

FINAL TECHNICAL REPORT / RAPPORT TECHNIQUE FINAL AFRICAN CONFERENCE OF SCIENCE JOURNALISTS 2020 REPORT

MESHA;

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Celebrating 15 years
of impactful science
journalism in Africa



African Conference of Science Journalists 2020

Virtual, November 17 - 20, 2020

*Theme: Bolstering the Role of Science Journalism
during a Pandemic and an 'Infodemic'*

Report



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Who we are

The Media for Environment, Science, Health and Agriculture (MESHA) was founded in November 2005 in Nairobi, Kenya, and is an organisation that provides support to science journalists covering health, development, technology, agriculture and the environment. It does so by offering training workshops, consultancies and encouraging networking through meetings and conferences among journalists, scientists and other stakeholders in Kenya.

The association emphasises on rural journalism and communication. The idea for the formation of this association sprang up from the fact that there were many organisations and communicators in the fields of agriculture, environment, health and development. However, few organisations in the region bring journalists covering these issues together, for better reporting in the media.

MESHA believes that in a democratic society where science must be answerable to the public, there is need to find new and innovative ways of effective mass communication about the benefits of science, and other areas of concern to the general public.

MESHA aims to ensure continuity, sustainability and consistent coverage of science and development issues as they arise.

Acknowledgment



Over 100 international and local science journalists from Africa; communication professionals; scientists; and policy makers attended the Fourth African Conference of Science Journalists (ACSJ IV) held from November 17 to 20 virtually.

The conference provided a platform to discuss the current status and future of science journalism in Africa, and disseminate the latest updates in research and development happening and affecting the continent. ACSJ IV, proved to be a vibrant networking and training platform that left participants re-energized and inspired.

Latest findings in science research and development on health, agriculture, technology and environment were presented during four days plenary sessions.

The Conference provided a platform to enhance the already promising engagement between policy makers, science institutions and the academia on the place of Africa in research and development.

Key panels, consisting of select experienced journalists who have over time covered key topics was for the first time, given an opportunity to share their successes and challenges with the attendees.

The conference witnessed a near equal representation of both gender.

Conference Objectives

1. To empower science journalists with tips and tools to carry out factual stories so as to improve science journalists' ability to detect and decipher disinformation
2. Providing a platform to identify opportunities and threats to science journalism in a post-COVID-19 world
3. To illustrate to journalists the interconnectedness that science (environment, health, agriculture, technology), economy and policy have as a lesson learnt from the fight and impact of COVID-19.

We thank all the organisations who supported the conference such as IDRC, Drugs for Neglected Diseases, WWF-Kenya, IUCN and InfoNile. We also thank the speakers, our moderators and the bilingual interpreters for a job well done. Most importantly, we appreciate and recognize the participants who went out of their way to attend the four day engagement and for the hundreds of stories that you published in your various news outlets and on social media.

Executive Summary



Ms. Violet Otindo, Chairperson

In her quest to consistently bring African science journalists together, our media association, The Media for Environment, Science, Health and Agriculture (MESHA), once again held a high powered four day conference for science journalists in the continent.

The conference came at a time of uncertainty due to the ravaging impact of the COVID-19 pandemic which ensured that a physical in person gathering could not be held.

As has been noted in our various engagements, science journalists working in developing countries still face a number of challenges, such as getting local stories, dealing with reluctant or unskilled scientists and communication officers. Even though a lot of stride has been made to bridge the gap between science journalists and scientists, there remains a lot of work to do. By holding this conference, we managed to score highly on this front given the enthusiasm that we witnessed from all the scientists who made presentations at the virtual meeting.

Given the nature of Africa, language barrier has also been identified as a key factor which stifles the passing of information in Africa. During this conference, through support off IDRC, we provided a bi-lingual translation. This ensured that both the Anglophone and Francophone Africa understood each other for effective participation. This way, we managed to ensure that as many parts of Africa were reached with science messages in languages that the masses identify with.

We are grateful that the scientists helped our cause in a big way because they simplified most of their presentations. This act gave a relief to journalists who have often dealt with multiple and technical terminologies.

Whereas there has been complaints of having few stories to report on, science journalists have been swamped with an avalanche, an info-dermic that requires continuous support and mentorship. In a big way, a training on how to effectively write editorials addressed this challenge hence made light this burden on African science journalists.

Notably, MESHA, through this conference, provided a forum where both journalists and scientists discussed, contextualised and participated in disseminating science information in a friendly format to the African audience. It also provided an opportunity to move away from COVID-19 news saturated arena and look at other pandemics such as HIV that could easily be left behind in our story telling today.

Great attention was paid to gender perspectives in various presentations and the scientists were able to illustrate or recognise gender aspects in their work. This basically was a big improvement from the past conferences. With this first, the association looks forward to providing room on gender perspectives as was supported by the Conference theme which was Bolstering the Role of Science Journalism during a Pandemic and an 'Infodemic'.

Prior to the conference, speakers and moderators were urged to include gender perspectives in their moderations and presentations.

In terms of attendance, 174 women attended the conference representing 49 per cent of the total attendance. A total of 355 men attended the virtual meeting representing 51 per cent of the overall attendance.

Lastly, the conference participants challenged MESHA to spread its wings throughout Africa and help in the formation of national science journalists associations. It is hoped that the leadership of MESHA, with support from well-wishers and current partners can come together to live this dream.

1.0 OPENING SESSION

1.1 Why journalists must tell the African story using social media Allan Obiero, MESHA Vice Chairman

In his opening remarks during the virtual event, Allan Obiero, the vice-chairperson of MESHA urged African journalists to embrace the use of social media in disseminating vital information on new research and innovations in their day to day reportage.

Mr Obiero said that social media platforms, among them Twitter, Zoom and Facebook, are a few frontiers that could be adopted by journalists in highlighting key issues in research and innovations.

“This is a unique conference. Social media is no longer just a space for fun but a place where serious matters in science can take place and bring about real positive impact,” said Mr Obiero.

He added that scientists’ work should reach the market, and the best way is through African journalists who have regular science beats.

While acknowledging the new normal occasioned by the COVID-19 pandemic, he noted that the virtual meet will act as a ‘quality story time’ for journalists across the continent.

“We hope we shall have interactive sessions where journalists’ will source enough quality stories for publication since we have a number of exciting topics lined up,” he added.

He also stressed on the need for sustained journalist scientists interactions across the continent, adding that MESHA prides itself in connecting scientists and journalists to project key issues geared at creating positive impact to the society.

“We are still true to our philosophy of working with organizations’ that do real science. This virtual conference will go a long way in demonstrating this,” noted Obiero, who termed the conference a milestone aimed at bridging the huge gap that existed between scientists’ and journalists.

“Fifteen years down the line since we started this journey, there is still a lot of work to do,” he said.



Mr. Allan Obiero, MESHA Vice Chairman

The growth in numbers of science journalists, he noted, called for more effort to be put in this field if MESHA were to remain a centre of excellence for science journalism. He further stressed on the need for long term partnerships (beyond the event based ones) on financial and technical aspects in order to sustain higher science reporting standards in Africa.

He urged all the presenters to ensure that gender perspectives of their researches are made very visible to journalists as scientists needed to take a leading role in including gender roles clearly in all their work.

He ended his speech by saying that, “MESHA seeks to use this virtual event to showcase to African scientists and journalists what a true science journalist association can achieve with just a little support.

Social media is no longer just a space for fun but a place where serious matters in science can take place and bring about real positive impact

1.2 Time for journalists to network

Dr. Kathryn Toure, Regional Director, IDRC- Regional Office for Eastern and Southern Africa

Dr. Kathryn Toure, Regional Director, International Development Research Centre (IDRC), Regional Office for Eastern and Southern Africa began her speech by appreciating the enormous support the organisations and other partners had given MESHAs since 2014.

Dr. Toure stressed the conference theme as an appropriate at a time when the world was grappling with COVID-19 and the accompanying fake news. She noted the organization has been supporting research for 50 years.

She urged science journalists to take advantage of the conference to enhance their capacity in science matters and make a difference for the practice of science journalism in Africa. "I look forward to learning from you what the special role of science journalism is, at a momentous time like the one humanity is experiencing now.

I hope this first virtual MESHAs conference will inspire you, individually and collectively, and make a difference for science journalism in Africa, at a time when we most need it. I always read the articles produced during the conferences. And I very much look forward to reading you this year," Dr. Toure posed.

Dr. Toure further told African journalists to integrate concerns around gender, diversity, equity and inclusion in their organisations and their reporting.

Gender and inclusion will be integral to IDRC's work over the next ten years, she added.



Dr. Kathryn Toure

"This is because we know that systemic inequities, further exposed by COVID-19, can only be addressed if we ask questions that get at the root causes of discrimination.

This approach is in line with Canada's Feminist International Assistance Policy and with Aspiration 6 of Agenda 2063 – "to realize an Africa whose development is people-driven, especially relying on the potential of its youth and women," noted Dr. Toure.

She noted at the conference that IDRC will soon launch its 2030 strategy that overlap directly with the concerns of MESHAs including global health and climate resilient food systems.

The organisation, she added, has invested in African researchers, research organization and knowledge ecosystems supporting climate action across the continent.

"We promote collaboration and learning across boundaries, in a spirit of regional intergration. And IDRC supported researchers have shown how health challenges can be addressed through community-based approaches. We look forward to linking you with researchers in these areas, whenever we may be of service to you," she noted.

Dr. Toure challenged science journalists to address pertinent questions in the current circumstances.

"For example, how are you adapting to the new ways of working? What are the challenges and how are you overcoming them? And how will the lessons learnt now reshape journalists and journalism as a profession going forward?" she posed.

She also called on journalists and scientists to use the conference to network and learn from one other.

Gender and inclusion will be integral to IDRC's work over the next ten years

CONFERENCE PRESENTATIONS

Being a virtual event, the main conference days were characterized by presentations, discussions, panel debates and testimonies from journalists.

2.0 HEALTH

2.1 Boosting HIV/AIDS care and treatment; the case of electronic vending machines - Dr. Catherine Ngugi, NASCOP

The presenter noted that the country had one of the largest HIV epidemics globally with about 1.5 million people living with the virus.

According to the Kenya HIV Estimates 2020, about 1.4 million are adults while 106,807 are children aged 0-14 years. Overall national prevalence is 4.9%. Data, she said, shows a huge gender disparity with double the prevalence among women as compared to men at 6.6% and 3.1% respectively, according to Kenya Population-based HIV Impact Assessment (KENPHIA) 2020.

At the same time, of the estimated 106,807 children aged less than 15 years LHIV, only 68,681 are on Antiretroviral Therapy (ART).

The Head of NASCOP, Ministry of Health acknowledged great strides the country had made in fighting HIV/AIDs, but further warned that, "We can do much more to bring to a halt the spread of new HIV infections even amidst the COVID-19 pandemic"

"I know that it's not business as usual as the pandemic has changed global dynamics both in the health sector and in economies. The focus of information flow has moved from other killer diseases to almost solely COVID-19.

I want to say that HIV is still another pandemic that we must not ignore," added Dr. Ngugi. Dr. Ngugi also announced the launch of HIV self-testing electronic vending machines (EVMs) slated for December 1, World Aids Day at Kajiado County, Kenya.

"The machine functions like the way you can buy a chocolate from a vending machine," she explained in her remarks. She revealed that the agency is working closely with different organisations to enhance HIV testing uptake.

"This is part of our efforts to scale-up the use of self-tests in the private sector and specifically, in workplace settings," she said. Among the partners are Farmer's Choice Limited Kenya and OraSure Technologies Inc, which will implement a demonstration pilot of two self-test electronic vending machines.



Dr. Catherine Ngugi
Head, NASCOP

"Farmer's Choice Limited has over 1,500 staff, a majority of whom are men, self-tests will be dispensed at no cost to the personnel at the company," she added. According to Dr. Ngugi, the use of electronic vending machines in HIV care and treatment programmes is not new.

"Condom vending machines have been implemented globally in locations such as public restrooms, petrol stations and campus halls of residence.

They provide discretion, enhance privacy and in turn, reduce users' feelings of embarrassment and fear or risk of stigma from health providers in the community," she explained.

They can, therefore, be of value to the overall health system by facilitating and increasing access to key commodities, providing opportunity for health programmes to focus more on quality of services.

Dr. Ngugi noted that the electronic vending machines will reverse the dropping number of people testing for HIV caused by the COVID-19 pandemic, and the project, if successful, will be rolled out countrywide.

The self-testing kit will be part of a series of safer and more effective treatment regimens, which also include phased approach of ART optimisation/treatment to phase out Non-Nucleoside Reverse Transcriptase Inhibitors - a class of ARVs (NNRTIs), as well as full implementation of multi-month dispensing of three months or more of HIV treatment.

"Up to three multi-month dispensing of ARVs has been considered for all PLHIVs regardless of age and viral load status. Dispensing will be based on assessment of patient needs and availability of adequate ARVs," Dr. Ngugi added.

2.2 Why African food systems need a rethink

Dr. Samuel Oti, Senior Program Specialist - IDRC

The presenter began by building a case on the effect of the increasing rate of food production on the environment.

Dr. Samuel Oti, Senior Program Specialist, Global Health Program IDRC, said Africa needed to rethink its food production systems to reduce carbon emissions that have more than doubled in the last five decades.

Dr. Oti said the largest emitters of carbon in Africa are waste-related or enteric (intestinal) fermentations from cows (38 per cent), manure left on pasture (27 per cent), burning of savannahs (24 per cent), synthetic fertilisers and water used for paddy rice irrigation (three per cent).

The IDRC expert said the emissions from agricultural activities had significantly increased and were not likely to reduce, given the continent's current rate of production.

"These top emitters are a major contributor to the agriculture-related emissions on the continent, which have risen by a staggering 243 per cent in the last 50 years," he said.

Dr. Oti lamented that the planet was busy in a mad rush to produce food using available resources while producing large amounts of waste. This situation, he said, had persisted despite shortage of food in marginalised regions and parts of the population.

"We are literally eating ourselves to death. Today, we use one third of the planet's surface to produce food. Africa can't continue with a business as usual approach to food systems. Yet no country in the last 33 years has managed to lower its obesity," said Dr. Oti.

He further noted that food supply inequalities across the globe adversely affected the poor, starting with the most vulnerable sections. He said women, who form the bulk of those engaged in farm work, were less likely than men to benefit from agriculture related activities, but more prone to suffer the ill-effects of scarce or extra food.

"Gendered inequalities in food production limits women, who constitute the bulk of smallholder farmers, from significantly participating in profitable, value addition components in the food system," he said.

"Similarly, women bear a disproportionate



Dr. Sam Oti
Senior Program Specialist - IDRC

burden of food-related health outcomes such as obesity or undernutrition."

Dr. Oti identified other challenges to continental food security as food wastage, limited research capacity and funding, consumers' lack of knowledge on food conservation as well as social and cultural barriers.

Out of 143 countries surveyed in the report, most of the 37 countries with reported high levels of stunting, wasting and obesity are in Africa.

Dr. Oti decried the modern but careless tendency to waste the world's natural resources and degrade the environment in pursuit of commercial agricultural profits.

Dr. Oti advocated for a revised economic vision that would properly reward women's participation in agriculture, saying this would bridge the gap in earnings between them and men.

Africa's drive to achieve food security, he said, was a difficult task given "the double burden of malnutrition, food insecurity and food safety, unclear policies and competing priorities like infectious diseases and emergency outbreaks".

2.3 Protecting children from HIV, COVID-19 and finding improved treatments - Dr. Irene Mukui, HIV Access and Medical Affairs Leader, Drugs for Neglected Diseases initiative (DNDi)

Dr. Irene Mukui, HIV Access & Medical Affairs Leader DNDi Africa Regional Office

started her presentation by stressing on the need to protect children from HIV and COVID-19 adding that statistics had laid bare the burden.

Dr. Mukui noted that care for HIV infected children lags behind that of adults. She said that only half of children aged below 15 years living with HIV receive antiretroviral therapy globally.

Globally, only 6 out of 10 newborns get tested for HIV by two months of age. In total, about 1.8 million children are living with HIV, and 1.4 million of them – 63 per cent – are in sub-Saharan Africa.

Dr. Mukui said over 300 children and adolescents die every day from Aids related causes while about 400 children are infected with HIV daily. “Currently, 90 per cent of HIV infections occur through mother to child transmission, with 90 per cent of paediatric infections occurring in sub-Saharan Africa,” she said.

While only 54 per cent of the children are on treatment, about 82 per cent of their mothers are on ART, she said.

“The paediatric ARV market is particularly vulnerable and complex because children are few (less market) and they require different dosages and formulations as they gain weight,” she explained.

Generally, treatment for children can be complicated and more expensive. Every year, we lose about 4,000 children to HIV. Addressing the needs of children living with HIV, especially during the COVID-19 pandemic is critical.



Dr. Irene Mukui
HIV Access and Medical Affairs Leader
DNDi Africa Regional Office in Nairobi

“You require a combination of pills or liquids or pills and liquids. Some pills can also be difficult to swallow and some liquids have unpleasant taste,” she added.

Dr. Mukui further noted there are fewer studies in children and as a result, fewer combined treatments for children compared to adults. She noted the HIV diagnosis, testing for children needs to be more available and closer to children.

“Medicines specifically adapted to the needs of children should be developed and kept at an affordable price,” she said.

“Government, non-governmental organizations, research partners, health experts, civil society and the media need to advocate strongly for the development of child-friendly combinations to make treatment easier for children,” Dr. Mukui added.

But there are efforts by the government to end the problem, she told the conference. “The government is now investing more in innovative testing approaches such as self-testing. Infants born to HIV-infected mothers now have access to prompt HIV diagnosis and treatment,” she said.

She also cited increased research and development around new paediatric HIV treatments.

“In early 2021, we expect two new formulations to be approved including Dolutegravir 10mgs dispersible tablets (as preferred drug recommended by WHO in combination with others), 4 in1 combination capsules,” said Dr. Mukui.

Medicines specifically adapted to the needs of children should be developed and kept at an affordable price

2.4 Reporting health in Africa: Journalists' experiences from Sierra Leone (Kemo Cham), Uganda (Vivian Agaba), Lesotho (Lerato Peggy Matheka) and Cameroon (Frida Voma Leyina)



**Lerato Peggy Matheka,
Editor, Newsday Newspaper,
Lesotho**

This session saw journalists from various African countries share their experiences and the challenges they face on reporting matters health.

The moderator, Ms Zarina Geloo from Zambia recognised the fact that different countries report differently on issues HIV/AIDS of health for that matter depending on their peculiar situations and therefore there was need to discuss interventions to help promote science journalism.

"Even though the challenges in reporting HIV/AIDS may be similar and merged across board, they however get to be tackled in totally different approaches," she said.

In giving insights, journalists from Uganda, Vivian Agaba and Esther Nakkazi, said the number of journalists showing interest in reporting science issues is increasing with each passing day and this has been due to their association's initiative of working closely with scientists and their organizations. This, they said, had in turn resulted into a sustained rapport with credible sources.

"Over time, we have seen improved reporting on health as journalists now do follow-ups of their stories. Every year we dedicate the month of December to reporting on HIV/AIDS, this is unlike in the past," said Agaba.

"Our progress has been due to our good relations with scientists, institutions and partnerships with journalists' networks like MESHSA," added Nakkazi.

The same sentiments were shared by journalists from Kenya and Botswana who said they can freely report on health since they have good relations with experts and scientists who are always ready and willing to give information when need arises.

"We write a lot on HIV/AIDS and through our journalists' network and each month we organize a science café to discuss issues of health," said Miss Irene Shone, a journalist from Botswana.

As much as reporting on HIV/AIDS is free in many countries, other countries have different trajectory.

Ms Lerato Peggy Matheka, an editor from Lesotho, mentioned that health reporting is unpopular among journalists and even editors in the country. Most editors would prefer publishing political stories over health which only gets space as fillers.

Ms Matheka said they get frustrated as they lack information and real data on health issues and they only depend on press releases which do not give much and are geared towards public relations stories. Few journalists, if any, does well researched stories as they have to depend on government sources.

From Sierra Leone, Kemo Cham, a senior freelance journalist, shared that science journalism was lacking in the country since there is high turnout of journalists and therefore there are no committed journalists who are ready to focus on science.

"We lack qualified journalists and most of those available come for a short period and only use the profession as a stepping stone to other professions," said Kemo.

The same scenario was reported by Ms Fridah Leyina from Cameroon who said most of their journalists lack specialization in health reporting. This in turn has given a leeway for citizen journalism that uses social media platforms to push their unverified information.



**Kemo Cham, senior
journalist, Sierra Leone**

She also complained of non-cooperation among veteran journalists who look down upon upcoming journalists and are not ready to learn anything from them. The situation in Cameroon hence calls for experienced journalists to be humble enough and mentor the upcoming colleagues.

In response to her concerns, MESHSA secretary Aghan Daniel advised on the importance of humility among journalists.

"We should see ourselves as equal and be ready to learn and help one another despite our levels of experience if we want to grow science journalism.

MESHSA gives equal opportunity across board and is willing to mentor interested journalists regardless of their nationalities," said Aghan.

Journalists from countries with no or little health reporting were encouraged to develop personal interest in reporting science stories and to form networks that will give them strength to discuss science reporting.

2.5 Mycetoma: Research to address a unique neglected tropical disease Dr. Borna Nyaoke-Anoke, Senior Clinical Project Manager & Medical Manager (NTDi)

Mycetoma is a fungal infection recently listed as a neglected tropical disease by the World Health Organisation (WHO). Though the fungus comes from the soil or animal dung, which then gets into the body through a pricked skin, there is no particular theory about the route of transmission.

Dr. Borna Nyaoke-Anoke, a Senior Clinical Project Manager and medical manager at the Drugs for Neglected Disease Initiative (DNDi), noted that the rise in neglected foot disease has raised concern.

Dr. Nyaoke-Anoke explained that Mycetoma is a bacterial or fungal infection that can be devastating and results in amputation. In Sudan, about 14 in 1,000 people have been affected by the disease that leads to disability and stigma. It is widespread in Chad, Ethiopia, Somalia, Sudan, Senegal, Mexico, India and Yemen.

In tropical countries, a fungal disease has forced patients to walk with swollen feet and in pain. After treatment, the lucky ones emerge from surgical beds in crutches or wheelchairs, grateful to be alive even after their legs are amputated. The unfortunate ones succumb.

She noted there is hope for finding a short-term treatment for the suffering patients, with the pioneer clinical trials undertaken by the Mycetoma Research Centre in Sudan on 6-10 participants a month.

"The current treatment has a lower cure rate, leading to high amputation and recurrence rates. With the use of existing drugs and surgery while advocating for greater engagement and investment in research and development, the future to get a drug to treat the patients is promising," said Dr. Nyaoke-Anoke.



**Dr. Borna Nyaoke-Anoke
Senior Clinical Project Manager & Medical
Manager at Drugs for Neglected Diseases
initiative (DNDi)**

By 2023-25, a more effective and affordable drug named Fosravuconazole, capable of treating the patients within 12 months, may be available in the rural areas of Sudan.

"The drug, though effective in treatment, has serious side effects," she said.

Dr. Nyaoke-Anoke noted that there is little research on mycetoma and its incidences unclear.

Clinical trials carried out by the DNDi with the support of Global Health Innovative Technology (GHIT) revealed that 84 patients completed treatment using the new drug. She stressed for health education among healthcare providers as well as clinical systems that include early case detection and serological diagnosis.

The trials were conducted during a study on 104 out of 138 patients aged 15 and above. To prevent the disease from spreading, people are urged to wear shoes while in the field and observe local environment hygiene.

The trials were conducted during a study on 104 out of 138 patients aged 15 years and above. To prevent the disease from spreading, people are urged to wear shoes while in the field and observe local environment hygiene.

Dr. Nyaoke-Anoke also called for health education among healthcare providers as well as clinical systems that include early case detection and serological diagnosis.

Some obstacles in treating the disease include lack of effective, safe and affordable cure; no research and development programme on the disease and lack of or ineffective national programmes. "Drugs for treatment of Mycetoma are too expensive, costing up to about USD2,500 per year, this leads to poor compliance and poor efficacy," she said.

She further noted that discussions are ongoing with endemic countries and policymakers for appropriate approval strategies for the drug use and acceptance.

2.6 Health Financing: Are African governments delivering? - Prof Alex van den Heever, Chair of Social Security Systems Administration and Management Studies at the University of the Witwatersrand (WITS)



Prof Alex van den Heever

Prof Alex van den Heever said African governments need to relook at how they are allocating money to health, one of the most vital sectors in any country. He said that although the problem is universal, Africans feel the brunt because of high poverty levels.

"Globally, there is no single country that has one single pay scheme.

Their performance is intimately related to the way in which the overall system is organised," he said.

In 2001, African Union member states signed the Abuja Declaration, pledging to allocate at least 15 per cent of their annual budgets towards health care.

Almost 20 years later, Kenya's overall spending on health care has been straddling between six and seven per cent of the entire budget, while Africa's most populous nation Nigeria spends as little as four per cent.

"Resources are depleted. Administrators of health facilities have to be aggressive or else they are unprioritised. Government has many expenditures. It is about weighing options," said Prof Heever.

Currently, governments are searching for the best way to finance health. Single versus multiple payer, tax payer versus contributory, vertically integrated versus purchaser provider splits, free for service versus capitation and diagnostic related groupers, public versus private coverage and provision are some options they are considering.

Due to limited resources, Professor Heever said, key strategic decisions involve understanding what functions to centralise and which ones to decentralise. In Kenya for example, health was devolved and is now a responsibility of county governments. This has attracted mixed reactions.

"When you decentralise the wrong functions, it creates bottlenecks in management. Well-designed organisations internalise their responses to internal and external pressures such that they optimise all three forms of efficiency in realising their organisational purpose," he said.

He further explained that accountability regimes, the direct effects of which are highly localised, are used to internalise responses to internal and external pressures in relation to a set of objectives and goals that define the organisation or system.

Prof Heever advised that health schemes should not be created by economists just bringing cost effective approach; instead, it should be strategised in a way that helps people.



East African Conference of Science Journalists

23 - 26 Nov, 2021, Kisumu, Kenya

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2.7 Why Transgender women, MSM need special focus in HIV response Dr. Kimani Makobu, Kenya Medical Research Institute (KEMRI)

Dr. Kimani Makobu opened his presentation by delving deeper into HIV preventive care services for Trans women, Men who have Sex with Men (MSM) revealing specific ways in which this key population had been neglected in HIV programming and care.

Dr. Makobu presented a study conducted in coastal region dubbed Strengthening HIV preventive care services for Transgender Women and Men who have Sex with Men in Coastal Kenya focusing on Pre-exposure Prophylaxis (PrEP). He said key populations were found to be particularly disproportionately affected by HIV and are 49 times more likely to be living with HIV.

Both MSMs and transgender women's needs are ignored in HIV programming and response. As such, they remain at greater risk of HIV acquisition, transmission, delayed testing and treatment, he added.

But why is this cohort easily ignored or reached when it comes to interventions? "Same sex relationships are criminalised in Kenya under Section 162 of the Penal Code. However, Article 43 and 56 of the Constitution guarantees the right to access healthcare. Nevertheless, while guidelines for key populations programming have been in place since 2006, there are no guidelines for transgender women in particular,"

He noted that PrEP is part of the HIV response, as there is significant clinical evidence that the use of anti-retroviral drugs (ARVs) in HIV negatives at risk individuals can reduce acquisition of HIV.

This study therefore assessed HIV incidence and PrEP interest among MSM and transgender women. It also assessed PrEP adherence and persistence among this cohort and further assessed challenges in adhering to PrEP among this key population.

Targeted key populations demonstrated awareness of PrEP in HIV prevention efforts. However, MSM and transgender women in particular also expressed the likelihood of increased sexual risky behaviour upon PrEP initiation. They also spoke of challenges and stigma they would face in accessing PrEP services and in adhering to PrEP.

One of the primary objectives was to assess adherence for PrEP and persistence among key populations. Both MSM and transgender women who participated in this study indicated unplanned or frequent risky sexual encounters as their main motive for PrEP uptake.

In the end, the study found that there were several factors such as mental health challenges that impede uptake of HIV prevention services. It concluded that unmet HIV prevention needs in transgender women should be comprehensively addressed in HIV programming guidelines.



**Dr Makobu Kimani,
KEMRI, Kilifi**

Trans Women are disproportionately affected by HIV. In 2012, UNAIDS identified TGW as a key population in need of HIV prevention services. However, they have remained largely ignored frequently and misclassified MSM.

Transgender women and MSM have specific needs that are not captured in existing HIV preventive and response guidelines.

Additionally, recognition of HIV acquisition risk may improve PrEP adherence as would exploring long acting PrEP delivery models such as injectable PrEP as opposed to pills.

Further, additional PrEP dispensing venues are needed aside from public health facilities such as community-based drop-in centres. Dr. Makobu hinted that The National AIDS and STIs Control Program (NASCOPI) is developing programming guidelines for transgender women specifically.

This study assessed HIV incidence and PrEP interest among MSM and transgender women.

3.0 ENVIRONMENT

3.1 One Health: Biodiversity Loss and impact on human health, food security and our existence.

Three presentations were made during this session namely, Taking action to reverse biodiversity loss by Nancy Githaiga of World Wide Fund – Kenya and her colleague, Andrew McVey whose topic was Biodiversity Loss and impact on human health, food security and our existence.

Thereafter, Ms Sophie Ketegeka of the World Biodiversity Centre talked about a project known as Conserving Natural Capital and Enhancing Collaborative Management of Transboundary Resources in East Africa (CONNECT).

Ms Nancy Githaiga kicked off her presentation by noting that human beings relied on nature and biodiversity for every aspect of the societies they dwell in.

Nancy Githaiga, Head of Conservation Programmes – WWF-Kenya said nature is home to biodiversity, source of food, shelter and medicines, clean water, air and healthy soils among others.

According to her, pandemics such as COVID-19 can be averted in future by restoring and protecting natural habitats.

Githaiga, said there is a need to address loss and degradation of habitat to minimise vulnerability to pandemics. The loss of nature is estimated at 68 per cent.

“As habitats reduce, animal species are coming into more contact with humans. This is leading to zoonotic diseases such as COVID-19. We may continue looking for vaccines against the pandemic, but if we continue living the way we are, more risks will come. We have to solve these issues upstream to reduce vulnerability by striking a balance with nature,” Githaiga told the conference.

She noted that habitat loss and degradation increases the populations’ vulnerability to pandemics.

Githaiga explained, “Nature is declining, together with its benefits. We have taken it for granted and it is treating us the same way. That is why diseases are being brought from animals to humans; and we have to live with the consequences of our actions.



Nancy Githaiga
Head of Conservation Programmes at
World Wide Fund for Nature-Kenya.

Therefore, we have to start healing our relationship with nature and striking a balance to prevent this.”

By 2050, Africa will be a different continent. Its population will have soared by another billion. However it will introduce numerous opportunities, and at the same time, exacerbate the existing challenges in the continent.

“Whereas we need to continue developing the continent, we also have to consider right development planning to maximise its benefit and minimise its impact. Development pathways need to strengthen resilience of ecological infrastructure,” said Drew McVey from WWF-Kenya.

Mr McVey said naturally functioning ecosystems should be maintained while building physical infrastructure, without necessarily putting them into competition.

“Unregulated wildlife trade increases humans’ vulnerability to pandemics. There is also a need for sustainable and efficient production of food without endangering the natural capital that the environment provides,” Githaiga said.

Although we cannot always foresee and prevent these diseases, we can act to heal our relationship with nature and reduce the risk of future pandemics. Githaiga noted the need to incorporate a One Health approach – linking the health of humans, animals and our shared environment – within decision-making on wildlife and land-use change.

“To prevent the next pandemic we must rebalance our broken relationship with nature,” she said.

Drew McVey, Regional Wildlife Crime Technical Advisor – WWF, mentioned that Africa is experiencing unprecedented societal, economic & environmental transformation.

He added that it is therefore important that even as the continent’s infrastructure is being developed, the right development planning should be put in place to minimize on destruction of its ecological infrastructure.

McVey went ahead to note that Africa is host to many of the world’s important ecosystems that need to be looked at even as the economies grow.

He said that as countries’ economies grow, so do the needs for natural resources. This, he noted, calls for protection of ecological infrastructure.

“Naturally functioning ecosystems that deliver valuable services to people, such as water and climate regulation; including catchments, rivers, wetlands, coastal dunes, and wildlife corridors need to be protected,” he said.

He noted that by 2050, Africa’s population will have grown by another billion and its cities will house more people than its rural villages. The economies in African countries will also have transformed and therefore the need to create a proper balance with nature by keeping functioning ecosystem services even as physical infrastructure is being built and the two do not need to compete each other.

“This growth comes with introduced numerous opportunities and at the same time, it has exacerbated the existing challenges in the continent,” he observed.

Sophie Kutegeka, Chief of Party – Conserving Natural Capital and Enhancing Collaborative Management of Transboundary Resources in East Africa (CONNECT) observed that Africa is endowed with rich biodiversity and CONNECT looks at enhancing collaborative management of transboundary resources between different countries.



Drew McVey, Regional Wildlife Crime Technical Advisor – WWF

She at the same time announced that their program aims at increasing awareness of the economic and intrinsic value of living wildlife to ensure there is reduction in poaching and illegal trafficking of wildlife and its products.

“CONNECT works towards enhancing and increasing awareness by generating innovations, engaging different actors and partners to appreciate the value of living wildlife to the rural livelihoods and at higher level in terms of socioeconomic benefits,” said Kutegeka.

This conservation outcome, she said, will strengthen regional policy dialogue, learning and decision making on management of transboundary natural resources.

The presenter highlighted the contribution of CONNECT to East African Communities on Anti-Poaching Strategy mentioning that they are working on strengthening policy and legislative frameworks to improve their effectiveness.

“This we do by establishing a prosecutors’ forum on wildlife and related crimes, we at the same time develop and enhance law enforcement capacity thus build capacity for stronger engagement of local communities in combatting illegal wildlife trade,” she added.

Kutegeka informed participants that CONNECT strengthens regional and international collaboration and at the same time increase capacity of local communities to pursue sustainable livelihoods.

Even as the continent’s infrastructure is being developed, the right development planning should be put in place to minimize on destruction of its ecological infrastructure.

3.2 COVID-19: Science and Sociology of the Century's Longest Assignment Richard Mahapatra, Managing Editor, Down To Earth Magazine, India

Stories that offer solutions to challenges in the community (also known as solution journalism) have a profound impact not only on the community but also on stakeholders and policy makers.

Richard Mahapatra, Managing Editor, Down To Earth Magazine started his presentation by narrating how COVID-19 pandemic gave the solution journalism magazine what he termed "a once-in-a-century science assignment."

The COVID-19 pandemic, he added, is the widest, and strongest impact-wise that impacted everybody, country and continent.

"It is the toughest local assignment for a global development. The last we had such an opportunity was back in 1918-20," said Mahapatra.

In its February 2020 Down to Earth Magazine titled "Unmasking Coronavirus," explained Mahapatra-the organization deployed a group of 40 writers in Asia, Africa, and Europe to get in the first impressions of the potential pandemic.

We spent a week deciphering the potential pandemic: will it be just a health crisis? We organised ourselves into looking at three aspects: the health crisis as unfolding, the economy and the global response," he explained.

He further said that the pandemic offered journalists the best opportunity to make science relevant to the society, explore why science shouldn't be a political pariah, and do ultra-local reporting and to do local to global reporting using science as the base but understanding its various facets.

According to Mahapatra, the COVID-19 pandemic assignment turned out to be a learning curve for the journalists.

"We learnt that never push certainty when it doesn't exist (like vaccine) and spread, science journalists need to move out of their limits or comfort zone.

Pandemic is not an event to be reported; its development and health impacts will keep us preoccupied for years to come," noted Mahapatra.

He added that solution journalism on the pandemic also provided an opportunity to demystify science and socially interface and attention on it.



Richard Mahapatra
Managing Editor, Down To Earth

In India, for example, adds Mahapatra, "In India, we witnessed the country's second largest forced human exodus, witnessed and chronicled the complete collapse of an economy, the need for public spending and the inevitability of government and the inability of the media to report such a crisis."

African science journalists who have been consistently reporting solution-based stories, revealed that they have witnessed impact from their coverage.

3.3 Reporting COVID-19 and beyond. Kiran Pandey, Programme Director, Environment Resource Unit, CSE



Kiran Pandey, Programme Director of the Environment Resources Unit at Centre for Science and Environment (CSE, India)

Kiran Pandey, Programme Director, Environment Resource Unit, Centre for Science and Environment (CSE), New Delhi, India urged African journalists to focus more on solution-driven and evidence-based journalism while reporting on COVID-19 and other challenges plaguing the continent.

“Evidence-based reporting with credible information and data was required more now than before,” said Pandey.

While acknowledging the emerging and re-emergence of infectious diseases pandemic, Pandey noted that the frequency between pandemics have become shorter.

For example, Pandey continued, Severe Acute Respiratory Syndrome (SARS) in 2003, Influenza A H1N5 (bird flu) in 2007, H1N1 (swine flu) in 2009, Middle East Respiratory Syndrome (MERS) in 2012 and Ebola in 2014.

She was concerned that Africa’s media had a tendency to write more on what she termed “the doom and gloom aspects” of the pandemic, climate change, air pollution and food insecurity crises, yet there is a “need to connect the dots” between science, environment, development and the economy.

“It is not about doom and gloom,” Pandey said. Pandey added that pandemics were not just health crisis reports but avenues for good story mines especially on its impacts on the economy, global agendas, among others. For example, the economic loss during COVID-19 period at that time had been 587 times more than the loss during Ebola pandemic.

She noted that science and development reporting was critical for resilience in the continent.

Pandey said the COVID-19 pandemic and the existing climate crisis, which had long-standing negative consequences “call for regular monitoring, addressing developmental gaps and the solution”.

Speaking on building resilience in Africa, the CSE science expert said COVID-19 was a wake-up call to address Africa’s challenges for building resilience and a better continent.

She stressed the need to report global developments such as COVID-19 with a national, regional and local perspective.

She further urged science journalists to keep their diary of resources, including information, data and people to contact at their disposal in order to gather reliable information and produce contents that are solution-driven and evidence-based.

3.4 Governance in African Fisheries and Aquaculture Sector – African Union interventions. Dr. Mohammed Seisay, AU-IBAR

African continent is endowed with productive aquatic ecosystems, significant biodiversity and habitats (oceans, seas, lakes, rivers) with opportunities for significant fishing and aquaculture activities that currently provide benefits in terms of livelihoods, food security and economic growth.

Dr. Mohamed Seisay, Senior Officer, AU-IBAR said illegal fishing has been cited as a major limitation to the sector’s fortunes in Africa.

Dr. Seisay noted that the continent loses up to 4.7 million tons of fish yearly which costs the exchequers nearly USD10 billion.

He added that inadequate monitoring structures, poor control and surveillance systems by African states fuel the illicit practices in an industry that contributes about \$24 billion to the African economy, and exports fish worth \$7.2 billion every year.

Dr. Seisay added that the highest value is produced by marine artisanal fisheries at 0.43 per cent, followed by marine industrial fisheries at 0.36 per cent, inland fisheries at 0.33 per cent and aquaculture at 0.15 per cent.

Employing over 12 million people, with women constituting about 27.3 percent and 4.9 million (42.4 percent) processors, the sector has the potential to significantly increase its contribution to GDP, food security, livelihoods, economic growth, transform lives, reduce poverty and hunger and increase trade flows and incomes in all five regions of the continent.

“Overall, women play a crucial role throughout the fish value chain, providing labour in both commercial and artisanal fisheries, particularly in post-catch sector. Where appropriate technologies and capital are at their disposal, they also act as small-scale entrepreneurs. In most regions, women are less involved in offshore and long-distance capture fishing,” said Dr. Seisay.

The continent also grapples with weak institutional linkages and cooperation at regional levels, threats caused by climate change, natural disasters, pollution and other degradation facing fish habitats in Africa.

The sector’s expansion and realisation of its potential is also hindered by sub-optimal utilisation and management of available natural resources for aquaculture, and lack of supply and access to key inputs, including feed, seed, human resources, appropriate technology and finance.

To combat illegal, unreported and unregulated (IUU) fishing in Africa, a number of measures have been agreed upon by member states. They include building capacity of member states in enforcement and prosecutions for fish-related crimes, enhancing awareness on impacts of IUU, and regional training for AU member states; including personnel from fisheries, navy and judiciary.

There is also the need for stakeholders to formulate a continental plan of action for market-led aquaculture development to accelerate its growth and support development of aquaculture business models and extension services.



Dr. Mohamed Seisay
Senior Fisheries Officer at the
African Union InterAfrican
Bureau for Animal Resources
(AU-IBAR)

3.5 Exploring the practical linkages between forests and poverty Dr. Gillian Kabwe, Copperbelt University, Kitwe-Zambia



Gillian Kabwe,
Senior Lecturer Department
of Plant and Environmental
Sciences, Copperbelt
University, Kitwe, Zambia

According to a recent global assessment report by International Union of Forest Research Organisations (IUFRO) titled *Forests, Trees and the Eradication of Poverty: Potential and Limitations*, forests contribute to about 25 per cent of household income for the poor.

Dr. Gillian Kabwe, Senior lecturer Copperbelt University, Kitwe-Zambia noted that forests’ overexploitation poses a threat to those who depend on them.

Dr. Kabwe urged African governments to protect forests as they are key in poverty eradication.

Poverty is one of the greatest challenges facing humanity. According to the World Bank, extreme poverty is defined as living on less than 1.90 international dollars (Int\$) per day. And globally, one out of every 10 people lives in extreme poverty.

While making a case on the impact of forest conservation on the ecosystem, Dr. Kabwe urged authorities to fight overexploitation of these natural resources to stop deforestation often fuelled by the vicious cycle of poverty.

“Deforestation plays two roles: On one hand, it helps in eradication of poverty among dependent communities in food and income generation activities such as charcoal burning, firewood among others, but, on the other hand, forests are being destroyed to clear land for development, agriculture, ranching and unsustainable logging for timber. All these human activities, among others, in the long run contribute to nature’s decline,” she said.

On gender issues, Dr Kabwe regretted that women are often the most negatively impacted by poverty and forest loss, saying it would, therefore, be important that they are integrated in programmes of engagement on issues of community-based forest management.

“In the rural setups women are endowed with knowledge about beneficial forest resources as they are the ones who provide for everyday family needs; they fetch firewood and water, and do cultivation, and therefore understand forest issues well enough,” said Dr. Kabwe, adding that it is important to create a platform for them to express themselves.

But all is not lost, in the continent there are key projects being undertaken including potential of contribution of forest fruits and their contribution to nutrition and income, medicinal plants, with forests as natural pharmacies and beekeeping.

She urged journalists to be objective in reporting forestry and poverty issues by highlighting regularly policies and regulations on the use of forest products, promote contribution of forests in poverty reduction and amplify existing information on the value of forest resources and their potential.

In the continent there are key projects being undertaken including potential of contribution of forest fruits and their contribution to nutrition and income, medicinal plants, with forests as natural pharmacies and beekeeping.

3.6 Panel Discussion on covering environment from Botswana (Irene Shone), Tanzania (Felix Mwakyembe, Journalists Environment Association of Tanzania) Senegal and Liberia (Adolphus Mawolo), Mathews Malata, President, Association of Environmental Journalists in Malawi)

Africa is rallying behind policies and frameworks that give environmental conservation a priority to foster socio-economic development.

This is however not true in some parts of the continent where environmental reporting is not given a priority. In Liberia and Senegal, for instance, governments do not formulate policies that support environmental conservation, threatening the vital resource.

Adolphus Mawolo, a Lybrian journalist, said journalists in the two countries have not given much attention to environmental reporting, and both governments do not have robust policies to address environmental issues.

Mawolo said environmental hazards such as desertification and gas exploration as well as unregulated gold mining call for conservation of the environment, but nothing has been done.

“Despite efforts by journalists to highlight the ills of environmental destruction, our efforts have always been defeated by the government forces,” he said.

West Africa is endowed with mineral deposits, and their exploitation has resulted in loss of natural vegetation, diseases, water scarcity and displacement of persons. Activities such as farming and logging are also contributing factors.

In Botswana, the script is similar. Despite good information flow in the country, journalists prefer political stories to environmental reporting.



Irene Shone from Botswana

Irene Shone, a journalist, says lack of emphasis on conservation by the government is a reason journalists choose politics.

For Tanzania, a lack of interest and sound policies hinder environmental reporting, according to Felix Mwakyembe, who urged science journalists to cultivate interest in these issues if the continent is to address environmental issues.

Nancy Githaiga, Head of Conservation Programmes at the WWF-Kenya, said environmental conservation in Africa faces a tragedy and warned that zoonotic diseases could be on the rise if the continent does not give much attention to conservation.

4.0 MENTORSHIP

4.1 Mentorship Session: Writing an editorial on science - Chaacha Mwita



Chaacha Mwita
Media and communications consultant

The renowned editor urged journalists to be proactive in regularly approaching their respective editors and suggesting topical issues that should be considered for editorials.

"I was ambitious when I started writing as a correspondent and I kept checking with the editor about possible topical issues that I could write on for the editorial. You have to come out of your comfort zone and keep pitching to the editors who will definitely notice your potential," said Mwita.

"As a budding science journalist—and you happen to be ambitious and motivated—you can make a point of writing an editorial and taking the same to your respective editors for consideration. This way, you can influence the voice of your newspaper's editorial content. At the same time, you should ensure it is an opinion based on science and not your gut (feeling)."

Mwita advised science journalists to always consider the media house for which they are writing the editorial and its past stand, if any, on an issue.

"We have to be clear on the newspaper's position in the past for consistency and to avoid contradictions. While we can correct a past stance and start on a clean slate, this needs to be stated; besides being clear," he said, adding that the editorial also needs to be cogent and sound, backed by credible evidence.

He further urged journalists to always consider having a trusted reviewer to look through the draft editorial before it is published. This could be a senior science journalist, editor or even scientist.

"There is no exclusivity in science. Neither does it reside outside interrogation. By allowing someone you trust an opportunity to review it is not giving away editorial independence; it is being careful," he said.

Mwita highlighted five skills needed to effectively write an editorial on science. They include good research skills on topical issues at hand.

This, he said, is important so that the journalists can understand the kind of source they will need for the story.

Secondly, they need data skills. Journalists must be in love with numbers and be able to simplify them for the target audience. They should keep asking, "What do the numbers mean?"

Thirdly, one must have some level of skepticism about things around them. He said journalists should have some flair in their writing. This means the choice of words must have some kind of flow and style to capture the audience's attention.

Lastly every journalist must have a skill and ability to simplify their reporting at all costs. This means the art of being understood by your relevant audience.

"Make sure you do your due diligence to be able to accurately report science stories for our efforts to also be recognised globally," said Chaacha.

He ended by saying that there is no exclusivity in science. Neither does it reside outside interrogation.

"By allowing someone you trust an opportunity to review it is not giving away editorial independence; it is being careful," he said.

***There is no exclusivity in science.
Neither does it reside outside
interrogation.***

5.0 AGRICULTURE

5.1 Genome editing and what journalists need to know - Prof Steve Runo, Senior Lecturer, Department of Biochemistry and Biotechnology - Kenyatta University

Prof Steve Runo introduced genome editing as a little known science that can help develop crops which are resistant to pests and diseases.

The university don said by editing plant genomes, their resistance to pests and diseases can be increased, leading to higher yields to increase food security.

He described genome editing as a type of genetic engineering in which DNA is inserted, deleted, modified or replaced in the genome of a living organism.

Prof Runo said genome editing has the potential to increase nutrition and food security, and to fight diseases that affect the continent.

He added that genome editing could deliver some drastic leaps forward in the fight against diseases and other benefits such as ensuring enough food for the bulging population.

He announced that in Kenya, there is ongoing research to develop gene drive organisms to control malaria.



**Prof Steve Runo,
Kenyatta University**

“There is already ongoing work in sorghum, yam, maize and bananas that will be out of the pipeline in the near future,” said Prof Runo.

Kenya’s National Biosafety Authority first received an application on genome editing in 2015. The applications so far received are Transformation of Banana for Resistance against Nanoviruses and Caulimoviruses and Aphid Vector by International Livestock Research Institute (ILRI) in 2015. The project aimed at producing banana resistant to Banana Streak Virus (BSV).

In 2018, the Authority approved the organisation’s application for contained use involving genome editing of yam. Contained use application involving the development of vaccines for control of African Swine Fever Virus (ASFV) was also approved by the Authority in 2018.

Other applications include contained use application for Grass pea modification for nutritional and agronomic traits to be undertaken by the International Livestock Research Institute (ILRI). The objective of this project is to establish a reliable transformation protocol to enable gene editing in Grass pea (*Lathyrus sativas*) for enhanced nutritional and agronomic traits.



**Obed Owusu-Addai
Co-founder and managing
campaigner at EcoCare Ghana**

5.2 Influencing trade through mutual partnerships in Africa: The case of Cocoa Production in Ghana and Cote d’Ivoire Obed Owusu-Addai, Eco-Care-Ghana

Owusu-Addai, an advocate in food security issues in West Africa said despite Ghana and Cote d’Ivoire being the largest producers of cocoa, farmers still live under the poverty line.

He informed the meeting that Ghana and Cote d’Ivoire have set their own prices for cocoa to counter unfair trade in the international market.

In 2019, the two countries partnered and agreed on new market price for cocoa at US\$2,600 per tonne, with a living income differential of US\$ 400 per tonne should prices drop. This was done to overcome control by multinational foreign companies.

“The partnership of the two countries intends to protect and safeguard the welfare of cocoa farmers by guaranteeing them a fair price for their cocoa beans. Farmers get three per cent of the cocoa and chocolate earnings,” Owusu-Addai said.

As a source of livelihood in West Africa, cocoa – a large bean-shaped fruit from the chocolate tree – has health benefits that include improved cholesterol and blood sugar level, and reduced inflammation. It is also used as a chocolate flavour in foods.

The advocate said processors, supermarkets, marketing companies and manufacturers earn 73 per cent of the revenue, leaving the farmers that grow the crop on two to five acres of land with almost nothing.

The activist said through a lobby, the World Cocoa Foundation, the international buyers sought to avoid the new prices through excuses of sustainability programmes. He said the two countries threatened to cancel all sustainability programmes if the buyers refuse to pay the US \$400 living income differential per tonne of cocoa beans.

He mentioned that Cote d'Ivoire and Ghana are the current major exporters of raw cocoa to the European Union market, contributing 74 per cent of production in Africa. The Ivorians produce 54 per cent and the Ghanaians 20 per cent of the exports.

"The major importers are the Netherlands, United States of America, Germany and Belgium who consume cocoa from small-scale farmers and large-scale plantations," he said.

In 2019, the cocoa market injected US\$12.1 billion into the economies of Ghana and Cote d'Ivoire, while the chocolate market generated over US\$ 130.7 billion.

The farmers in Cote d'Ivoire benefited from a 21 per cent increase in farm gate prices by the government. "Before 2016, the farm gate prices dropped drastically due to international prices control," said Owusu-Addai.

In Ghana, the government had capped prices at GH515 (USD89) per 64kg bag for a continuous four years in the same period.

"But with the new partnership and agreement, the prices in Ghana rose to GH660 (USD114) per bag, that is a 28 per cent increment," said Owusu-Addai.

He said the countries' initiative to regulate prices through a partnership can be replicated in other African countries that trade in commercial export crops such as coffee in the East African region.

5.3 Using data and analysis to inform seed industry reforms in Africa - Mainza Mugoya, Regional Coordinator, African Seed Access Index (TASAI)



**Mainza Mugoya,
The African Seed Access Index**

The seed expert said improved seeds can deliver state-of-the-art technology to farmers, including higher yields, disease and pest resistance, climate change adaptation and improved nutrition.

"Timely availability of improved seeds at affordable prices is critical to improving food security, resilience and livelihoods for smallholder farmers in Africa," he said.

Mainza added that an enabling environment for a vibrant formal seed sector covers indicators that are divided into four categories. The first is research and development, where it has been noted that maize breeding has been given more attention than other crops.

"As evidence shows, there were no releases of cowpea varieties between 2001 and 2013, compared to more than 200 maize variety releases over the same period," he said.

Secondly is industry competitiveness where there is a notable growth in the number of registered seed companies in Kenya from 2000 to today. Third, seed policy and regulations and fourth, service to smallholder farmers.

Mainza said in Africa, the formal seed system has majorly been dominated by government, but for the last two decades it has gradually liberalised, resulting in increased participation of the private sector.

It has been nearly two decades since Kenya's seed sector was liberalised. For a country with an excellent private sector reputation in many areas (air travel, tourism, information and communication technologies, banking, flower production, horticulture for export, retailing, etc.), privatisation of the crop seed sector seems to be lagging behind.

Nevertheless, there have been some improvements between 2013 and 2016 in the number of and satisfaction with variety releases, a slight reduction in the market share of government parastatals, and a reduction in the number of fake seed cases.

As the seed sector in Africa moves towards liberalisation, Mainza said the public sector has a critical role in creating and maintaining an enabling environment as the private sector cannot do it alone.

However, challenges still persist, with maize lethal necrosis disease becoming a major threat to maize production, especially in Kenya, resulting in seed companies having to test their seeds for the disease. This has resulted in additional costs.

He noted that reliance on rain-fed production of both seed and grain leaves the country susceptible to drought.

"Fake or counterfeit seed continues to be a major threat to seed companies, a problem exacerbated by farmers' lack of knowledge to differentiate genuine from fake seeds.

Corruption and rent-seeking behaviour have adversely affected some local companies, as several county governments are charging extra taxes and promoting seed merchants based in their administrative areas to the detriment of national ones.

With a level playing field, smart and efficient regulations and greater enforcement against fake seed, the seed industry can flourish," Mainza said in conclusion.

5.4 Panel discussion on Agriculture reporting: Experiences from Ethiopia (Mekonnen Teshome, Winner, OFAB Awards, Ethiopia 2020); Leopold Obi (Winner, OFAB Awards, Kenya 2020)



**Mekonnen Teshome,
Senior Journalist, Ethiopia**

This session was graced by two journalists, Mr Mekonnen Teshome of Ethiopia and Mr Leopold Obi who had just won Open Forum for Agricultural Biotechnology print category awards in their respective countries.

The moderator of this session, Mr Ochieng' Ogodo, Editor, SciDev.net, sub-Saharan Africa, in his opening remarks stated that agriculture is an important sector in Africa as it contributes to the GDP of African countries.

"Almost 60 per cent, if not more, draw their livelihood from agriculture directly or indirectly and therefore it becomes an important component of Africa's sustainable growth," said Mr Ogodo.

Mr Ogodo who is a senior science journalist from Kenya said therefore that it is our duty as science journalists to continuously report on agricultural issues and in doing so we take stories of ordinary people and try to link them with policy makers and scientists thus promoting a vibrant agricultural sector.

Mekonnen Teshome, a senior science journalist from Ethiopia mentioned that science journalism is a drive for growth and development giving an example of Ethiopia as a country growing fast in the space of science and innovation.

For this reason he said there is need to have more trained and capable journalists and communicators who are able to communicate science by simplifying and passing science messages to the masses.

"We science journalists can simplify science stories and give them human face to make them interesting and identifiable to our target audience," he said.

He encouraged science journalists to diversify their knowledge by reading science issues for development, current research papers and at the same time create long lasting rapports with credible scientists who are great sources of information.

Teshome mentioned accuracy as key component in reporting science to avoid conflict between journalists and scientists who tend to shy away if they get misquoted on a science story. He added that misrepresenting facts as transmitted by scientists make the latter hesitant to cooperate in future.

In doing research he encouraged science journalists to be knowledgeable about research institutions, universities, visit research labs and libraries.

In regards to the future of science journalism in Africa, Teshome recommended cross border networking and diversification in reporting by including other fields of science like gender issues, innovation and technology.

"A science journalist from Ethiopia can collaborate with another from another country and do a story on the latest science and technology development in the field of agriculture in their countries and include how the two compare," he observed.

He encouraged journalists to give more room for scientific issues as it can be a source of inspiration and great income too.

"Strengthening science communication bodies and associations like Media for Environment, Science, Health and Agriculture (MESHA) and raising awareness among leaders at all levels on issues of science reporting is a move to strengthening science reporting in Africa," he said in conclusion.

Leopold Obi from Kenya while sharing his experience as an agricultural journalist noted the fact that science journalism in the country was gaining face in the media industry both in print and broadcast media.

"Many media houses be it TV, radio, newspapers are now giving space to science stories on issues Health, agriculture and environment," Obi mentioned.

The OFAB award winning journalist said moving forward, Africa must focus on solution based journalism as it is clear that agriculture reporting is changing and improving lives.

Kahofi Juschvi (Ivory Coast), Bahija Belmabrouk (Tunisia), Claire Sacramento (Benin), Wandera Ojanji (Kenya) among other journalists shared the same sentiments adding emphasis on the importance of networking among journalists at personal and association levels.

They also noted that gender perspectives should always be included in the reporting of agriculture. Women, they said, have continued to play key roles in agriculture in various countries hence there was need to ensure they are covered for inclusion of their roles and what makes them successful in their roles.

MESHA secretary Aghan Daniel challenged senior science journalists to be willing to offer mentorship to young upcoming journalists who are interested in reporting science issues.

6.0 SOLUTION JOURNALISM

6.1 Solutions Journalism: Science Africa's Experience -Otula Owuor



Journalists from western Kenya interview a scientist at the lakeside city of Kisumu

On day four of the Conference, InfoNile and Science Africa teamed up to give journalists an opportunity to share their experiences on how they had organized and did great solution based stories. Most of the journalists were beneficiaries of small grants given to them by the two organisations.

InfoNile is a cross-border group of geojournalists with a mission to uncover critical stories on water issues in the Nile River Basin through data-based multimedia storytelling.

On their part, Science Africa is a publishing, communications, advocacy, research and mentorship think tank and consultancy organization that is keen on popularization of various aspects of Science, Technology and Innovation (STI) as the driving force for sustainable socio-economic development in Africa.

Journalism like many other professions is changing or evolving in various ways to meet emerging demands associated with its real or perceived social responsibility. It affects the manner in which news or information is gathered, packaged and disseminated.

Currently there is a strong trend or movement towards Solutions Journalism-SoJo-which is a rigorous evidence-driven reporting of responses to social-economic problems. It appropriately includes more background and what is doing well.

At the center is the US based Solutions Journalism Network (SJN) founded in 2013 to spread and empower media houses and journalists. Plans for ScienceAfrica's first SoJo Project in collaboration with SJN started in November 2017 and was launched in March 2018 during the Kenya Medical Research Institute's Annual Scientific Conference held at Safari Park Hotel.

The conference which attracted researchers and policymakers worldwide was designed to make it easy for the journalists to developed SoJo story ideas. Those attending the KEMRI Conference included journalists from media houses in Kenya, Uganda, Tanzania and Nigeria.

The project had a total of 33 journalists. Kenya had 14 journalists, Tanzania and Uganda had seven science journalists each while five were from Nigeria. The journalists were mostly from some of the major media houses including the Nation, Standard, The Star, Chinese News Agency, ScienceAfrica and Freelancers. In Uganda they were from The New Vision and The Monitor while in Tanzania, The Guardian, Citizen and Daily News and some TV stations were included.

ScienceAfrica's first project was designed to last nine months. However, ScienceAfrica continued with training and mentoring and encouraged collaboration with media associations like MESHAs and InfoNile. Still a special issue of ScienceAfrica Magazine captured experiences - as narrated by mentees from the first group of journalists whom we trained and mentored.

ScienceAfrica's first major lesson was that there were a few journalists who for example, boldly asserted or assumed that business reporting- their specialty- could not be linked to health and science issues.

Still even after being told that there can be a linkage if for example one reports on health economics with a similar trend in environmental economics and agricultural economics which seems much more entrenched.

However, they only attended SoJo presentations at the beginning of the conference. A clear indication that there will be much more to be done if SoJo is to be sustainably or fully entrenched in this part of the world.

However, the launch was very successful and was widely reported on by the mass media in East Africa and Nigeria. As a result, in Kenya and other African nations there is more reporting on what is going well or solutions to challenges so that people are more able to create a realistic view of the world.

Solutions Journalism is not confined to merely exposing problems. It rigorously focuses on responses to the problems, with the same level or degree of rigour while in the whole story. News endlessly loaded with what is wrong or negative stories loses audience.

ScienceAfrica is in its second major attempt to help entrench SoJo in Africa, with specific focus on Kenya, Uganda and Rwanda in the next three years. It is hoped that it will make the journalists to realize that while being empowered and facilitated to do SoJo stories, it is equally important to remember that the support may not be endless and innovative ways may be needed to ensure we have sustainable entrenchment of SoJo in local newsrooms.

One way of mainstreaming SoJo is for journalism schools to include SoJo in their training curriculum. Local organizations should also consider funding media trainings on Solutions Journalism to help improve development reporting.



Team MESHAs as captured during an interactive session. The bedrock of success at MESHAs has been contributed immensely by the members.

6.2 Journalists share experiences on solutions journalism

African science journalists who have been consistently reporting on critical challenges, revealed that they have witnessed impact from their coverage.

Henry Owino from Kenya

Stories that offer solutions to challenges in the community have a profound impact not only on the community but also on stakeholders and policy makers.

"I urge journalists to use all forms of communication methods to make sure the public gets the right message," he said.

Fred Mwasa from Rwanda

He wrote a story on water shortage along the Rwanda-Congo border which had been the norm even before the COVID-19 pandemic struck.

"Citizens used to walk for several kilometres to buy water, and usually at a high price. The situation changed after highlighting the story, though the Rwandan government was not pleased that the story was published," he said.

Rawnaa Al-Masry from Egypt

She attributed the power of networking to the success of female journalists across the continent.

"Each person has their strengths that when put together, the resultant stories create positive impact in the community," she said.

Fredrick Mugira from InfoNile

"Solution journalism will help address social and economic problems facing society. We encourage journalists to work on solution-based stories on those social issues in communities. A journalist must show how the solution is working and if it is not, they need to know why," Mugira said.

David Were, a researcher on water

He spoke on the Nile Basin which he said is running dry. Were said drought and floods, natural calamities and degradation of water quality are some of the contributing factors to water scarcity in the Nile River Basin.

He attributed climate change to the poor accessibility to the available water, high prices for needy families and low quality that residents around the region are facing.

He said further changes are expected in the region including increase of temperature and precipitation in the higher Nile region, leading to increased run-off water and flooding.

“Increased precipitation and runoff will increase flooding, reduce access to water/WASH especially by people living close to lake shores, river banks, wetlands through submergence of onsite sanitation systems, pollution of water sources and reduced ground recharge by higher runoff,” he said in his presentation.

The evidence was shown in a presentation by Sarah Mawerere, a Ugandan journalist who chronicled the rising of Lake Victoria and impact on locals, some of whom had been displaced by flood. The opposite is expected in the lower Nile region, where reduced precipitation will limit floods, worsen drought and increase reliance on the Nile, which in turn, will lead to water scarcity.

Against this background, Were urged journalists to participate in capacity building and do public awareness on the water preservation measures.

He said there is a need to recycle/ reuse water, harvest rain and runoff water, and change our lifestyle.

He urged journalists to ensure they capture gender roles sensitively.

7.0 CLOSING CEREMONY

Dr. Thabbie Chilongo, Director, Centre for Agricultural Research and Development, Lilongwe University of Agriculture and Natural Resources, Dr. Chilongo told participants that failure to adhere to fact checking will cause more harm than good.

He urged science journalists to uphold journalism tenets of accuracy and fact-checking especially at a time when ‘infodemic’ is on the rise.

“There’s a need to stay true to your role and not be swayed by sensationalism. Science reporting is a matter of life and death,” he said.

Dr. Chilongo challenged African science journalists to be on the lookout for developments on the pandemic.

Data from the European Centre for Disease Prevention and Control shows that the pandemic has so far infected more than 56 million people globally and more than two million cases across the continent.

“COVID-19 pandemic is a marathon and not a sprint for science journalists. As long as there are still cases in the United States and Europe, Africa is still at risk and journalists must continue to tell factual stories,” said Dr. Chilongo.

Acknowledging the devastating effects of COVID-19 on journalism, he noted that journalists have had to deal with reporting stories on their own, afraid to go to offices and their homes and put loved ones at risk. Some are suffering from physical exhaustion and psychological strain and others are grappling with job losses as outlets are at risk of going under.

“We have already seen what censorship, disinformation, and news deserts can lead to in the different phases of this calamity.

The public needs trusted news now and will need it even more in the future,” he said.

Against this background Dr. Chilongo called for a strong science journalists network, lack of which has led to misrepresentation of facts in some countries such as Malawi.

“MESHA is a pacesetter in science journalism training that other countries should emulate. I hope MESHA will continue to spread its reach to other African countries like Malawi,” he said.

Hailing the four-day conference as a great learning opportunity for journalists across the continent, Dr. Chilongo asked them to reflect on how it had impacted their grasp on science reporting.

“I challenge participants to ask themselves whether they have created any impact since they started attending the conferences. Have you made policy makers change the way they do things through your reporting?” he posed.

He thanked and called upon partners to continue supporting science journalism initiatives.

He then officially closed the Conference at 4pm on November 20, 2020.

There’s a need to stay true to your role and not be swayed by sensationalism. Science reporting is a matter of life and death

8.0 What journalists said about the conference

After four days of interesting, informative sessions on science journalism at the MESH A - Fourth African Conference of Science Journalists, participants expressed their perspectives of the conference, highlighting what they have learnt and what they hope to do with the information.

Dickson Odhiambo, Kisumu

Thank you Aghan Daniel for this four days' conference. It has made me come out very much sharper than I was before on the issues of science Journalism as well as Solution Journalism. I am very much humbled by this. I have really benefited indeed and as a freelance journalist, this is an eye opener in my 13-year work as a journalist here in Kisumu and Kenya at large. I thank you for this.

I will be sharing with you some science stories I have been doing and those that I will still be doing online. These four days have been very much meaningful to me as a science journalist and it is really an eye opener to me.. I thank you all and May the Lord's Blessing be with you.

Thomas Bwire, community journalist based in Kibera slums

I learnt that as journalists, we must go out there in our respective communities and when we engage them, we are able to tell stories that are relevant and impactful. Attending this conference has given me room to go beyond shallow reporting and dig deeper through research and reading works of other journalists to learn from them.

I plan to mentor journalists who work in Nairobi slums so we can scale our voices together. I am also looking forward to writing and producing more science stories now that I have been fully empowered and rejuvenated.

Ruth Keah, Mombasa

I learnt a lot from my fellow journalists and experts who attended the conference, especially how science journalists from other African countries go through in delivering science stories. My take away is to do more of solution based science stories.



Ruth Keah, Senior MESH A member

Doreen Mwasi, Koch FM

The conference was eye opening; it has challenged me on how stories are yet to be told and how I can use science stories to make a change in the daily lives of communities. The presentation on improved treatments for children with HIV, was my highlight. I saw opportunities for many stories which have not been told and the ones told still there is a gap in follow up stories. I would also want to do more stories on mycetoma as one of the neglected diseases.

Nanjinia Wamuswa - The four days have been the greatest: full of useful lessons. To all the stakeholders involved, Igweeee.

Felix Mwakyembe, Mbeya, Tanzania: Thanks Aghan and your MESH A Team for these four days: very resourceful conference!!

Sara Mawarere - Very thankful for the forum workshop. I have learnt a lot on relationship between human beings and the ecosystem, especially with zoonotic diseases.
Seth Ngero- Congratulations to MESH A! Thanks to Interpreters. Great job to all!

9.0 Recommendations

1. That MESHA, having shown its ability to support science journalism in Africa, should identify and support other networks of science communicators and press officers in Africa. Such support should aim at ensuring that a few countries have a MESHA model initiated and run by journalists. In the end, this intervention will help to develop their professional skills and promote opportunities for professional development and support.
2. There is need for MESHA to develop an intervention that targets scientists. The intervention should aim at improving scientists' access to the media and to develop their professional skills in interfacing between scientists and the media.
3. MESHA should work with regional media agencies to gain their understanding and support for science journalism.
4. That MESHA should organise another series of conferences and workshops which bring together scientists, journalists and communication officers together.

The Media for Environment, Science, Health and Agriculture

The Media for Environment, Science, Health and Agriculture (MESHA) was founded in November 2005 in Nairobi, Kenya and is an organisation that provides support to science journalists covering health, development, technology, agriculture and the environment. It does so by offering training workshops, consultancies and encouraging networking through meetings and conferences among journalists, scientists and other stakeholders in Kenya.

The association emphasises on rural journalism and communication.

The idea for the formation of this association sprang up from the fact that there were many organisations and communicators in the fields of agriculture, environment, health and development. However, few organisations in the region bring journalists covering these issues together, for better reporting in the media.

MESHA believes that in a democratic society where science must be answerable to the public, there is need to find new and innovative ways of effective mass communication about the benefits of science, and other areas of concern to the general public.

MESHA aims to ensure continuity, sustainability and consistent coverage of science and development issues as they arise.

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