



Call for Extended Abstracts for the RUFORUM 19th Annual General Meeting

28th October to 2nd November 2023 at Palais de Congres in Yaoundé, Cameroon

Thematic areas for the scientific sessions

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), a network of 163 Universities in 40 African Countries, will hold its 19th Annual General Meeting (AGM) from 28th October to 2nd November 2023 at **Palais de Congres in Yaoundé, Cameroon**. During the AGM, RUFORUM also holds scientific sessions to present, show case and draw lessons from ongoing scientific endeavours in African Universities. The theme of the 19th AGM is **“Transforming Higher Education to Sustainably Feed and Create Prosperity for Africa.”** The scientific conference will include oral and poster presentations as well as exhibitions. The RUFORUM Secretariat now invites researchers, opinion leaders, and development experts to submit extended abstracts under the sub-thematic areas listed below. High-quality papers will be published in either the RUFORUM Working Document Series <https://repository.ruforum.org/> or the African Journal of Rural Development <http://www.afjrd.org/jos/index.php/afjrd>.

Thematic area 1: Africa’s new harvest: Preparing Africa’s agriculture and related sectors to feed and grow the continent’s economy.

Agriculture plays a key role in Africa’s economy accounting for about a third of the African Continent’s Gross Domestic Product (GDP), is a source of livelihood for about half of the population, and feeds hundreds of millions of people on the continent and beyond every day. According to the African Development Bank,¹ the low productivity of Africa’s agricultural sector makes it uncompetitive, with major producer agro-ecologies having high rates of poverty, subjecting 232 million people to undernourishment. Previous studies show that gross domestic product (GDP) growth originating from agriculture productivity improvement, catalyses up to 40% more income growth among the poorest and is three times larger than growth originating from the rest of the economy². To achieve the Sustainable Development Goals (1, 2, 3, 4, 5, and 12), increasing agricultural productivity is essential. Agricultural growth is a foundation for equitable and sustainable growth, because as it also supports food systems that produce nutritious, safe, and affordable food. Additionally, considering that agriculture employs over 60% of rural African populations, including smallholder farmers, it must expand in order to create jobs and unlock opportunities for millions of Africans. Growth however must be sustainable and well-integrated into the broader economy and major agrifood systems. Extended abstracts in this thematic area should therefore cover:

¹ AfDB, 2016. Feed Africa. Strategy for agricultural transformation in Africa 2016–2025. African Development Bank, Abijan, Côte d’Ivoire

²Christiaensen, L. and Martin, W. 2018. Agriculture, structural transformation and poverty reduction: Eight new insights. World Development, 109: 413-416. doi.org/10.1016/j.worlddev.2018.05.027.





1. Regenerative agriculture³

Africa has 60% of the world’s remaining land for increasing agricultural productivity. While productivity increased mostly due to expansion of acreage, total factor productivity is reported at the 1960’s levels when the population was 257 million compared to 1.4 billion in 2022. With the potential threat of a shrinking cereal production under the predicted climate change scenarios, Africa must farm smartly. Papers are invited under the following topical areas:

- a) Agro-ecology and sustainable intensification.
- b) Soil health, water, energy and environment
- c) Advanced genetics for production
 - i Crop improvement: new resilient demand-driven crop varieties/new species
 - ii Livestock improvement: new resilient demand-driven livestock breeds/species

2. Reducing food losses, evening food supply, and creating market opportunities for Africa’s food systems.

Africa imports food worth 40 billion USD annually but also exports food worth about 35 billion USD according to Brookings Institute⁴. These imports fill the vast calorie needs created by the low productivity and post-harvest losses that can be up to 37%, with cereals accounting for up to 21% according to FAO. As Africa’s population grows and gets richer, the demand for food, especially high-value crops and livestock products, will continue to grow. The African Development Bank estimates that Africa’s processed, food and beverage markets currently worth US\$ 313 billion will reach US\$ 1 trillion by 2030. This will create jobs, unlock opportunities for reducing hunger, and integrate African farmers and entrepreneurs into Africa’s growing urban and modern markets. African Universities must be part of the ongoing revolution that will create new opportunities for Africa to prosper while improving food and nutrition security. Extended abstracts in this sub-thematic area should cover:

- Food processing for Africa’s growing and urbanizing populations
- The nutrition challenge (Undernutrition, over nutrition, food safety, and health)
- Policies: Taking stock of progress made against key food systems continental supportive policies (Trade, UN Food System summit of 2021 etc.)
- Shrinking supply chain gaps using digital and financial solutions (Fintec etc.)

3. Africa’s Blue Economy⁵: Sustainable marine and fresh water exploitation

³ Regenerative agriculture is an evolution of conventional agriculture, reducing the use of water and other inputs, and preventing land degradation and deforestation. It protects and improves soil, biodiversity, climate resilience and water resources while making farming more productive and profitable. www.syngentagroup.com/en/regenerative-agriculture#bookmark1.

⁴ Fox L. and T.S. Jayne 2020. Unpacking the misconceptions about Africa’s food imports. <https://www.brookings.edu/blog/africa-in-focus/2020/12/14/unpacking-the-misconceptions-about-africas-food-imports/>

⁵ The Blue Economy refers to sustainable use and conservation of aquatic resources in both marine and freshwater environments. It includes oceans and seas, coastlines and banks, lakes, rivers and groundwater. It also includes economic benefits that may not be marketed, such as carbon storage, coastal protection, cultural values and biodiversity.

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Africa’s future economic and sustainable development may be fuelled by its blue economy if it is managed in a sustainable manner. According to the African Union, marine capture fisheries currently stand at 7 million tons and will only reach 13 million tons by 2030, leaving a supply gap of 6 million tons by 2030⁶. Freshwater fisheries the largest sector of Africa’s blue economy, employs nearly 12 million people. Over 200 million Africans depend on these aquatic resources for food security and the sector generates an estimated value added of more than \$24 billion, or 1.26% of the GDP of all African countries⁷. Given the gap in the supply of fish and the overall potential of other sectors of the blue economy (currently valued at US\$300 billion and, creating 49 million jobs), it is imperative that strategic studies be undertaken to inform policy, investments and sustainable management. Papers to be presented under this thematic area include those on

- a) Aquaculture:
- b) Marine resources of food and fibre.
- c) Conservation of both aquatic and marine biodiversity, and sustainable strategies for ecosystem services.

Thematic area 2: Accelerating and scaling up Africa’s climate change adaptation and mitigation actions: Experiences and lessons learned.

Climate change is one of the major challenges the African continent is already facing. According to the Intergovernmental Panel on Climate Change Fifth Assessment Report⁸, extensive areas of Africa will exceed 2 °C of warming above pre-industrial levels by the last two decades of this century under medium scenarios. Predictions show that global warming of 1.5°C or 2.0°C, a now more than likely scenario, will shorten maize growth duration, aggravate droughts, and consequently reduce yield for Africa’s major cereal staple⁹. The area under production of other key staples will also likely decrease¹⁰ further exacerbating the situation. Effective mitigation strategies that are underpinned by technologies can reduce the probability of worst-case scenarios. Climate change adaptation is necessary to reduce the likely impacts of increased frequency and intensity of extreme weather, for example by improving resilience to drought, changing where and how crops are grown, managing water resources better, addressing sea-level rise, and making infrastructure more resilient to extreme weather. Mitigation actions are also required. Extended abstracts in this thematic area should cover:

- Climate change mitigation research (including estimates of carbon emissions)
- Climate-adaptive agriculture
- Climate change governance: Strengthening disaster risk planning and governance.

⁶ <https://www.afdb.org/en/documents/future-marine-fisheries-african-blue-economy>

⁷ <https://www.un.org/africarenewal/magazine/december-2018-march-2019/blue-economy-can-be-lifeline-africa>

⁸ <https://www.ipcc.ch/assessment-report/ar5/>

⁹ Zhai, R., et al., 2021. Africa would need to import more maize in the future even under 1.5°C warming scenario. *Earth's Future*, 9, e2020EF001574. <https://doi.org/10.1029/2020EF001574>

¹⁰ <https://ccafs.cgiar.org/news/crops-under-changing-climate-what-are-impacts-africa>

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Thematic area 3: Access, equity and quality of African Higher and Tertiary Education

Africa’s working-age population is estimated to be growing at 3% per annum and will generate approximately 450 million young people ready to work by 2035¹¹. Yet Africa’s economy can only employ 3 million people annually, according to the African Development Bank. Work-life transitions in Africa are also changing from formal to self-employment. Studies by the Brookings Institute show that three-quarters of new entrants into Africa’s labour market will be self-employed or in microenterprises and only 20 % will be wage-employed by the service sector, while about 4 to 5 % will be wage-employed by industry. Overall, only 100 million of the 450 million young Africans expected to reach working age by 2035, will find decent work. The African higher education sector must therefore develop the appropriate training/skilling programmes that produce workers for today and tomorrow. Agriculture being the largest sector where most of these youth are, and with a high potential to create wealth and self-employment, must invariably be the target for skilling tomorrow’s workforce. But in comparison to the rest of the globe, Africa has a small proportion of higher education institutions. There is a need to rebalance the human resource pyramid that was distorted by the transformation of many Technical and Vocational Education and Training (TVETs) institutions into universities, locking out many youths from gaining the skills they need for self-employment. Further, gender and cultural biases, especially affect girls, increasing employment inequity. Africa’s research output has also remained low contributing only 3.5% of scholarly publications, a sign of limited training and research. By utilizing these and other opportunities and challenges for its transformation, the higher agricultural education sector in Africa has a window of opportunity to efficiently educate the next generation workforce. Extended abstracts are being invited to cover the following areas:

- **Transformative education: Experiences across the continent**
 - University-industry-community engagement for skilling young people.
 - Inclusion and diversity by training programmes.
 - Reaching masses (Digital education).
 - Quality assurance (for graduate and undergraduate education, Credit accumulation and transfer (CATs), etc.)
- **Strengthening work transitions for Africa’s youth.**
 - Skilling for the market: University-TVET strategic partnerships
 - Internships and community engagement
 - Entrepreneurship (agripreneurs and other self-employers)
- **Leveraging local capacity for building capacity (case studies/updates)**
 - RUFORUM’s Graduate Teaching Assistantship Program
 - The Partnership for skills in Applied Sciences, Engineering and Technology (PASET)
 - African Centers of Excellence (ACEI and ACEII)

Thematic area 4: Accelerating economic growth: Trends, Youth, Policy Practice and Futures

The 2000 decade has been referred to as a period of African renaissance that was marked by the recovery of several sectors of the continent’s economy. According to the OECD, Africa’s GDP grew at a rate of 4.6 %

¹¹ Harnessing Africa’s youth dividend: a new approach for large-scale job creation





annually, between 2000-2016. Even after the COVID-19 pandemic, Africa’s economy has remained resilient, growing by 6.9% in 2021 after a contraction of 1.6% in 2020. It accelerated to 4.1% from 2022 to 2023 according to the African Development Bank. The Bank’s economic outlook further warns of headwinds facing Africa’s growing economies, many of which have a direct impact on the agriculture sector. The risks include soaring food and energy prices, tightening global financial conditions, and the associated increase in domestic debt service costs as well as Climate change with its damaging impact on the domestic food supply¹². This calls for bold policy actions to help African economies mitigate such major risks. Agriculture accounts for up to 42% of the GDP and remains one of the major sources of livelihood, for the vast majority of people on the continent and contributes about 65-80% of the labour force in various countries.

The sector has more than 33 million smallholders accounting for about 80% of all the farms on the continent. The sector has the potential to alleviate poverty,¹³ However, many smallholder farmers are sliding into greater vulnerability because of several factors including poor value chain functionality, and weak & incoherent policies. Coherence in policies is a key enabler to support inclusive and sustainable development on the continent¹⁴, as it (i) ensures integration; (ii) foster alignment across local, national and international actions; and (iii) overcome fragmented or siloed policy actions¹⁵. In addition, the dynamics of small farming by youth in the continent have remained poorly understood and captured by the economic models that predict income and growth multipliers from yield growth in agriculture.

The 19th RUFORUM AGM provides the opportunity for academia and development practitioners to deliberate on their research findings and the policy implications among others. Extended abstracts are invited to cover the following:

1. Smallholder agriculture: feeding and growing Africa? Case studies across the continent

Despite their small operational scale, smallholder farmers produce food for a substantial proportion of the world’s population. Overall, they have a high crop diversity that favors good nutrition and market diversification. They are also environmental stewards who adopt practices such as mulching, intercropping, and agroforestry, which are essential for mitigating the risk of drought in the short term and developing productive, sustainable, and resilient food systems over the long term.

Three of the biggest challenges that smallholder farmers face include: are access to finance and quality inputs, climate change and market access. Increasing the productivity of small farms and reducing hunger and poverty through asset-based financing and agriculture training services is a practical way among other for addressing some of the vulnerabilities experienced by smallholders.

2. Enhancing value chain functionality; methods, approaches, and inclusive policy design: Experiences for VCA4D

¹² www.afdb.org/en/news-and-events/press-releases/africas-economic-growth-outpace-global-forecast-2023-2024-african-development-bank-biannual-report-58293

¹³ <https://blogs.worldbank.org/jobs/five-new-insights-how-agriculture-can-help-reduce-poverty>

¹⁴ <https://www.oecd.org/dac/POST-2015%20PCD.pdf>

¹⁵ <https://www.unssc.org/news-and-insights/blog/why-policy-coherence-essential-achieving-2030-agenda>

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Agriculture, driven by science and innovations should reshape the functioning of the agricultural value chains by unlocking productivity and substantially improve food, fiber and energy production for food, nutrition security, employment and wealth creation. There is need to broaden value chains activities scope beyond agricultural production, processing or marketing. The Value Chain Analysis for Development (VCA4D) approach was designed to support decision-making processes for agricultural investments. This is an integrated approach developed to address the weaknesses in development programming and entails a comprehensive methodology that combines economic, social, and environmental indicators to assess a value chain's economic performance, inclusiveness, and sustainability.

3. Policy coherence for economic growth and sustainable development on the continent

Policy implications informed by evidence improve prospects for faster and justifiable growth and poverty reduction and at the same time have the broad public support to ensure sustainability. There is a strong recognition among policy makers that the rapid transformation of agri-food value chains in Africa and other developing countries has important implications for economic growth and poverty reduction. There is therefore need for a better understanding of what value chain transformation entails and the policy options that can be adopted to support VCA4D development¹⁶. Moreover, the intersection between small holding and VCA4D cannot be over emphasised and coherence in policies that support adoption and operationalisation is paramount.

Interested persons are invited to submit their papers not later than **1st October 2023** through online submission to ruforumpapers@ruforum.org. Sample papers can be accessed at <https://repository.ruforum.org>

All papers will be subjected to peer review and plagiarism checks before publication.

¹⁶ Johan Swinnen and Rob Kuijpers, 2020. Inclusive Value Chains to Accelerate Poverty Reduction in Africa. World Bank Group. Issue 37. <https://openknowledge.worldbank.org/bitstream/handle/10986/33397/Inclusive-Value-Chains-to-Accelerate-Poverty-Reduction-in-Africa.pdf?sequence=1&isAllowed=y>

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