

Climate Change and Economic Development in Africa



Senior Policy Seminar XXIV

Bringing Rigour and Evidence to Economic Policy Making in Africa

AFRICAN ECONOMIC RESEARCH CONSORTIUM
CONSORTIUM POUR LA RECHERCHE ÉCONOMIQUE EN AFRIQUE

Climate Change and Economic Development in Africa

AERC Senior Policy Seminar XXIV,
Virtual Meeting
March 30, 2022

Seminar Report

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About African Economic Research Consortium (AERC)

African Economic Research Consortium, established in 1988, is a premier capacity building institution in the advancement of research and training to inform economic policies in sub-Saharan Africa. It is one of the most active Research and Capacity Building Institutions (RCBIs) in the world, with a focus on Africa. AERC's mission rests on two premises: First, that development is more likely to occur where there is sustained sound management of the economy. Second, that such management is more likely to happen where there is an active, well-informed cadre of locally based professional economists to conduct policy-relevant research. AERC builds that cadre through a programme that has three primary components: research, training, and policy outreach. The organization has now emerged as a premier capacity building network institution integrating high quality economic policy research, postgraduate training, and policy outreach within a vast network of researchers, universities, and policy makers across Africa and beyond. AERC has increasingly received global acclaim for its quality products and services and is ranked highly among global development think tanks.



Climate Change and Economic Development in Africa – AERC Senior Policy Seminar XXIV, Virtual Meeting, March 30, 2022: Seminar Report

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Abbreviations

AERC	African Economic Research Consortium
AGSP	African Green Stimulus Programme
AMCEN	African Ministerial Conference on the Environment
AU	African Union
CAPEC	Cellule d'Analyse de Politique Economique du CIRES
CC	Climate Change
CCEDA	Climate Change and Economic Development in Africa
CDM	Clean Development Mechanism
CEEPA	Centre for Environmental Economics and Policy in Africa
CERDI	Centre d'Études et de Recherches sur le Développement International
CNRS	French National Center for Scientific Research
CO ₂	Carbon dioxide
COVID-19	Coronavirus disease 2019
CSA	Climate-Smart Agriculture
EGH	Elder of the Order of the Golden Heart
GAEZ	Global Agro-Ecological Zones
GCF	Global Climate Fund
GDP	Gross Domestic Product
GHSs	Green House Gases
GIC	Growth Incidence Curves
GIMPA	Ghana Institute of Management and Public Administration
GNI	Gross National Income
H.E.	His Excellency
ICT	Information, and Communication Technology
IET	International Emissions Trading
IPCC	Intergovernmental Panel on Climate Change
NORAD	Norwegian Agency for Development Cooperation
P&I	Poverty, and Inequality
RCBIs	Research and Capacity Building Institutions
SDGs	Sustainable Development Goals
SPS	Senior Policy Seminar
SSA	Sub-Saharan Africa
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
VCOs	Voluntary Carbon Offsets
WB	World Bank
WDI	World Development Indicators
WHO	World Health Organization
ZEPARU	Zimbabwe Economic Policy Analysis and Research Unit

Preface

The African Economic Research Consortium (AERC) convenes Senior policy seminars to provide high level African policy makers the opportunity to come together to dialogue on the results of research conducted by AERC and its affiliates, exchange policy experiences and interact with the researchers in an atmosphere of peers. The themes of these seminars are selected based on topicality and contemporary interest to African policy making.

AERC Senior policy seminars are forums where policy makers and researchers engage in uninterrupted deliberations on a set of important issues considered significant to policy making in Africa. The seminar format insulates the policy makers from pressures related to their responsibilities and thus, creates an environment for lively professional discourse on the selected issue. Aside from the specific aims of bringing researchers and policy makers together, the seminars are directly useful to AERC because they help identify research imperatives crucial to transforming Africa. They also improve prospects for policy involvement of the researchers and enhance AERC's visibility in the policy community. Consequently, serving to highlight the growing capacity in the region for policy research and, overall, provide important feedback to AERC for its research and training programs.

Exchange of country-specific experiences is particularly important in these seminars. The policy makers are normally identified for their interest in policy research issues and the level of seniority of the policy makers is generally right, leading to detailed discussions. Researchers are reasonably well balanced between Anglophone and Francophone, and attendance by Francophone policy makers is always encouraged.

Policy makers report that they have found their experiences in the seminars very useful. The information exchanged helps them update their knowledge on current research and sieve out issues that are relevant to their duties. Some have even been embarrassed to find that during negotiations with international financial institutions, they have agreed to certain policies without understanding the full implications of the policy package. Seminars of this kind, while not intended or able to make the policy maker an economist, nevertheless afford the opportunity of considering the wider ramifications of their policy decisions.

AERC is hugely indebted to Honourable Peter Munya, EGH, Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries, Kenya who was the Guest of Honour at the official opening of the Seminar. His keynote speech was read on his behalf by Mr. Lawrence Omuhaka, who is the Chief Administrative Secretary. The welcoming remarks were by Prof. Njuguna Ndung'u, AERC Executive Director. The conference was also graced by Hon. Mthuli Ncube, Minister for Finance and Economic Development, Zimbabwe; Dr. Denny Kalyalya, Governor, Bank of Zambia; Dr. Adelaide Matlanyane, former Governor, Central Bank of Lesotho; Dr. Anthony Maruping, Former Commissioner for Economic Affairs, African Union Commission and H.E. Dr. Kheswar Jankee, Ambassador of Mauritius in Russia, among other high level policy makers.

A total of 397 participants from 43 countries across Africa, including high level policy makers in the rank of ministers, permanent secretaries, members of parliament, executive directors, former ministers, governors of central banks, members of parliament, managing directors of research institutions among other dignitaries participated. The list of participants was drawn from a total number of 1,126 who had registered on our virtual platform.

The conference featured four presentations by thought leaders on the theme *Climate Change and Economic Development in Africa*. Climate change has emerged as one of the key socio-economic and developmental challenges confronting policymakers in Africa, with the potential for reversing the significant gains made in poverty reduction and inequality, social inclusion, economic growth, and development in the last two decades. We notice supply side shocks that drive domestic food and energy prices are critical to this thinking and the mitigation process. This seminar assisted policymakers, and other actors to better understand the impact of climate change on economic development, particularly focusing on policies that will build and strengthen the resilience of sub-Saharan African economies to ensure sustainability of growth and development.

Session One on *Climate Change and Agriculture: Challenges, Opportunities and Policy Options* was presented by Prof. John Asafu-Adjaye, *African Center for Economic Transformation & School of Economics, University of Queensland, Australia*. This session was chaired by Dr. Adelaide Matlanyane, *Former Governor, Central Bank of Lesotho*. The paper was discussed by Prof. Wisdom Akpalu, *Ghana Institute of Management and Public Administration (GIMPA), Ghana*. Session Two on *Climate Change, Poverty, Inequality and Covid-19: Avoiding the Worst Impacts* was by Prof. Rashid Mekki Hassan, *Centre for Environmental Economics and Policy in Africa, South Africa*. This session chair was H. E. Dr. Kheswar Jankee, *Ambassador, Embassy of Mauritius in Russia* and the paper was discussed by Prof. Makochehanwa Albert, *University of Zimbabwe*.

The Third Session was on *Energy and Climate Change: What Policy Options Exist?* This session was chaired by Dr. Denny Kalyalya, *Governor, Bank of Zambia*. The paper was presented by Prof. Mahamady Ouédraogo, *University Clermont Auvergne CNRS, CERDI, France*. The discussant for the paper was Prof. Edwin Muchapondwa, *University of Cape Town, South Africa*. The fourth paper was on *Urbanization and Climate Change Vulnerability: What Next?* This session was chaired by Dr. Anthony Maruping, *Former Commissioner for Economic Affairs, African Union Commission*. The paper was presented by Prof. Kamgnia Bernadette Dia, *CAPEC, Côte d'Ivoire*. This paper was discussed by Dr. Gibson Chigumira, *Executive Director, Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU)*. The presenters produced high-quality papers, and the participants were very active, thus enabling us to produce the seminar's policy recommendations that were shared with other African policy makers who did not find time to take part in this important event.

We are grateful to everyone who made the seminar a great success. Prof. Abebe Shimeles, *Director of Research (AERC)*, Prof. Théophile Azomahou, *Director of Training (AERC)*, who made valuable inputs into the preparation and implementation of the seminar. In

equal measure, AERC appreciates the hard work of Senvy Maistry, Chief Communications Officer, Dr. Charles Owino, Publications Manager, Joel Mathia, ICT Administrator, and Lancer Wao, Communications and Publications Assistant in organizing the event. AERC also acknowledges with thanks Dr. Tom Kimani, Lead Manager Training and Dr. Mark Korir, Manager Training for their role as rapporteurs, as well as Pamela Kilwake and Anne Kimani, who assisted with logistics. To these individuals, and the many others who were involved, AERC extends its heartfelt appreciation.

Prof. Njuguna Ndung'u

Executive Director

African Economic Research Consortium

Climate Change and Economic Development in Africa

Introduction

Climate change has emerged as one of the key socio-economic and developmental challenges confronting policy makers in Africa, with the potential for reversal of the significant gains made in poverty reduction, economic growth, and development in Africa in the last two decades. According to experts, Africa will bear the brunt of the effects of climate change despite it contributing less than 4% of the total greenhouse gas emissions. Widespread poverty in the continent imply that Africa may not have the requisite capacity to cope with the vagaries of climate change which is expected to result in increases in both the frequency and severity of extreme weather events like droughts and floods, decline in agricultural productivity, shorter growing agricultural seasons, and the possibility of reduction in agricultural activities sustainability.

This is of immediate policy concern given that 65–70% of the workforce in Africa depend on agriculture and supports livelihoods of 90% of its population. Additionally, about 15% of Africa's Gross Domestic Product (GDP) is derived from agriculture – mostly rain-fed agriculture, with some countries deriving as much as 50% of GDP from agriculture. Economies that depend heavily on sectors, such as agriculture, forestry, fisheries, and tourism will be hardest hit by these phenomena. The impacts, however, will not be limited to agriculture. Infrastructure is one area where impacts are likely to be significant, with negative implications for trade and development. Similarly, the energy sector presents both challenges and opportunities for Africa but remains under-explored.

To enhance mitigation and adaptation to climate change, African governments are required to make major structural investment and policy decisions that will influence the rate, structure and character of economic growth and development for the long term. This is especially so given the path-dependence and lock-in nature of most infrastructure investments. While there is strong appreciation by African policy makers on the need to strengthen mitigation and adaptation, as exemplified by their overwhelming endorsement of the Paris Climate Accord, African governments have not yet succeeded in integrating environmental challenges and climate issues into the decision-making processes at the national level.

Part of the challenge is the lack of adequate knowledge and expertise in the region on climate issues and their developmental implications. There is a dearth of appropriately contextualized, robust scientific knowledge to inform policy making on these issues. Enhancing the capacity of African governments to confront development challenges

in a 21st century context is fundamental to improving the capability of the continent (and its policy makers) to confront climate and environmental change, and leverage the opportunities they present, as it confronts its development challenges.

To assist policy makers and other actors understand better the impacts of climate change on growth and inform policies on building and strengthening resilience (climate proofing) of sub-Saharan African countries to ensure sustainability of growth and development, AERC commissioned research and disseminated the findings of these studies to senior African policy makers through its flagship dissemination vehicle, the “Senior Policy Seminar” (SPS). This senior policy seminar was the twenty fourth in the series. Four papers were presented followed by a policy roundtable. AERC used this seminar as the primary dissemination vehicle for the outputs of the Norwegian Agency for Development Cooperation (NORAD) supported AERC collaborative research project on “Climate Change and Economic Development in Africa (CCEDA). The AERC – NORAD CCEDA project seeks to substantially enhance the capacity of African governments to deal with development challenges confounded by an increasingly disruptive environmental challenge. The overarching goal is to improve Africa’s readiness to confront climate and environmental shocks and leverage the opportunities they present through climate-smart sets of economic policies.

Opening Session

Official Opening Session

Welcome remarks: **Prof. Njuguna Ndung'u**, *Executive Director, AERC*

Keynote Speech: **Hon. Peter Munya, EGH**, *Cabinet Secretary,
Ministry of Agriculture, Livestock, Fisheries and Cooperatives, Kenya*

The Master of Ceremony for the day, Dr. Charles Owino, Manager, Publications, AERC, called the meeting to order, welcomed the participants and then took them through the programme for the AERC Senior Policy Seminar XXIV. He then invited Prof. Njuguna Ndung'u, Executive Director, AERC, to continue with the rest of the programme.

Welcome Remarks by Prof. Njuguna Ndung'u, Executive Director, AERC

It is my very great pleasure to welcome all of you to this Senior Policy Seminar – the twenty fourth such seminar to be convened by the African Economic Research Consortium (AERC). This is a singularly important event for AERC, and we cannot adequately express our honour and delight at having all of you join this meeting virtually. The combined experience of the impressive range of policy makers gathered here promises to provide an exciting series of discussions. Please accept our sincere and heartfelt gratitude to you for taking the time from your busy schedules to grace this occasion.

Ladies and gentlemen,

I should first tell you a bit about AERC. The African Economic Research Consortium has a background of over three decades of building the capacity and network of the economics profession in sub-Saharan Africa. This is achieved through research and post graduate training in economics as well as supported by communication and policy outreach program to disseminate our research results. Our alumni are found in ministries of finance, ministries of planning, ministries of agriculture, central banks, universities, and Thinks Tanks all over sub-Saharan Africa.

The Consortium itself consists of a group of bilateral governments, multilateral and foundation donor agencies who come together to support a commonly agreed programme of research activities, the dissemination of the research results and the training of future potential researchers. This provides a critical mass of support for a set of coordinated activities with shared overheads. We have a small Secretariat in Nairobi, Kenya, that implements the programme and provides technical support to the researchers, students, institutions, and others who constitute the AERC network.

All these elements come together strategically to fulfil AERC's mission and objectives. Our mission is to strengthen local capacity for conducting independent, rigorous inquiry into problems pertinent to the management of African economies, through a synergetic programme combining research with post graduate training in economics. Our mission is founded on the premise that:

- first, development is more likely to occur where there is sustained sound management of the economy.
- second, that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

Our business is to build that professional capacity, and we do this in two ways: one, through support for a wide range of research modalities and projects; and two, through postgraduate training in economics. These are complemented by communications and outreach activities that encourage the application of AERC products to economic policy making.

Due to its success, we have seen Government of Kenya training its economists through the AERC network public universities for the last 11 years with encouraging results. Other governments in Africa (Ethiopia, Equatorial Guinea, and Ghana) are trying to replicate the GoK Capacity Building and Training Model.

Ladies and gentlemen,

The link with economic policy making is integral to the research work itself, and Senior Policy Seminars such as this one is an important way of forging that link. The AERC Senior Policy Seminars provide a forum for the presentation of frontier research and evidence from country case studies that are synthesized to form a policy package for implementation. This is the design of AERC research output and knowledge generation, dissemination and seeking feedback from policy makers to improve policy design and the process of implementation.

The very first Senior Policy Seminar took place more than 27 years ago – in 1995 in Nairobi, Kenya. It focused on exchange rate, fiscal and financial policies. The next year in 1996 the proceedings moved to Abidjan, Cote d'Ivoire for discussions on financial sector reforms. The AERC since then has managed a wide range of topical issues of policy relevance that have shaped the policy space, policy design and implementation.

Ladies and gentlemen,

The topic of this twenty fourth Senior Policy Seminar is *Climate Change and Economic Development in Africa*. Climate change has adverse implications for Africa's development, from health systems to agriculture and food systems, ecosystems, water resources, energy resources and physical infrastructure, and threatens the achievement of the Sustainable Development Goals (SDGs). We hope to listen to the emerging knowledge and solutions for African economies.

Ladies and gentlemen,

Before I conclude let me take note of the financial support that make AERC's programmes possible. This study was funded by the Norwegian Development Agency (NORAD), we continue to appreciate this support, but the best way to appreciate the support is to make use of the knowledge generated to influence public policy. The policy debate today on climate change is critical for SDGs in Africa, but also the offshoot to this debate is crucial to central banking in Africa and climate change – negative supply shocks on food and energy prices and the transition to green economy. These challenges will be with us for a long time, and we need to develop policy instruments and dynamic policy resolutions. That is why the SPS today is critical.

And now, ladies and gentlemen, it is my very great pleasure to introduce our guest of honour at this Senior Policy Seminar. He is a leading African policy maker and heads the Kenyan Ministry of Agriculture, Livestock, Fisheries and Cooperative. He has spearheaded reforms in the agricultural sector in the last few years with success. He has also pushed reforms in the market where the small holder farmers stand to benefit. It is important for policy makers to drive market reforms; this is where economic rent is shared and distributed and encourages productivity downstream. This is what Hon. Peter Munya stands for.

Hon. Peter Munya Welcome to the 24th AERC SPS that awaits your Keynote speech! Thank you.

Keynote Speech by Hon. Peter Munya, EGH, Minister for Agriculture, Livestock, Fisheries and Cooperative, Kenya

Honourable ministers, Governors of Central Banks, Members of Parliament, Members of the diplomatic corps, Heads of Research Institutes, Distinguished guests, Ladies, and gentlemen,

I take this opportunity to welcome all of you to this AERC Senior Policy Seminar on Climate Change and Economic Development in Africa. I am aware that AERC has convened many other events like this one on different topical issues. The urgency and importance of this theme are well reflected by the target audience here today, on the one hand, and, on the other, by the profile of the presenters, whose vital contribution to the development of their respective nations and to their citizens' wellbeing, brings even more relevance to today's discussions.

We are particularly honoured to have with us today respected government officials, including ministers and permanent secretaries from various African countries, who have taken time off their busy schedules to participate in this seminar. Not least, I wish to acknowledge the AERC, which played a crucial role in the preparations and logistics for the seminar and is graciously hosting us.

The range of our appreciation would be incomplete without due recognition of the authors and presenters of the papers that will be discussed here. They have researched

diligently to explore the interactions between climate change and other aspects of development, as well as look at the options and opportunities for managing its impact, including both adaptation and mitigation among other pertinent issues.

Ladies and gentlemen, to now get to the main topic of today's discussions, we are looking forward to an objective evaluation of the role of climate change with a view to spelling out a proactive stance for African policy makers, particularly as the international community continues to grapple with global consensus on managing climate change. By increasing awareness of the national, regional, and international implications of climate change, I am hoping that this seminar will make a strong and positive contribution to the policy making process for the long term-benefit of sub-Saharan Africa and its people.

Even as the industrialized world struggles to come to terms with the environmental impact of its dependence on fossil fuels, geologists and geographers tell us that Africa is particularly vulnerable to climate change for a range of geographic, geological, and historical reasons. Indeed, our very survival is linked to climate change, as our food security rests on agricultural systems that still rely largely on low inputs, traditional tools, and the promise of rain – and are subject to the vagaries of drought and flooding.

Thus, just feeding the ever-increasing populations in many African countries threatens natural resources, as people strive to get the most out of land already in production or attempt to push marginal areas into service as agricultural land. The damage inflicted on the environment is increasingly evident. Our arable land is destroyed by erosion, salinity, desertification, and urban spread. Our forests are disappearing at an alarming rate. We have lost biodiversity and the threat of water scarcity is emerging in many areas.

Climate change has produced a domino effect. In simplified terms, during the 20th century increases in the greenhouse gases produced by fossil fuels – one of the major contributors to climate change – raised the average temperature of the earth's surface, significantly melted the polar ice cover, and added about 10 centimetres to the average sea level.

Ladies and gentlemen, one more reason why we should all care about climate change in Africa is the challenge of reducing the disease burden. We have experienced floods and drought in the past. Floods potentially increase the transmission of vector-borne diseases like malaria, dengue and dengue haemorrhagic fever, yellow fever, and West Nile fever, as well as such water-borne diseases as typhoid, cholera, leptospirosis, and hepatitis-A. We see the evidence of climate change everywhere, increasing the urgency to tackle both adaptation and mitigation within the continent and at the global level.

Ladies and gentlemen, it is important to keep in mind that nearly all the impacts of climate change – in Africa and elsewhere – are exacerbated by inappropriate policy choices, often those taking a short-sighted view of what is best for some definition of economic development. Such choices arise from the “they-did-it-why-can’t-we” syndrome, as well as from the idea that business may suffer if controls are put in place. Or simply from the failure to recognize the importance of sound urbanization, population, agriculture, land use and water policies in overall economic development.

Ladies and gentlemen, for us in this forum, policy issues are key. And I know that AERC's past senior policy seminars have addressed an array of topics relevant to Africa's policy agenda. That these seminars are intended to inform policy makers about the latest developments in policy research, provide a forum for sharing experiences, and promote a closer relationship between researchers and policy makers is extremely crucial.

As we look forward to what promises to be an informative and successful seminar, I encourage you all to participate to the fullest, particularly in the discussions that will emanate from the presentations as we proceed.

And with those few remarks, I declare the seminar officially opened!

Session 1

Climate Change and Agriculture: Challenges, Opportunities and Policy Options

Session chair:	Dr. Adelaide Matlanyane , <i>Former Governor, Central Bank of Lesotho</i>
Presenter:	Prof. Asafu-Adjaye , <i>African Center for Economic Transformation & School of Economics/University of Queensland, Australia</i>
Discussant:	Prof. Wisdom Akpalu , <i>Ghana Institute of Management and Public Administration (GIMPA), Ghana</i>

This synthesis paper brings evidence to show that greater investment in science and technology in Africa's agricultural sector can mitigate the adverse impacts of climate change by increasing agricultural productivity. This results in increased income and welfare, with less land being brought into production which, in turn, reduces land cover loss and CO₂ emissions. Five key policy messages arise from these studies. First, Africa's agricultural sector requires greater government support given its role in poverty reduction and as a potential driver of economic transformation. Despite the high returns to African agricultural investments, Africa's agricultural expenditure as a share of total public expenditure continues to lag other regions such as East Asia and the Pacific and Latin America and the Caribbean. Second, the study results show that the climate risk can be turned into an opportunity by leveraging innovations such as climate-smart agriculture (CSA) to increase productivity and profitability on smallholder farms.

However, there is a need to address challenges in adopting CSA such as access to information about CSA practices, and access to credit and insurance services. To promote the diffusion of CSA, Africa governments should strengthen national agricultural research and extension systems to provide information on localized CSA practices to farmers. Third, there is a need for African governments to scale up the availability, access, and affordability of digital agricultural technologies which are the key drivers of CSA interventions. Fourth, COP26 has paved the way for a global carbon market to begin operation. For Africa to become a major player, it needs to urgently address the issues of lack of capacity and poor institutions. Finally, improving agricultural productivity to addressing climate risk will require concerted efforts to end the gender disparity in African agriculture.

Discussions

- This paper interestingly synthesizes research projects on Climate Change and Economic Development in Africa (CCEDA).
- Climate Change will impact Africa's agriculture significantly, particularly in these areas:
 - Land use change (land cover loss)
 - CO2 emissions

Loss of income and livelihood

- Can investments in science and technology mitigate climate impacts? What about Climate Smart Agriculture (CSA)?
- Climate Impact on agriculture (Business-As-Usual (BAU))
- Significant decline in total output (production of crops and livestock)
- Loss in net revenue/profit of farmers
- But the extent of the loss varies across sub-regions

Results 1: Crop Yield Instability (CYI)

- Rainfall instability enhances CYI
- Agricultural Science and Technology (ASTI) spending amplifies CYI
- ASTI only mitigates CYI when combined with rainfall instability.
- The size of the economy (GDP per capita) reduces CYI
- Fertilizer application does not affect CYI
- Irrigation does not impact CYI

Questions/Comments (CYI)

- Some results appear counter intuitive but are not discussed
- Why should the ASTI spending amplify CYI in the absence of rainfall instability or at low levels of rainfall instability?
- Why does irrigation not reduce CYI, even when ASTI spending occurs?

Results 2: Climate Impact on Agriculture

- Output effect (reduction in total production)
- Yield effect (low output per hectare)
- Price effect (shortfalls in supply leading to high food prices)
- Input reallocation effect (labour, etc, drawn from other sectors)
- Land cover re-allocation effect (more space allocated to farming)
- Forest cover loss
- Carbon sequestration effect (increased CO₂)

Proposal for Mitigation: (Increase TFP to close Yield Gaps)

- Increase yield (or productivity)
- Output effect (increase total output)
- Lower prices of crops
- Land cover effect (gain in Forest land and Pastures)
- Net (food) exports/trade balance effect (export more than import)

Questions/comments (Climate Impact)

- But how do we increase TFP to close the productivity gap?
- What is the net revenue effect of elevated TFP especially if agricultural produce is not processed or stored?
- What about trade barriers?

Session 2

Climate Change, Poverty, Inequality and Covid -19: Avoiding the Worst Impacts

Session chair:	H. E. Dr. Kheswar Jankee , <i>Ambassador, Embassy of Mauritius in Russia</i>
Presenter:	Prof. Rashid Mekki Hassan , <i>Centre for Environmental Economics and Policy in Africa, South Africa</i>
Discussant:	Prof. Makoche Kanwa Albert , <i>University of Zimbabwe</i>

Executive Summary

This paper contributes to improving our understanding of the linkages between climate change (CC), poverty and inequality (P&I), and Covid-19, and implications for pursuing equitable green recovery in Sub-Saharan Africa (SSA). Building on evidence from papers produced under the African Economic Research Consortium (AERC)'s "Climate Change and Economic Development in Africa (CCEDA)" Project, as well as other sources of relevant literature, the paper draws conclusions and recommendations for formulation of sound policy measures to avoid potentially adverse consequences of the identified linkages for SSA.

Our review found compelling evidence in the literature that both CC and pandemics exacerbate existing structural inequalities and adversely impact the poor and marginalized more than other relatively well-to-do social groups. Being the region where poverty is concentrated and vulnerability to CC and other natural hazards is among the highest in the world, it is obvious that combating CC and COVID-19 will be necessary for realizing equitable green recovery in SSA. The literature also reveals that several of the measures introduced for mitigation of the damaging impacts of CC and containment of the spread of COVID-19 have undesirable consequences on the state of P&I as well as other related sustainable development goals (SDGs). This implies that synergy and complementarity between the SDGs and actions aiming to mitigate CC and control pandemics must be ensured to avoid the worst of global warming and COVID-19 for SSA. The paper recommends the following set of principles to guide the design of a strategy and policies for healthy, green, and inclusive future for SSA:

1. **Increasing the resilience of vulnerable ecosystems and social groups** (informal sectors, minority groups, remote regions) to the hazards of CC and pandemics. Priority areas for urgent attention and assistance in this regard include:
 - a. Recycling revenue from carbon taxes to benefit low-income groups, and relaxing other barriers of access to essential amenities (food, energy, water, health, education). Various targeted subsidy and safety-net schemes, micro-credit, tax reliefs are candidate measures for supporting desirable distributional outcomes
 - b. Guaranteed provision of vaccines and treatments at subsidized or free of charge to the most vulnerable, particularly front-line, and informal sectors' workers
 - c. Removal of tariffs on essential Covid-19 imports, which are currently high in Africa reaching up to 40% for some of these items
 - d. Sufficient investments in universal provision and security of access to medical attention, decent housing, education, and energy; mobility and gainful employment for urban and rural labour, and integration of informal activities in organized modern spheres of the economy
 - e. *Addressing the digital divide*. Lockdowns have been the major response measure to the event of COVID-19, which necessitated switching to remote working, schooling, shopping, and delivery of many services. These changes negatively affected the ability to run business and acquire education for those without access to digital infrastructure, who are predominantly poor and marginalized, especially in remote rural areas. Scaling up investment in digital infrastructure will be necessary for addressing the digital divide. Digital access is also crucial for facilitation of timely responses among remote communities, and can play a critical role in wildlife monitoring for protection of the local commons against poaching and illegal trade in wildlife, with positive implications for conservation of biodiversity and reduction of risks of emergence of pandemics in the future
 - f. *Eliminating the gender divide*. Women were found to be more vulnerable to and bear relatively bigger shares of damages caused by the pandemic and CC. Huge inequities in ownership of assets, especially land, increasing domestic burdens during lockdowns, discriminatory social norms, and limited mobility and opportunities for employment in non-sexually stratified jobs, constitute the main reasons for the structural inequities and sources of relatively higher vulnerability among women. Policy measures to enhance resilience to CC and pandemics must pay special attention to empowerment of women and removal of the said sources of the gender divide
2. **Supporting low income and vulnerable economies**. Both CC and pandemics are problems of managing global commons, which require international cooperation for collective actions. There is need for multilateralism that will facilitate mobilization of the financial and technological assistance from rich

and technologically advanced countries, international organizations, and the corporate world to support capacities of relatively poorer and resource constrained countries to adequately respond to CC and the COVID-19 pandemic risks. Elements of successful multilateralism include: adequate finance instruments, debt relief, especial funds for public health sectors in poorer countries, global cooperation in digital technology transfer, sharing of data and knowledge, and access to medical intellectual property.

3. **Importance of the role of the government.** Reducing GHGs emissions, lowering risks of emergence of pandemics, and eradication of absolute poverty and social inequities are public goods that markets cannot directly deliver and need interventions from a public agency, such as the government and/or global protocols for their provision. Therefore, public policy and investment will be required to direct markets towards green, inclusive, and sustainable futures. While governments must assume the lead role, innovative mechanisms will be needed for mobilizing collaboration and commitment from the private sector to the social contract.
4. **Implementing African initiatives for inclusive green recovery and sustainable development.** Key among those is the African Green Stimulus Programme (AGSP) of the African Ministerial Conference on the Environment (AMCEN), which aims to enable achievement of Africa's Agenda 2063, the UNFCCC, and its Paris Agreement agenda, the 2030 SDGs, and safe recovery from COVID-19. One of the main aims of the AGSP is to combat illegal and unregulated wildlife exploitation and trade to reduce risks of potential emergence of zoonotic disease pandemics like COVID-19 in the future.

Discussions

To better understand the linkages between climate change (CC), P&I, and Covid-19, this paper addresses the following questions:

- In what ways does CC influence the state of P&I in the world?
- How compatible current global and national climate actions are with achieving the goals of poverty eradication and inclusive development?
- What links does Covid-19 have with CC and reduction of P&I?

Comments

- Very interest and relevant study especially for the SSA region given the coexistence of these challenges across most countries.
- Proposals for successful multilateralism in this respect include: Provision of adequate multilateral finance instruments to assist developing countries adapt to and mitigate CC and contain pandemics like COVID-19.

- It was going to be more informative if there were statistics for SSA countries or selected countries indicating the magnitude of financial assistance that they require. This will help even potential donors and development partners in terms of their planning and budgeting.
- Debt relief arrangements such as cancellation of sovereign debts owed by vulnerable economies.
- Whilst most countries have debts, it will be more informative if debt figures and statistics for each SSA country or selected few were presented to see whether the debts warrant cancellation or they are just small amounts.

Session 3

Energy and Climate Change: What Policy Options Exist?

Session chair:	Dr. Denny Kalyalya , <i>Governor, Bank of Zambia</i>
Presenter:	Prof. Mahamady Ouédraogo , <i>University Clermont Auvergne CNRS, CERDI, France</i>
Discussant:	Prof. Edwin Muchapondwa , <i>University of Cape Town, South Africa</i>

The pressing challenge of climate change is predominantly an energy challenge. Energy accounts for over two-thirds of global greenhouse gas emissions, which put the energy sector at the heart of any solution to climate change. Existing research on the subject has produced disparate knowledge often inaccessible to policymakers. This paper aims to identify actionable policy options for better-articulated climate-energy policies with a special focus on Africa. To do so, we undertake systematic research of the climate change and energy literature using the Scopus database.

We propose a framework to elucidate the energy-climate relationship. A synthesis of specialized reports from credible international organizations, with a sharp knowledge on the subject, such as the Intergovernmental Panel on Climate Change, the United Nations Environment Programme, the African Development Bank, the International Atomic Energy Agency, and the Nationally Determined Contributions documents completes the analysis. We identify the up-to-date existing policy options in the literature at the hands of policymakers.

Discussions

- The authors seek to identify actionable policy options for better articulated climate-energy policies for Africa.
- They undertake systematic research of the climate change and energy literature using the Scopus database.
- They propose a framework to clarify the energy-climate relationship.
- Policy options from literature are related to:
 - financing and investment,
 - technology adoption,

- governance,
- building efficient and resilient energy systems, and
- promoting climate-friendly energy sources
- Synthesis of the AERC-NORAD CCEDA framework papers.
- Policy options to contribute to closing the energy gap while promoting climate mitigation:
 - Investing in renewable energy
 - Promoting the transition to a renewable-based energy system and
 - Encouraging improved technologies
 - Climate-proof energy infrastructures

Comments

- Bring the policy options and lessons from the Synthesis of literature and Synthesis of the AERC-NORAD CCEDA framework papers together in some section where you focus on how to apply them in the African context.
- For actionable policy options for better articulated climate-energy policies for Africa, you might also want to review the NDC documents of African countries as they touch on the energy sector a lot.
- For actionable policy options, you might want to exemplify best practices on the continent and elsewhere e.g., the South African Independent Power Producers Program.
- For actionable policy options, you might also want to review documents from development partners to work with their experiences e.g., AfDB (New Deal on Energy for Africa; Transformative Partnership on Energy for Africa), Power Africa, etc.
- The comment that you should address the gender issue is agreeable. I imagine that the framework papers have already tackled gender and you could use that as a starting point.
- I understand that you want to produce a journal article following a standard synthesis methodology, but I think your paper can even be more attractive for journals if you innovate on the way syntheses are traditionally done. Include an angle whereby you ground the results of the synthesis using documents from development partners etc. e.g., Agenda 2063.
- You could consider a complementary activity whereby you produce a policy brief as well that is more targeted at policy makers rather than academics

Session 4

Urbanization and Climate Change Vulnerability: What Next?

Session chair:	Dr. Anthony Maruping , <i>Former Commissioner for Economic Affairs, African Union Commission</i>
Presenter:	Prof. Kamgnia Bernadette Dia , <i>CAPEC, Côte d'Ivoire</i>
Discussant:	Dr. Gibson Chigumira , <i>Executive Director, ZEPARU</i>

Reviewed AERC studies indicate that increasing urbanization coupled with extreme climate events drive several risks and impacts, including droughts, cyclones, desertification, wildfires. The consequences are numerous covering degradation of fisheries and loss of biodiversity, agriculture seasonal changes, depletion of water resources and limited ecosystem services, among others. Derived socio-economic changes include vulnerable communities, major cities, and densely populated regions that are prone to sea-level rise and other hazards, without omitting their impacts on migration and conflicts in Africa.

The estimation of a Panel VAR model for 31 sub-Saharan African economies, over the period 1990-2018, confirmed the existence of a bi-dimensional causality between urbanization and climate variability, which is reinforced and negative all along for Sahelian countries. On a practical ground, two mitigation and adaptation schemes, namely urban development sustainability nexus, and migration planning nexus, were prioritized to nurture the discussions among researchers and decision makers in the AERC Senior Policy Seminars. More specifically the paper invited to respond to the question: to what extent urban development ecology nexus on the one part, and nexus planning migration on the other part, can be mobilized as viable strategies to cope with interlinkages between increasing urbanization and climate change vulnerability in sub-Saharan Africa? A call for responses is structured around policy actions to be undertaken by researchers, Governments, Think tanks and the AERC, and by development partners, respectively.

Discussions

- Paper reviewed and synthesized extensive literature on the linkages between urbanization and climate change vulnerabilities.
- The general objective of the paper was to analyze policy options for coping with urbanization and climate change vulnerabilities in Sub-Saharan Africa. The specific objectives were to:
 - i. provide a synthesis of urbanization and climate change vulnerabilities,
 - ii. quantify the interactions between urbanization and climate variabilities,
 - iii. define a framework for effective mitigation and adaptation strategies of urbanization and climate change vulnerabilities.

Comment

The paper noted, based on a thorough discussion of the ongoing controversies, the author aimed to contribute to the literature in three ways, focusing on the case of G5-Sahel countries:

- i. as the first study to investigate the relationship between extreme climate events and conflicts in the G5 Sahel region;
- ii. in providing a comprehensive review of the most recent literature on climate change and conflicts in Africa with the aim to nourish the state of knowledge on the subject, and
- iii. empirically corroborate to the ongoing debate

Issues Covered in the Literature Review

- Urbanization and Climate Change Vulnerabilities: a synthesis-focusing on Urbanization, a push factor to environmental changes;
- Climatic-prone urban vulnerabilities covering three typical cases are (a) coastal hazards, (b) inland threats, and (c) risks in mountainous cities.
- Socio-economic vulnerability to climate change:- focusing on climate and conflicts nexus and climate induced migration. The paper placed emphasis conflicts and climate induced migration, underscoring the interactions between the two phenomena.
- *Climate and conflicts nexus- noted strands of literature highlighting-*
 - direct and indirect link between climate change and social conflicts;
 - that intra- and inter-state conflicts more often derive from climate-prone scarcity of resources such as land and drinking water,
 - Inconclusive debate on the links between climate change and conflicts and
 - extreme climate events are associated with spontaneous social unrest rather than armed and organized conflicts in the Sahel.

Climate Induced Migration

Analysis of the literature in this section highlights the following:

- Climatic conflicts, coupled with violence such as human rights abuse, genocide, politicide or ethnic cleansing, end up supporting decisions to migrate either internally or overseas;
- One of the mechanisms for dealing with the loss of livelihoods due to climate change is migration out of affected areas;
- Each year, about 20 million people leave their homes to different areas of their country and more migrate internationally due to natural disasters such as prolonged droughts, abnormal heavy rains or rising sea levels, and cyclones (UNHCR (2021)- Case of Madagascar cited;
 - Globally, climate change rather accelerates the pace of rural-urban migration;
 - Natural disasters, in coordination with ostracism, and lack of educational opportunities, social amenities and recreational activities in the rural areas push people to move to wealthier areas, notably in cities.
 - Author notes that *most of the existing literature remain highly inconclusive about the existence of a causal link between climate change and violence, or migration.*
- Explored empirical frameworks- which include household decision making process, choice-centered models, gravity models, agent-based models, household allocation models, and more ad hoc models, for predicting migration decisions;
- **Comment:-***The discussion on the empirical frameworks, their application in Madagascar and use of three waves of National Panel Data Surveys could have been best been discussed under a Methodology section to inform and link with empirical strategy and model adopted in the paper.*
 - *Author noted empirical evidence of the linkages required the mobilization of pieces of information on the economic motivations for migration, especially from rural to urban areas, including agricultural productivity and economic growth;*
 - High temperatures observed in the Sahel countries, for example, could lead to large waves of migrants to middle-income African countries (Côte d'Ivoire, Senegal, Ghana, etc.)”.
 - *In the conceptual framework, agriculture falls at the center for the following reasons:*
 - Most sub-Saharan African economies are agriculture dependent.
 - Depressed agricultural conditions push rural populations to urban areas;
 - The effect of agriculture on climate change might not be so obvious, but the extensive agricultural practices in SSA are deemed to exacerbate the effect of climate change.
- **Comment-***mineral economies in some SSA countries need to be considered as increase in artisanal mining can be a coping strategy for climate change induced crop failure.*

Empirical Model

- Study adopted a multivariate analysis, simultaneously considering the three variables, as an appropriate empirical framework for a sound understanding of the relationship between urbanization, climate variability and economic growth;
- *The study estimated a VAR model in its panel form-variables of interest include urbanization; climate change; economic growth and agricultural productivity.*
- *On agricultural productivity the paper noted the following:*
 - *a declining agricultural productivity leads populations to invade forests, grasslands and swamplands that can influence rainfall variability, hence increasing the level of poverty and the likelihood of migration (UN, 2002);*
 - *authors such as Lewis (1954); Harris and Todaro (1970), who pointed out that an increase in agricultural productivity leads to a surplus of labor that will migrate from rural to urban areas to constitute a labor force for the industrial sector*

Comment: In mineral rich countries people respond to low agricultural productivity by resorting to artisanal mining activities and not migrating to urban areas. Artisanal mining also has its effects through land degradation/forest degradation and siltation of rivers. In other countries the increase in agricultural productivity is not leading to migration but increase in non-farming activities in rural areas linked to government policy position of promoting rural development as well as on farm value addition.

Findings of the Paper

- It provides descriptive characteristics of the variable; time series characteristics of the variable, unit root test; determination of the number of lags and Granger causality analysis. Consistent with good econometric estimation, robust test on model stability and Impulse response functions were undertaken.

Granger causality analysis shows that:

- Agricultural productivity Granger causes economic growth, urbanization, and climate variability, whereas urbanization causes economic growth, as well as climate variability.
- Climate variability Granger causes urbanization; what confirms a bi-dimensional causality between climate variability and urbanization. Should climate variability be captured by rainfall variability, a bi-dimensional causality is found between rainfall and agricultural productivity whereas economic growth causes rainfall variability.
- The empirical evidence of the interactions between urbanization, climate variability and economic growth is shown.

Comment: While the results of the various test undertaken and the granger causality analysis and its link to the conceptual framework were clearly presented, more could have been done in discussing this results linking with the empirical studies reviewed earlier in the paper and policy implications.

Conclusion

In concluding the paper, the author noted the following:

- *Based on the analysis of the literature and the estimated VAR model the paper infers that increasing urbanization coupled with climate change drive several risks and impacts, including droughts, cyclones, desertification, wildfires. The consequences are numerous covering degradation of fisheries and loss of biodiversity, agriculture seasonal changes, depletion of water resources and limited ecosystem services, among others. Derived socio-economic changes include vulnerable communities, major cities, and densely populated regions prone to sea-level rise and other hazards, without omitting their impacts on migration and conflicts in Africa.*
- *Asks the question “to what extent urban development ecology nexus on the one part, and nexus planning migration on the other part, can be mobilized as viable strategies to cope with interlinkages between increasing urbanization and climate change vulnerability in Sub-Saharan Africa”.*
- *Identifies two mitigation and adaptation schemes, namely urban development sustainability nexus, and migration planning nexus, as needing prioritization to nurture the current discussion among researchers and decision makers.*

Comment: The analysis of policy options for coping with urbanization and climate change vulnerabilities in sub-Saharan Africa is missing in the paper. This can be added by having a section on policy recommendations.

The author could have utilized the rich literature reviewed and the empirical results in this paper to:

- Draw from the emerging convergence/divergence in the literature and the findings of the study to show the specific contribution of this paper in responding to the inconclusive evidence cited in the papers.
- Use the analysis and synthesis in the paper to distill/infuse policy insights especially the policy implications supported by the Granger Causality tests.
- It's not clear how the suggested mitigation strategies urban development sustainability nexus and migration planning are informed by the analysis in the paper.
- What next?- no clarity on the key steps forward in the concluding section.

Session 5

High Level Policy Panel

Chair & Lead Panellist: Hon. Mthuli Ncube,

Minister for Finance & Economic Development, Zimbabwe

Distinguished Panelists:

- **Hon. Issa-Toure Salahaddine**, *Deputy Speaker, National Assembly, Togo*
- **Hon. Olivier Suguru**, *President of Association of Burundi Industrialists (AIB)*
- **Dr. Rose Ngugi**, *Executive Director, Kenya Institute for Public Policy research and Analysis, (KIPPRA)*
- **Ms. Barbra Barungi**, *Managing Partner, Imara Africa*
- **H. E. Dr. Kheswar Jankee**, *Ambassador, Embassy of Mauritius in Russia*
- **Dr. Chiji Ojukwu**, *Managing Director, Africa Projects Development Centre Group (APDC Group), Nigeria.*

Key Policy Issues and Recommendations

At the Senior Policy Seminar XXIV, held on 30 March 2022, on a Virtual Platform and hosted by the African Economic Research Consortium (AERC), on the theme: Climate Change and Economic Development in Africa, Senior Policy Makers and other stakeholders, private sector, international organizations, academia, and civil society, from around the continent adopted a declaration as an affirmation of their strong commitment to confronting climate change in African economies.

Declaration, March 30, 2022

We, African senior policy makers and other stakeholders, private sector, international organizations, academia, and civil society actors assembled at the AERC Senior Policy Seminar XXIV,

Recognizing that although Africa accounts for less than 4% of the world's total greenhouse-gas emissions, it will bear the brunt of climate change. And that the region is already experiencing more frequent climate-induced natural disasters, hotter weather, erratic rainfall, and rising sea levels;

Further recognizing that Climate Change has adverse implications for Africa's development, from health systems to agriculture, ecosystems, water resources, energy resources and physical infrastructure, and threatens the achievement of the Sustainable Development Goals (SDGs);

Noting that there is a need for African governments to scale up the availability, access, and affordability of digital agricultural technologies which are the key drivers of climate-smart agriculture interventions;

Also noting that for Africa to become a major player, it needs to urgently address the issues of lack of capacity and poor institutional frameworks;

Recalling that in their 2014 Malabo Declaration, African leaders pledged to spend at least 10% of their annual budgets on agriculture. However, to date, only a handful of countries have kept their promise.

Mindful that despite the high returns to African agricultural investments, Africa's agricultural expenditure as a share of total public expenditure averaged only 4% over the period 2000–2014 compared to 13% for East Asia and the Pacific, and 8% for Latin America and the Caribbean,

Appreciating that there is the need for increased financial support to build the capacity of national agricultural research systems, including meteorological agencies,

Acknowledging that most Africans depend on the agricultural sector for their income and livelihoods, a climate-induced decline in agricultural productivity leads to significant decline in household income and therefore a massive fall in welfare,

1. **Affirm** that protocols and programmes for supporting adaptation to climate change are designed to directly target the poor and most vulnerable in providing needed assistance;
2. **Commend** the African Economic Research Consortium (AERC) and partner development agencies and institutions for strengthening the evidence base for policy and programme design and implementation to improve agricultural productivity and address climate risk, there is a need for concerted efforts to end the gender disparity in African agriculture;
3. **Take note** that Africa's agricultural sector requires greater government support given its role in poverty reduction;
4. **Commit** to promote the diffusion of climate-smart agriculture as well as strengthen national agricultural research and extension systems to provide information to farmers;
5. **Further commit** to remove existing structural inequalities by increasing the resilience of vulnerable ecosystems and social groups to the hazards of Climate Change and pandemics.

ANNEX A

Seminar Papers

- Session 1: ***Climate Change and Agriculture: Challenges, Opportunities and Policy Options*** by **Prof. John Asafu-Adjaye**, African Center for Economic Transformation & School of Economics, University of Queensland, Australia
- Session 2: ***Climate Change, Poverty, Inequality and Covid-19: Avoiding the Worst Impacts*** by **Prof. Rashid Mekki Hassan**, Centre for Environmental Economics and Policy in Africa, South Africa
- Session 3: ***Energy and Climate Change: What Policy Options Exist?*** by **Prof. Mahamady Ouédraogo**, University Clermont Auvergne, CNRS, CERDI, France
- Session 4: ***Urbanization and Climate Change Vulnerability: What Next?*** by **Prof. Kamgnia Bernadette Dia**, CAPEC, Côte d'Ivoire

ANNEX B

Seminar Participants

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320.	Roseline Nwose	Roseline.Nwose@Fu	FUNAI	Lecturer	Nigeria
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List of Attendees continued

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ANNEX C

Seminar Programme

AERC Senior Policy Seminar (SPSXXIV) Plenary Session on “Climate Change and Economic Development in Africa”

Wednesday, March 30, 2022 - 1400Hrs (GMT+3)

14:30–15:00

Official Opening Session

Welcome remarks: **Prof. Njuguna Ndung'u**, Executive Director, AERC

Keynote Speech: **Hon. Peter Munya**, EGH, Minister for Agriculture, Livestock, Fisheries and Cooperative, Kenya

1500 – 1600

Session 1: Climate Change and Agriculture: Challenges, Opportunities and Policy Options

Session chair: **Dr. Adelaide Matlanyane**, Former Governor, Central Bank of Lesotho

Presenter: **Prof. Asafu-Adjaye**, African Center for Economic Transformation & School of Economics/University of Queensland, Australia

Discussant: **Prof. Wisdom Akpalu**, Ghana Institute of Management and Public Administration (GIMPA), Ghana

Floor Discussions

1600–1700

Session 2: Climate Change, Poverty, Inequality and Covid -19: Avoiding the Worst Impacts

Session chair: H. E. Dr. Kheswar Jankee, Ambassador,
Embassy of Mauritius in Russia

Presenter: **Prof. Rashid Mekki Hassan,**
Centre for Environmental Economics and
Policy in Africa, South Africa

Discussant: **Prof. Makoche Kanwa Albert,**
University of Zimbabwe

Floor Discussions

1700–1800

Session 3: Energy and Climate Change: What Policy Options Exist?

Session chair: **Dr. Denny Kalyalya,** Governor, Bank of Zambia

Presenter: **Prof. Mahamady Ouédraogo,** University Clermont
Auvergne CNRS, CERDI, France

Discussant: **Prof. Edwin Muchapondwa,**
University of Cape Town, South Africa

Floor Discussion

1800–1900

Session 4: Urbanization and Climate Change Vulnerability: What Next?

Session chair: **Dr. Anthony Maruping,** Former Commissioner
for Economic Affairs, African Union Commission

Presenter: **Prof. Kamgnia Bernadette Dia,**
CAPEC, Côte d'Ivoire

Discussant: **Dr. Gibson Chigumira,** Executive Director, ZEPARU

Floor Discussions

1910–2010

Session 5:

High Level Policy Panel

Chair & Lead Panellist: **Hon. Mthuli Ncube**, Minister for Finance & Economic Development, Zimbabwe

Distinguished Panelists:

- **Hon. Issa-Toure Salahaddine**, Deputy Speaker, National Assembly, Togo
- **Hon. Olivier Suguru**, President of Association of Burundi Industrialists (AIB)
- **Dr. Rose Ngugi**, Executive Director, Kenya Institute for Public Policy research and Analysis, (KIPPRA)
- **Ms. Barbra Barungi**, Managing Partner, Imara Africa
- **H. E. Dr. Kheswar Jankee**, Ambassador, Embassy of Mauritius in Russia
- **Dr. Chiji Ojukwu**, Managing Director, Africa Projects Development Centre Group (APDC Group), Nigeria.

Floor Discussion

2010 – 2020

Wrap-Up:

Prof. Abebe Shimeles, Director of Research, AERC



Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

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