies for profit, which includes a broad range of actors, e.g., small-to-medium enterprises, multinational corporations as well as capital providers and market facilitators such as banks, insurance companies and venture capitalists.[4] As already alluded to earlier, this paper seeks to widen the evidence-base of private sector activity in climate change adaptation and resilience in Africa, which appears to be limited at the moment.[5,6,7] This is despite the fact that the private sector is the primary engine for economic growth and job creation in Africa and generates approximately 80 per cent of gross domestic product (GDP) and 90 per cent of jobs.[8] Therefore, as the principal driver of economic growth in Africa, the private sector has a significant influence on climate change adaptation and resilience.[9] The paper is further intended as an analytical input to policy discussions vis-à-vis the role that the private sector in Africa can be expected to play in financing climate change adaptation and resilience, and closing the 'adaptation finance gap' on the continent. Africa is the continent where a rapidly changing climate will deviate from 'normal' earlier than on any other continent, making adaptation a matter of utmost urgency.[10]

Following this introduction section, the paper is organised into four main sections. The next section explores the rationale for engaging the private sector in climate change adaptation and resilience efforts in Africa. This is followed by a discussion of barriers to private sector investment in climate change adaptation and resilience efforts on the continent. The succeeding section explores pathways to incentivising the private sector in climate change adaptation and resilience activities, using case studies on different countries in Africa. Lastly, a conclusion section is provided.

Rationale for Private Sector Involvement in Climate Change Adaptation in Africa

There are three main motivating factors that underlie the rationale for private sector involvement in climate change adaptation and resilience efforts in Africa. These are: risk management in

self-interest, the need for harnessing opportunities brought about by climate change and variability and supporting the public sector. These three factors are discussed in the following subsections.

Risk management in self-interest

Climate change in Africa creates a range of risks for the private sector, which, if not adequately dealt with, may affect business competitiveness and even lead to loss of profits.[11] As noted earlier, the most significant areas of private sector activity and investment in Africa coincide with sectors that are most vulnerable to climate change, such as infrastructure, agriculture, water resources management, energy and coastal zone management.[12] Climate change will lead to the disruption of business operations, an increase in the cost of maintenance and materials, as well as rising insurance prices in the mentioned sectors. The rational self-interest of businesses in the private sector to manage these risks would be a huge motivating factor for engaging in climate change adaptation efforts. Integration of adaptation planning and measures by the private sector into their activities, including incorporating climate-resilient technologies and business models, will make their investments and returns less risky and ultimately more profitable.

Harnessing opportunities

The private sector in Africa can capitalise on a number of opportunities arising from climate change. There are, for example, new (and expanded) opportunities to invest in such areas as: environmental consulting services (including in climate change risk assessments and GIS mapping and modelling); the production of climate-resilient agricultural technologies such as new drought-resistant crop varieties and irrigation technologies; and the production of improved water technologies related to adaptation, such as sustainable drainage systems, desalination plants, rainwater tanks, water use and recycling systems.[13]

Other investment opportunities for the private sector are emerging in the built environment and construction sector with the increasing need for new design practices required to improve building and infrastructure resilience to the impact of climate change. Business opportunities are also arising in the insurance industry, with insurance companies now being called upon to develop specific products focused on mitigating climate risks and weather-related catastrophes. Lastly, the information services sector is also providing opportunities vis-à-vis the production of early warning systems and weather forecasting tools. Players in the private sector can, therefore, tap into these emerging opportunities brought about by climate change to either start investing in the noted initiatives or to grow their current (related) business activities.

Supporting the public sector

The cost of adaptation activities in Africa is too high to be met by the public sector alone.[14] Climate change adaptation and resilience require a considerable amount of resources for implementation. The average cost of climate change to African economies could be equivalent to between 1,5 per cent and 3 per cent of gross domestic product by 2030, and rising.[15] The annual average cost of adapting to inevitable climate change in Africa will be between 7 and 15 billion US dollars by 2020; however, financial flows committed to adaptation costs amount to just one to two billion US dollars a year so far.[16] There is, therefore, a clear adaptation funding gap in Africa. The private sector is thus a critical source of support for African governments to close the adaptation finance gap. The private sector also has a key role vis-à-vis the provision of quality climate change adaptation and resilience products and services in African countries. The sector is typically at the cutting edge of innovation and technology in various fields and may be more flexible than government bureaucracies to respond quickly to climate change adaptation needs and opportunities.[17] The private sector is therefore well positioned to bolster public sector adaptation and resilience initiatives by helping define and complement quality adaptation services and products.

Barriers to Private Sector Investment in Climate Change Adaptation and Resilience Efforts in Africa

Barriers to private sector investment in climate change adaptation and resilience services, products and activities in Africa can be divided into financial and non-financial barriers.[18] Financial barriers include less favourable general investment climates and business environments as well as the high cost of investment in climate change adaptation-related services and activities. The high cost of investment is due to infrastructure deficiencies, lack of incentives and (access to) capital to support business related to climate change adaptation and resilience. Non-financial barriers mainly relate to the private sector's lack of technical capacity and knowledge of the opportunities and risks associated with climate change impacts. The following discussion begins with an exploration of the financial barriers, before focusing on non-financial barriers.

Investment climate and business environment

The investment climate and business environment have traditionally been identified in literature as a crucial factor vis-à-vis private sector development in general in Africa.[19,20,21,22,23] However, they are also a critical barrier to private sector investment in climate change adaptation and resilience efforts on the continent. A country's investment climate and business environment are reflected in its 'ease of doing business'. The 'ease of doing business' index was originated by the World Bank to shed light on how easy or difficult it is for an entrepreneur to open and run a business in a country when complying with relevant regulations, as compared across 190 economies – from Afghanistan to Zimbabwe – and over time.[24] It measures and tracks such aspects as starting a

business, dealing with construction permits, getting electricity, registering property, acquiring credit, enforcing contracts, complying with labour market regulations and resolving insolvency.[25] It, therefore, encompasses all the regulatory, policy and macroeconomic factors that promote or impede the smooth establishment and functioning of a business enterprise.

A higher ranking on the 'ease of doing business' index is an indication that a country's investment climate and business environment are more conducive for enterprise establishment, operation and development and that the country offers stronger protection of property rights. African countries such as Tanzania, Mozambique, Senegal, Nigeria, Togo, Zimbabwe, Angola and Cameroon are ranked in the bottom quartile of countries on the latest 'ease of doing business' index.[26] Such ratings may, therefore, work against attracting private sector investment, not only in these countries' economies in general, but also specifically in sectors and activities that are critical for advancing climate change adaptation and resilience imperatives. A low 'ease of doing business' rating may be an indication that a country's investment climate and business environment lacks transparency, longevity and certainty (TLC), yet, climate change adaptation and resilience investments require a long-term commitment.

High costs

As already noted, high costs (due to such interrelated factors as lack of incentives, infrastructure deficiencies and lack of capital support) have emerged as a huge barrier that discourages private sector investment in climate change adaptation and resilience initiatives in Africa.

There are very little or no incentives in most African countries to stimulate private sector investment in specific economic sectors and geographical areas where business for climate change adaptation and resilience products, services and activities would be most viable. Most adaptation investments involve large upfront costs, a long payback period and uncertainties related to climate impacts, therefore, most banks and financial institutions are generally not interested in supporting such investments, since the risk of lending appears to be too high.[27] The benefits of climate change adaptation and resilience investment tend to accrue in the longer term, which further discourages financial institutions from supporting such activities. In addition to this, most African governments' fiscal policies do not incentivise private sector involvement in businesses that concern climate change adaptation and resilience efforts. For example, Zambia's fiscal incentives in the agricultural sector are characterised by price support programmes that are directed mainly at maize production, (with the noble objective of improving food security),[28] yet maize is clearly a climate-vulnerable crop in Zambia. In this case, private sector players are discouraged from, for example, engaging in extensive production and selling of seed for alternative drought-resistant crops that could aid climate change adaptation and resilience efforts in the country, since most farmers are continuously attracted to maize farming because of the government's maize subsidies.

Infrastructure challenges in most African countries are also a real disincentive for private sector investment in climate change adaptation and resilience activities. This is particularly apparent in specific geographical areas, such as rural regions, where climate change adaptation-related business activities would be most profitable. Distribution of physical adaptation-related products

to most arid and semi-arid regions of Africa, for example, is a significant challenge, since road networks in most of these areas are poor and unserviced, and they deteriorate when extreme weather events occur.[29]

Key financial barriers for private sector investment in climate change adaptation and resilience efforts in Africa are therefore linked to the investment climate and business environment in most countries. This increases operational challenges and various other factors that push up business costs.

Lack of technical capacity and knowledge

Investing in climate change adaptation and resilience requires not only a clear understanding of how a specific industry or sector in a specific place will likely be impacted by climate change, but also the technical ability to 'assign probability to the risks associated with climate change impacts, to weigh alternative risk reduction options, and to determine the most cost-efficient and cost-effective options for the sector or geography'.[30] This knowledge is mostly unavailable or expensive to acquire in most African countries. An assessment carried out in Mozambique suggests that most businesses involved in climate change and disaster risk operations have limited in-house skills and capacity to assess risks or to understand and expand into more profitable adaptation activities and projects.[31] Unlike in Europe, there is also a general lack of innovation hubs and climate information clusters in Africa where information on where and how to invest in the climate change field is shared and where information support services to businesses are offered.[32]

Projections from trusted sources on short-to-medium-term localised climate effects that are commensurate with the scale of business activity in most sectors are also lacking in Africa.[33] Climate scientists in Africa broadly agree on changes, particularly in temperature, over the long-term, but have disagreed on short-to-medium-term changes, especially with respect to precipitation in some regions.[34] This is not helpful in encouraging private sector adaptation and resilience investments, since most business players tend to have a short-term focus on revenue and profit maximisation. High confidence climate information projecting risks decades into the future is therefore of little importance with respect to motivating private sector players into action. In addition, weather and climate information in some African countries is only available at a fee, which adds substantial cost to investing, and thereby discourages business players from investing in climate change adaptation and resilience products and services. Ghana Meteorological Services (GMA), for example, charges a fee for accessing weather and climate information and the fees are dependent on the information being sought and the intended use of the information.[35]

The lack of technical capacity and knowledge regarding climate risks, impacts and business response options are, therefore, a critical non-financial barrier vis-à-vis private sector investment in climate change adaptation and resilience products, services and activities in Africa. This factor essentially limits the capability and motivation of private sector players to engage in adaptation-related and resilience-related investments.

Stimulating and Incentivising the Private Sector towards Climate Change Adaptation and Resilience Efforts in Africa

This section builds on the preceding section and explores ways of overcoming both the financial and non-financial barriers discussed to help stimulate private sector involvement in climate change adaptation and resilience activities in Africa. Discussions in this section do not provide a blueprint. The discussions are, however, an outline of ideas, considerations and examples that may require further exploration and planning, depending on specific country contexts. It is imperative to note at this point that while there is rich literature regarding stimulating private sector development in general in Africa, this literature has mostly remained disconnected with specific arguments regarding stimulating and incentivising private sector investment in climate change adaptation and resilience activities.[36] Coordinated and clear policy actions are required to increase the motivation and opportunities for private sector involvement in climate change adaptation and resilience activities. These actions must centre on initiatives aimed at increasing awareness and knowledge about climate change by the private sector and reducing the business cost of engagement in adaptation-related and resilience-related investment by the private sector. This may involve: (a) setting up appropriate supportive institutional and governance arrangements; (b) instituting supportive regulatory frameworks and policies; (c) coming up with innovative economic and financial incentives, and; (d) supporting private sector access to relevant data, information and markets. These initiatives are discussed in detail in the following subsections.

Setting up supportive institutional and governance arrangements

This involves establishing coordinating bodies, structures, agencies and forums that will serve as platforms for the co-production, sharing and dissemination of information to guide private sector role in climate change adaptation and resilience in different sectors within countries. These institutions and forums may also serve as platforms for offering advisory services vis-à-vis improving private sector players' understanding of climate change impacts and effects in different sectors, thereby motivating them to be involved in climate change adaptation and resilience investment initiatives.[37]

Public-private sector partnerships also serve as platforms through which opportunities for private sector involvement in climate change adaptation and resilience in Africa can be widened. This helps particularly in supporting small-to-medium enterprises, where financial and technological capacities are usually limited. A case in point is that of Rwanda, where the government has set up a public-private partnership platform funded primarily through the country's Environment Climate Change Fund (FONERWA), to foster private sector adaptation investment activities. Under this platform, a private sector professional body – the Private Sector Federation – works with the government to train small-to-medium-sized enterprises on business opportunities associated with Rwanda's climate change policies.[38]

A more proactive approach is for the private sector itself, particularly those companies with an international outlook, to create internal and external partnerships to advance climate change

adaptation and resilience imperatives in countries where they are operating. In Uganda, for example, Ericsson (an international provider of telecommunication equipment and related services to mobile and fixed network operators) started partnering with the World Meteorological Organization in 2009 to provide frequent weather forecasts and early warnings to fishermen on Lake Victoria, via text messages, to reduce their risk of exposure to extreme weather events.[39] The initiative of setting up partnerships should, therefore, not be limited to government players only.

Innovative economic and financial incentives

Economic and financial incentives that African governments can institute to encourage private sector involvement in climate change adaptation and resilience investment activities may include targeted subsidies aimed at reducing the business cost of implementing adaptation measures. Subsidies may, for example, be offered on goods and services targeted at such activities as crop production, environmental protection and energy efficiency. In Senegal, for example, the government created the National Company of Agricultural Insurance (CNAAS) in 2008 in partnership with insurance and reinsurance companies. This company provides a range of subsidised insurance products, such as index insurance, crop insurance and livestock insurance that target private businesses, individuals and organisations working in the agricultural and related sectors.[40]

Tax credits and deductions may also help in incentivising the private sector. The agricultural sector, which is key in most African economies and which remains one of the sectors most threatened by climate change, may benefit from tax credits in relation to the production of new climate-resilient varieties. Businesses that implement such adaptation measures as utilising renewable water systems may also be allowed to qualify for tax deductions, as an incentive to attract more private sector players to engage in similar activities.[41]

Supportive regulatory frameworks and policies

Supportive regulatory frameworks and policies at national and subnational levels will help in encouraging or compelling private sector players to get involved in climate change adaptation and resilience activities. Regulatory frameworks and policies help in clearly defining the envisaged roles and responsibilities of both the public and the private sector in climate change adaptation and in communicating these roles and responsibilities more clearly, thereby ensuring certainty and continuity. Mainstreaming climate change adaptation in national strategic plans and in legislative and executive instruments, should be the first step towards the establishment of these regulatory frameworks and policies. Local zoning rules, as well as building standards (in the construction industry) that are designed to incorporate climate change adaptation considerations, may also compel private sector players to get involved in climate change adaptation and resilience activities.

In Kenya for instance, the country's overarching development policy, Vision 2030, simultaneously recognises that climate change represents a huge challenge to Kenya's economic growth and sustainable development goals, and that the private sector is a key player in reducing problems

that threaten development, economic growth and poverty reduction.[42] Kenya's Vision 2030, therefore, implicitly alludes to the key position of the private sector in dealing with the problem of climate change. Furthermore, among a number of regulations, and legislative and policy instruments, Kenya's Intended Nationally Determined Contribution (INDC) spells out clear actions aimed at stimulating the private sector regarding climate change activities, including presenting an operational business case, as well as committing to creating an enabling environment for private sector investment in climate change resilience activities.[43]

Supporting private sector access to adequate data, information and markets

In as far as data and information are concerned, it is important that tailored, high quality sector specific national and subnational climate information services are made available to private sector players in formats that are business-friendly and at scales that are relevant to decision-making for businesses. In Nigeria, for example, the Nigerian Meteorological Agency (NiMet), in collaboration with UK Met, started providing tailored climate information and products to companies working in the offshore oil and gas sector in 2014. This has greatly improved awareness of climate change issues in the sector and increased interest vis-à-vis utilising released climate information.[44] Private sector actors may also be encouraged to become actively involved in climate change adaptation and resilience activities if they are availed with clear information around commercial opportunities existent for providing relevant products and services needed for climate change response in different sectors. Such information may be provided through the previously discussed institutional and governance arrangements, as well as through workshops, conferences, online portals and various forms of traditional media.

With regard to markets, African governments should ensure reliable and easy access to markets for businesses involved in the provision of adaptation products and services. As noted in the second section of this paper, there are new and expanded opportunities to provide climate change adaptation products and services in such areas as water management, agriculture, energy supply, coastal and natural resources management as well as insurance services. A profitable supply of products and services in these sectors should, however, be supported by adequate infrastructure such as well-developed roads and efficient communication networks, which are often lacking in most African contexts. In Senegal, for example, the government has established specific business zones and industrial parks to support market activities for companies in different sectors, yet most of these zones and parks are in urban areas.[45] African governments should, therefore, create and expand access to the new 'adaptation marketplace', not only in urban areas, but also in peri-urban and rural areas. Government involvement in consumer and public mobilisation encourages demand for new adaptation products and services, and this will also be critical in their adoption. This ultimately encourages the private sector to invest in various climate change adaptation products and services.[46]

Conclusion

Given the magnitude and scale of the problem of climate change, it is critical that African governments stimulate and incentivise the private sector to invest in responding to this problem since reliance on the public sector alone is not sufficient. As noted in the introduction section, the private sector is the dominant driver of African economies, being a key provider of services, finance, products, skills development and employment. It is, therefore, a crucial stakeholder in climate change adaptation and resilience initiatives on the continent. This paper has thus explored the rationale of, and pathways to incentivising private sector involvement in climate change adaptation activities in Africa, including a comprehensive discussion on the barriers involved – with the major objective of widening the evidence-base on this issue. As the climate change challenge continues, the role of the private sector in responding to the challenge in Africa is also increasingly becoming significant, for purposes of both the provision of necessary products and services as well as the provision of the technologies and business models that are critical in making current and future investments climate-resilient.[47]

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