

DZIWA SCIENCE NEWS

Committed To Promoting Of Science, Technology & Innovation

NSTC Zambia Science Conference 2022

SPECIAL EDITION

November, 2022

EDITORIAL COMMENT

A WARM welcome to all our esteemed readers of the *Dziwa Science News* which aims to make contributions in the science communication Agenda.

Our target audience include individuals with passion for science, women and youths, experts from specialised disciplines, academia, civil society, public and private sector.

Therefore, our objective is to bridge the information gap in science toward socio-economic development.

Dziwa Science & Technology Trust (DSaT), distinguishes itself through the determination to shape the culture of the Zambian society and beyond into realising and appreciating the benefits of evidence-based science.

Zambia through the Science and Technology Council (NSTC) and the Southern African Science Service Center for Climate Change and Adaptive Land Management (SASSCAL) hosted the just-ended 2022 Zambia Energy and Climate Change Conference which was held from 22nd to 24th November, 2022 at the Mulungushi International Conference Center (MICC) in Lusaka.

The conference which was led by experts deliberated among many other scientific issues under the Theme: "Climate Smart Technologies, Towards Green Economy."

Enjoy the publication during this festive season, we wish you *Happy Christmas and prosperous New Year.*

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MUTATI CALLS FOR STRONGER LINKS BETWEEN POLICY MAKERS, SCIENTISTS

By Joseph Chanda

Science and Technology Minister Hon. Felix Mutati has called for stronger linkages between policy makers and scientists in order to find solutions to Science, Technology and Innovation related challenges.

Mr. Mutati said the ministry has organised an Energy and Climate Change Conference which drew participants from Researchers, Innovation Administrators, Academia and University Students as well as policy makers to deal with some of these challenges.

Mr. Mutati said this during the Energy and Climate Change Conference which was held from 22nd to 24th November 2022 at the Mulungushi International Conference Center (MICC) in Lusaka.

He said the conference was held to find solutions to the country's problems for Science and Technology activities.

He also further said that the Conference will be used to exploit funding opportunities for Science and Technology activities for the country.

Mutati said the festival was organized as part of the International Science Week

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Hon. Felix Mutati - speaking during the conference



Chimfwembe shaking hands with Hon. Mutati

16-year-old girl invents solar rechargeable car

By Joseph Chanda

A 16-year-old girl of Lusaka's Kasisi Girls secondary school has invented a solar rechargeable car for the institution's 2022 science awards.

Speaking in an interview Chifwembe Nkandawile says she decided to invent a solar rechargeable car to reduce carbon emissions that contribute to climate change.

Climate Change has a toll on the global economy - SASSCAL



Dr. Martin Mbewe outlining the dialogue program

By Fulman Mukobeko

Southern African Science Services for Climate Change and Adaptive Land Management (SASSCAL) Programmes Coordinator Mr. Martin Mbewe said the organisation is working round the clock to address issues of Climate Change and land management across the continent.

Speaking at the just ended National Science and Technology Council (NSTC) organised Science Conference at the Mulungushi International Conference Centre (MICC) in Lusaka-Zambia, Dr Mbewe said climate change has had a toll on the global economy.

“Climate Change does not affect one country but it impacts several countries so as a country, we have to be responsible for what we do so that it benefits this country. Now, what is it that we are doing in Zambia? Government has a policy on climate change, on forestry, on water... on all the natural resources. So what SASSCAL basically does is

that whatever work we are doing has to conform with Government policies because every one of us must respond to the needs of how Government intends to implement programmes in this country,” he said.

Dr Mbewe is thankful to financial support SASSCAL is getting from Governments it operates from despite getting funding from Germany.

“This continued support we are getting from Government is going a long way in generating knowledge from researchers that get funding from us. We are also involved in training Zambians ranging from certificate to Public Holders Degree (PHD),” he said.

SASSCAL is a programme that is running in five Southern African Development Community (SADC) countries namely Zambia, Angola, Botswana, Angola, Namibia and it is funded by the Government of the Republic of Germany.

Women urged to Take an active role in science, research

Edson Faria happy with Science Conference

By Fulman Mukobeko

National Research Fund (NRF) an organisation-based in Mozambique says the just ended Science Conference held at the Mulungushi International Centre (MICC) in Lusaka Zambia during the Science week was a success.

“The conference was very relevant for us because it discussed issues of renewable energy that will benefit the continent,” said NRF Head of Administration and Human Resource Edson Faria, on the side-line of the National Science and Technology Council (NSTC) organised Science Conference.

He pointed out that he is happy with the partnership that has existed between Zambia and Mozambique in as far as energy projects are concerned.

Mr Faria said Zambia and Mozambique have been supporting renewable energy.

Mr Faria has since stressed the Governments of Mozambique and Zambia to give scientists and researchers conducive environments for them to conduct research projects.

Mr Faria added that Mozambique is aiming at reaching the recommended one percent of the Gross Domestic Product (GDP) to support scientific research.



Edson Faria

Southern African Science Services for Climate Change and Adaptive Land Management (SASSCAL) Executive Director Jane Olwoch has implored women to take an active role and contribute positively to the growth of science and research in Africa and beyond.

Speaking in an interview during the Science Conference at the Mulungushi International Conference Centre in Lusaka, Dr Olwoch said women must be proactive and participate in science.

As an internationally experienced environmental and climate change leader, Dr Olwoch believes in the interconnectedness of nature and that a strain in one part of nature will unleash other unknown stresses somewhere else.

Her personal career in climate change is aligned with her personal values.



Michelo Moonga – Executive Director Zambia National STEM Foundation

Mutati calls for stronger links Between policy makers, scientists

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commemoration, to enhance awareness of STEM education, stimulate conversations that would foster smart partnerships and create a platform for community members to participate in STEM activities.

Mr Mutati as part of Science day commemoration, his ministry will collaborate with other stakeholders to create awareness on the importance of Science, Technology and Innovation for socio-economic development.

And Mr Mutati said the ministry also hosted the Zambia National Science Conference and the Southern African Science Service Centre for Climate Change and Adaptive Land Management, Energy and Climate Change Dialogue which began on Tuesday, 22nd November, 2022 to 24th November, 2022.

Mr Mutati said the conference which was graced by himself and his counterparts from the Ministry of Agriculture and Green Economy and Environmental Protection has attracted international participation from Malawi, Mozambique and Namibia among others, with experts from Germany expected to presentations on green hydrogen.

He said Zambia is interested to learn from experts on the use of green hydrogen as a clean energy source, other scientific discussions on energy be an

climate change which will as a result be an eye opener to see the potential for development of green energy strategies as a response to climate change impacts.

And Speaking at the same occasion, Zambia National STEM Foundation Executive Director, Mr Michelo Moonga said the first-ever STEM awareness festival which was held at East Park Mall on Friday will had close to 50 organizations exhibiting in their field.

Mr Moonga said because STEM has arts incorporated in it, the festival will also attract musical performances from some of the country's top artists and in addition, the foundation will hold the STEM awareness boot-camp from 11th to 18th December, 2022 where over 100 learners drawn from within North-western province will participate on various STEM awareness activities.

And Southern African Science Service Centre for Climate Change and Adaptive Land Management SASSCAL Country Coordinator, Dr Martin Mbewe said the dialogue Zambia is hosting this week will be the first the organization participates in since its establishment in 2012.

Dr Mbewe said SASSCAL Zambia wants to go full throttle in dealing with issues around hydrogen, as such, this week's conference will be a springboard to be utilized in order to be upto speed with the ambition.

Niza Zulu Unveils Intelligence Fish Farm, Febi Smart System

By Fulman Mukobeko

Bio Green Agro Technologies Co-Founder Niza Aritha Zulu has showcased an innovation dubbed Intelligence Fish Farm, Febi Smart System which enables fish farmers to monitor fish water quality remotely.

The Intelligence Fish Farm, Febi Smart System was unveiled at the just ended National Science and Technology Council (NSTC) in collaboration with Southern African Science Services for Climate Change and Adaptive Land Management (SASSCAL) Science Conference.

According to Ms Zulu, fish farmers are facing a lot of challenges in keeping their fish stock in good conditions, adding that they are facing high mortality rate with regards to the fingerlings.



Niza Aritha Zulu

“Our devise will enable fish farmers wherever they are in the world to monitor the water quality and ensure the reduction the mortality rate,” she said.

Ms Zulu said she is hoping that the Intelligence Fish Farm, Febi Smart System will be commercialised so that each and every farm has access to the device.

She explained that the organisation is implementing its project at the University of Zambia at the Computer Science Department.

Be proactive in science studies, Youths urged

By Alfonso Kasongo

A Zambian Researcher says the country risks losing out on real development if the uptake of science related subjects by the youth continues to below.

Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) Programs Coordinator Martin Mbewe has observed with concern the low levels of science uptake among the youth saying the levels pose a great threat on the socio-economic and technological advancements in the country.

Dr. Mbewe notes that no country can register real develop if science is not fully embraced. Speaking in an interview with communication journalist during the 2022 Zambia Science Conference in Lusaka, Dr. Mbewe is of the view that the youths in the country must begin to be proactive and taking initiatives to study science if Zambia is to remain science reliant. "Without Science, there can be no development. If we are to leave science to the old people, once they are gone, nothing is going to remain behind.

And if nothing remains behind, that basically means that is the death of the country because no country can survive without science. My message to the youth, is to take initiatives, be proactive in making sure they study science," Dr. Mbewe disclosed.

And a female PHD student in Animal Science, genetics at Zambia's highest learning institution, University of Zambia Mayaba Moono says despite increased awareness of the STEM subjects, there is more that the country needs to do to multiply the numbers of STEM students. Mayaba, who was one of the participants at the Conference also stressed the need to bridge the gender gaps found in the science related field explaining that the development of the economy must be inclusive. She added that science remains the driver of the economy as it forms the basis of informed decisions.

"Currently there has been a lot of awareness which has been done in terms



Mayaba Moono-PHD student t UNZA



Dr. Martin Mbewe

of encouraging youths to take up science related courses. I am sure there is progress looking at the numbers of the youth who have been enrolled in STEM

courses, but of course we can do much more especially encouraging the girls to take up more science courses," Mayaba said.



Misheck Muke Lukhama Milutech Solutions Enterprise, Grace Kakoma UNZA and Jeff Ngulube UNZA, Justine Imasiku Nicety Farm Technologies

National Science and Technology Council Award winners for 2022

Awards from the National Science and Technology Council in the categories of young scientist award, individual science and Technology merit award, research and development institutions award as well as the media awards



MEDIA AWARDS

Paul Shalala, a Senior Reporter at ZNBC in Lusaka with 14 years journalism experience.

He reports on various public policy issues ranging from science and technology, governance, human rights, economy to education.

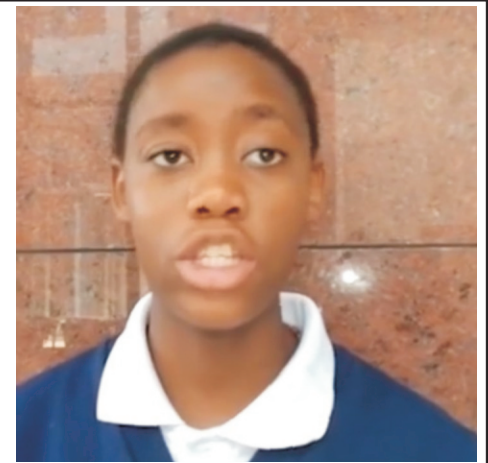
Over his career, Mr Shalala has won 15 national and 4 international awards and in his story submitted for this award, he filmed a farmer in Lusaka promoting organic and syntropic farming which are climate smart and environmentally friends.



Jowit Saluseki, *Times of Zambia* Senior Features Writer with over 10 years experience working in Newspaper writing and news editing.

He has won 8 awards at national level and his story submitted for the awards is based on a Climate Smart Technology Towards a Green Economy project aimed at enhancing climate smart technologies in order to curtail threats that derail development gains and enable the country enhance its green economy.

Saluseki, is a Ndola based journalist.



YOUNG SCIENTISTS AWARD

Chimfwembe Mary Mkandawire, a 16-year old grade eleven pupil at Kasisi Girls Secondary School whose Solar Electric Car project won 1st prize at the 2022 National JETS fair under the category of robotics.

Newsly Manda, a 17-year old male pupil doing grade eleven at Emusa Day Secondary School in Chasefu district of Eastern Province whose Network Booster project won 1st prize at the 2022 National JETS fair under the category of ICT, which sought to address the problem of network by people.

These projects will not end here, instead they will be considered for funding under the Science, Technology and Innovation Youth fund being administered by NSTC on behalf of government.

INDIVIDUAL SCIENCE AND TECHNOLOGY MERIT AWARD

Dr Chapwa Kasoma, female scientist and post-doctoral researcher for the Centre for Agriculture and Bioscience International whose recent works on Cassava Brown Streak Disease research and communication in Zambia has stimulated national interest towards a mitigation plan for the alleviation of the impact of the disease on Cassava subsector.

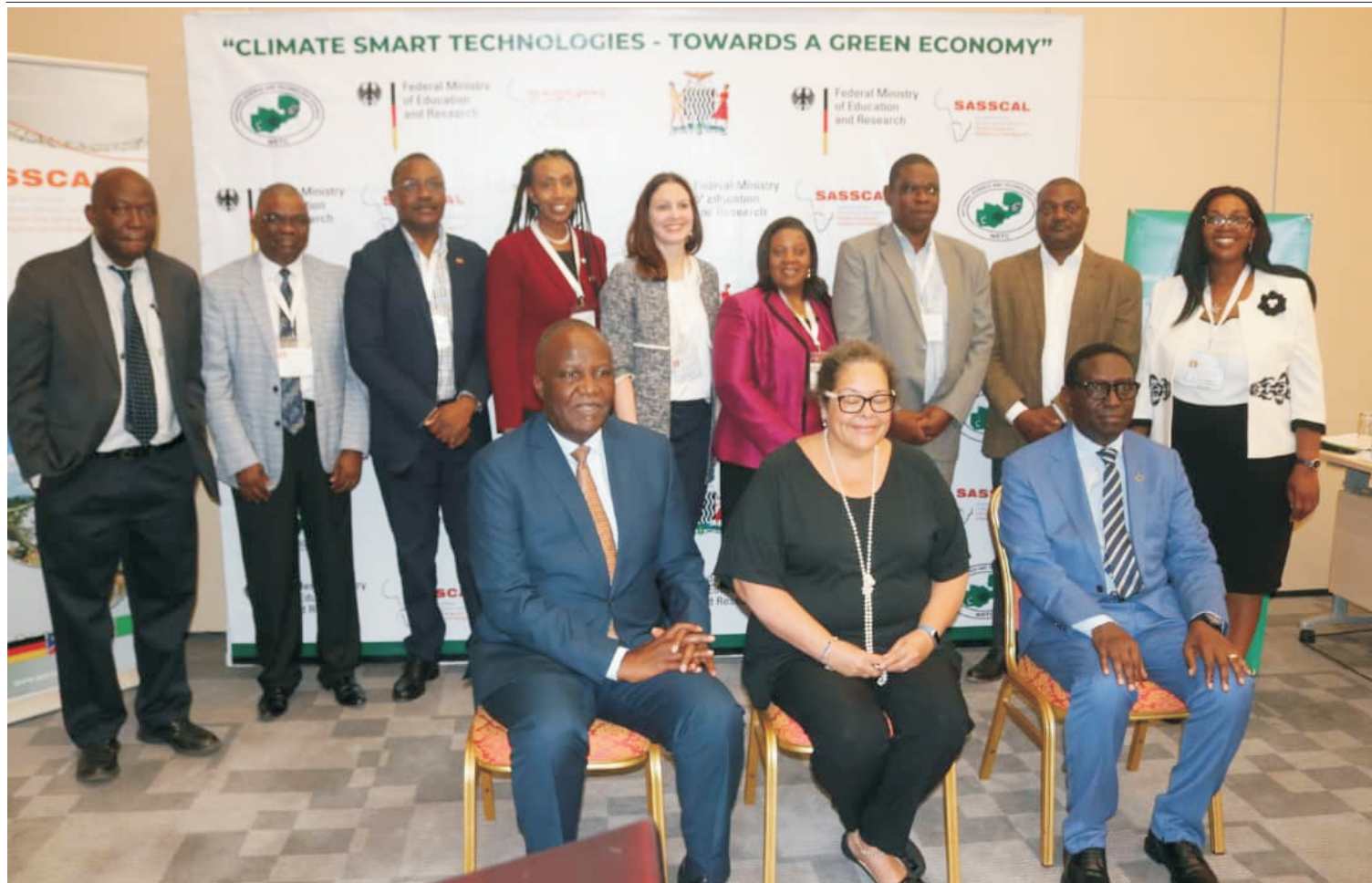
Dr Cephas Silubanje, a medical practitioner and public health specialist lecturing at Levy Mwanawasa Medical University whose outstanding projects among many include; Saving Mothers Giving Life and also contributed to the development, accreditation and teaching of public health programs and supervision of postgraduate student research and dissertation.

RESEARCH AND DEVELOPMENT INSTITUTION MERIT AWARD

Tropical Diseases Research Centre which is the main public health research, training and disease surveillance institution in Zambia.

National Science and Technology Council Award winners for 2022





Science and Technology Minister Hon. Felix Mutati poses for a group photo with participants during the Energy and Climate Change Conference at the Mulungushi International Conference Center (MICC) in Lusaka recently.



Participants following proceedings during the Energy and Climate Change Conference at the Mulungushi International Conference Center (MICC) in Lusaka recently.



Photo focus

PS Eng. Dr. Brilliant Habenzu representing minister giving a key note speech



NSTC Acting Executive Secretary Mr. Guest Mugala giving insights



Director Science & Technology – Jane Chinkusu delivering her remarks



Hon. Mutati (left) with participants during the Conference



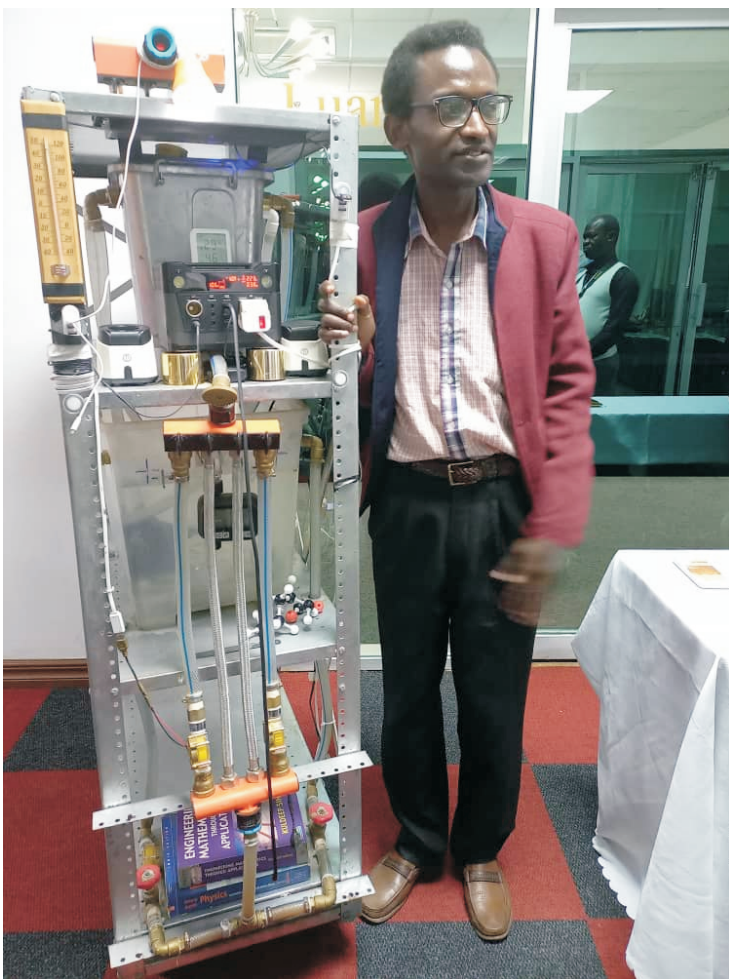
Science and Technology Minister Hon. Felix Mutati (middle) poses for a photo with participants during the Energy and Climate Change Conference which was held from 22nd to 24th November 2022 at the Mulungushi International Conference Center (MICC) in Lusaka.



Trino Aviedo - First Secretary Senior Liaison Officer, Canadian Embassy



National Science and Technology Council (NSTC) members of staff poses for a photo during the Conference at Mulungushi International Conference Centre (MICC) in Lusaka-Zambia.



Inventor Prof. Enerst Bwalya displaying his innovations dubbed Enerst Bwalya Climate Smart Power Generation during the Conference at Mulungushi International Conference Centre (MICC) in Lusaka-Zambia recently





Zambia Women in Agriculture Research and Development (Zaward) representative - Ms. Juliet Chikopela (center) during the Energy and Climate Change Conference at the Mulungushi International Conference Center (MICC) in Lusaka.



Acting Director of Planning National Council Science and Technology (NCST) , Malawi Mr. Victor Gondwe during the Conference at Mulungushi International Conference Center (MICC) in Lusaka.



Acting manger - program development and implementation officer Ms Atridah Mulonga displaying seeds from the stand at MICC in Lusaka.