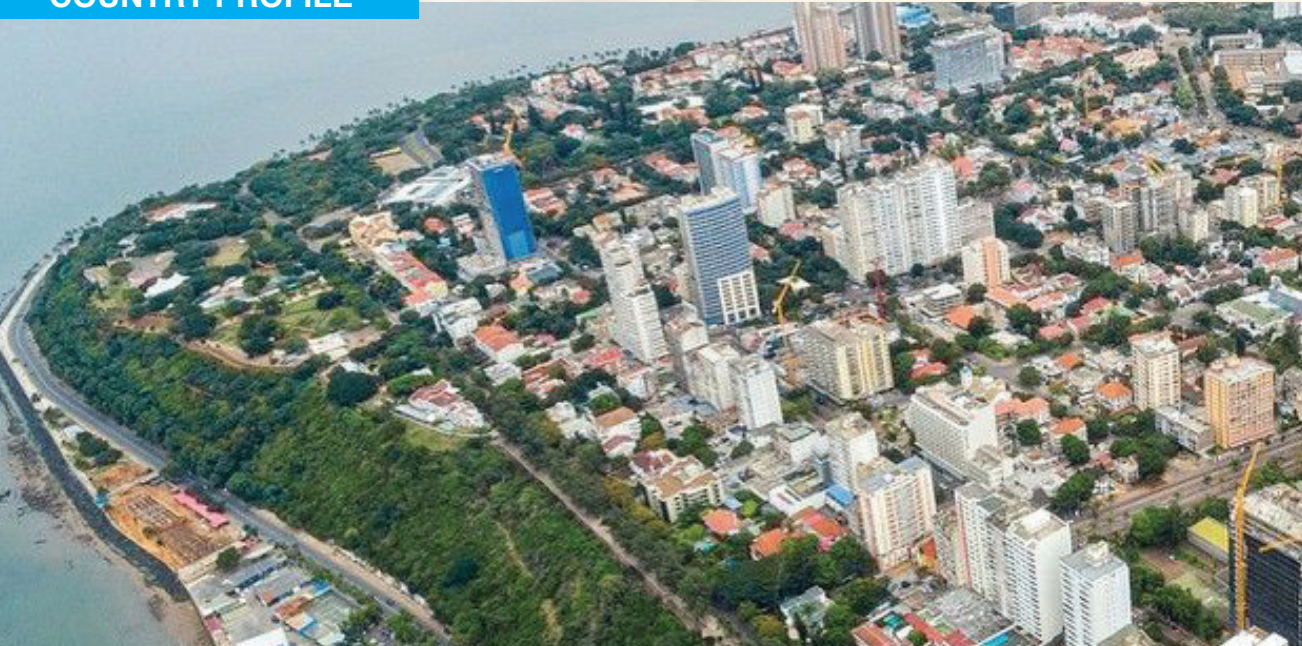




COUNTRY PROFILE



Mozambique

Harnessing science, technology and innovation for Mozambique’s development

Mozambique regards a knowledge based economy as crucial for its development and has prioritised the construction of science parks together with developing its agricultural and extractive industries to be the vehicles to prosperity. A strong human capital base is essential for the science parks and extractive industries to innovatively produce value added products for export and maximise the country’s income. This will require an adequately funded science, technology and innovation (STI) sector to not only produce the human capital but fund out of the box ideas to propel growth in the sectors that are the mainstay of the economy.

Mozambique will need to harness its STI sector to produce the knowledge it needs to thrive economically. With 78 % of the 0.40 % of GDP allocated to STI in Mozambique coming from international funding, the African Academy of Sciences is keen to see an Africa-led and Africa-centred approach to the development of STI. Increased support from African public, private, philanthropic sectors will promote ownership and ensure an Africa-driven science agenda. As such, the AAS is committed to partner with Mozambique to drive the vision of a Mozambique-led STI development.

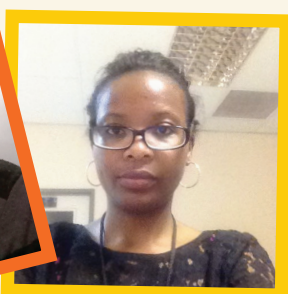
Some of the young African scholars being trained through the AAS’ programmes



Baitshapi Mokaleng, MPhil Trainee



Kaelo Seatla, PhD Trainee



Lucy Mupfumi, PhD Trainee



Leabaneng Tawe, MPhil Trainee.



Dorcas Maruapula, MPhil Trainee



Kesaobaka Molebatsi, PhD Trainee

Building a synergistic relationship between Mozambique and the AAS

In 2016, the World Bank reported that poverty levels have fallen in Mozambique from 69 % to about 46 % and recommends an investment in human capital and infrastructure to continue making strides in lifting its people out of poverty. Investing in human capital is at the core of the AAS providing a synergy that Mozambique can exploit for its gain.

Mozambique's development priorities	Synergies with the AAS
Promoting industrial development for sustainable economic growth	<p>Sustainable development underpinned by a knowledge based economy and industrial growth are priorities for Mozambique. Similarly, the AAS' mandate centres on providing the expertise and evidence for African countries to promote evidence-based policymaking and creating knowledge economies.</p> <p>The AAS has also built grant management capacities that have positioned it to be Africa's foremost grant making body. We are currently managing funding in excess of \$150 M invested by our partners through the Alliance for Accelerating Excellence in Science in Africa (AESAs), a funding and agenda setting platform that the AAS created in partnership with the NEPAD Agency. Mozambique can leverage this expertise to build its grant making and research coordinating capacities.</p>
Human and infrastructure development	<p>With a youth comprising almost 70% of its population, Mozambique is looking to harness this demography to contribute to the development of the country and create employment. Mozambique also has 37.5 researchers per million inhabitants and has introduced several training programmes and new degrees to increase the numbers. The AAS has programmes that train scientists, help them develop their careers, and provide the infrastructure they need to conduct quality research. The AAS seeks to build R&D environments that support a vibrant research culture and leadership development over the long-term. Mozambique can use this expertise to strengthen its research ecosystems.</p> <p>The AAS is implementing interventions to attract more women into science, which has seen our programmes recruit a ratio of 50 % women as master's, PhD and postdoctoral Fellows. The AAS' programmes are a platform for the country to train its future women scientific leaders and promote gender equity in the scientific sector.</p> <p>The Academy is also launching Africa Open, an open source publication, which would provide a platform for Mozambique researchers to publish their research and increasing their scientific production.</p>
Marine conservation and mitigating climate change	<p>The AAS' climate change programme, Climate Impact Research Capacity and Leadership Enhancement (CIRCLE), is training a future generation of African climate scientists and generating knowledge for the continent to effectively tackle climate change. Mozambique is vulnerable both to floods and droughts, and is focused on marine conservation because of its unique habitats that are important for the fisheries and tourism industries. CIRCLE provides a training model for Mozambique to replicate and invest in to generate the evidence it will need to reduce the impact of climate change and promote marine conservation.</p>



Exploiting the synergy

The AAS is aggressively building partnerships with African countries to ensure Africa-led investment of R&D. Countries which are collaborating with the AAS include:

- Nigeria, which provided US\$5 M to an AAS Endowment Fund.
- South Africa, which invested close to US\$1 M to support innovative health technologies through the Grand Challenges Africa programme.

South Africa's funding is managed by the AAS but supports its local innovators to collaborate with peers in other African countries, a partnership model that can be replicated between the Academy and Mozambique.

Benefits of investing in research

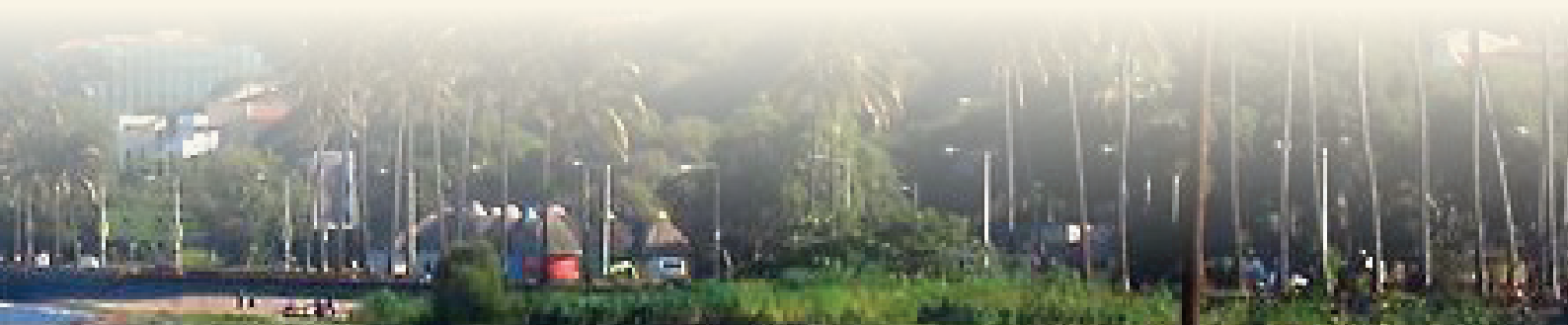
The benefits for Mozambique include:

- Increased STI funding for Mozambican researchers' enabling them to grow their research output and making the country globally competitive.
- Building capacity locally to ensure home grown solutions for achieving strategic development goals.
- Promoting intra-African collaboration, which is necessary to maximise impact.
- Transforming Mozambique to a knowledge based economy that will spur socio-economic growth.

Next steps

Exploring the partnership model that the AAS has with countries like Nigeria and South Africa, Mozambique can invest in:

1. The Developing Excellence in Leadership, Training and Science (DELTA) Africa, a programme led by AESA to develop world-class researchers and scientific leaders to conduct cutting-edge health research in infectious diseases, non-communicable diseases (NCDs), population and public health.
2. Grand Challenges Africa, which promotes Africa-led scientific innovations to help countries better achieve the Sustainable Development Goals by awarding seed and full grants to the continent's most impressive innovators. Current priorities include maternal, neonatal and child health, antimicrobial resistance, biomedical engineering and key areas of infectious diseases and NCDs.
3. The Human Heredity and Health in Africa (H3Africa) initiative, which aims to facilitate a contemporary research approach to the study of genomics and environmental determinants of common diseases with the goal of improving the health of African populations. H3Africa programmes are focused on infectious diseases and NCDs including kidney disease, sickle cell anaemia, diabetes, hypertension, heart disease and stroke to lay the foundation for precision and genomic medicine in Africa.





4. AESA Postdoctoral Fellowship Programmes-through AESA, the AAS is implementing post-doctoral programmes to support early career researchers: the CIRCLE programme develops skills and research experience for early career African researchers in the field of climate change in five thematic areas of health, agriculture, water, energy and policy. The AESA-RISE postdoctoral programme will support postdoctoral training and research to produce leaders in areas that include material sciences, engineering, water resource management, marine biology and natural products.
5. STEM Education where Science, Technology, Engineering and Mathematics (STEM) education focused on capacity building, mentorship and networking are promoted in ways that foster scientific research and ensure that higher education systems are equipped to meet the demands for emerging knowledge based economies.
6. Research Management and Good Financial Grants Practice Research thrives in environments with good research and financial management capacities. The Good Financial Grant Practice (GFGP) was established as an innovative tool for standardising, simplifying and strengthening financial governance, providing a specification for both grantors and grantees of what is good practice for financial management throughout the grant life cycle.
7. Policy and Advocacy, which provides horizon scanning of the scientific landscape, promotes research uptake, production of policy papers and convenes stakeholder forums.

African Academy of Sciences

8 Miotoni Lane, Karen, P.O. Box 24916-00502 Nairobi, Kenya
Tel: +254 20 240 5150 +254 736 888 001 | Email: communication@aasciences.ac.ke
www.aasciences.ac.ke | Twitter: [aasciences](https://twitter.com/aasciences) | Facebook: [aasciences](https://www.facebook.com/aasciences)

