

SCIENCE

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More men now prefer vasectomy as birth control method

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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 Mesha Science

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Amref Health Africa Group CEO Gitahi Githinji (left) leads in cutting the cake to mark the official opening of Africa Health Agenda International Conference (AHAIC) 2023 in Kigali, Rwanda, in March. Dr Gitahi says building human capital for any country or community depends on health as an enabler of labour and education.

Photo Credit | AHAIC



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African governments must increase efforts to lessen the continent's disease burden

This year's World Health Day was celebrated on April 7, 2023 under the theme, 'Health for All'. According to the World Health Organisation (WHO), which was also celebrating its 75th birthday on the same day, the theme aims at providing an opportunity for the world to reflect on public health triumphs that have helped improve people's quality of life during the last 70 years.

As Africa reflects on its health triumphs over the years, more focus should be put on diseases that still relentlessly afflict the continent. When COVID-19 hit the world in 2020, for example, Africa was expected to bear the biggest burden, with some analysts predicting that bodies would be lying on the streets. However, luckily, this did not happen as predicted and the continent somewhat managed to contain the pandemic.

This prediction, nonetheless, was necessitated by the weak health systems and high disease burden in Africa. According to the 2022 WHO Noncommunicable Disease Progress Monitor, noncommunicable diseases such as cancer, cardiovascular diseases and diabetes are increasingly becoming the main cause of mortality in sub-Saharan Africa, where the diseases were responsible for 37 per cent of deaths in 2019, rising from 24 per cent in 2000. The world health body blamed this increasing burden on weaknesses in the implementation of critical control measures, including prevention, diagnosis and care.

One NCD that has been particularly a problem over the years is malaria. According to the World Malaria Report 2022, there were an estimated 619,000 malaria deaths globally in 2021 compared to 625,000 in the first year of the COVID-19 pandemic.

In 2019, before the pandemic struck, the number of deaths stood at 568,000. In Kenya, malaria cases continued to rise from 3.3 million in 2020 to 3.4 million in 2021. Deaths from malaria also rose from 11,768 in 2020 to 12,011 in 2021. As World Malaria Day is marked on April 25 under the theme, 'Time to deliver zero malaria: invest, innovate, implement', Africa and Kenya must take up ownership of the fight towards zero malaria deaths. Malaria vaccination is perhaps an area to start from, and African countries can follow in the footsteps of Ghana that is the first country to approve a new malaria vaccine.

Infectious diseases such as tuberculosis and HIV/AIDS are also not relenting despite efforts that have been made to assuage their effects. Remarkable milestones have been made in the fight against HIV, with innovative ideas such as the dapivirine vaginal ring and self-testing recording increased uptake. In a recent MESHA science media café in Maseno University, it emerged that high performance of blood-based HIV self-tests at private pharmacies could be a game changer in the pre-exposure prophylaxis (PrEP) delivery.

These innovative ideas such as in the fight against malaria and HIV should be replicated to all other diseases through focused and sufficiently funded research. During the Africa Health Agenda International Conference (AHAIC) in Kigali, Rwanda, in March, African governments were reminded that researches on climate-health nexus is needed now more than ever. This cannot be overemphasised.

Experts push for strong workforce to achieve resilient health system

By Joyce Chimbi | j.chimbi@gmail.com

Photo Credit | AHAIC

Africa's inability to adequately train, equip and remunerate health workers has put the continent at risk of reaching a 6.1 million shortfall by 2030.

As the scale and magnitude of the impact of climate change on health continues to unfold, health experts at the Africa Health Agenda International Conference (AHAIC) 2023 have emphasised the need for a strong health workforce, terming it a cornerstone of every resilient health system.

"There is a huge shortage of health workers globally. The World Health Organisation (WHO) is projecting a shortfall of 10 million by 2030, with a third of those in Africa. Failure to invest in the health workforce means weakened health systems, poor care and inability to meet today's burdens of disease," said Dr Vanessa Kerry, the co-founder and CEO of Seed Global Health.

"Many health workers are overworked, under-resourced or unprotected against disease and this has huge implications for the availability and quality of care, particularly in the sub-Saharan Africa. Without well-trained, well-supported health workers, we face the reality that millions will continue to die of entirely preventable causes," said Dr Kerry.

With lessons from COVID-19 on hand, health experts reiterated the need to safeguard the physical and psychological wellbeing of healthcare workers for them to function optimally. They also urged political leaders to fast-track investment in the health workforce.



Amref Health Africa Group CEO Gitahi Githinji (left) leads in cutting the cake to mark the official opening of Africa Health Agenda International Conference (AHAIC) 2023 in Kigali, Rwanda, in March.

"The lack of investment in the health workforce across developing economies is stunning. Just 7 per cent of global health aid has been invested in the workforce itself over the past 10 years.

When funding does arrive, it is too often narrowly focused on specific disease verticals rather than taking a holistic approach," said Dr Bonaventure Ahaisibwe, Managing Director Impact and Innovation at Seed Global Health.

This is despite healthcare workers providing essential services to vulnerable populations. If well supported and trained, health experts say they can help prevent and mitigate the negative effects of climate change and disease outbreaks.

In this regard, Africa's top thought leaders, political leaders, researchers and innovators at AHAIC 2023 called for strong partnerships to help increase investments in skills development and robust infrastructure to train and retain health workers.

There was further emphasis that providing critical support to healthcare workers was the backbone of a healthy population, and crucial in building a productive human capital in keeping with the demands of developing countries as they accelerate to meet UN's Sustainable Development Goals.

"Health is the most fundamental human right that an individual can have. Only healthy people can go to school or work.

Photo Credit | Joyce Chimbi



Global burden of disease stems from environment-related risks, including animal-borne diseases such as COVID-19, climate change and exposure to pollution and toxic chemicals.

When you think about building human capital for any country or community, you have to think about health as an enabler of labour, education, and education for labour as well," said Dr Githinji Gitahi, the Group CEO, Amref Health Africa.

"In building human capital, health is at the centre. What does it take to have a healthy population for social and economic development? Look at the agenda for the Africa we want. Even though health is central, there is a challenge, for while we see health as a human right, it is actually considered a progressive right. This is to say that you can offer as much health as you can afford. But when you look at other rights, civil and political participation, they are absolute," he added.

AHAIC 2023 hence provided a platform to explore solutions to protect healthcare workers, strengthen healthcare systems and move closer to achieving the goal of universal health coverage.

"There is no lack of will among leaders in Africa to improve their countries' futures by building stronger health systems and investing in health workers, but many are lacking the necessary funding and global support to make these long-term, large scale and transformative investments," said Dr Ahaisibwe.

"At Seed Global Health, we recognise that one of the most glaring opportunities for investment lies at the end of the continuum of care. To see true advances in quality healthcare, we must invest in the physicians, nurses, and midwives who provide advanced care and compose the critical, but often overlooked referral system for a growing network of community health workers," said Dr Ahaisibwe.

Building strong health systems is critical in light of climate change, which, according to Dr Kerry, has wide ranging impacts on human health, from increasing infectious disease outbreaks, accelerating non-communicable disease burden, to rising burdens of pre-term and still births. "Today, 23 per cent of all global deaths are secondary to avoidable environmental causes," she said.

She added: "The deaths are slated to increase by 250,000 annually at our current rate; moving us farther away from our 2030 goals, not closer. Beyond direct health impacts, there are indirect ones on conflict, migration and the refugee crisis, with 216 million climate migrants expected by 2050."

Health experts raised concerns over the cholera situation and reemergence of malaria, and the next possible disease outbreak, which they said is likely to be viral.

They urged the civil society, health professionals, researchers and innovators to sustain efforts towards finding combined solutions to the climate change and related health challenges facing communities today.

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AHAIC 2023 hence provided a platform to explore solutions to protect healthcare workers, strengthen healthcare systems and move closer to achieving the goal of universal health coverage

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Photo Credit |Tebby Otieno



Ann Okaro, the National Chairperson of HIV positive teachers in Kenya.

Teacher's club gives hope to HIV positive students and parents

By Tebby Otieno | tebbyotieno62@gmail.com

Ann Okaro has been a teacher for 32 years. On the side, she spends time with students in the school's health club, creating a safe environment for open conversations about their health concerns.

"There we not only talk about ailments but also the wellbeing of a child. We talk about nutrition, why you should adhere to medication, why they must eat a balanced diet," she says.

As a woman living with HIV for the past 22 years, Ann understands the importance of having a support group to stick to her medication regimen. She also uses this club to encourage parents of HIV positive children. According to her, when parents are sometimes given drugs for their children, they do not follow the doctor's advice, making them treatment interrupters.

"Some parents give children half doses; so they keep having resistance. I try to give hope to the hopeless and just tell them, you can live a life beyond being HIV positive," she says.

The prevalence of HIV/Aids is currently 4.3 per cent in Kenya, with women having the highest at 5.5 per cent and men 2.9 per cent. Adolescents and young people have the highest rate of new infections. The data shows that there were approximately 32,000 new infections in 2021, with an estimated national population of 1.3 million adults and 17,000 children living with HIV in 2021.

"In every school that I have been to as a teacher, I make sure I have a psycho-support group where we sit and talk about our HIV and our journey. The children and parents identify with me," says Ann, adding: "I talk to parents on the need to disclose to children at some point and have them be on treatment."

Ann's journey as a HIV positive person began when she went to donate blood in 1997. She had just given birth to her son in a hospital and attended pre-natal clinics. She was, however, taken aback when she received reports that she could not donate blood because she tested positive for HIV.

"I brushed it off and moved on with life. Then I got pregnant with my last-born and because of the stigma that comes with HIV, I decided not to go for anti-natal clinics. But a doctor told me there was medication," she says of availability of ARVs at the time.

With advice from her doctor, Ann delivered an HIV negative baby in the hospital. But she was positive. At first she was devastated, but later she chose to live positively.

"I was only 35 by then and I decided to make an impact in people's lives with my HIV status. So in every school I go to, I talk about it. Whether you stigmatize me or not, I really don't care. At the end of the day, I know I touch people's lives," she says.

The journey, she says, has had challenges as she lost her husband 18 years ago and became the only breadwinner to her five children. Today she has seven grandchildren.

Ann is the National chairperson of HIV Positive Teachers in Kenya, and is happy with the support of the Teachers Service Commission. She also belongs to Kenya Network of Positive Teachers support group, the Network of People Living With HIV in Kenya and Women Fighting Aids in Kenya, all which have impacted her HIV/Aids treatment journey.

According to the new Kenyan guidelines, viral load suppression now is about 50 copies of the virus. Ann says her adherence has seen her suppress her viral load for the last 20 years.

Though the journey is not easy, she encourages testing to know status because there are support systems.

The teacher who sits in several technical working groups on HIV, says they are working on the stigma index where she also sits as a national steering committee member to see how to eradicate stigma and discrimination in relation to HIV.

"HIV is just in the mind. I take my drugs religiously. It's about being myself and accepting it. None of my children is HIV positive and they are my support system," she says.

There is a plan to end looking at HIV/Aids as a public health threat by the year 2030 with a UNAids 2025 target dubbed 95=95=95. This means that in less than three years from now, 95 per cent of HIV positive people should know their status, be on medication and have their viral load suppressed.

Ann, whose adherence is courtesy of the fact that she has never lacked medication, believes the country will achieve the 95=95=95 target. She takes her drugs after every six months, except during COVID-19 pandemic that various facilities were complementing each other.

Photo Credit | File



When parents are sometimes given drugs for their children, they do not follow the doctor's advice, making them treatment interrupters.

"Funding HIV treatment is a burden to the government because of the taxes.... The drugs are very expensive and that means everybody has to pay tax. Running the vital test, we have to pay for it. I am lucky because I have my medical cover," she says.

Dr. Lazarus Momanyi from NASCOP stated during a recent science café hosted by Media for Environment,

Science, Health, and Agriculture in Nairobi that HIV positive people who do not know their status contribute to some of the new infections.

"The reason why we are insisting on treatment is because it benefits the patient by suppressing the virus and therefore they can live longer. It is also a public health measure to prevent new infections. People who are virally suppressed do not transmit the virus sexually," he said.

“

Funding HIV treatment is a burden to the government because of the taxes.... The drugs are very expensive and that means everybody has to pay tax. Running the vital test, we have to pay for it. I am lucky because I have my medical cover

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Photo Credit | Jacque Wambui



Jacque Wambui, who has been consistently taking HIV medication for 16 years.

Joy of adherence to HIV treatment amid reduced external funding

By **Tebby Otieno** | tebbyotieno62@gmail.com

Jacque Wambui lost appetite and weight, and had infections that would not go away after giving birth to her third child. The beauty shop attendant in Nairobi worked close to a pharmacy, and therefore had easy access to over-the-counter medication for the infections.

One day a pharmacist asked her to go for check-up. Wambui did not understand why, and disregarded the advice. It was until a nurse at the pharmacy advised her to test for HIV that she got the point. "When I asked why, she kept telling me it was because of the symptoms," she says.

It turned out she was HIV positive. She had trouble accepting the results. She had many questions. Most of her concerns stemmed from media reporting on people with HIV. She drifted to denial.

"I asked the doctor all these. He told me my future was in my hands." The doctor further told her: "I may explain every medication, but it is upon you to choose to take them," she says."

Wambui's next task was breaking the news to her family. When she got home, her house help noticed she was disturbed, and informed Wambui's parents, who lived nearby. There was quick response.

"My mother asked what the doctor had said. Because I had read that when you become HIV positive, it progresses to Aids, before you die, I told my mother that since I was going to die, I would pack my belongings and return to her house," she told this writer.

Wambui, who grew up in Kawangware, Nairobi, later began enlightening people about HIV/Aids, before enrolling for a counselling and training course in 2004. She contracted Tuberculosis (TB) two years later.

"I was given TB treatment for the first two months. I continued with my eight-month TB therapy and started ARVs in 2006," she says.

Wambui was advised and decided to concurrently take drugs for the two conditions, but had trouble remembering the evening dose sometimes.

Her adherence to treatment has resulted in viral suppression. She soon gave birth to her fourth child, who is HIV-negative. All her children are HIV-negative. Wambui has since reduced the number of drugs she takes from three to a single-dose pill that contains three drugs in one. She is a beneficiary of Kenya's first generic HIV drug that was introduced in 2017.

She also maintains a healthy diet and pays attention to her mental health. These she caters for herself as she receives treatment from government hospitals. As required by the constitution, she hopes the government will continue to pay for the treatment of people with HIV.

"In Danger", a UNAIDS report released in 2022, indicates that countries are not on track to ending estimated HIV deaths by 2030. While expounding on the report during a science café attended by journalists in Nairobi, Dr Lazarus Momanyi from NASCOP touched on funding.

"One of the things this report highlighted is that there is some kind of fatigue in terms of financing of HIV/Aids (treatment and management) globally.

Photo Credit | National Syndemic Diseases Control Council

There is a decline in the number of the amount of resources allocated," said Dr Momanyi.

This, he said, is by itself a danger "because we are talking about a probable increment of new Aids estimated deaths, and we are not reducing them at the rate we want... At the same time funding has declined."

The science café was organised by the Media for Environment, Science, Health and Agriculture (MESHA) on February 24. MESHA has been running a number of science café for its health journalists to promote access to accurate and up-to-date information on HIV research and prevention, among other objectives.

Data from the National Syndemic Diseases Control Council (NSDCC) shows 1,437,267 (4 per cent) of Kenya's population are HIV-positive. According to this data, 883,694



Kenya's Health Cabinet Secretary Susan Nakhumicha join other leaders to commemorate World AIDS Day last year.

Photo Credit | National Syndemic Diseases Control Council



Bungoma Governor Ken Lusaka during the World AIDS Day commemoration in Bungoma on December 1, 2022.

of these people are estimated to be aged between 35 and 74, and received their diagnoses when they were younger.

Joshua Gitonga, the Director of Monitoring and Evaluation at NSDCC, says not all HIV positive people know they are. There is a global campaign to test and identify 95 per cent of HIV-positive individuals,

who will then be enrolled on medication right away. He says some HIV positive people never seek treatment.

"You cannot start treatment without knowing your HIV status. Unfortunately, there are people who do not know their HIV status... The first goal of the global campaign is to ensure anyone living with HIV knows that," he said.

He emphasised adherence to treatments, as this significantly reduces risk of spreading the virus. The campaign aims to achieve viral load suppression for all 95 per cent of those who are HIV positive.

"Around 2010, our annual new HIV infections was approximately 123,000, but we have reduced to 34,000, after we identified and put people with HIV on treatment and minimised their ability to transmit it. Those transmitting are few," said Gitonga.

Speaking last year during World Aids Day in Bungoma, Health Cabinet Secretary Nakhumicha Wafula said the Health ministry had prioritised commodity security, including through the scale-up of competitive local manufacturing to address the financial gaps due to the declined external funding.

"We are committed to safeguarding gains realised through donor support in HIV, Tuberculosis, malaria, family planning, immunisation and nutrition programmes, which have over the years, relied on bilateral and multilateral donations arrangements. This external funding has declined in recent years," said the CS.



Site study Coordinator at the Centre for Microbiology Research, Kenya Medical Research Institute, Benn Kwach and Prof Kenneth Ngunjiri.

HIV self-tests at private pharmacies can expand PrEP access, say experts

By Francis Mureithi | mureithifrancis1964@gmail.com

High performance of blood-based HIV self-tests at private pharmacies in Kenya could be a game changer in the Pre-exposure prophylaxis (PrEP) delivery, a new study has revealed.

If the outcome of the study is approved by the relevant government agencies, it could be used as one of the testing platforms before one can initiate PrEP.

PrEP is antiretroviral medicine taken by HIV-negative individuals to prevent getting the virus.

PrEP comes as a tablet which must be taken once per day and is highly effective for preventing HIV when taken as prescribed.

Self-testing is not recognised currently as a diagnostic tool but the outcome of this study revealed that its performance is about 98 per cent like a diagnostic tool if done correctly.

The study will now be presented to the National AIDS and STI's Control Programme (NASCO) for consideration as Pre-exposure prophylaxis (PrEP) delivery tool as an additional intervention in the fight against HIV/AIDS.

Pharmacy-based PrEP delivery has the potential to expand PrEP reach and access.

The results of the study conducted in Kisumu led by research teams which included principal investigators Prof Elizabeth Bukusi, Dr Katrina Ortblad, Prof Kenneth Ngunjiri and Dr Daniel Were who is the Project Director were released on Tuesday during the 70th Science Media café on HIV Self-Testing organised by the Media for Environment, Science, Health and Agriculture (MESA).

"HIV self-testing (HIVST) has the potential to support daily oral PrEP delivery in new community-based settings," said the study.



Students follow the proceedings of a MESHA science media cafe on HIV at Maseno University in Kisumu County, Kenya.

However, guidelines have not been approved for HIVST for PrEP dispensing as there are concerns surrounding the use of HIVST for dispensing such as slightly lower sensitivity.

There are also concerns about the mistakes individuals may make during the HIVST process and misinterpretation of the HIVST results.

The study states that very few pharmacy providers are certified for Rapid Diagnostics testing (RDT) delivery.

In Kenya, pharmacy providers are permitted to deliver HIVST, but few outlets have been certified to offer these services.

According to Benn Kwach, site study Coordinator at the Centre for Microbiology Research Kenya Medical Research Institute in Kisumu at least 20 licensed pharmacies were selected for the study.

Kisumu City has an HIV prevalence of 15.6 per cent which is second nationally after Homa Bay County which stands at 16.2 per cent.

"We trained the pharmacy providers on blood-based HIVST use and client assistance," said Mr Kwach.

The study population involved pharmacy clients above 18 years seeking services associated with HIV risk like contraception.

The sample size was 1500 clients from 40 providers and to ensure maximum efficiency data was collected electronically.

"Early pilot findings suggest that private pharmacies can reach a unique population at high HIV risk that we are not reaching with traditional clinic-delivered PrEP services," said the study.

The study also found that Pharmacy-delivered PrEP is in high demand, with continuation rates that exceed clinic-based PrEP delivery.

However, the new delivery faces barriers to scale-up like lack of evidence on effectiveness, costs associated with delivery, and regulatory barriers surrounding HIVST.

The study concludes that the performance of provider-delivered blood-based HIVST was high at private pharmacies in Kenya compared to the national HIV testing algorithm.

The study observed that enhanced provider training and on-demand support could potentially reduce the potential for HIVST misinterpretation and further improve HIVST performance in this setting.

According to Dorothy Oketch, HIV program coordinator, Kisumu County, HIV self-testing is well-positioned to help address HIV diagnostic gaps and promote access to HIV testing services.

"HIVST increases autonomy, convenience, and privacy and is empowering," said Ms Oketch.

A peer educator Brenda Odera said HIVST will now be taken to the doorsteps of the community.

"This service will reduce the cost of clients who don't want to come to service providers and will also make them in charge of their lives," said Ms Odera.

<https://nation.africa/kenya/health/hiv-self-tests-at-private-pharmacies-can-expand-prep-access-4195962>

Photo Credit | Godfrey Ombogo



Delegates follow the proceedings during the opening ceremony of the Africa Health Agenda International Conference (AHAIC) 2013 in Kigali, Rwanda, in March.

Eye on infectious diseases as Africa's health system hailed for taming COVID

By Joyce Chimbi | j.chimbi@gmail.com

More African countries are making commitments to integrate climate change in their health policies and strategies, the World Health Organisation (WHO) has said.

At least 24 have made commitments to assess climate change vulnerabilities within the context of strengthening their health systems, and are building capacity within their health workforce, including community-based health workers, to enable them deal with challenges.

The immediate challenge is the exponential rise in cholera cases. According to WHO, cases recorded on the continent in the first month of 2023 alone "have risen by more than 30 per cent of the total caseload reached in the whole of 2022."

It says 26,000 cases and 660 deaths had been reported by 29 January in 10 African countries since the year began.

"In 2022, nearly 80,000 cases and 1,863 deaths were recorded from 15 affected countries.

If the current fast-rising trend continues, it could surpass the number of cases recorded in 2021; the worst year for cholera in Africa in nearly a decade. Average case fatality ratio is currently almost at 3 per cent, above the 2.3 per cent reached in 2022, and far exceeding the acceptable level of below 1 per cent," the WHO stated.

Health experts at the recent Africa Health Agenda International Conference 2023 said Africa was grappling with vulnerability, capacity, adaptation and planning. This calls for taking into account contextual factors to develop relevant solutions.

Dr Ahmed Ogwel Ouma, the Acting Director of Africa CDC, an autonomous body of the African Union, however says despite the challenges, Africa is underrated.

"We have what it takes to lead the globe in very many ways, including healthcare," he says.

"At the height of COVID-19 pandemic, when health facilities in the global North collapsed under the weight of patients, the health system in Africa stood firm. Although this system was hit from many angles by the pandemic and existing health challenges, it stood the test of time because we have a health system on the continent, not just health facilities," Dr Ouma added.

"The Africa health agenda, not just the conference, needs to be set by us on the continent of Africa. This is an opportunity for us to discuss how we do this efficiently because the agenda is not set on this conference but when we go back home.

Photo Credit | AHAIC



Africa CDC Acting Director Dr Ahmed Ogwel Ouma (right) in a panel discussion during the Africa Health Agenda International Conference (AHAIC) in Kigali, Rwanda, in March.

We have a lot to share. Our experience in the recent outbreak or pandemic is enough for due respect to be given to the continent because we got a lot of things right and we now want to build on what we did right."

He called for sharing lessons learnt from COVID-19, building on it and exporting the knowledge beyond the continent. These adaptation of the experiences and lessons learnt must therefore start on the African continent.

"The lingering question on many people's minds right about the time COVID-19 pandemic was coming under control, was whether the number of fatalities reported in Africa were correct? Instead of asking what the continent did right so that we can all be better prepared for the next pandemic, there was doubt and suspicion," said Dr Ouma.

"Africa contributes only 2 per cent of the health research output in the world. More than 80 per cent of the vaccines consumed in Africa come from outside. Most of these diseases come from our environment, animals and people. This is called One Health. It is the relationship between people, wildlife and environment," said Dr Nsanzimana.

"All is well when there is harmony among people, environment and health. But when this relationship is disrupted, this creates room for diseases," he said.

He encouraged participants to help their respective countries and communities to maintain a clean environment and used Rwanda as an example of a collective mission to maintain a clean and healthy environment since 2008. Rwanda is also at the forefront of green growth.

Photo Credit | AHAIC



Rwanda's Minister for Health Dr Sabin Nsanzimana during a press conference on the first of Africa Health Agenda International Conference (AHAIC) in Kigali in March.

Nevertheless, Africa still has a long way to go considering its highest share of disease burden, especially infectious diseases, in the world, according to Rwandan Health Minister Dr Sabin Nsanzimana.



A child is vaccinated against malaria. In 2021, approximately 364,000 children were reached with at least one dose of the vaccine through pilot introductions in Kenya, Ghana and Malawi.

Little gains in malaria fight, as disease claims 600,000 in 2021

By Mike Mwaniki | mikemwaniki2016@gmail.com

Countries globally largely held the lines against further setbacks to malaria prevention, testing and treatment services in 2021, according to new data released by the World Health Organisation (WHO).

According to World Malaria Report (2022), there were estimated 619,000 malaria deaths globally in 2021 compared to 625,000 in 2020. In 2019, before COVID-19 struck, malaria deaths stood at 568,000.

Malaria cases increased faster between 2020 and 2021, compared to the period between 2019 to 2020. The global tally of malaria cases reached 247 million in 2021, compared to 245 million in 2020 and 232 million in 2019.

In Kenya, for example, malaria cases rose from 3,302,189 in 2020 to 3,419,698 in 2021. Deaths from malaria also reduced from 11,768 in 2020 to 12,011 in 2021.

In 2020 Kenya cases accounted for 1.1 per cent of all malaria cases globally. In 2021 this increased to 1.3 per cent. In the same period, Kenya accounted for 2 per cent of malaria deaths globally, which decreased to 1.9 per cent in 2021.

WHO Kenya Country Malaria Technical Officer Dr James Dan Otieno, while commenting on the 2022 Malaria Report, urged the country to own the fight towards “zero malaria deaths”.

“Only through this bold leadership shall we accelerate efforts to achieve this vision... It is morally unacceptable for Kenyan children and pregnant mothers to die from a preventable disease like malaria.

We must step up innovations and expand available tools to defeat malaria,” he added.

The case incidence (cases per 1,000 population at risk) and mortality rates (deaths per 100,000 population at risk) increased in Kenya between 2020 and 2021, although at a slower rate, following an increase in the first year of COVID-19, between 2019 and 2020.

For example, case incidence increased from 59.6 in 2019 to 63.5 in 2020. It again increased to 64.5 in 2021, and the mortality rate increased from 22.2 in 2019 to 22.6 in 2020 and increased again to 22.7 in 2021.

At the same time, the Health ministry's National Malaria Control Programme Head, Dr Ahmeddin Omar, says the report shows stagnation in the progress towards a malaria free zone and the disease still remains one of the leading causes of illness and death in Africa.

The progress on reduction in malaria incidence in Kenya is plateauing. Confirmed cases increased by 5 per cent in 2021.

Although not on track to reach the Global Technical Strategy 2020 (GTS 2020) milestones for reductions in case incidence of 40 per cent or more, Kenya was one of 15 countries in Africa to achieve a reduction in malaria case incidence in 2021 compared with 2015. However, Kenya showed no change in mortality rate in the same period.

"We are cognizant of the threats facing the fight against malaria and we will continue to work with our stakeholders to invest in newer technologies to tailor interventions at the sub-national level to ensure efficiency and value for resources as we continue with the malaria elimination agenda," said Dr Omar.

The RTS,S/AS01 malaria vaccine was recommended by WHO in 2021 to prevent malaria in children living in regions with moderate-to-high *Plasmodium falciparum* transmission.

In 2021, approximately 364,000 children were reached with at least one dose of the vaccine through pilot introductions in Kenya, Ghana and Malawi, compared to 344,000 in 2020 and 189,000 in 2019.

Kenya is one of the 35 African countries that have adopted Intermittent Preventive Treatment of malaria during Pregnancy (IPTp) nationally.

Between 2020 and 2021, the estimated coverage receiving the recommended minimum three doses went above 30 per cent in Kenya.

According to the report, in 2021, up to 17,912,956 Long Lasting Insecticide Nets (LLNS) were delivered following severe disruptions to distribution in 2020. "At the same time, during the period 2,083,177 people were protected by Insecticide Resistance Spray (IRS) while 57.4 per cent of the population had access to Insecticide Treated Bed Nets (ITNs).

The net retention rates were above the regional average at 2-2.4 years, but experts say there is still room for improvement to reach the three year retention goals. Up to 5,930,410 rapid diagnostic tests (RDTs) were distributed," said Dr Omar.

In 2021, Kenya pledged \$10 million to the Seventh Replenishment of the Global Fund to Fight Aids, Tuberculosis and Malaria, a 67 per cent increase from their Sixth Replenishment pledge in 2019.

Africa continues to shoulder the heaviest burden of malaria. Globally, in 2021, the region accounted for 95 per cent of all malaria cases, equivalent to 235 million cases.

Further, the region also accounted for 96 per cent of malaria death, constituting 593,000 deaths. Nearly 80 per cent of all deaths were among children under the age of five.

In Africa, malaria cases rose from 232 million in 2020 to 234 million in 2021. However, deaths decreased slightly from 599,000 in 2020 to 593,000 in 2021.

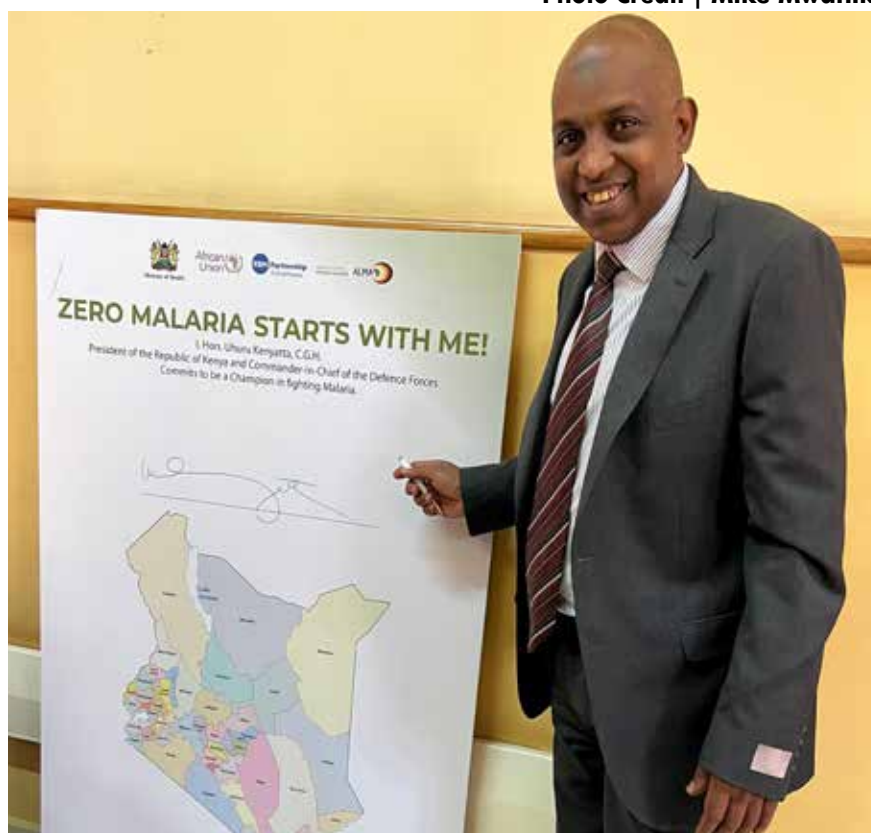
The case incidence and mortality rates in the continent declined from 2020 to 2021 following an increase between 2019 and 2020 during the first year of COVID-19 pandemic.

For instance, case incidence increased from 225.5 in 2019 to 233.6 in 2020, and then fell to 229.4 in 2021. The mortality rate increased from 56.3 in 2019 to 60.4 in 2020, and then declined to 58.2 in 2021.

In 2021, four African countries - Nigeria (26.6 per cent), the Democratic Republic of Congo (12.3 per cent), Uganda (5.1 per cent) and Mozambique (4.1 per cent) - accounted for nearly half of all malaria cases globally.

Four countries - Nigeria (31.3 per cent), the Democratic Republic of Congo (12.6 per cent), Tanzania (4.1 per cent) and Niger (3.9 per cent) - accounted for just over half of all malaria deaths globally.

Photo Credit | Mike Mwaniki



The Health Ministry's National Malaria Control Programme Head, Dr Ahmeddin Omar, in his office in Nairobi.

Photo Credit | Joyce Chimbi



A young mother receives child health consultation services at Obunga Dispensary in Homa Bay County, western Kenya.

Place of WASH interventions in Africa's child health milestones

By Joyce Chimbi | j.chimbi@gmail.com

For two days in a row, four-year-old Calvin Otieno suffered from diarrhea and vomiting, and his mother responded by giving him a salt solution.

That was in 2018, and Pearl Otieno did what everyone in Kibra slum did whenever their children had diarrhoea.

"His condition did not seem to worsen, but he did not improve either. He lay on the floor, too weak to play," she says.

By the time she saw it wise to take the child to the nearby Mbagathi Hospital, it was too late.

A common story associated with Kibra is that of flying toilets (plastic bags carrying feces thrown out for lack of toilets at their residences). Another justification for not using even the freely available public toilets has been insecurity.

"Children in slums are exposed to open defecation, flying toilets, lack of water and money to buy soap, and household and human waste dumped in open spaces," says Nelson Mutinda, a Community Health Volunteer working with a local NGO.

But Water, Sanitation and Hygiene (WASH) challenges are not limited to informal settlements in Kenya.

Overall, even though more Kenyans (59 per cent as per UNICEF statistics) have access to safe drinking water, only 29 per cent have access to basic sanitation. At least 5 million Kenyans practice open defecation, a problem that statistics by World Bank shows is similarly prevalent in many low and middle income countries.

The problem is most prevalent in Chad, Benin, Burkina Faso, Eritrea, Madagascar, Niger, Namibia and, Sao Tome and Principe. Only a handful of countries such as South Africa, Rwanda, Uganda, Seychelles, Mauritania and Gambia have successfully addressed open defecation.

As such, data by the World Health Organisation (WHO) indicates that Africa is not on track to achieve universal access to safe drinking water and proper sanitation in keeping with global Sustainable Development Goals (SDGs).

In the absence of increased levels of investments in WASH interventions, the health body stresses that Africa will remain off track due to the added pressure from effects of climate change and projected growth in population.

Against this backdrop, WHO says children in sub-Saharan Africa are at least 14 times more likely to die before their fifth birthday, than those in developed nations.

In Kenya, at least 64,500 children die every year before age five, as per government statistics. Three quarters of these deaths occur before their first birthday.

Mary Wanjiru, a pediatric nurse at Mbagathi Hospital, says that like Otieno, many die from preventable diseases. The primary cause of death is usually diarrhea, pneumonia and neonatal complications.

"It is very important for mothers to understand that proper hygiene, especially during the first 1,000 days of a child's life, is a very important pillar of their health. Poor hygiene can lead to death or a child failing to reach their full developmental and growth potential," she says.

Photo Credit | UNICEF - Kenya

"WASH interventions are pillars of maternal, newborn and general child health because they prevent life threatening infections such as tetanus, diarrhea and sepsis, and help reduce stunted growth," she adds.

Proper hygiene is an especially weak pillar in Africa's low and middle income countries as per USAID research.

Up to 50 per cent of healthcare facilities lack piped water, 33 per cent lack improved sanitation, 39 per cent lack hand washing soap while 39 per cent have inadequate infectious waste disposal. A whole 73 per cent lack sterilisation equipment, according to research.

While WASH interventions such as safe drinking water, proper hand washing practices and even basic sanitation could prevent an estimated 297,000 global deaths among children under the age of five every year, this goal is not within reach for many Sub-Saharan Africa countries.

The WHO has shown hand washing as the single most cost-effective strategy to prevent pneumonia and diarrhea in young children.

Still, data from UNICEF and WHO Joint Monitoring Programme released in August 2020 shows an estimated 818 million of children globally lacked basic hand washing facilities in their schools.



Residents fetch water from a borehole constructed by UNICEF-Kenya in Turkana County.

Of these, 295 million live in sub-Saharan Africa. Overall, in Least Developed Countries, seven of 10 schools lacked basic hand washing facilities.

UNICEF now paints a grim picture as over 700 children under the age of five die every day as a result of diarrheal diseases for lack of appropriate WASH services.

Children in conflict situations are especially vulnerable, and are nearly 20 times more likely to die from diarrhoeal diseases than from the conflict itself.

"Over a period of 10 years, I have worked in four slums in Nairobi. I find it shocking that people have not understood how serious diarrhea in children is. Small children are given a mixture of water and salt, and sometimes some herbs," Mutinda says.

Wanjiru is of the same opinion. She says diarrhea can escalate to fatality in a matter of hours. "By the time mothers get to hospital with children suffering from acute watery diarrhea, it is sometimes a losing race against time. Any form of illness among children should never be a wait-and-see situation. Seek immediate medical attention."

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Photo Credit | Philip Nzinga



Michael Waithaka, 36, a statistician and data analyst who underwent a vasectomy in 2019 after he and his wife had two children.

More men now embrace vasectomy as birth control method of choice

By Philip Nzinga | phillip.muasya@gmail.com

Family planning has for many years been left in the hands of women who have to endure the side effects of hormonal contraceptives such as high blood pressure and weight gain.

But there seems to be growing change of heart among Kenyan men, with a good number of them taking up a leading role in deciding the size of their families.

Michael Waithaka, for instance, underwent vasectomy three years ago and is not shy to discuss this in detail. He calls it coming out, not to recruit fellow men into embracing his choice but to present vasectomy as an alternative family planning method that works just fine.

Waithaka is a statistician and says he has researched on reproductive health and contraception and is happy that vasectomy is not as alien a topic as it was years back.

The senior data analyst with an NGO in Nairobi was only 32 when he undertook vasectomy at a Nairobi clinic in 2019. He and his wife had just welcomed their second child. Waithaka admits that the decision shocked many of his friends and family.

He says he chose the permanent, irreversible family planning method to protect his wife from life threatening complications brought about by hormonal contraceptives and pregnancy.

"After watching my wife struggle with two pregnancies that nearly cost her life, I decided to be in charge of our reproductive health matters," he says.

His wife's first pregnancy in 2015 had serious complications and she was hospitalised before she delivered through CS. After a few days of monitoring, she was discharged, but shortly after she was back in hospital with excruciating pain in the lower abdomen.

"The CS scar opened and a nasty wound developed," says Waithaka. She was treated.

Four years later, the couple decided to have a second child. But Waithaka still dreaded the experience his wife had. For the four years the couple was not on any family planning method. "Her health deteriorated and she would be in and out of the hospital due to complications," he says.

He thought he should take charge. "I knew we needed a permanent method and I opted to go for it myself. After consulting a number of doctors and specialists, I made up my mind to go for vasectomy," he says.

Just before his wife delivered their second child, Waithaka communicated his decision to her. It was a shocker. "I wanted us to discuss the method but on mentioning it, she rose and walked out," he recalls.

Weeks later, his wife delivered safely through another CS. "I knew it was now time to act and act fast," he says.

Though his wife was opposed to his choice, he was determined. For the second time, he revisited the topic with her, telling her he would be the one in control of their family size and that vasectomy was his choice. She was still opposed to the idea. Waithaka says: "I engaged another doctor who gave me his personal story and I said 'wow, this is it, this is what I want.' I had no doubt at that point."

The specialist was Dr Charles Ochieng, who runs a private clinic in Nairobi specialising in vasectomy. Dr Ochieng himself underwent vasectomy over 10 years ago.

Waithaka recalls the morning he walked into Dr Ochieng's clinic at 9am, and 20 minutes later he was out and about, having undergone a non-scalpel vasectomy. He had a meeting before midday.

"He recommended painkillers and I rushed to my meeting as if nothing had happened," Waithaka says.

He paid Sh20,000 (about US\$150).

Waithaka says his wife has since stopped worrying, especially after she noticed that his masculinity remained intact. "We are happy," he says.

But it has not been easy "coming out" for fear of a judgmental society, especially fellow men, who equate vasectomy to castration. Lately, however, he talks about it liberally, to enlighten other men.

"It is a permanent method so you have to be sure," he cautions.

Waithaka knows a good number of men who have undergone vasectomy but have kept it a secret even to their spouses. He says: "In the past I would worry about what people would say: 'Oh that is a castrated man there'. But that is in the past now."

According to data by United Nations on contraception use by method 2019, sterilisation among Kenyan men of reproductive age (15 – 49) stood at 0.1 per cent. This is an indicator that prevalence use of vasectomy as a method of family planning was modestly acceptable in Kenya, compared to other populated countries in the region such as Ethiopia, which records zero vasectomy uptake.

The highest rates of vasectomy use in Africa are recorded in South Africa (0.7 per cent), followed by Namibia at 0.4 per cent, according to BMC public health report 2020.

In the West, Canada is leading with 22 per cent followed by China at 21 per cent.

Dr Ochieng' says a lot of ignorance surrounds vasectomy, making men to shy off, even though the procedure is safe, painless and cheap.

He says the non-scalpel vasectomy (also called no needle, no scalpel) is an advancement of the earlier method, where doctors opened the scrotum to access, cut and seal the vas deferens (tubes that carry sperms). The procedure is now simpler and takes 10 to 15 minutes.

Dr Ochieng says in this method, anaesthesia is sprayed on the scrotum then the vas deferens are clamped using a special ring clamp. Instead of making two incisions, the doctor makes one tiny puncture.



Dr. Charles Ochieng, a vasectomy specialist says unlike in the past, men of reproductive age are embracing vasectomy as a family planning method of choice. He conducts 15-30 vasectomies in a month in his clinic in Nairobi.

The opening is then gently stretched to access the tubes (vas deferens), which are then pulled out and sealed. The incision is so small and it requires no stitches," he explains.

"The procedure does not interfere with testosterone production, neither does it kill one's ability to orgasm. Men have nothing to worry about," says Dr Ochieng'.

He says three months after the procedure, a test is carried out to ascertain success.

"There should be no sperms in the semen," he says.

"We have been socialised to think that family planning is a woman's responsibility. That is not true; men also play an important role," he states.

In a month, Dr Ochieng' conducts between 15 and 30 vasectomies, an indication that there is an increased uptake of vasectomy among men.

He says most men are motivated to undergo the procedure due to the side effects of the other conventional family planning methods on the health of their wives like in the case of Waithaka.

"The other reason is that some men have had the number of children they want and want to take personal responsibility for family planning," the expert says.

Vasectomy at a glance

- Vasectomy or male sterilisation is a surgical procedure to cut or seal the tubes that carry a man's sperms to permanently prevent pregnancy. It is a contraceptive method suitable for men who are sure they do not want any more children.
- Unlike the tubal ligation in women, which is a complicated surgery, vasectomy takes between a few minutes and most people are able to recover and resume a normal life almost immediately.
- In the conventional scalpel vasectomy procedure, a doctor makes two small cuts on the scrotum to reach the tubes that carry sperm out of the testicles known as vas deferens.
- Each tube is cut and a small section is removed. Finally, the ends of the tubes are then closed, either by tying them or sealing them using heat. The cuts are then stitched.
- New non scalpel technology has rendered the procedure almost painless. In this new technique, the doctor feels for the sperm ducts under the skin and holds them in place with a special clamp. He then makes one tiny puncture and gently pulls the tubes out which are then sealed.
- After vasectomy, a man is able to have orgasm and ejaculate. The only difference is that the semen does not have sperms, and thus cannot cause pregnancy. Vasectomy is not castration.

Expert: Herd immunity can end COVID-19 in Kenya, says Kemri expert

By Francis Mureithi | mureithifrancis1964@gmail.com

As Kenyans drop their guard on COVID-19, experts say that herd immunity could be achieved if Kenyans continue getting the jab.

Herd immunity is the protection from becoming infected with a particular infectious disease as a result of the people around you not being prone to the infection. Individually acquired immunity established by natural infection

The immunity is acquired individually or through established natural infection with a disease-causing agent or by immunisation with a vaccine

"We care about it because we have seen its impact in bringing down an epidemic like the zika virus outbreak in Brazil in 2015," said Francis Angira, a Research officer and Clinical Trials Coordinator at Kenya Medical Research Institute (Kemri)-Center for Global Health Research in Kisumu City. He said the outbreak in Brazil started and ended shortly because of herd immunity two years after the outbreak began.

"63 per cent of the population had had exposure to the virus. Many fell sick but others did not even know they were infected and this is a clear indication that the right level for herd immunity had been achieved and many people were now immune to Zika making the infection die out," said Mr Angira.

The official was speaking in Nakuru City recently during the 69th Science Media café on pandemic preparedness organised by the Media for Environment, Science, Health and Agriculture (MESHA).

The official cited polio which was common in the US in the past but through mass vaccination where 80 were fully vaccinated, this led to a sharp decrease in polio and the country was declared polio-free in 1979.



Francis Angira, a research officer and Clinical Trials Coordinator at Kenya Medical Research Institute (Kemri) makes a presentation during a MESHA media science cafe in Nakuru, Kenya.

"Vaccination helped establish herd immunity even to the non-vaccinated," said Mr Angira.

However, he said there are fears of the re-emergence of polio in some communities as the percentage of vaccinated people is falling below the threshold.

He said the best way of acquiring herd immunity is through vaccination rather than natural infection which has risks of serious disease and death.

"Herd immunity through previous infection may result in unnecessary cases of disease and even deaths in fatal disease," he explained.

He said herd immunity against COVID-19 disease should be achieved by protecting people through vaccination and not by exposure to the virus.

"Threshold needed to be vaccinated against COVID-19 to achieve herd immunity is not known but studies are ongoing," said Mr Angira.

He added: "When enough people are vaccinated it is harder for the disease to spread. He urged health journalists to educate and inform the masses on herd immunity, and the important relationship between it and mass vaccination in safely achieving population immunity.

The official called on journalists to intensify the campaign against vaccine hesitancy, as it slows progress to herd immunity.

"Keep educating masses that reinfection after infection does occur, and people up to date with their vaccination can still become infected because the only way to protection is the consistent observance of preventive measures," said Mr Angira.

He said stories of long COVID-19, research findings, people's positive outcomes after severe COVID-19 infection, pandemic preparedness and COVID-19 and climate change are stories Kenyans are yearning to read.

<https://nation.africa/kenya/health/expert-herd-immunity-can-end-COVID-19-in-kenya-says-kemri-expert-4210272>

Community health volunteers fight cholera amid limited water

Photo Credit | Ministry of Health



A team from the Ministry of Health administers cholera vaccine in Bura, Tana River County.

By Tebby Otieno | tebbyotieno62@gmail.com

Everline Mulindi owns a hotel in Garsen's New Market at a time cholera cases have been reported in Tana River County. This is a threat to her only source of income. With that in mind she has prioritised hygiene.

"Before we start preparing food, we ensure the hotel, utensils and staff are clean. When our customers come, we maintain high standard hygiene while serving them to ensure none of them complains of diarrhoea after eating at the hotel," she says.

Health ministry data shows presence of cholera in 15 counties since October last year. Garissa has had the most cases at 1,947, with 11 fatalities.

Tana River County is second with 718 cases and 17 deaths, Nairobi 605 cases and 29 fatalities, with instances in Kiambu, Wajir, Machakos, Meru, Nyeri, Murang'a, Homa-Bay, Kitui, Mandera, Kajiado, Uasin Gishu and Nakuru counties.

Ms Mulindi, who is also a Community Health Volunteer (CHV), says many business operators in the market have to contend with inadequate toilets, which if not addressed, may worsen the cholera situation.

"As CHVs we are doing new household registration while also creating awareness on the need for every homestead to have a toilet. We encourage those who do not have toilets to use their neighbours' to minimise cases of cholera," she says.

Locals have been advised to be on the lookout and report any diarrhoea cases to CHVs or take such patients to hospital immediately instead of resorting to herbal medicine.

Ms Mulindi urges residents to practise proper hygiene, particularly cleaning food before cooking the same well, drinking treated water and frequently washing hands with soap and running water.

Cholera can be contracted by drinking water contaminated by faeces of an infected person or naturally occurring

Vibrio cholerae. Experts have also linked cholera outbreaks to poorly cooked or uncooked mollusks, shellfish, and crustaceans contaminated in their natural environment.

On February 19, the Health ministry completed Oral Cholera Vaccination in Bura, Tana River County. The door-to-door vaccination campaign in Nairobi was suspended that same day, with the ministry telling the public cholera is preventable.

Nuru Mohammed, a CHV in Malakoteni A, who works at the Garsen Health Centre in Tana River, says cholera spreads quickly and since there have been reported cases in Tana North, residents are advised to take extra precautions.

"If, for example, flies land on faeces then on food, which in turn is eaten by a person, it causes cholera and one starts to diarrhoea nonstop. We tell the community to be cautious, particularly when using toilets and making sure they are covered when not in use," she says.

Cholera is a highly contagious intestinal infection caused by the toxigenic bacteria, *vibrio cholera*. In its most severe form, cholera causes a sudden onset of acute voluminous watery diarrhoea, which can quickly lead to dehydration and death.

Speaking during a virtual cross-border media science café hosted by Media for Environment, Science, Health, and Agriculture (MESHA) on February 14, Dr Nitya Udayraj, a public health specialist who has been working in the humanitarian sector for the last 20 years, said the current surge in cholera cases in multiple counties at the same time is due to limited access to clean water and sanitation, particularly in ASAL areas.

Dr Udayraj also noted that the region's deteriorating Water, Sanitation and Hygiene (WASH) situation was a result of influx or migration, which is straining the region's already limited capacity.

Photo Credit: Godfrey Ombogo



Faustin Munyazikwiye, the Deputy Director General of Rwanda Environment Management Authority (REMA), during a panel discussion in March in Kigali, Rwanda.

Increase climate research funding to address key issues, Africa told

By Godfrey Ombogo | gombogo@rocketmail.com

African governments have been urged to increase funding and support for research on key emerging climate change issues now more than ever.

As the curtains fell on the Africa Health Agenda International Conference (AHAIC) 2023 this week, delegates and their governments were reminded that researches on issues such as climate-health nexus, carbon removal and green cities across Africa can no longer be pushed to the periphery.

Faustin Munyazikwiye, Deputy Director General of Rwanda Environment Management Authority (REMA), said climate research funding needs the political goodwill of the top leadership of African countries so that they align the research to the specific challenges they want to tackle.

"We can think globally but act locally and find home-grown solutions. We need to establish our own funds from our domestic sources before we seek international help," he said.

Modi Mwatsama, Head of Capacity and Field Development at Wellcome Trust, said African governments need to do a lot of mobilization for investment in research that is evidence based and relevant to Africa.

"We must encourage our governments to have climate strategies and increase their budgets for research. They also need to work with other stakeholders to make sure the researches can help the people they are meant for," said Ms Mwatsama.

According to a study published in the journal, *Climate and Development*, more than 75 per cent of funds earmarked for Africa-related climate research go to institutes in the US and Europe.

The study says there is already a deep funding deficit in Africa, with less than five per cent of the funds allocated for climate research globally focusing on African countries, even though the 10 nations considered most vulnerable to climate change impacts in 2020 were all in Africa.

"Of the \$620 million that financed Africa-related climate research between 1990 and 2020, research institutions based in Europe and the United States received most of the funding (\$480 million), while those based in Africa got less than 15% (\$89.15 million)," says the study.

Ms Modi says this skewed financing of Africa-related research can only be solved by Africans themselves developing a more active approach to research funding and building a strong financial base for research.

Dr Cecilia Njenga, Director, Intergovernmental Support and Collective Progress Division at the UN Framework Convention on Climate Change (UNFCCC), said more research needs to be targeted at net zero carbon emissions, climate-health loop and renewable energy.

Photo Credit: Godfrey Ombogo

"Even as we mainstream the health agenda in the climate arena, we need to build a constituency that is able to articulate cross-cutting issues such as indoor health, clean water, agriculture and nutrition," said Dr Njenga.

Kenya held its first national workshop on carbon removal on February 27 and 28, 2023 in Nairobi, where the government said it was ready to take the lead on carbon removal as the next biggest solution to the climate change crisis.

Ali Mohamed, the Special Secretary for Climate Change at the Executive Office of the President, said Kenya had been pushing the carbon removal agenda since 2018 because the government was convinced that this is the new direction the world needs to take.

"We are willing and ready to carry out all the feasibility studies and tests needed before we roll out the carbon removal process to ensure all the risks are removed," said Mr Mohamed.

As the plenary at AHAIC 2023 discussed 'Climate Action in Africa: A Healthier Planet for Healthier Populations', the panelists were reminded of the importance of carbon removal as the best way to achieve net zero carbon emissions.

A delegate from South Africa said more research needs to be targeted towards carbon removal because "Africa has a lot of promise for carbon capture".

"Even as we push our governments to put more money in research on climate action, let us encourage them to lay more focus on carbon removal as we aim for a greener and less polluted continent," said the delegate.

According to an article provided by United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and published by Relief Web, African countries have contributed a small fraction of global greenhouse gas emissions, but they face disproportionate risks from climate change.



Dr Adelheid Onyango, the Director of Universal Health Coverage at the WHO Africa Office, during a panel discussion at AHAIC 2023 in March in Kigali, Rwanda

Despite this fact, less than four per cent of global funding for climate change research in the past 30 years has been spent on African topics.

The article says further that in addition to being the main sources of research funding, institutions based in Europe and North America receive 78 per cent of the funding for climate research on Africa, while African institutions received only 14.5 per cent.

Dr Adelheid Onyango, the Director of Universal Health Coverage/ Healthier Populations Cluster at the WHO Africa Office, agrees with this finding, saying that the Global South continues to be pushed to the periphery when it comes to climate change research funding.

"We need to build upon the science by building our political savviness. Who are our negotiators?" posed Dr Onyango.

"The researchers must take on board the health, social and psychological impacts of what they are studying. They also need to include community voices and capture their lived experiences."

Modi urged researchers to make their studies accessible to those meant to use it by the way they write them and by granting access to journals where these studies are published.

"Research needs to be designed with people going to use it in mind so that they can understand it. The users usually include policymakers, implementers and communities targeted in the research," she said.

Africa's approach to conflict and climate induced food insecurity shocks

By Joyce Chimbi | j.chimbi@gmail.com

Photo Credit | Courtesy

Upheaval on the global stage, war in Ukraine, conflict in the Horn of Africa, severe climate shocks, inflation affecting commodity prices and low intra-continental trade have fuelled food insecurity.

Of the 24 countries classified as hunger hotspots by UN's Food and Agriculture Organisation and World Food Programme in 2022, 16 are in Africa. The continent accounts for 62 per cent of the total number of food insecure in hotspot countries.

"Over time, climate shocks have significantly impacted Africa's fragile food chain. The most severe drought in the Horn of Africa in decades is ongoing, besides floods in West Africa and severe cyclones in Madagascar, Malawi and Mozambique. Climate change will contribute to a decline in African agricultural yields, which are already very low, by 5 per cent to 17 per cent by 2050," says Hafez Ghanem, a former World Bank Group regional Vice President and a current nonresident senior fellow in the Global Economy and Development Programme at the Brookings Institution.

External factors such as the disruption of food systems caused by the COVID-19 pandemic and the consequent reduced purchasing power, Russia's invasion of Ukraine, which led to high food, fuel and fertilizer prices globally, coupled with drastic weather changes and continued conflict and insecurity have compromised an already fragile food chain.

Ghanem says conflict and climate change are the most pressing challenges for Africa, creating conditions for food insecurity, worsening the food insecurity levels and making it difficult for the continent to produce food. Rising food insecurities are in turn a catalyst for conflict.



Hafez Ghanem says conflict and climate change are particularly a most pressing challenge for Africa, creating conditions for and worsening food insecurity.

Overall, over 80 per cent of an estimated 137 million people in Africa facing acute food insecurity are in conflict-affected countries and regions, including the Horn of Africa, Northern Nigeria, eastern DRC and the Sahel region.

According to FAO and WFP, the DRC, Ethiopia, and Nigeria account for more than 56 per cent of the food insecure people in Africa.

"The three countries have two characteristics in common; conflict and vulnerability to climate change. This situation is worsened by external factors such as the war in Ukraine, global inflation and rising fuel prices," he said.

As a net food and fuel importer, FAO research shows Ethiopia is particularly affected by high international prices. As such, food price inflation averaged 40 per cent in the first half of 2022.

The onset of floods in 27 Nigerian states in February have, as per FAO and WFP joint reports, damaged 450,000ha farmland, seriously compromising harvest. Floods have similarly disrupted agriculture in South Sudan.

Ghanem says the extreme weather events coming after the 2019-2020 locust infestation, which affected 1.25 million hectares in Ethiopia, Kenya and Somalia, have had huge negative consequences on food security.



In the absence of up-to-date research to produce innovative approaches to combat challenges facing agriculture today, Africa will be hard pressed to overcome rising food insecurity.

Political instability and conflict in Ethiopia, Sudan, South Sudan and Somalia have worsened the situation.

He says the Sahel - Burkina Faso, Chad, Mali, Mauritania and Niger - has seen a 50 per cent increase in food insecurity compared to 2021. He says: "This is a reflection of the sharp increase in political instability and conflict in Mali, Chad, Burkina Faso, and rising food, fuel, and fertilizers prices globally".

Ghanem urges political leaders and civil society to address root causes of conflict and instability including by dealing with the social, political and economic exclusion of large segments of the population.

Against this backdrop, he argues for pan-African initiatives to boost food production. "Africa's agriculture has the lowest yields in the world. Africa has the least percentage of irrigated land and uses the least fertilizer per hectare. The continent also invests the least in research and development."

In the absence of up-to-date research to produce innovative approaches to combat challenges facing agriculture today, and without the use of quality fertilizer, certified seeds and new and more climate change resilient varieties of seeds, he says the continent will be hard pressed to overcome rising food insecurities.

"Despite these challenges, I am optimistic that pan-African initiatives and joint projects are viable to address these gaps, including establishing four or five research centres for agriculture on the continent, joint irrigation projects and building fertilizer producing companies," he said.

"Africa imports about 60 per cent of all fertilizer used, making it expensive for farmers, and leading to low usage of fertilizer. We already have big fertilizer producing companies, including Dangote in Nigeria and OCP in Morocco. The continent can work with such African fertilizer producers to establish more fertilizer factories on the continent," he added.

He said Africa has opportunities for inter-African cooperation and that the Africa Continental Free Trade agreement, signed by all 54 African countries will accelerate free flow of goods and services and increase pan-African investment projects in agriculture.

Making a case for a pan-African approach to tackle food insecurity, Ghanem says, would be an opportunity to promote multi-country regional investments in infrastructure, which would in turn enhance agricultural productivity and resilience to climate change.

He sees such approach as opportunity to create an African council to coordinate and encourage agricultural research and development. Equally important, a pan-African approach could support a facility to ensure vulnerable African countries can finance food imports in times of crisis.

Buoyed by its vast natural resources and human capital, he says a united vision for Africa will help develop Africa's bread baskets and deliver a future where there is food security.

Photo Credit | Clifford Akumu



Women fetch water at Enkong'u Enkare spring in Narroosura, Narok County, Kenya, during the World Wetlands Day celebrations recently.

Race to save surviving wetlands and mitigate effects of climate change

By Clifford Akumu | akumu.clifford@gmail.com

On the fringe of Narroosura village, several kilometres South of Narok, Patrick Tolo walks in his black sandals made from old tires and a traditional herding stick in his hand on smooth rocks that seem to form a pattern.

Behind him are pastoralists crisscrossing the patched land with their livestock in search of pasture, the goats occasionally munching young fresh acacia leaves. Women can also be seen with jerrycans full of water on their backs and others rolling on the ground. Mr Tolo is on his way to Enkong'u Enkare water spring (locally known as the eye of water) - a critical fresh water source that sustains the lives and livelihoods of thousands of residents.

Tolo, 51, recalls how the community has been dealing with human-wildlife conflict at the water spring due to prolonged drought. The water level has drastically reduced.

"Many have fallen victims to the wild animals, especially elephants roaming the area in search of food and water. The elephants cleared my sugarcane and banana plantation. I no longer grow them. I have decided to grow fast maturing crops like tomatoes and vegetables," says Mr Tolo, as he inspects the pipes that he uses to irrigate an adjacent land.

For Sayianka Nkiminis, memories of an encounter with a male buffalo that was destroying his maize are painful. The animal nearly killed him. "The animal charged at me.

The only thing I can remember is being airborne, having been lifted by the animal's horns, before a fall with a thud. One of the horns got lodged between my legs and it nearly mutilated my genitals," he recalls.

His screams for help before he became unconscious saw nearby villagers save his life. He lay in a coma at the Narok County Referral Hospital for three days. "I'm lucky to have made it alive," Nkiminis says.

Wetlands like Enkong'u Enkare are the most bio-diverse ecosystems on the planet and can only be compared to rainforest and coral reefs. They reduce the likelihood of flooding by soaking up excess water from swollen rivers. They filter pollutants from groundwater before it enters aquifers, and are one of the most effective natural carbon storage systems on the planet.

According to the Ramsar Scientific and Technical Review Panel, wetlands store 35 per cent of the world's land-based carbon, despite covering just 9 per cent of its surface.

Enkong'u Enkare water catchment has two springs. The cold one diverts to Ntuka Sub-location, supporting four schools and domestic use, while the warm one flows down and becomes the Narroosura river.

Olchoro Ngussur and Olmaisuri Entiapiiri wetlands are in Narok South.

WWF programmes Coordinator for Mau-Mara-Loita region Kevin Gichangi says wetlands destruction increases vulnerability to extreme climate change effects, including flooding and drought.

"Enkong'u Enkare is a perennial spring that serves the community and supplies vital habitat and "biological supermarkets" for wildlife," he says.

A few kilometres away, the Embukitaa Hills, the breeding site for elephants, protrude.

Mr Gichangi says many aquatic species are endangered when wetlands are degraded.

"Apart from aquatic species that depend directly on the wetland, it is also a source of water for rivers that sustain wildlife downstream. This spring lies in the Mara Ecosystem that is well known for wildlife," he says, warning that the rate at which wetlands are being degraded will be detrimental to the country.

"Globally, 90 per cent of the wetlands have been degraded since the 1700s. We are losing wetlands three times faster than we are losing forests" adds Mr Gichangi.

According to the January 2023 National Drought Early Warning bulletin produced by the National Drought Management Authority, Narok County is in the alert drought phase.

The bulletin reveals that the drought situation is critical in 22 of the 23 ASAL counties due to the late onset and poor performance of the much-anticipated October to December 2022 short rains, coupled with previous consecutive failed rainfall seasons. (needs to be ascertained now that it has started raining.

Preserved by the Ministry of Irrigation in 1982 to provide water for domestic use, Enkong'u Enkare spring remains a critical wetland supporting more than 15,000 people with its more than 29 million cubic metres, as per the records from the Ministry of Water.

Encroachment by humans and wildlife almost risked the water source becoming just another afterthought in a story about restoration. Two years ago the spring was also threatened by siltation and other pollutants flowing into the water pan built to collect the spring's water. Erratic weather patterns, a perennial drought and sporadic flooding saw the mini dam's bed filled with harmful waste and silt.

"It was full of silt, which used to fill the whole dam. The dam had also been invaded by water hyacinth," says Mr Tolo, who grows vegetables, maize and beans nearby.

The WWF Kenya began a rehabilitation project on the dam, removing the silt that had clogged it.



WWF programmes Coordinator for Mau-Mara-Loita region Kevin Gichangi says wetlands destruction increases vulnerability to extreme climate change effects.



Patrick Tolo during the interview at Enkong'u Enkare spring in Naroosura, Narok County.

It also built several canals to supply directly from the spring to several farms and projects, including Naroosura and Oloiboroing'oni irrigation schemes under the water resource users association.

It also repaired the cattle trough and the communal water points, planting indigenous trees and repairing the fence to keep off wild animals. The farmers grows mainly fast-maturing horticulture crops such as tomatoes, cabbages, onions, beans and maize.

"Were it not for this water, people wouldn't have lived here because the place is so dry. It had a lot of trees and that is why it is called Naroosura (the green forest)," says James ole Tago, the Naroosura Water Resource Users Association secretary, that ensures the natural resource is protected.

"And because of these multi-water uses, the spring needs more protection than any other wetland," he says.

The WRUA was created to train the community on sustainable farming and come up with water use schedules to avoid water-related conflicts locally.

During dry season, when the water volumes at the spring reduce, Naroosura WRUA advises farmers to farm on small portions of the land to enhance uniform allocation of water in each plot.

"I water my crops twice in a week, according to the schedule by the Naroosura WRUA. The farmers group has also drawn a timetable on members that are tasked to oversee the process," says Tolo.

"We are now able to pump water to irrigate crops. I harvest between eight and 10 bags of maize," he says.

The irrigation project targeted integrated water resource management through sustainable farming practices. It trained the farmers on how to avoid water pollution by not emptying chemicals and farm waste in the river system to keep river Naroosura clean for downstream users not to get water-borne diseases.

"We also trained the farmers on integrated pest management and how to do organic farming," explains Mr Tago.

Naroosura WRUA told the government to second an expert to the catchment to determine the extent of the water table to avoid further destruction. "We need an expert who understands the extent of the water table so that we can protect it," says Bishop Simon Shimpai, the Naroosura WRUA chairman.

Environment, Forestry and Climate Change CS Soipan Tuya says awareness creation on the impact of wetland restoration among community members is vital. "We hope the local communities can take measures to improve government adaptation and mitigation of climate change. Wetland restoration is one such activity," the CS said during this year's World Wetlands Day at Enkong'u Enkare, whose theme was "Wetlands Restoration".

More than 6,000 trees were planted around the spring during the celebrations. Currently, Narok County has 14.01 percent forest cover and 20 percent tree cover. It still has 300,000ha available for

Photo Credit | Clifford Akumu



James ole Tago, the secretary of Naroosura Water Resource Users Association in Narok County.

restoration over the next 10 years to meet the 30 percent tree cover as set out by the President. Soipan said her government will establish a "green army" within Nark County to help increase these numbers and sustain the 15 billion trees agenda until maturity.

Narok Governor Patrick ole Ntutu has reiterated that his government will identify and restore the natural springs in Narok to mitigate effects of drought. "While climate change poses a serious threat to the existing wetlands, our grazing and animals husbandry nature continue to pose an even bigger challenge to our conversation efforts," said Mr Ntutu.

"Overstocking in the conservancies and outside the Masai Mara Natural Reserve has disrupted the flow of the Mara River and shortened the cycle of high and low peak in the flow of the river from 90 to just 16 days during the rainy season," he added.

Ntutu urged the national government to put stringent measures to tame encroachment of riparian lands to conserve and preserve the environment.

Widow creates women coffee network to eradicate poverty amid droughts

By Tebby Otieno | tebbyotieno62@gmail.com

Atieno Christine Muga was propelled to think outside the box when her husband died and left her with four children. "I had to step into his shoes as the sole family provider," she says.

Previously a housewife, she was lucky to land a job at a coffee firm in Uganda. She gave it her all and all was well until some conflict caused the company to close down. She was suddenly jobless, but not without new skills and knowledge.

She set up a Mount Elgon Women in Speciality Coffee Limited. It has been more than 10 years since, and today the company works with 15 farmer groups and 658 farmers on the slopes of Mount Elgon.

"We agreed to go into coffee business together as a way of fighting poverty. We process, package and export our Arabica coffee from Uganda," she told Sayansi.

The now Mount Elgon Women in Speciality Coffee Limited Managing Director says they plant in April when it rains, and harvest annually. She says they look forward to having women coffee entrepreneurs in East Africa.

"Coffee is a cash crop and we consume it locally and export it. We are still reviewing the legal requirements for partnership and soon we will be coming to support our farmers in Kenya," she says.

Even though Christine is happy with the progress women coffee farmers in her network are making, she reckons that climate change has become a huge challenge, especially the recent prolonged drought.

"As I speak, some of the coffee trees are drying up and we are thinking of working with other partners on how farmers can be helped with irrigation schemes," she says.

Photo Credit | Tebby Otieno

Prolonged drought affects the production of coffee and encourages pests and diseases. While environmental conservationists encourage planting of many trees to act as water catchment, Christine says there is a lot of cutting of trees in Mt Elgon, which has affected coffee production.

She says they are currently implementing biogas construction for members as a means to stop or reduce dependence of wood fuel. "Women walk long distances to get firewood. With biogas, they now have clean energy and enough time to farm. Remember, women are the ones producing 80 per cent of labour force," she says.

Christine says they encourage women members to engage in savings and credit or table banking.

She goes to workshops for entrepreneurs, such as the recent "Rising Women Initiative", a partnership whose objectives include providing a platform for business growth, showcasing women in business, providing financial solutions and exposing them to world-class business practice.

"I have learnt a lot. Kenyan women are so business oriented and already we want to network with them, so that we come and establish businesses here, they also come and we see how we can work in Uganda," she says.

Sarah Karingi, a business coach and mentor, who is also a trainer in business networking, says networking is great for the growth of women in business like Christine. She says through creating contacts, women entrepreneurs can easily reach their experts on respective social media platforms like LinkedIn.

"Women are coming up in business. Many years back, women were not allowed to do business. Business is about taking risks and even if you lose money, you should try again because it is in failing that you succeed," Sarah said.

Nelson Mburu from True North Group Africa, an organisation connecting entrepreneurs across Africa, says there is need to break down the border barriers to allow intra-trade within the continent.



Atieno Christine Muga (right), a coffee farmer, during a recent training dubbed 'Rising Women Initiative' in Nairobi.

Photo Credit | Mount Elgon Coffee and Honey Co-operative



Farmers in a coffee farm in Mount Elgon, Uganda. Prolonged drought affects the production of coffee and encourages pests and diseases.

He describes women as teachable and fast learners who easily adopt new methods, and so organising training for them helps them to learn from their peers. "When I look at women I've taught and trained, they ask how they can implement the new ideas. As I pursue the agenda of African trade, women tend to be quick catalysts," says Mburu.

Speaking during a training attended by women entrepreneurs in Nairobi, Mburu said that for the last four years, he has brought about 40 entrepreneurs to Kenya to learn from their peers. The programme targets women entrepreneurs in Nigeria, South Africa, Kenya, and East Africa.

"When I put 10 dollars in the hands of women, it will benefit 100 people. I have a bias towards women because they nurture more people than men would," he said.

How unsustainable sand harvesting is leaving families homeless in Western Kenya

By Sharon Atieno | sharonphoebeatieno@gmail.com

Photo Credit | Sharon Atieno

John Otieno Odede, a resident of Kobala village in Homa Bay County, inherited land from his father, and occupied it with his two wives and nine children.

The land that was once a sand harvesting site is only metres from the Lake. When it last rained heavily and there was a flow-back at Lake Victoria, Otieno's two houses were destroyed.

He has one house left, but it also has its walls cracked. Otieno has since built a temporary iron sheet house for his family. After the flooding, Otieno also changed occupations, from farming to fishing.

"There is nowhere to farm. The soil is waterlogged," Odede says. "This has resulted in food insecurity."

Homa Bay county has experience unwarranted sand harvesting, even as the National Sand Harvesting Guidelines, 2007 indicates that lakeshore and riverbed sand harvesting should not exceed six feet in depth.

On-farm sand harvesting must be carried out at designated sites with a buffer zone of at least 50m from the riverbanks or dykes, while harvesting should be done simultaneously with reclamation of regions which had been exhausted.

Yet this is not the case in Homa Bay, with some harvesting sites being deeper than 6ft and no reclamation in sight. After extraction, the huge gullies are abandoned, and are now an eyesore in sand harvesting villages like Chuowe, Kobala, Rakwaro and Kobuya.

Besides the gullies, feeder roads and pathways within these villages are rough and dilapidated as a result of overuse by sand ferrying lorries. Houses built on sunken ground are weak.



John Otieno Odede shows what was left of one of his houses after floods hit the area a few months ago.

Though the dominant economic activities in the county are fishing and fish trade, followed by agriculture, extraction of sand and other natural resources is becoming attractive.

Poverty is a major driver of illegal sand mining in Homa Bay. Residents cite lack of alternative livelihoods and quick money as a reason for mining sand.

According to Mikal Achola, who owns a sand harvesting site and resides in Kobala village, her family resorted to the trade when they were unable to raise adequate money to return their eldest son's body home from Nairobi, where he had died.

"Here food insecurity and lack of school fees are pushing people to engage in sand harvesting," Achola says.

Yet the returns are not really much. "To dig 6ft down, the harvesters take Sh600 each. Loaders are paid Sh200 (USD1.47) each and the land owner remains with Sh800 (USD5.88).

This is a loss because you have to fill around 10 lorries to earn Sh7,000," she says, adding: "If not for that pressing need, then turning a farm into a sand harvesting site should not be an option." For Lorna and her husband Julius Ambaa of Kobuya, farming was no longer profitable and sand harvesting became an option.

The couple, which has four children, the eldest being 17, used to grow cassavas and bananas. But harvest had been dwindling every year, from eight to 10 bags of cassava to about four. This is after waiting for seven months.

"Sand harvesting is comparatively more profitable," Mrs Ambaa says, adding that from the sale of her cassava, she would earn Sh2,000 (USD 14.71)- Sh3,200 (USD 23.53) per bag, yet with sand they make Sh7,000 (USD 51.47) to Sh10,000 (USD 73.53) per day.

Photo Credit | Sharon Atieno



A sand harvesting site in Rakwaro village, Homa Bay County.

National Environment Management Authority (NEMA) Homa Bay County Director Josiah Nyandoro now says all the sand harvesting in Homa Bay County is illegal.

This follows a 2019 ban imposed by the NEMA Director General, which requires all sand harvesting activities to be subjected to Environmental Impact Assessment (EIA) and licensed before start.

"We are not saying no to sand harvesting. But what we require is regulated sand harvesting where the project is subjected to EIA and all the negative impacts associated with that project have their mitigation measures cited so that we have sustainable development," Nyandoro says.

According to him, the impact assessment should be followed by serious and adequate public participation for the communities to share their thoughts and the possibility of having mitigation measures that are considered homegrown.



Josiah Nyandoro, NEMA, Homa Bay County Director.

Chiefs have been at the forefront to sensitize communities against illegal sand harvesting activities, which destroy the environment.

Cosmas Odipo, Chief of Wang Chieng' Location, which includes Kobala and Rakwaro, says they usually do barazas (informal meetings where the community members gather in the chief's camp or at a central point in the village) to sensitize people on the need to stop the unsustainable sand harvesting activities.

He says they have even worked with police to arrest sand harvesting site owners, but with little success, as they are released on bail due to lack of proper sand regulations in the county.

Odipo says if stiff regulations could be implemented, it would help to keep the practice in check, as everyone venturing into the practice would conduct EIA as required by NEMA.

Besides the lack of regulations, Nyandoro says conflict of interest between NEMA and the county government is also to blame for the activity.

"While NEMA looks at sand harvesting as an activity that requires regulation through EIA and licensing, the county looks at the activity as a cash cow," he says, adding that revenue officers collect cess from lorry drivers ferrying sand and other natural resources.

Denying the accusation leveled against them by NEMA, Cosmas Ochieng' Ouma, the Homa Bay County Environmental Inspector, says the county government carries out sensitisation on the negative impacts of sand harvesting on the community as well as encouraging people to rehabilitate lands that have been degraded through planting of trees.

Additionally, he says the county already has a Sand Harvesting Bill, which incorporates livelihoods, sustainability of the resource and environmental conservation.

Currently, the Bill is at the County Assembly awaiting approval before the governor assents to it.

April 22 , 2023

Call for Applications: Biodiversity Journalism Grants

MESHA invites its members and journalists who write/broadcast biodiversity stories to submit in-depth story proposals on efforts in place to save the country's and region's biodiversity.

The grant is under MESHA's Journalists Acting for Biodiversity Project (The JAB project) funded by the JRS Biodiversity Foundation.

The project seeks to underscore the critical role biodiversity plays for human communities. The objective is to create awareness of the status of biodiversity in the country and the larger E. African region and to profile initiatives by communities and organisations that seek to protect, restore and research biodiversity. In your pitches, you should strive to highlight and/or influence policies that promote appreciation, research or conservation of biodiversity.

Publication

Stories can be published in the reporters' media houses and on MESHA's Sayansi magazine and website (www.meshascience.org). We would be happy to publish it if it meets our journalistic criteria.

Eligibility

- Primary beneficiaries of story grants should be local journalists focusing on environment/biodiversity or those that have worked with MESHA before in science-related reporting activities.
- We recommend collaborative reporting that will involve more than one journalist or news organizations willing to share their resulting coverage; we are looking for proposals that seek to leverage their work for the greatest possible reach and impact.
- Grantees will agree to have funded stories republished without limitation as part of MESHA's grant funding policy.

The ideal pitches must show the intersection between biodiversity and tourism; must be multimedia and contain all of or either of the following elements:

- ◆ Environment
- ◆ Tourism,
- ◆ Protected areas,

- ◆ Health
- ◆ Livelihood and
- ◆ Communities

- Investigation and explanation of how communities, policy makers, public agencies, and other institutions have addressed biodiversity issues with a strong link to tourism.
- Under-reported stories on biodiversity, including on various species (endangered, new, rediscovered or new record).
- Use of data and/or research to report stories, providing evidence about the initiative/issue in question.
- Data visualization or social media to tell stories
- Engagement activities that connect the reporting to constructive public discourse.

Stories can be told in any number of formats. MESHA welcomes shorter pieces as well as longer take-outs; MoJo; investigative series; TV news segments or public affairs programming; radio pieces and podcasts; data visualizations and interactive maps.

We strongly advise you to consult with our team on Whatsapp at +254775327635 before submitting your pitch.

Application Processing and Deadline

Pitches should be sent to MESHA by May 15, 2023.

Please include a **detailed and clear budget** with budget notes together with the pitch of up to **Ksh 30,000**.

The applications should be sent to sayansimagazine@gmail.com

Required Reports

Upon completion of their projects, grantees must submit a short narrative report and an accounting of expenditures.

Drought stricken Kajiado farmers turn to boreholes for irrigation

By **Tebby Otieno** tebbyotieno62@gmail.com

Photo Credit | **Tebby Otieno**

Mary Moses walks for 30 minutes from her home in Kanaan, Kajiado South, to a farm where she works for Sh200 a day. This has been her primary source of income since the October-December rains failed.

"Had we harvested maize and beans, my children would not have had challenges, even with their education. Crops dry in farms. We still don't know where we will get seeds," the 38-year-old mother of four says.

Initially, Mary would work in her farm and comfortably feed her family. There would even be surplus to sell. But now farming is a preserve for those who can irrigate.

"When it rained I would grow tomatoes and sell them in Loitoktok or Kimana markets," she says. Access to water was not a problem then, as she harvested rain water.

Now, due to prolonged drought, she spends more money and time to get water. "I buy 20 litres at Sh5. To wash clothes, I go four times a day and it takes me about 30 minutes from my house to the borehole," she says. Mary lost 15 cows and sheep to drought. She is left with one malnourished cow and hopes it survives.

Mary's family planted maize with expectation that it would rain in November. Unfortunately, the plantation dried up soon after germinating. They resorted to beans and potatoes, but these too dried up. Today Mary's arable parcels remain bare.



Maasai elders perform a ritual to cleanse the spot where a borehole is supposed to be sunk in Oloodosundai, Kajiado South.

"We expected it to rain around November 5, but there was just a little towards end of November. By then everything we had planted had dried up," she says.

Mary and the community around her now rely on boreholes. Yet not all homesteads have boreholes. Peter Kimani, a banker bought land in Oloodosundai, an area known for ground water close to the surface. His plot has a borehole water that the community hopes to benefit from as well during dry seasons.

"I bought this piece of land with the long-term goal of getting into agriculture, so that I can then look at the entire value chain of agriculture by not just growing crops, but also taking them to the market," Kimani says.

Kimani is aware that the country may become more food insecure due to climate change that has led to unpredictable rain patterns. He encourages use of underground water for irrigation. He plans to use the borehole to irrigate tomatoes, cabbages, watermelon and other horticultural plants that can be harvested twice a year.

"The borehole was already there, so all I needed to do was scoop the silt so that we could get to the clean water," Kimani says. For decades Loitoktok in Kajiado South was known for abundance of food. Residents say this attracted more land buyers and contributed to the cosmopolitan population.

"I love farming, so when I heard the land had water and a thriving yam plantation in 1998, my wife and I bought it," says Peter Njuki Ndung'u, a Loitoktok resident.



Kajiado being one of the Arid and Semi-Arid Land (ASAL) counties adversely affected by the prolonged drought, residents believe only boreholes can provide them with adequate water.

Today, the unpredictability of the rain patterns has pushed residents to boreholes for sustainable food supply, though they lack surplus to sell. Ndung'u, a farmer who also sells land, says 16 people have been attracted to the area because of the underground water.

"Illasit, for instance, is rich in underground water, but the problem is that if someone buys like two hectares, in between there would be a rich land owner who probably has about five hectares and has a borehole, but cannot share," says Ndung'u.

He urges government to enable drilling of shared boreholes in every 50ha. He says this way every resident will overcome challenges associated with prolonged drought because digging a borehole is expensive.

"Loitoktok has suffered unpredictable rain patterns for 10 years, which has also caused many livestock deaths. If government can build community boreholes, everyone will benefit," he said.

Oloodosundai residents are more vulnerable to effects of drought because the area is remote and the road is poor. Kotene Ngatua, 49, says women suffer

the most because they have to walk long distances to find water, since River Olgira dried up.

"We have no women here because they go to search for water and income. The ground water available needs to be purified before being taken," says Kotene.

Because the area is close to Amboseli and Tsavo National parks, Kotene says the drought's impact is evident in most families that do not have food and rely on donations. He says men still go too far flung areas like Taita Taveta and Tanzania in search of pasture.

Kotene and other elders in Kajiado South perform cultural rituals whenever underground water is discovered. In Oloodosundai, for instance, locals slaughtered a ram and ate it within the land. This Maasai ritual is meant to cause the borehole to continuously produce abundant clean water, like that from the Kilimanjaro Mountain.

"We've gathered here because of the borehole water. We're blessing it with milk, water, and oil, believing if we show it to God, He will give us water, which is life," he says.

Kajiado being one of the Arid and Semi-Arid Land (ASAL) counties adversely affected by the prolonged drought, residents believe that with adequate water they can advance.

"There are farmers doing irrigated agriculture, cultivating commercial horticultural crops like tomatoes and onions. The main crops locals rely on are foods they put on the table daily like maize, beans and green grams and they are the crops that failed due to the failure of the rains," said county Agriculture Chief Officer Moses Murunya in a previous interview.

Before a borehole drilling starts, a hydrogeological survey must determine groundwater levels and hydraulic characteristics. According to experts, the process has to be performed by a qualified and registered geologist.

Once the geologist is satisfied with the groundwater potential, the Water Resource Management Authority (WRMA) then grants permission to proceed, which is followed by an Environmental Impact Assessment done by the National Environment Management Authority (NEMA) to ascertain that the proposed drilling will not harm the immediate environment, then it grants a permit.

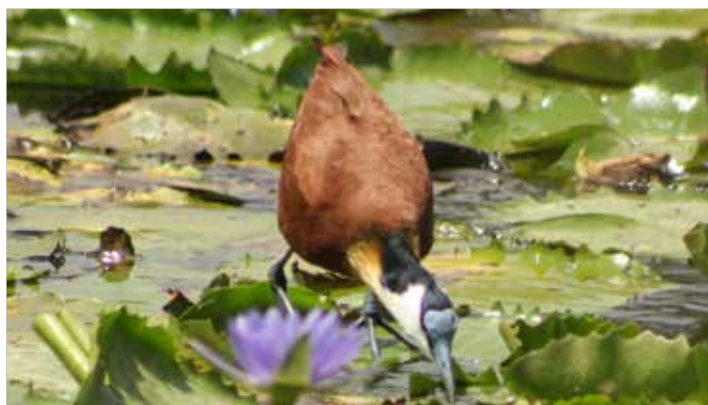
The rare birds of Kilifi



A black cormorant hunts for fish and insects in a pond.



House sparrow perches on a window.



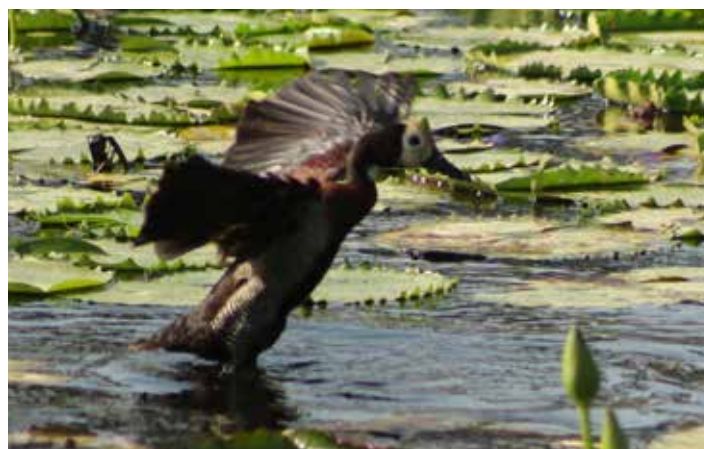
African Jacana drinks water on top of floating water lilies on a wetland at Nguuni Nature Sanctuary in Mombasa.



Purple Heroine in flight.



House Sparrow prepares to fly from its hideout against the wall of a building.



Whistling duck prickles its feathers at the Nguuni Nature Sanctuary in Mombasa.

The photos are by our own Bozo Jenje were captured under our JAB Project supported by the JRS Foundation. They highlight the critical role biodiversity plays for human communities and how the endemic birds are now a tourists paradise in Kenya's coastal region, specifically at the Kaya Forest in Kilifi. Through these stunning photos, the photographer seeks to create awareness on the status of biodiversity in the country and to profile initiatives by communities and organisations that seek to protect, restore and research biodiversity. For more information on the endemic birds of Kilifi, please send an email to info@meshascience.org. The photos are also available on MESHA's podcast page www.meshascience.org



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We are a 72 bed modern hospital located at the heart of Kiambu County serving both outpatient and inpatient customers. We provide comprehensive, high quality, affordable and accessible care to customers of all genders and ages. Our hospital operates 24-hours with highly qualified, experienced and dedicated staff members.



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