



TECHNOPOLICY AFRICA

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Highlights

ATPS holds its 2019 Annual Forum, Conference and Silver Jubilee Celebrations

ATPS co-hosts the Science Granting Council Initiative (SGCI) Annual Forum in Dar es Salaam

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ATPS Vision:

To use Science, Technology and Innovation (STI) as a means for achieving sustainable development in Africa.

ATPS Mission:

To improve the quality of science, technology and innovation (STI) systems research, policy and practice by strengthening capacity for STI knowledge generation, dissemination, and use for sustainable development in Africa.

Overall Objective:

To build Africa's capabilities in science, technology and innovation for sustainable development.

ATPS Motto:

Building Africa's capabilities in science, technology and innovation policy research, policymaking and policy implementation for sustainable development.

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Chairman's message

Across the globe today, there is a continued push and focus on urgent and deeper investments in Science, Technology and Innovation (STI). This is a pathway to build, maintain and secure a sustainable future more so in the developing nations.

At ATPS, we always strive to support nations, governments and other key relevant stakeholders to engage in partnerships to leapfrog development. We continue to progressively implement our Phase VIII Strategic plan (2017-2022), which is the core of ATPS's five-year strategy in using Science, Technology and Innovation (STI) as a means for achieving sustainable development in Africa. The current plan aligns with the Africa Union's Agenda-2063 that recognizes STI as one of the major drivers and enablers for achieving development goals in the AU and its member states. The AU is currently implementing its ten-year Science, Technology and Innovation Strategy for Africa



Prof. Crispus Kiamba,
Chair, ATPS Board of Directors

STISA-2024, which aims to accelerate Africa's transition to an innovation led economy and knowledge-based economy.

It also gives me great pleasure to note that this year also marked our Silver Jubilee anniversary of being Africa's top leading interdisciplinary network of Policy researchers in the areas of STI. As such, we held our 2019 Annual Forum, Conference and Silver Jubilee Celebrations at the end of October 2019 themed **"Using Science, Technology and Innovation (STI) as a means for achieving the Sustainable Development Goals in Africa"** in Nairobi to further discuss how STI can be deployed more effectively to

achieve development in Africa.

Most specifically, we presented and discussed several topical issues on how STI could be further deployed to more effectively achieve sustainable development in Africa. We also told the ATPS story in championing STI development in Africa for the last 25 years and celebrated and honored ATPS legends and champions.

Lastly, I take this opportunity to pass my regards to the current leadership and staff at the ATPS for their resilience, determination and commitment to uplift ATPS to higher heights. On behalf of the Board of Directors, I do greatly appreciate all those who have supported the ATPS and continue to do so through development grants, linkages, partnerships and other collaborative mechanisms. We welcome other partners and donors to support our work; we pledge to deliver on all expectations that will eventually lead to improvements in the lives of people in Africa and beyond.

Executive Director's message



Dr. Nicholas Ozor, ATPS Executive Director

I am pleased to welcome you to the 16th edition of TechnoPolicy Africa, the ATPS official newsletter. This publication seeks to highlight the most significant activities and achievements during this last quarter.

I am delighted to note that we have continued to aggressively pursue our vision of becoming the leading international center of excellence and reference in Science, Technology and Innovation (STI) systems research, training and capacity building, communication and sensitization, knowledge brokering, policy advocacy and outreach in Africa. Some notable achievements, events and challenges during this quarter are highlighted.

The key activity that came up during this quarter was the ATPS Annual Forum, Conference and Silver Jubilee Celebrations themed **“Using Science, Technology and Innovation (STI) as a means for achieving the Sustainable Development Goals (SDGs) in Africa”** hosted in conjunction with our key partners in October 2019 at the Crowne Plaza Hotel, Nairobi, Kenya.

The ATPS also held a Regional Workshop on Developing a Regional Innovation-led Bioeconomy Strategy for Eastern Africa from 30th September to 1st October 2019 at the Silver Springs hotel, Nairobi, Kenya. The project is being implemented in partnership with the East African Science and Technology Commission (EASTECO), Stockholm Environment Institute (SEI) Africa Centre, the Scinnovent Centre-Kenya and BioInnovations limited-Uganda with support from the BioInnovate Africa Programme.

In our continuous efforts to bolster our internal capacity, I am pleased to welcome three new staff members into the ATPS Secretariat. Felix Musila joins ATPS as the Communications and Outreach Assistant, Damaris Kaseva as the Research Officer and Rachel Maluki as the Finance and Administrative Officer. The three of them have vast experience in their areas of expertise and I do request the ATPS fraternity to accord them the requisite support and cooperation as they go about discharging their official duties at the ATPS.

We thank all our donors and partners and continue to solicit for their support to enable the ATPS to improve the quality of STI policy research, policymaking and implementation in Africa by building the capabilities to achieve sustainable development on the continent. We look forward to receiving your continued support in the coming years. Kindly join us to meet our mandate and serve you better.

African Technology Policy Studies Network holds its 2019 Annual Forum, Conference and Silver Jubilee Celebrations in Nairobi, Kenya

By ATPS Team,

The African Technology Policy Studies Network held its 2019 Annual Forum, Conference and Silver Jubilee celebrations at the Crowne Plaza on the 30th & 31st October 2019. The two day forum which brought about 200 delegates from across Africa and beyond was graced by the Cabinet Minister responsible for Education Prof. George Magoha (represented by Dr. Moses Rugut- Director General, National Commission for Science Technology and Innovation -NACOSTI), Chief Executive of the Kenya Film Classification Board Dr. Ezekiel Mutua, among other high level guests. The two day forum sought to bring together stakeholders including network members, donors and financiers, beneficiaries and Government officials from across Africa to deliberate on matters of Science, Technology and Innovation.

The overall purpose of the conference was to critically examine the current conditions, barriers and opportunities in the thematic areas of the strategic plan and provide policy options form transitions to more inclusive sustainable development in Africa and also to:

1. Present and discuss relevant and topical issues on how STI can be further deployed to more effectively achieve sustainable development in Africa
2. Tell ATPS's story in championing STI development in Africa for the last 25 years
3. Relaunch the ATPS Phase VIII Strategic Plan 2017-2022
4. Provide an opportunity for networking among STI stakeholders across the continent and beyond



Delegates pose for a group photo during the 2019 Annual Conference, Forum and Silver Jubilee Celebrations in Nairobi



Executive Director, Dr. Nicholas Ozor delivering his address during the Conference



ATPS Board Chair, Prof. Crispus Kiamba (left), Dr. Stephen Karimi, Board Member ATPS Kenya Chapter and Director Accreditation and Quality Assurance, NACOSTI. (Right) during the conference

During the forum, the keynote address/masterclass on “Using Science, Technology and Innovation (STI) as a means for achieving the Sustainable Development Goals (SDGs) in Africa” was delivered by Dr. Ouedraogo Mahama, Director Human Resource Science and Technology, African Union Commission (AUC). Presentations/papers on the following sub-themes below were also delivered:

- Science, Technology and Innovation priorities for Africa’s development
- The Fourth Industrial Revolution and Africa’s Readiness
- Improving Africa’s Intra-Africa Trade using science, technology and innovation
- Funding science, technology and innovation priorities for Africa’s development
- Gender and inclusivity in science, technology and innovation



Dr. Stephen Karimi, Board Member ATPS Kenya Chapter and Director Accreditation and Quality Assurance, NACOSTI.

During the Forum, African Technology Policy Studies Network awarded various individuals and institutions with certificates, honors and awards for their endeavors in promoting Science, Technology and Innovation through the ATPS in Africa and beyond:

- ATPS champions and legends
- All Foundation Members of the ATPS
- Past Executive Directors and Directors
- Chairs of ATPS Board of Directors
- Core Donors



Prof. Crispus Kiamba (ATPS Board Chair) far right and Dr. Nicholas Ozor (Executive Director) in white leads other delegates in unveiling of the Silver Jubilee Celebrations Commemorative plaque



Dr. Ozor (R), Prof. Crispus Kiamba (Second Right), Dr. Moses Rugut (Third Right),

African Technology Policy Studies Network at the Fourth Science Granting Council Initiative Annual Forum in Dar es Salaam, Tanzania

By Felix Musila,

The African Technology Policy Studies Network co-hosted the fourth Science Granting Councils' (SGCI) Initiative Annual Forum from the 11th to 15th November 2019 in Dar es Salaam, Tanzania. Leading the team from the ATPS was the Executive Director Dr. Nicholas Ozor, Felix Musila (Communications/Outreach), Ruth Oriama (Research Officer) and Rachel Maluki (Finance and Administrative Officer).

The SGCI is a multi-funder initiative that aims to strengthen the capacities of 15 science-granting councils in Sub-Saharan Africa in order to support research and evidence-based policies that will contribute to economic and social development. The Initiative is jointly funded by the United Kingdom's Department for International Development (DFID), Canada's International Development Research Centre (IDRC), South Africa's National Research Foundation (NRF) and the Swedish International Development Cooperation Agency (Sida). The SGCI theme on "Networking Africa's SGCs" is being implemented by the African Technology Policy Studies Network (ATPS) in partnership with The Scinnovent Centre. Last year's theme was tagged as "Open Science in Research and Innovation for Development". The welcome address was delivered by Dr. Amos Nungu of the Tanzania Commission for Science and Technology (COSTECH) with a presentation on Investing in Research and Innovation in Africa for Sustainable Development: Emerging evidence and Policy Opportunities.

The African Technology Policy Studies Network co-hosted the session on monitoring, evaluation and learning (MEL) together with the Scinnovent Centre. The MEL workshop session provided a space to take stock, reflect, share knowledge and learning, and exchange ideas and innovations in the implementation of the initiative. Guiding this session was the SGCI theory of change that traced the pathways to achieving the anticipated outcomes, including sharing lessons by the collaborating technical agencies (CTA) and the SGCs. Different facilitation techniques were adopted to ensure that the sessions remained as interactive and participatory as possible. For example, a World Café was organized to give participants a chance to engage with the various CTAs across the different thematic areas. The African Technology Policy Studies Network made a presentation under theme four (Strengthened partnerships among SGCs and with other science system actors) on the activities, outcomes, objectives and goals under that theme. There was also a masterclass paper presentation on "Open Science in research and innovation for development" by Geoffrey Boulton from the University of Edinburgh, Scotland and Joseph Mwelwa from the Joint Minds Consulting, Botswana. At the end of the forum, the delegates made the following observations:

- That Open Science is not a new concept in Africa, and that some of its components are already being practiced by African researchers and institutions in areas such as open access publications. However, the emergence of 'research as an enterprise'; the new general-purpose technologies and new priorities for development have brought new dimensions to open science approaches.

African Technology Policy Studies Network (ATPS)

- African Science Granting Councils are already working collaboratively in bilateral and multi-lateral cooperation, sharing resources, infrastructures, skills and capacities. These collaborations promote openness and in some cases have led to peer – to – peer learning, experience and knowledge sharing and replicability.
- Transition to a “knowledge society” in which productivity and innovation would be hinged on more on knowledge – its generation and application – and less on natural resource endowments
- This transition is underpinned by the digital revolution as a key enabler of open science. However, the digital revolution also leads to a “Tsunami of Information” – its acquisition, storage, manipulation and potential for applications is ubiquitous
- To be relevant and useful, the delegates noted that information needs to be released to society in a comprehensible form. This requires positive mutual engagement with society.
- The meeting also noted that development challenges are complex and characterized by emergent behavior. It is not easy to predict future outcomes based on current events hence the need for society to accept and organize to mitigate the associated risks.



Delegates pose for a group photo during the Science Granting Councils Initiative Annual Forum in Dar es Salaam, Tanzania

Developing an Innovation-led Bioeconomy Strategy for Eastern Africa (BiSEA) Bioeconomy Futures Regional Workshop in Nairobi, Kenya

By Ruth Oriama,

The African Technology Policy Studies Network held a Regional Workshop on Developing a Regional innovation-led Bioeconomy strategy for Eastern Africa at the Silver Springs Hotel, Nairobi on the 30th September-1st October 2019.

The project was led by the East African Science and Technology Commission (EASTECO) in partnership with the Stockholm Environment Institute-(SEI) Africa Centre, the Scinnovent Centre Kenya and BioInnovations Company Limited-Uganda with support of the BioInnovate Africa Programme.

The Futures Literacy Laboratory starts from the premise that the emergence of a ‘strong bioeconomy’ would at once constitute a significant economic transformation and potentially drive such transformation. Further this Lab is intended to explore scenarios that start from the assumption that the emergence of a ‘strong bioeconomy’ will require the formulation of relevant strategies and policies, otherwise a ‘strong bioeconomy’ is unlikely to happen. The Lab is designed according to the principles of ‘action-research’, ‘action-learning’ and takes into account distinctive anticipatory systems.



Delegates during one of the breakout sessions at the Bioeconomy workshop in Nairobi



Dr. Ozor (R) awarding a certificate to one of the participants at the workshop



Delegates during one of the group discussions at the Bioeconomy workshop

Science, Technology and Innovation Practices in Egypt (2010 – 2019)

By Manal M. Samra, Development Advisor and ATPS Focal Point-Egypt

Egypt's position in Science, Technology and Innovation (STI) over the last 10 years and its impact on the socio-economic development of the country has been reflected in the Global Competitiveness Index and the Global Innovation Index as shown in this brief. Both indexes examine and assess the Egyptian STI system thoroughly.

1. The Global Competitiveness Index: The World Economic Forum's Global Competitiveness Index (GCI) measures the competitiveness of various countries using more than 130 indicators.
2. The Global Innovation Index: The GII aims to find metrics and approaches to better capture the richness of innovation in society and go beyond the traditional measures of innovation such as the number of PhDs, research articles produced, research centers created, patents issued, and R&D expenditures.

Trends in Egypt's competitiveness Ranking (2010-2019)

Prior to the January 25th 2011 Revolution, Egypt's economic, social and institutional challenges were reflected in Egypt's low ranking on the GCI as it came at the 81st place (out of 139 countries) in the GCI rankings, 91st in Health and primary education, 97th in Higher education and training, 87th in Technological readiness, 83rd in Innovation, 133rd in labor market efficiency because the labor market was overregulated, which reduced its ability to properly allocate and employ human resources and this led to the widespread unemployment among young people. The country was also among the poorest performers in the GCI sample with respect to the efficiency of using talent (133rd). Its position has since deteriorated further and kept on declining steadily.

It moved up in 2016 to reach the 115th place (out of 138), 135th in Labor Market efficiency, 122nd in innovation, 89th in Health and Primary education and 112th in Higher education and training. In 2017, it was the most-improved country across the region as it reached the 100th place (out of 137 countries), 87th in health and primary education, 100th in Higher education and training, 134th in Labor market efficiency, 109th in innovation.

In 2018, it moved to the 94th place (out of 140 countries) and it reached the 64th place with regard to innovation and it moved up one more in 2019 to reach 93rd (out of 141 countries) and it reached 61st place in innovation.

Trends in Egypt's Innovation Ranking (2010-2019)

Egypt has witnessed many fluctuations in the GII over the last ten years, it kept declining steadily from 2010 till 2013. In 2010, Egypt came at the 74th place (out of 132 countries), 4th regionally, 77th in human capital and research, 103rd in Business sophistication, 84th in Knowledge & technology outputs and 96th in creative outputs. In 2011, it dropped down to reach 87th (out of 125 countries) in the GII ranking and 11th regionally, 107th in Human capital and Research, 86th in Business sophistication, 100th in Knowledge & technology outputs and 72nd in creative output.



In 2019, Egypt moved up to rank 92 in the Global Innovation Index, 96th in Human capital and research, 116th in Business Sophistication, 64th in Knowledge & technology outputs and 89th in creative outputs while its position remains unchanged at position 17 among North African/West Asian countries. This final report notes that Egypt's strengths include knowledge-intensive employment, the state of cluster development, knowledge impact (particularly when it comes to the percentage growth of PPP (purchasing power parity) and GDP per worker, as well as GDP spending on computer software), creative goods exports, trade competition, and market scale. On the flipside, Egypt's general infrastructure, regulatory environment, and investments were among the weaknesses in the country profile.

From the previous data, it is noticeable that Egypt's ranking in the GCI and GII has deteriorated in the aftermath of the Arab spring events and hence deteriorated in the STI related pillars (Health and primary education, higher education and training, labor market efficiency, technological readiness, innovation capability, Human Capital and Research, Business sophistication, knowledge and technology outputs and creative outputs). However, there was a significant improvement in Egypt's ranking in both indices in the last two years and thus significant advancements in some of the STI related pillars especially innovation.

There is an upward movement in the innovation landscape in Egypt that comprises R&D expenditures, multi-stakeholder collaboration, scientific publications, quality of research institutions, diversity of workforce, technology and knowledge outputs and many other indicators. Generally speaking, there was a significant advancement in those elements in the last two years (2018-2019).

With regard to the energy sector, a special focus is given to the Renewable energy sector in Egypt. As the most populous country in the Middle East, Egypt faces rising energy demand driven by rapid population growth and an expanding economy. This creates significant challenges in maintaining a steady and continuous supply of energy. To meet burgeoning energy demand, the Egyptian government has pursued an energy diversification strategy, known as the Integrated Sustainable Energy Strategy (ISES) to 2035, to ensure the continuous security and stability of the country's energy supply. This strategy involves stepping up the development of renewable energy and energy efficiency, in part through vigorous rehabilitation and maintenance program in the power sector. Egypt is, therefore, committed to the widespread deployment of renewable energy technologies. As specified in the ISES to 2035, the Egyptian government has set renewable energy targets of 20% of the electricity mix by 2022 (with wind providing 12%, hydropower 5.8%, and Solar 2.2%, the solar energy plan aims to install 3.5 GW by 2027; including 2.8 GW of PV (photovoltaic) and 700 MW of concentrated solar power) and 42% by 2035.

Major renewable energy projects are now under development, reflecting the government's resolve to turn this vision into reality. However, the current focus is on trying to realize the Benban project in Aswan which would be the biggest solar photovoltaic plant in the world. The Benban Solar Park will produce enough electricity to power one million homes. But more than that, it is part of a whole new strategy for infrastructure projects that will see the Egyptian government start to work closely with private enterprise. It is expected to go live this year, at which point it will house 32 power stations across a 37^{km²} site, and will be capable of generating 1,650 megawatts of electricity. This will go a long way toward Egypt hitting its goal of having 20% of its energy needs met by renewables.

But the effect it will have on the economic fabric and policy-making strategies of the country are equally significant. Egypt is heavily reliant on fossil fuels and almost all the country's power facilities have been built and owned by the government. The government also runs a series of costly fuel subsidy schemes, which add up to more than it spends on education, health care, and social welfare combined. The Benban project, however, is being created by a consortium of 13 private enterprises working in conjunction with the Egyptian public sector. Companies, investment firms and foreign investors from various countries including Italy, France, Bahrain, Jordan and Switzerland have signed agreements to develop and fund Benban projects. In addition, contracts have been signed with more than a dozen local and international investors to supply Benban projects with support around security, accommodation, facilities, recruitment and related areas. Moreover, the Benban project has led to a decrease in unemployment by opening up the opportunity for more than 10,000 people to work in the construction site which consequently led to more focus on teaching renewable energy at vocational schools, universities and postgraduate levels.



A pictorial of the Global Competitiveness Report 2019

In short, this project will help Egypt tap into its massive potential for solar energy and scale back its use of expensive and polluting fossil fuels. That's especially important with the specter of climate change looming. Based on what was mentioned, it can be said that Egypt is witnessing bright future for renewable energy generation and is moving forward with a very bold and ambitious economic reform program that promotes private sector participation.



TIEC (Egypt's Technology Innovation and Entrepreneurship Center) Collaborates with Huawei to Launch "Egypt App Cup" Competition



The aim of this forum is to enhance the competitiveness of the African private sector through the use of science, technology and innovation by urging the countries of the continent to invest more in research, higher education and science, to build a knowledge economy

Using Geospatial Data to Monitor the Sustainable Development Goals

By Uzochukwu G.O. Okafor, Coordinator-African Technology Policy Studies Network - Namibia Chapter

One of the lessons learnt from the implementation of the Performance Management System (PMS) is that what is not measured may not get done. It is therefore not surprising that the United Nations General Assembly on 6 July 2017, adopted a global indicator framework to monitor the 2030 Agenda for Sustainable Development as a voluntary and country-led endeavor. The 232 global indicators are complemented by indicators at the regional and national levels developed by United Nations Member States. Data from national statistical and data systems are the basis for the compilation of global indicators.

New tools and frameworks to integrate geospatial and statistical information with the aim of fully harnessing the power of the data revolution and achieving the goals and targets of the 2030 Agenda have been developed. These efforts are especially important in democratizing the process and identifying those left behind since data are increasingly disaggregated by income, sex, age, race, ethnicity, migratory status, disability, geographic location and other characteristics. This type of detailed information is the basis upon which effective policies are shaped.

Measurement of the SD Goals should be evidenced-based and geospatial information assists



2030 Agenda for Sustainable Development

in providing such evidence. The provision of such evidence according to Anne Hale Miglarese, CEO, Radiant, may require mapping and analyzing the 'ecological and social footprints of humanity on the Earth's surface', thus developing an understanding and managing the impact of humans on earth. Aditya Aggarwal, Director, Data Ecosystems, further states that many of the issues that are being dealt with have an inherent spatial component, to the extent where geospatial data is almost a fundamental trait in what is needed and how decisions get made.' Greg Scott, Inter-regional Advisor for Global Geospatial Information Management, United Nations noted that a broad coalition of data sets, spatial and non-spatial in nature, is central to deriving insights and creating actionable plans.

Capacity development and resource mobilization for data are central to the success of the UN-SDG's. Capacity development is guided by the Cape Town Global Action Plan, launched at the first forum in 2017. Following the Cape Town Global Action Plan, Countries report that at the top of their list of most urgent needs are, improved use of administrative data, better disaggregation by disability, among other dimensions, and statistics related to income, poverty and the environment.

To illustrate the application of spatial information in monitoring the SD goals, SDG's 1-3 can be used as typical examples where the integration of geospatial and statistical information are essential in monitoring the goals.

Goal 1. End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural). These will require a combination of thematic maps and statistical information

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.2.1 Proportion of agricultural area under productive and sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations

These will require thematic maps showing locations and prevalence of aids, tuberculosis, malaria, distances to health and necessary infrastructure combined with statistical information

Conclusion

A number of important technology-driven trends, some based on geospatial information is likely to have a major impact in the coming years, creating previously-unimaginable amounts of location-referenced information and questioning our very understanding of what constitutes geospatial information.

Ensuring that the full value of geospatial information is harnessed in realizing the SDGs will depend on having the necessary training mechanisms in place. New and changing skills will be required to manage the increasing amount of geospatial information that is likely to be created and to ensure that the maximum value is secured from it.

Governments will continue to have a key role in the provision of geospatial and in building bridges between organizations, collaborating with other areas of the geospatial information community and, most importantly, providing complete geospatial frameworks with trusted, authoritative and maintained geospatial information.



SUSTAINABLE DEVELOPMENT GOALS

Agenda 2030 SDGs

'Everything happens somewhere.' The Sustainable Development Goals are about people and these people live somewhere. Linking SDGs to the location of people is therefore central to monitoring the SDGs. In linking the monitoring process with the location of people, we can ensure that no one is left behind, thereby democratizing the process.



Sustainable Development Goals

Innovation in Health: An Electric Wheelchair Made From Trash Material

Interview with Mr. Lincoln Wamae-A young Kenyan innovator



The electronic wheelchair made from locally assembled materials

1. What was the motivation behind this innovation of an electric chair made from trash?

- I got a hip joint injury some years back which gave me difficulties in walking around on my daily duties. I also again found out that there are so many disabled people out there who are using manual wheelchairs which require a lot of energy to ride and since powered wheelchair are not locally available and expensive, that's how I came up with the idea of making my locally available and cheap wheelchairs using easily accessible materials like laptop batteries.

2. Could you kindly explain how this electric wheelchair works?

- This wheelchair works in a rather simple mechanical way. It has a rechargeable lithium battery and computer which drives two independent brushless motors. The motors then power up the wheel setting them in motion.

3. How has the process been...coming up with this innovation, right from the conceptualization to prototype to the final product?

- The process has rather been difficult. The making and testing of prototypes hasn't been easy because of the lack of adequate resources. I have been forced to use up the little savings I had but they were not enough.

4. This electric wheelchair is best suited for individuals with what kind of disability?

- The wheelchair is best suited for people with backbone problems and those who can't walk.

5. What challenges have you encountered so far in the course of coming up with this innovation?



- The biggest challenges are the lack of well-equipped workshop and resources. This wheelchair requires to be assembled using some special tools which may prove to be a challenge to acquire.

6. How has the reception been? (From the general public, government, PWD (people with disabilities)? Has your innovation won any awards either locally/ internationally?

- The reception is positive to both public and PWD but

the government has not been supportive. I have never participated in any competition whether locally or international. Whatsoever, I have positive views from people who see my innovation. Kenyans appreciate a good innovation when they see it.

7. What significant impact has your innovation had on PWDs?

- Those who are lucky to ride my prototypes have responded that the wheelchair is more powerful, comfortable and has a longer range. In addition, it has a higher speed.

8. Is your electric chair affordable? Considering that majority of people with disabilities have minimal resources?

- Yes, of course my wheelchairs cost a fraction of the imported ones.

9. What are your futures plans in regards to this innovation?

- To have a significant spread on the local and international market

Grants received by ATPS during the quarter

Project Name: Civic engagement in Open Contracting

Duration: August 2019 to August 2020

Grantor: HIVOS

Principal Investigator: Dr. Nicholas Ozor

Contact Email: executivedirector@atpsnet.org

Grant Amount: EUR 35,000.00

Development Goal: This project aims at assessing the levels of progress; innovations, collaborations and typologies of reforms that can be replicated and scaled up to advance open contracting in Africa. It also aims to conduct an in-depth review of the state of open contracting in ten African countries (Kenya, Uganda, Tanzania, Nigeria, Zambia, Malawi, Ghana, Senegal, Cote d'Ivoire and South Africa). It also aims to conduct lobbying and advocacy activities through the use of knowledge products to advocate for the uptake of open contracting in African countries.

Project Name: Development of the NDCs implementation index, monitoring and tracking tools

Duration: 10th June 2019 to 10th September 2019

Grantor: Pan African Climate Justice Alliance (PACJA)

Principal Investigator: Dr. Nicholas Ozor

Contact Email: executivedirector@atpsnet.org

Grant Amount: 2,100,000 KES

Development Goal: Development of the NDCs Implementation Index, development of the monitoring & tracking tools to support index, development of political economy analysis report

Papers published by ATPS during the quarter

During this quarter, ATPS published the following documents:

Journal

1. Bertha V., B. Oyelaran-Oyeyinka, Nicholas Ozor, and M. Bolo (2019) Open Innovation and Innovation Intermediaries in Sub-Saharan Africa. *Sustainability*, 11(2), 392 (1-18); doi: 10.3390/su11020392. Available online at: <https://www.mdpi.com/2071-1050/11/2/392/html/>

Technopolicy Brief

2. Dr. Julius Mugwagwa, Dr. Geoffrey Banda, Dr. Nicholas Ozor, Dr. Maurice Bolo, Ms. Ruth Oriama (2019) New Approaches for Funding Research and Innovation in Africa *African Technopolicy Brief No. 49*

For more information please visit : <https://atpsnet.org/technopolicy-briefs/>

Research Paper

3. Dr. Julius Mugwagwa, Dr. Geoffrey Banda, Dr. Nicholas Ozor, Dr. Maurice Bolo, Ms. Ruth Oriama New Approaches for Funding Research and Innovation in Africa *ATPS Research Paper No. 30*

For more information please visit: <https://atpsnet.org/research-papers/>

Opportunities

VLIR-UOS Training and Masters Scholarships in Belgium

Deadline: April 5th 2020

VLIR-UOS awards scholarships to students from 31 eligible countries in Africa, Asia and Latin America, to follow an English-taught training or master programme at the university college in Belgium. The host institution is Belgian Flemish University.

Targeted countries are: Benin, Burkina Faso, Burundi, DR Congo, Ethiopia, Guinea, Cameroon, Kenya, Madagascar, Mali, Morocco, Mozambique, Niger, Rwanda, Senegal, Tanzania, Uganda, Zimbabwe, South Africa, Cambodia, Philippines, Indonesia, Palestinian Territories, Vietnam, Bolivia, Cuba, Ecuador, Guatemala, Haiti, Nicaragua and Peru.

VLIR-UOS only provides full scholarships for the total duration of the training or Master. The scholarships cover allowance, accommodation, insurance, international travel and tuition fee. A candidate should be a national and resident of one of the 31 countries of the VLIR-UOS country list for scholarships (not necessarily the same country) at the time of application. The maximum age for a Master programme candidate is 35 years for an initial masters and 40 years for an advanced masters. The candidate cannot succeed this age on January 1 of the intake year. Priority is given to candidates who are employed in academic institutions, research institutes, governments, the social economy or NGOs, or who aim at a career in one of these sectors. However, master candidates employed in the profit sector or newly graduated candidates without any work experience can be eligible for the scholarship as well, depending on their motivation and profile. The training candidate should have relevant professional experience and a support letter confirming (re)integration in a professional context where the acquired knowledge and skills will be immediately applicable.

For more information kindly visit:

<https://www.vliruos.be/en/scholarships/6>

Call for Papers for the 10th International Interdisciplinary Conference

General conference theme: “Sustainable Development in Africa”

Venue & Date: Multimedia University of Kenya, Nairobi, Kenya June 24-27, 2020

Why has sustainable development become critical in the world today? What are the causes of climate change and how do they affect the quality of life on earth? How have various governments and the international community responded to the effects of climate change? What are some of the efforts being deployed in saving the globe against the effects of climate change? What are some of the efforts being made by various academic disciplines to address this? These are some of the issues that the conference will be seeking to address.

Organized and hosted by Multimedia University of Kenya, African Interdisciplinary Studies Association (AISA) and the Centre for Democracy, Research and Development (CEDRED), this 10th International Interdisciplinary Conference will bring together scholars from all over the world to make presentations on matters that touch on Africa. Submission of abstracts: Send abstracts of between 250 and 500 words, including full contact details (title, name, address, email address, and telephone) as well as institutional affiliation by March 30, 2020 to Prof. Maurice N. Amutabi at mauriceamutabi@gmail.com or neddylinnet@gmail.com or Amutabi@yahoo.com or Amutabi@gmail.com or centrefordrd@gmail.com

The deadline for submission of full papers or PowerPoint presentation (one of them is adequate) is May 30, 2020. Most papers presented at the conference will be selected and published in edited volumes and journals – Journal of African Interdisciplinary Studies (JAIS) and Journal of Popular Education in Africa (JOPEA) - affiliated to African Interdisciplinary Studies Association (AISA) and the Centre for Democracy, Research and Development (CEDRED), based in Nairobi, Kenya. Co-authorship of individual papers should not be more than 3 persons. Each person is allowed to submit a maximum of 2 papers while authors of Co-authored paper shall separately register for the conference before their presentation of paper(s). The official language of the conference is English. The conference will consist of ten colloquia organized along with themes.

Important dates

Deadline for submission of abstracts – April 30, 2020

Deadline for submission of PowerPoint presentation or full papers June 30, 2020

Conference dates – June 24-27, 2020

E-mail: centrefordrd@gmail.com or africanstudiesassociation@gmail.com or mauriceamutabi@gmail.com or neddylinnet@gmail.com or Amutabi@yahoo.com or Amutabi@gmail.com

Website: <http://cedred.org/14-call-for-papers/20-international-interdisciplinary-conference-to-be-held-in-nairobi-kenya-on-june-24-to-27-2020-at-multimedia-university-of-kenya>

TWAS Awards in Science and Technology

Deadline: 16th June 2020

The TWAS Awards (previously called 'TWAS Prizes') are awarded to individual scientists from developing countries in recognition of an outstanding contribution to scientific knowledge in nine fields of sciences and/or to the application of science and technology to sustainable development.

TWAS provides nine awards of USD 10,000 each in the following fields: agricultural sciences; biology; chemistry; earth, astronomy and space sciences; engineering sciences; mathematics; medical sciences; physics and social sciences

Awards are usually presented on a special occasion, often coinciding with the General Meeting of TWAS.

Eligibility

Candidates for a TWAS Award must be scientists who have been working and living in a developing country for at least ten years immediately prior to their nomination. They must meet at least one of the following qualifications:

- Scientific research achievement of outstanding significance for the development of scientific thought.
- Outstanding contribution to the application of science and technology to sustainable development.
- The outstanding contribution may be defined in relation to existing opportunities and realistic possibilities available to the candidate.

This applies particularly to candidates from scientifically disadvantaged countries. Members of TWAS and candidates for TWAS membership are not eligible for TWAS Awards.

Self-nominations will not be considered.

Nominations

TWAS is inviting nominations from all its members as well as science academies, national research councils, universities and scientific institutions in developing and developed countries. Nominations must be made on the on-line nomination form and clearly state the contribution the candidate has made to the development of the particular field of science for which the prize would be awarded. Nominations of women scientists and scientists from scientifically lagging countries are particularly encouraged. The re-nomination of a previously declined candidate shall be accepted only if it bears substantially new elements for judgment.

For more information kindly visit:

http://onlineforms.twas.org/documents/Applicants_tutorial.pdf or contact email: **prizes@twas.org**

African Technology Policy Studies Network (ATPS)



Dr. Ozor (seated left) having a chat with the ATPS Board Chairman Prof. Crispus Kiamba (Right) when he paid him a courtesy call at his office



Mr. Ottavio Novelli-Head of Climate Change at AAgriconsulting (R) together with Ms.Ivy (Centre) from AESA East Africa when they paid a courtesy call on Dr. Ozor (Left) at his office

2019 Annual Science Granting Councils' Initiative Forum in Dar Es Salaam, Tanzania-Nov 11th to 15th 2019



Ms. Ruth Oriama (2nd Right) takes delegates through a presentation at the ATPS stand during the Forum



Ms Rachel Maluki (2nd Right) and Dr. Ozor (Middle) answering questions during a presentation

African Technology Policy Studies Network (ATPS)



ATPS Communications/Outreach Officer Felix Musila at the SGCI Forum in Dar es Salaam

NDCs Data Collection Exercise in Lusaka, Zambia



ATPS Research Officer Alfred Nyambane (1st left) poses for a picture with the team of researchers



ATPS Research Officer Alfred Nyambane during one of the data collection exercises in Zambia



Delegates at a discussion during the Bioeconomy Futures For Eastern Africa Workshop at the Silver Springs Hotel, Nairobi

Data Collection Exercise for the Development of Implementation Index, Monitoring and Tracking Tools for the NDCs in Abuja, Nigeria



Dr. Ozor (3rd from right) together with the research Team and Dr. Oladipo J.O (5th from left) Director of Department of Environmental Health & Pollution Control



Dr. Ozor (seated middle) together with other researchers during one of the data collection interviews

New Staff Appointments



Felix Musila joined the ATPS fraternity as the Communications/ Outreach Officer on 2nd September 2019. He is currently pursuing his Masters in Business Administration (MBA-Strategic Management) besides being a holder of a Bachelors degree in Communications from Daystar University. Mr Musila is a highly qualified and experienced communications and outreach expert having worked in different organs of the industry including research, journalism, media house, training and advocacy among others. He brings his new expertise to strengthen the Communications and Outreach Department at the ATPS journalism, media house, training and advocacy among others. He brings his new expertise to strengthen the Communications and Outreach Department at the ATPS.



Damaris Mwikali Kaseva joined the ATPS fraternity as the new Research Officer in 23rd September 2019. Damaris holds a MSc. Agricultural and Applied Economics (with a specialization in Environmental and Natural Resource Economics) and a BSc. Agribusiness Management from the University of Nairobi. She has several awards of academic excellence to her name. She brings on board several years of experience in research and consultancy from Governmental and Non-Governmental organisations in Kenya.



Rachel Maluki joined the ATPS fraternity as the Finance & Administrative Officer in October 2019. Rachel holds a B.Com Finance and CPA(K) from the Catholic University of Eastern Africa (CUEA). Rachel brings on board wide ranging experience in finance and accounting having worked for a number of local institutions including the Export Promotion Council, National Bank of Kenya among others.

African Technology Policy Studies Network (ATPS)

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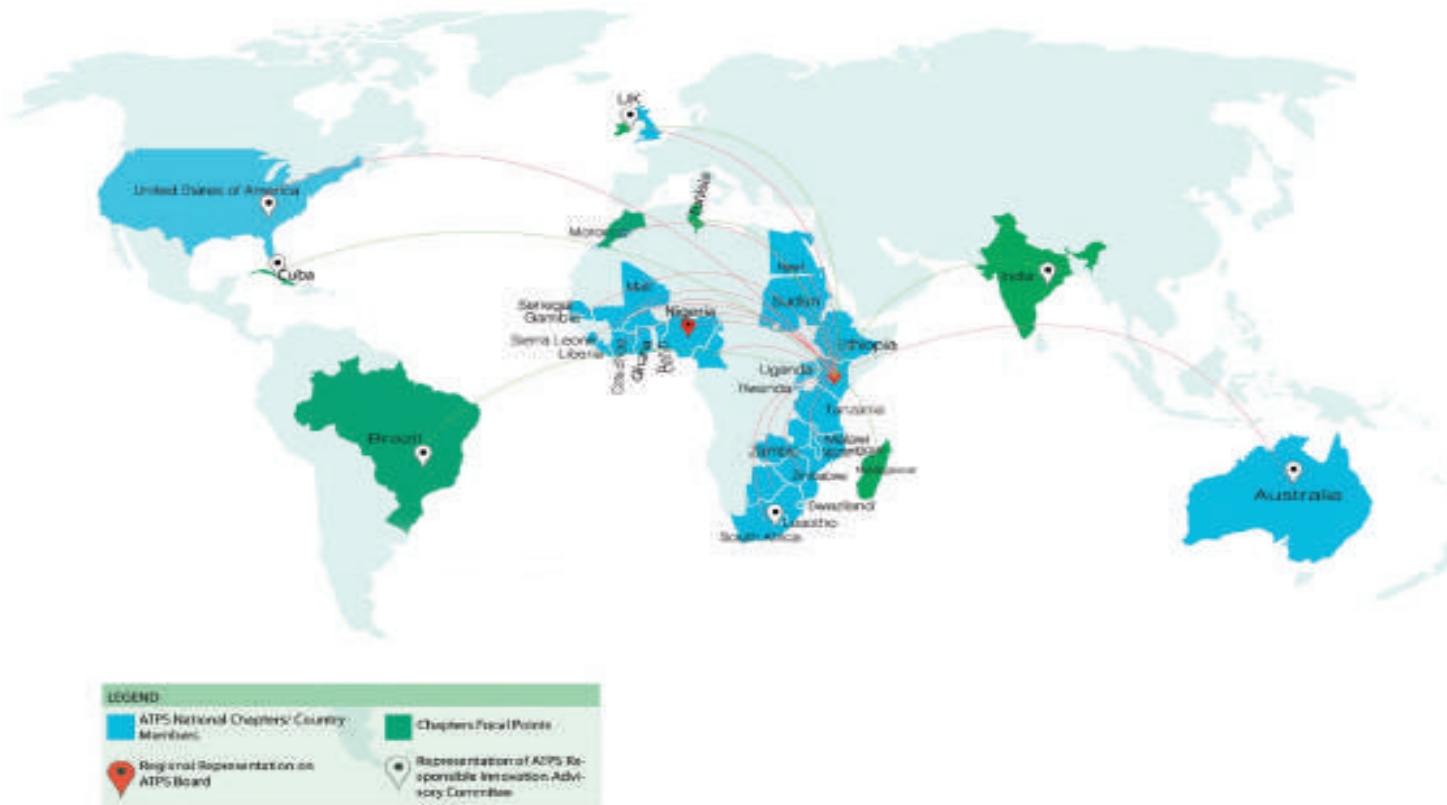
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