

Newsletter

GET AFRICA NEWSLETTER ON ONE HEALTH AND
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**INTEGRATED APPROACH TO
ADDRESSING BIOSECURITY THREATS IN
AFRICA**



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ONE HEALTH

HUMAN HEALTH

ANIMAL HEALTH

ONE HEALTH

ENVIRONMENT

**Welcome Address By
GET COO**

Welcome to the 8th edition of the GET Newsletter of One Health and biosecurity and the first edition in 2022. This edition is focused on Integrated Approach to Tackling Biosecurity Threats in Africa. Biosecurity has been defined as a strategic and integrated approach to analyzing and managing relevant risks to human, animal and plant life, health, and associated risks for the environment. It is based on the recognition of critical linkages between sectors and the potential for hazards to move within and between sectors, with system-wide consequences. The overarching goal of biosecurity is to prevent, control or manage risks to life and health.

In recent decades, the world and especially African countries have witnessed a significant increase in biosecurity threats with an increase in frequency and intensity of emerging and re-emerging infectious diseases such as Lassa fever, Ebola, and the ongoing Covid-19 pandemic. The circles of emerging infectious diseases are reducing. As the rate of COVID-19 infections gradually reduces, it gives a window for Africa to prepare for whatever will come next effectively. COVID-19 shows how international agreements and partnerships can easily be discarded in the face of a ravaging

global biosecurity threat. The me-first attitude demonstrated by developed countries in access to COVID-19 vaccines and other COVID-19 response materials clearly shows Africa's need to develop an Africa lead integrated strategy and approach to addressing future biosecurity threats. Africa must strengthen its health systems using the One Health approach and increase research and capacity building investment to effectively tackle biosecurity threats and emerging infectious diseases on the continent.

The articles in this edition of the newsletter are focused on understanding and addressing biosecurity threats in Africa using the One Health approach. The newsletter also highlights GET planned activities and projects for the year. I trust you will enjoy your reading, and please send us your feedback.

**Dr. Bobadoye Ayodotun,
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TACKLING BIOSECURITY THREATS IN THE AFRICAN CONTINENT: THE ROLE OF CITIZEN SCIENCE

By: Akeemat Ayinla

In the past two decades, there has been an increased frequency of emerging and re-emerging diseases of public health importance, necessitating a need to strengthen health systems and consequently, biosecurity¹. Biosecurity has been described by the World Health Organization (WHO) and the United Nations Food and Agriculture Organization (FAO) as a “strategic and integrated approach to analyse and manage relevant risks to human, animal and plant life as well as health and associated risks for the environment”². On the other hand, biosecurity threats have been defined according to their relevance to different sectors. In the Food safety sector, a biosecurity threat is a “biological, chemical or physical agent in, or condition of, food which has the potential to cause an adverse health effect”. With respect to Zoonoses, it is defined as a “biological agent that can be transmitted naturally between wild or domestic animals and humans”. In Animal Health, “any pathogenic agent that could bring about adverse consequences on the importation of a commodity” is termed a biosecurity hazard, and in Plant Health, “any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products” is considered a threat³.

In Africa and other continents, some economic, environmental, and social factors promote the introduction of biological hazards into countries and regions where they were not previously found. These factors include globalisation, increase in international travel,

increased international trade of food and agricultural products, growing tourism, and agricultural intensification¹. Undoubtedly, adopting preventive strategies to exclude biosecurity threats provides a less expensive option than controlling disease outbreaks, especially in resource-limited settings.

Research has highlighted the importance of strengthening biosecurity systems in tackling biosecurity threats. Improved investment in health infrastructure, improved leadership and governance, and promotion of community engagement have been suggested as effective ways to strengthen health systems and consequently, biosecurity systems in Africa⁴. Apart from strengthening systems to tackle biosecurity threats, early detection of biosecurity threats is very vital for the successful eradication of these threats. Active surveillance is largely utilised to achieve this, but it requires significant financial investments and skilled personnel involvement⁵. Therefore, there is a need to consider passive or volunteer-based surveillance, such as citizen science which provides a less expensive alternative for early detection of biosecurity threats.

Citizen Science: A potential tool for detecting biosecurity threats in Africa.

Citizen science can be defined as an approach in which non-professionals participate in research, through data collection, analysis, or dissemination in collaboration with scientists or institutes⁶. It involves breaking

down research activities into understandable components that non-experts can carry out and it offers a way to get people to report unusual findings. For instance, citizen science has been employed as an effective early detection tool for biosecurity in Australia⁵ and the United Kingdom⁷. While not much has been documented on the application of citizen science directly to biosecurity in the African continent, there are suggestions for its usefulness in vector surveillance in Africa⁸. Further, in Kenya, citizen scientists worked with researchers from the Centre for International Forestry Research (CIFOR) on a hydrological monitoring project. The researchers reported that the use of citizen scientists was efficient, reliable, and cost-effective. In Gabon, primary and secondary school students were involved in the collection of data on tree growth for the Smithsonian's Tree Banding Project. Interestingly, Cape Town University developed "MammalMap", a project that requests citizen scientists to send photographs of African mammals to improve the understanding of

scientists can carry out a level of passive surveillance. This enables natives to quickly report any unusual observations in their localities which in turn alerts relevant health authorities and allows for prompt actions to be taken when necessary.

2) Increasing data collection: Involving non-experts in the monitoring of biosecurity threats provides many more eyes and hands on the ground which complements expert observation. The resultant effect is an increase in the availability of data which adds to the evidence base, aiding in policy and decision making. Advances in technology can be finessed for communication and information sharing.

3) Strengthening community engagement: Promotion of community engagement is often suggested as a means of strengthening biosecurity systems. Citizen science can provide an opportunity for this through the involvement of residents in monitoring

**“
In Africa,
Citizen Science
must be applied!”**



animal distribution across the continent⁹. These examples suggest that citizen science can be employed in strengthening biosecurity systems in Africa.

Proposed Benefits and Challenges of Citizen Science in Biosecurity

Citizen science has the potential to aid in tackling biosecurity threats through the following ways:

1) Promoting early detection of threats: Citizen

activities, thereby increasing awareness of the importance of biosecurity and inspiring behavioural changes. Depending on the level of involvement, citizen science promotes a sense of ownership thereby building trust and ensuring continuity of activities⁸.

Some potential challenges of applying citizen science in biosecurity include:

1) Differences in perception across communities: Due to a few reasons, attitudes towards volunteering vary across localities.

Sometimes, there are cultural and language barriers to participation. At other times, the project does not feel relevant to the residents and the “problem” being solved is not a priority to them. It is therefore important to consider the needs, motivations, and cultural values of a particular people in the project design, and to ensure that the project is locally relevant.

2) Concerns of data quality and coverage: There are often concerns about the quality of data collected, adequacy of data, and the methods employed by citizens since they are not particularly skilled. However, these challenges can be addressed by capacity building and early involvement of stakeholders

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in project design and planning¹⁰. Through these, the relevance of data is communicated and the need to adhere to appropriate data collection methods is emphasized.

In conclusion, biosecurity threats present as a wicked problem globally, and in Africa. Consequently, there is a need to brainstorm effective approaches to tackle these threats. The concept of citizen science provides a strategy for achieving these with the bonus of intensive community involvement. Despite some challenges, there is a potential for the application of citizen science in tackling biosecurity threats in Africa.

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RISING BIOTHREATS COULD FURTHER ALIENATE POOR POPULATIONS IN NIGERIA

By: Ani Nwachukwu Agwu



A bioterror is a threat posed by harmful biological agents – this includes bacterial, fungal and viral pathogens and toxins produced by a variety of organisms.

In 2021 alone, Nigeria confirmed 510 cases of Lassa fever and 102 deaths. At the moment, there is an outbreak of Lassa fever in 27 local councils across 11 states of the federation. The Federal Government of Nigeria (FGN) is responding, with environmental sanitation campaigns in the affected states. However, the number of states may skyrocket, except something drastic happens from the topmost levels of policymaking.

In recent times, few issues have dominated international policy tables more than democratic decline and disease outbreaks. Partly because of globalisation, emboldened by better interconnectivity of cities and inconstant human movements, infectious diseases are a major cause of mortality across the globe. Characteristically, a new strain of a viral disease in Lake Kivu (for instance) can find its way to New York City within hours or days because of super-speed transport systems and the complexity of human exchanges and association. This means that diseases can spread at supersonic rates and the risks of bioterror are admissible more than ever.

A bioterror is a threat posed by harmful biological agents – this includes bacterial, fungal and viral pathogens and toxins produced by a variety of organisms. It is a public health imperative that these biological threats, both natural and man-made, have become more

frequent and complex, with poor populations becoming more at risk in Nigeria.

With the ruinous consequences of the Covid-19 pandemic very much present, the FGN is digging up its Infectious Disease Act and tightening its belts against future outbreaks in terms of detection, surveillance, and control. The bill, Control of Infectious Disease [2020], seeks to repeal an archaic Quarantine Act [1926]. Sponsored by the Speaker of the House of Representatives, Femi Gbajabiamila, the bill was passed on December 21, 2021. Nonetheless, experts believe that the bill possesses garbage of controversies.

Many human rights advocates and lawmakers fear that the bill is “draconian” in conceptualization and, if passed, could further stifle human rights freedom in Nigeria. Parts of the bill are pushing to impose fines between N200,000 to N5 million. When compared with the N500 fine in the colonial Quarantine Act, the proposed fine is simply outrageous. If the bill scales through to become a law, the poor will undoubtedly be at the receiving end.

Beyond the proposed fine, the landscape of bioterror is dynamic and constantly evolving. This evolution cuts across natural, accidental, and intentional threats and their social, economic, political and security consequences. It cuts across the exploitation of biotechnology

resources for malicious and military uses. These changing landscapes and dimensions are important in appreciating latent and potential dangers posed by the rising threats of harmful biological agents and toxins. But biothreats are not human health responsibility alone; the environment is key to understanding the landscape. Emphatically, the approach requires a multi-dimensional lens.

Relevant to understanding and designing responses to biothreats are environmental, security, defense, risk and disaster management perspectives and technicalities. On the environmental front, the threats posed by irresponsible exploitation of the environment make Nigeria the epicenter of climate and environmental crisis in West Africa. This is for a good number of reasons. Desertification, mostly from the Sahelian corridors of the North, and coastal erosion in the Niger Delta are wrecking environmental hazards exposing man and his habitat to devastating seasonal

droughts, gully erosions and flooding.

Curiously, there appears to be insufficient understanding of how these threats are shaping human security and national strategic objectives. For instance, a vast territory of Nigeria's landmass is under siege, not by any foreign army. With the expanding frontiers of the Sahara Desert, we see a trend showing that livelihood assets and strategies of millions of indigenous people are quickly disappearing under sand dunes. This forces me to believe that the environment - a reservoir of wildlife, endangered species and other forest resources is ultimately the 21st-century theatre of biothreats, especially in poor economies and marginalised communities.

With the wars in this theatre, causing socio-economic dislocations, where will the affected indigenous populations [who occupy these hard-to-reach places and who have responsibly exploited these ecosystems] run to? Absolutely,



there is nowhere to run. Similarly, I know that policymakers must show empathy because these displaced populations are compatriots, fellow citizens, who are the faces of the humanitarian crisis in Northern Nigeria. They are living in internally displaced camps littered across the country. These citizens, more or less, have become refugees in their own country. How sad!

Furthermore, the dramatic shrinking of Lake Chad has created a land border that never existed between Nigeria and the Chad

Republic. All this has resulted in the increased flow of people across the borders of Chad and the Niger Republic. The result in terms of rising religious conflicts, farmers-herders' squabbles and terrorism is already pronounced, well known and experienced in good parts of Northeast and Northwest Nigeria. We cannot deny it.

The issue of biothreats and environmental disasters is becoming more threatening not only to the socio-economic lives of rural populations in hard-to-reach places but also

to human existence, especially among the poor. Rural populations - farmers, pastoralists, fishermen, etc. and town dwellers are variously vulnerable to changes in the environment, and the heat from these interactions demands urgent and comprehensive policy attention.

Although pandemics originating from nature are generally taken as inevitable, it is human activity that is altering the natural history of infectious diseases and biothreats. Almost three-fourths of Emerging Infectious Diseases or newer infectious diseases are zoonotic, that is, coming from animals. Science has proven that fragmentation of wildlife habitat is birthing natural biothreats by bringing populations and livestock into closer and more frequent contact with wildlife. . As a tropical geography, Nigeria is particularly prone to zoonotic diseases and epidemics. Tropics are broadly judged to be higher on disease burdens.

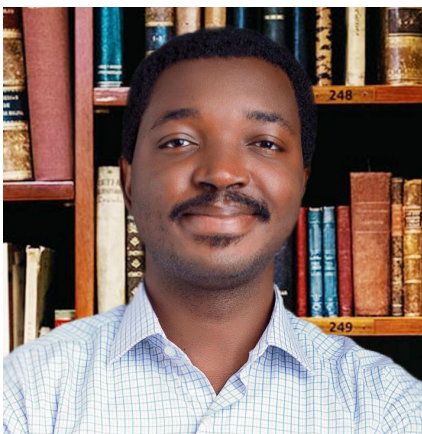
Unfortunately, for Nigeria, whose lifeblood is dependent on rent from crude oil; the volatility and frequent reduction in global oil prices make their economies and population more prone to shocks and less capable of dealing

with emerging biothreats. My greatest worry is that biothreats and the growing disease burden have the potential of undermining international efforts towards the eradication of extreme poverty in particular and the attainment of sustainable development goals (SDGs) in general.

By historical and current responses to pandemics, such as COVID-19, my view is that Nigeria's public health response power and approach is lukewarm. If Nigeria does not urgently wake up to the challenge, in the case of another pandemic or rising biothreats, the majority of its population who reside in rural areas - predominantly poor populations, will be disproportionately affected. Most times, disease outbreaks don't just happen; early warnings are always present. For Nigeria and many African nations, Covid-19 should be a lesson in disguise to strengthen their health systems, particularly to enhance their public health preparedness. Aesop's fables, translated in 1484 by William Caxton, teaches nations like Nigeria that "once bitten, twice shy".

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ONE HEALTH IN ACTION: WHAT DOES THIS EVEN LOOK LIKE?

By: *Dr. Praise Adeyemo (DVM, MSc)*

Let me share one of the best moments of my career with you. This happened between 2018 and 2019. I had attended this meeting as a representative of the public health NGO where I was working at the time. It was the most diverse, multidisciplinary team I had ever seen. Doctors were working in different fields, epidemiologists, veterinarians, environmental health specialists, lawyers, and policymakers. We were all gathered to develop a policy plan to improve the health of people in Lagos State.

The chair of that meeting was very different in his approach; it was more like he was several steps ahead of everyone in that room as he asked us to plug whatever we were going to come up with into the Agenda of the State. We looked at how to improve people's health through the kind of food they ate. Food from animal sources. How are these animals raised? What sort of drugs are used for the animals? What do farmers do with the waste from animals? How do the farmers or veterinarians dispose of the leftover drugs such as antimicrobials used for the animals? How are our actions affecting the climate? And on and on went the questions.

In the end, we had gone round to touch virtually every area that affects our health. We touched on humans, animals, and the environment. It was evident that everyone had to work together as ONE! However, it did not end there; we had someone from the legal department who advised on what was obtainable with the law regarding integrated health policy, and someone else from the policy side gave us an excellent strategy to get the recommendations passed at a higher decision-making level.

This is still one of the reasons I decided to be a different type of veterinarian cum public health professional. I sat at that meeting and realised that one of the greatest gifts humans have to give to one another is COLLABORATION, TEAMWORK. Of course, that is not to say that cooperation is a walk in the park, but the gains from collaborating are numerous.

The Power of 'One'

We all know the popular comic – the Avengers. Iron man. Captain America. Thor. Spiderman. Hulk. War Machine. Black Widow. Vision. Hawkeye. Black Panther. An important lesson to learn from the Avengers is that they are all superheroes as individuals. Mighty, gigantic, superb, exceptional superheroes. But their coming together made ONE huge, formidable team. Theirs is a story of ONE being more powerful than one. I saw this on a Scoro about the Avengers:

“Captain America and Iron Man view the world differently, and compromise does not come easy. However, despite their disagreement, they respect and trust one another, and they are open to seeing that other people are valuable. Ego abandonment is what allows you to become part of a whole that is greater than the sum of its parts.”

Another example of the power of collaboration, working together rather than as fragmented individuals, is Steve Job's design for Pixar's building. Steve Jobs understood that the best collaborations could happen when individuals who are otherwise authorities in their fields come together to create magic! Pixar is an animation studio, and around 1999 Steve Jobs was its CEO. The original design for Pixar's campus was to put fragmented employee disciplines into different buildings – one for



computer scientists, another for animators, and a third building for everybody else. But Jobs had a different perspective; he wanted a campus where these encounters that would birth collaboration could occur. This led to the design of the atrium, a substantial portion of the Pixar campus that houses everything. You just had to go to the atrium, one way or the other.

*The lesson from that is this:
When people from different disciplines are connected, intellectual fragmentation would not matter; only the goal would.*

Moreover, that is what ONE HEALTH is. It does not matter who you are, a human medic, a veterinarian, an economist or environmental health specialist, an anthropologist, or a behavioral scientist. If we are looking at the goal to achieve global health or just general health outcomes – our wellbeing – we need to have all these disciplines talking to one another. One Health fosters that approach.

So, what is One Health?

Multiple disciplines work collaboratively locally, nationally, and globally to attain optimal health for people, animals, and environment. Some have defined it as “the integrative effort of multiple disciplines working to attain optimal health for people, animals, and the environment.” We tend to focus on the Anthropocene as humans. We see ourselves as superior hence our health should be the priority. We really do not deeply consider the effects of our actions on what is around us.

One Health is not a new concept. In the past, before we had this fragmentation of health disciplines, there used to be some sort of trans disciplinaryity. No one thought one medical discipline was superior to the other. People were not working in silos.

The 19th and 21st centuries have proven that we cannot rest on our oars, doing business as usual, as new infectious diseases continue to emerge and re-emerge. According to the World Health Organization, new infectious diseases have continued to emerge yearly since the 1970s. **Say HIV/AIDS, SARS, West Nile Virus encephalitis, Nipah virus encephalitis, Dengue haemorrhagic fever, and so much more.** It is worthy to note that these emerging infectious diseases, let us call them EIDs for short, are primarily of zoonotic origin. Simply put, a disease of zoonotic origin means that the disease can be transmitted from animals to humans or from humans to animals. A fulcrum among the initiatives set up to combat these

EIDs is the emphasis on multisectoral and transdisciplinary collaboration and a call for



strengthening human, animal and environmental health systems through a One Health approach.

One Health is not just of global importance, and these zoonotic diseases alter economic growth! COVID-19 is enough proof. One Health issues include zoonotic diseases, antimicrobial resistance, food safety and food security, vector-borne diseases, environmental contamination, and other health threats shared by people, animals, and the environment. One Health as an approach recognises that complex health challenges should not just be solved by any sector or discipline working in isolation; all hands must be on deck. Because we have many factors that influence overall health outcomes, it becomes important to work as ONE. The Power of ONE; many international public health organisations use a One Health approach by involving experts in human, animal, environmental health, and other relevant disciplines in controlling public health threats. The emphasis is always on COOPERATION and the need to communicate, collaborate and coordinate.

One Health in Nigeria: A Case Study of Lead Poisoning

Zamfara state in Nigeria is rich in gold. Many of the villagers worked in the gold ore, and some would return home with rocks to extract the gold themselves. These rocks contain lead, and lead dust would settle in their homes and on their clothes, as most of them were not wearing personal protective gear.

In 2010, Zamfara had a situation that fits into

a One Health context. Ducks were missing. Hundreds of children were dying. Symptoms in the children included vomiting, abdominal pain, headaches, and seizures. The cause of the sickness/death was unknown. This became a national concern, and a team of public health officials was sent to Zamfara to investigate the problem.

The public health team found that the communities had an unusually high lead level, with unsafe levels inside most homes and the community wells. It was a case of lead poisoning. Changes in animals can provide an early warning of the presence of disease or a dangerous change in the environment. When asked if animals had been dying in the area, the people mentioned the disappearance of ducks. This was a missed clue! The missing ducks were warning signs of an environmental hazard.

Because animals are significant not just to us as pets but to the ecosystem, a sudden decline in the population of some animals can be indicative of a public health problem that can affect humans.

Having heavy metals such as lead in the environment is hazardous. Look at the environment; look at the amount of carbon monoxide (CO) we generate from our homes,

through our generators, the kitchen, exhaust pipes from vehicles etc. If we keep having an open fire, industrial wastes of any form not adequately managed or recycled, our environment would be very unfit for you and me, not just our animals. Imagine a situation where you are feeding on animals with a high lead level!

Foresight

Let us look at the COVID-19 pandemic. What could we have done differently? I wrote about stakeholders who should talk to one another during the COVID-19 pandemic. I tagged the medium article: [“COVID-19 Pandemic Response: Who should be part of the Conversation?”](#) This was written in March 2020, and it is still relevant now. I highlighted thirteen (13) professionals who should be working collaboratively.

If we think global pandemics should be left to public health pundits to figure out, we are subtly refusing to accept that collaboration is a weapon we can use to combat diseases. We will keep going in cycles till we get to a stage where we understand that our health as humans relates to the health of everything around us. You cannot break the power of ONE - the power of ONE HEALTH.



Dr. Praise Adeyemo

On a mission to contribute to global health, Dr Adeyemo is focused on improving health outcomes with inter-and multidisciplinary research. She is interested in working on global health issues at the human-animal-ecosystem interface (a concept called One Health). Dr Adeyemo received her Doctor of Veterinary Medicine (DVM) degree from the Federal University of Agriculture, Abeokuta, Nigeria, in 2018, she proceeded to work in the public health space at Dr. Ameyo Stella Adadevoh (DRASA) Health Trust. After a 16-month exposure to public health projects on infectious diseases, she pursued a Master of Science degree in One Health from the Royal Veterinary College and the London School of Hygiene and Tropical Medicine in September 2019 as a Commonwealth Shared Scholar. Towards the end of her master's degree, she joined the London International Development Centre as a Digital Media/ Communications Intern. Upon returning to Nigeria, Dr Adeyemo worked at the Lagos State Ministry of Health as a Grants Management Consultant between 2020 and 2021. She presently works as the Program Manager for the Antimicrobial Resistance (AMR) School Program at DRASA Health Trust. The AMR School Program aims to create Ambassadors who would be AMR stewards in their schools and environment.

COLLABORATIVE MEASURES FOR HANDLING TRANSBOUNDARY PROBLEMS THAT INFLUENCE BIOSECURITY IN SUB-SAHARAN AFRICA

By: Opeyemi Oluwasijibomi Ojo, (Post Graduate Fellowship–Zoology & Environmental Biology, University of Calabar)



The sole purpose of biosecurity is to ensure the protection, control and management of risk that pertains to life or health.

Biosecurity, otherwise called biological security by Food and Agriculture Organization (FAO) definition, is a strategically integrated approach that synergizes policies and regulations to address threats posed to food safety, animal and plant life, health, and associated environmental risks. Biosecurity also refers to measures to prevent the introduction or spread of harmful organisms to animals and plants to minimize the risk of transmission of infectious diseases. Biosecurity is a subset of biotechnology that encompasses other equally significant classes such as food security/safety, zoonosis (diseases transferable between animals and humans), an overview of animal and plant diseases and pests, release of living modified organisms (LMOs) and their products (e.g., genetically modified organisms GMOs), management of invasive alien species and safeguarding terrestrial, freshwater, and marine environments. Thus, biosecurity is a concept posed to ensure the sustainability of agriculture, public health, and protection of the environment, that is, the biological diversity of both fauna and flora.

The sole purpose of biosecurity is to ensure the protection, control and management of risk that pertains to life or health. There needs to be a cordial collaboration between key stakeholders at the local, regional, national, and international levels to achieve this. This comprises a coordinated effort involving competent authorities charged with key sectors associated with biosecurity, e.g., food safety, public health, agriculture, forestry,

fisheries, environment, agricultural producers, food industry, scientific research institutes, specialist interest groups, nongovernmental organizations (NGOs) and the public, all of which plays an essential primary role in ensuring an integrated approach to biosecurity. Furthermore, International partnerships are paramount if the success of the program is to be guaranteed, especially from different standards-setting bodies, like the Food and Agricultural Organization (FAO), World Bank, World Health Organization (WHO) and World Trade Organization (WTO). WHO support nations to prevent, detect, verify rapidly, and respond adequately to epidemic-prone and emerging disease threats when they arise to minimize their impact on the health and economy of the world's population, thus providing a governance framework for biosecurity in respective nations?

Theoretically, many factors influence biological threats to any nation irrespective of its level of development, be it industrialized or third-world nations. The reality of this ever happening could have more repercussions in developing nations than the developed ones. For example, the African continent, especially sub-Sahara Africa (impoverished parts), given the state of our vigilance in the public health care system, countermeasures inadequately combating worst-case scenarios, state of the art storage facilities to secure products for the future and long-term welfare packages for those adversely impacted, an outbreak of anything remotely dangerous and contagious will undoubtedly

result in fatal consequences. Imagine an outbreak of anthrax in the chain of food supply system in countries like Eretria, Southern Sudan, or Somalia; before such a thing could be contained, it would have degenerated into a transboundary problem, just like the case study of Ebola in DR Congo that still managed to kill in Lagos Nigeria via increasing travel and movement of people across borders. Technically speaking, a significant number of African nations are not ready for these kinds of scenarios. I mean a situation where more than 75% of African countries heavily depends on food importation not entirely as a result of bad climate or soil but due to scarcity of technical and operational resources, which has led to an Increased trade in food and agricultural products, and these are factors that influences biosecurity.

One can explicitly or unequivocally say that Africa is already unsolicited blessed with an innumerable insane amount of inland and offshore resources. Even our coastlines booms with wealth. Our Large Marine Ecosystems are some of the most productive on the planet reason why foreign trawlers from France, Portugal, England, Russia, Germany, Belgium, and Holland all exploited the Benguela current and Guinea current Large Marine Ecosystems of the African coast for the better part of a whole century (1900). Given these levels of wealth and the human resources at our disposal, we cannot afford to be negligent or incompetent with our politics and legislation, especially in agriculture and public health, which are socially and economically vital to an entire race.

Undoubtedly, we live in a well-integrated, biologically, and technologically advanced world where information in the right hand is power, but in malicious hands could spell the doom of apocalyptic proportion. Who could have thought that in this present time and age, a virus (Covid -19) could break out and grind to a halt the world's economy irrespective of its wealth, human and technological

advancement in areas of medicine, academics, agriculture, science, intra terrestrial with extraterrestrial knowledge and lots more? You think the world has advanced since a hundred years of similar occurrence (1918 Spanish flu). This proves beyond reason or logic how fragile life all is and how swift it could all end. Either by design or accident, a virus did break out, and either by error or coincidence, lives were lost, mistakes were made, and lines were crossed, and for reasons that even reason cannot begin to untangle, a more significant part of the African continent was spared at least compared to the rest of the world.

There comes a tide in the affairs of men, which, taken at the flood, can lead to fortune, but if omitted, all the voyage of their life will be bound in shallows and mysteries. On such a full sea, are we now afloat? Moreover, we must take the current when it serves, or lose our ventures. That is, it is either now or never. In desperate times desperate measures are taken, in normal times, birds sing as birds and cats sound like cats, but these are not normal times; the enemy we face today lies in the shadows and to flush them out, you either shed light upon them or you adopt the darkness to expose them from within. Biosecurity provides us with the opportunity of identifying the problem even before they become a challenge; it prevents, protects, manages, and controls risks pertaining to life and health. I strongly believe that the time to act is now for African leaders to form long-lasting collaboration to tackle transboundary problems that challenge their people's socio-economic well-being. Only through this manner of partnerships can we truly dream of reaching greatness because, for a fact, not all countries in this part are blessed the same. There is a need among African countries to share resources, knowledge, technologies, funding, research facilities, human resources or technical know-how, transboundary living, and non-living resources, amongst other things since lots of these outbreaks do not respect political or geographic boundaries.



Ojo Opeyemi Babasegun

is currently a Post Graduate Fellowship Student of Zoology and Environmental Biology at the University of Calabar. He obtained his M.Sc in Wildlife and Ecological Tourism Management from the University of Ibadan and B.Tech Fisheries and Wildlife Management from the Federal University of Technology Akure (FUTA).

GET JOURNAL OF BIOSECURITY AND ONE HEALTH

As you advance in your career, there are certain milestones you are expected to reach to broaden the recognition of your prowess. Writing your papers and getting them published in prestigious academic journals are important criteria for measuring your academic achievements. The Global Emerging Pathogens Treatment Consortium (GET) Journal of Biosecurity and One Health is a fantastic opportunity to do just that.

GET Journal of Biosecurity and One Health is devoted exclusively to the publication of high-quality manuscripts that covers multidisciplinary fields of Biosecurity and One Health. The journal aims to publish high quality varied article types such as Research papers, Reviews, Short Communications, Case Reports, Perspectives (Editorials), Clinical Images.

GET is currently accepting manuscripts from researchers, scholars, scientists etc. for its Journal of Biosecurity and One Health. Publication and processing fee for the journal is free.

For more information and to submit a manuscript, visit: <https://getjournal.org/>



CALL FOR MANUSCRIPTS

GET Journal of Biosecurity and One Health is presently receiving submission of manuscript for the forthcoming issue. The GET Journal of Biosecurity and One Health is a peer-reviewed open access journal that will be published by Global Emerging Pathogens Treatment Consortium - Africa (GET).

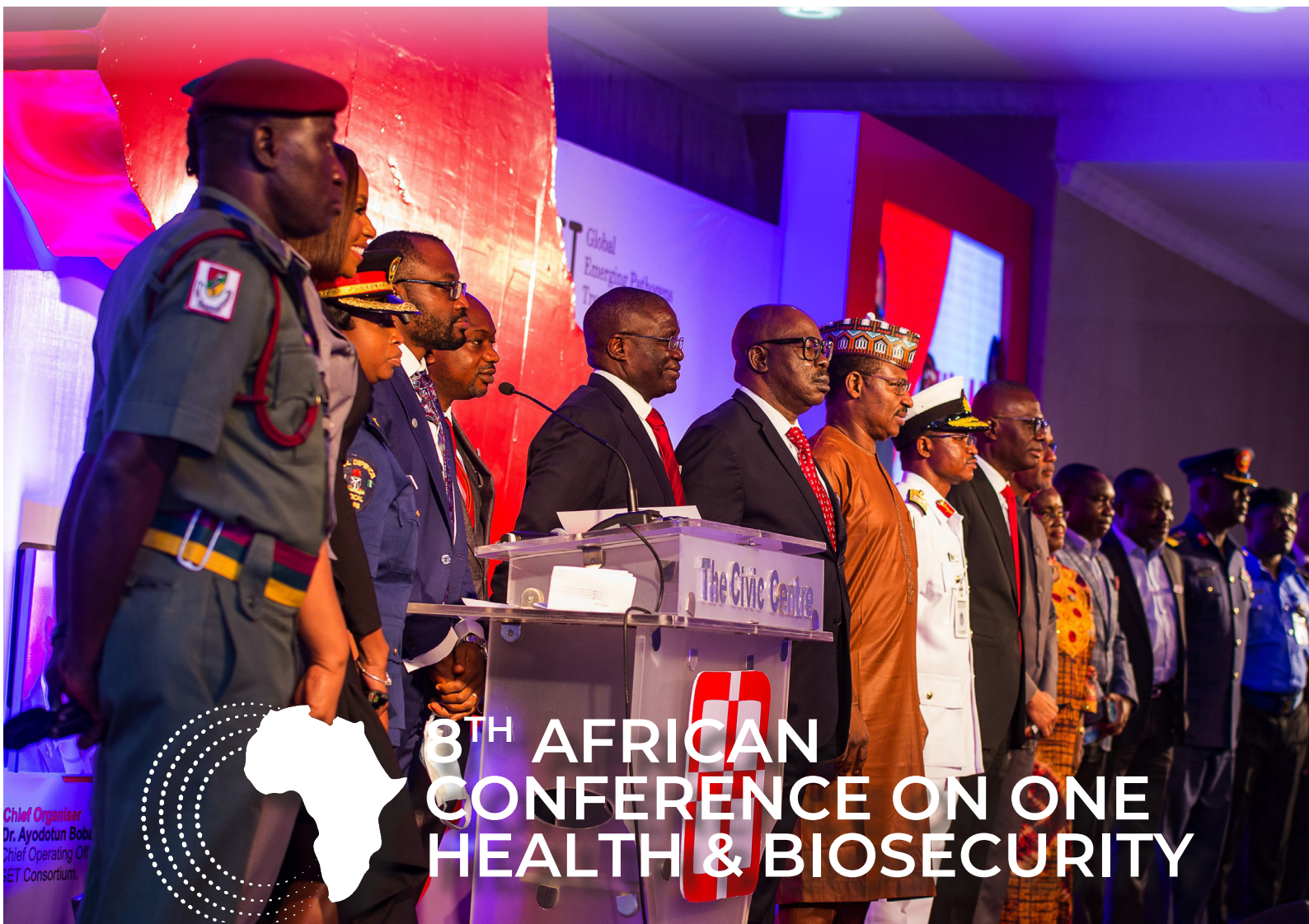
GET Journal is dedicated to increasing the depth of the subject across disciplines with the aim of expanding knowledge of the subject. It provides a platform for researchers, academics, practitioners, professionals, and students to share knowledge and interrogate issues around the relatively new multidisciplinary areas of Biosecurity and One Health. Subject areas in focus span Biosecurity, One Health, Biosafety, Anti-Microbial Resistance (AMR), Biobanking, Bioinformatics and related fields. The journal aims to publish high quality varied article types such as Research, Reviews, Short Communications, Case Reports, Perspectives (Editorials), Clinical Images.

We welcome the submission of manuscripts that meet the general criteria of significance and scientific excellence. Manuscripts submitted may cover areas related to the following:

- Biosecurity
- One Health
- Biosafety
- Anti-Microbial Resistance (AMR)
- Biobanking
- Bioinformatics
- Bioterrorism
- Animal Biosecurity
- Global Health
- Invasive Species
- Infectious Diseases
- Nuclear Terrorism
- Emerging Infectious Diseases
- Bioterrorism and Pandemic Planning

Submission of Manuscripts
Full manuscripts can be submitted to:
submit@getjournal.org
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CONTACTS
admin@getafrica.org,
submit@getjournal.org



SAVE THE DATE FOR THE 8TH AFRICAN CONFERENCE (OCTOBER 26-28, 2022)

The 8th African Conference on One Health and Biosecurity will hold from the 26th-28th of October 2022. The conference is organized by the **Global Emerging Pathogens Treatment Consortium (GET)**, and the host is the **Lagos State Ministry of Health, Nigeria**.

Attending the 8th African Conference on One Health and Biosecurity will provide an opportunity to network and share thoughts on recent engagements, developments and improvements with other academics and experts in the same or similar fields.

The previous years have proven that this conference is not just a leading African conference in the discipline of One Health and Biosecurity. It is a must-attend Conference.

For more updates, follow us on all social media platforms - [@GETConsortium](#)



Save The Date



8th African Conference on One Health and Biosecurity

Theme: **Strengthening Health Security
and Mitigating Biological Threats in Africa**



26th - 28th October, 2022

🌐 Conference 2022: <https://www.getafrica.org/events/conference2022/>

✉ bobadoyed@getafrica.org, ifeoluwa@getafrica.org ☎ +234 806 769 9338



with the support of



Lagos State Ministry of Health



8th African Conference on One Health and Biosecurity

Theme: "Strengthening Health Security and Mitigating Biological threats in Africa."

📅 26th - 28th October, 2022

📍 Lagos, Nigeria.

Conference Highlights

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<p>BENEFITS</p> <ul style="list-style-type: none"> ● Your organization's name and logo will be prominently displayed on conference materials, including the program and the conference website. ● Your organization's name will be mentioned throughout the event during key sessions. ● Your organization's name and logo will also be displayed as a sponsor of a luncheon, outing, or special event. ● An exhibitor booth or display table will be provided by GET in the main, well-traveled conference lobby and free full-page advert in the conference programme. ● Three complimentary registrations are available at this level. 	<p>BENEFITS</p> <ul style="list-style-type: none"> ● Your organization's name and logo will be prominently displayed on conference materials, including the program and the conference website. ● Your organization's name will be mentioned throughout the event during key sessions. ● An exhibitor booth or display table will be provided by GET in the main, well-traveled conference lobby and free full-page advert in the conference programme. ● Two complimentary registrations are available at this level. 	<p>BENEFITS</p> <ul style="list-style-type: none"> ● Your organization's name and logo will be prominently displayed on conference materials, including the program and the conference website. ● Your organization's name will be mentioned throughout the event during key sessions. ● An exhibitor booth or display table will be provided by GET in the main, well-traveled conference lobby and free full-page advert in the conference programme. ● One complimentary registration is available at this level. 	<p>BENEFITS</p> <ul style="list-style-type: none"> ● Your organization's name and logo will be prominently displayed on conference materials, including the program and the conference website. ● Your organization's name will be mentioned throughout the event during key sessions. 	<p>BENEFITS</p> <ul style="list-style-type: none"> ● Your organization will have a full-page advert in the conference proceedings and an exhibition booth at the conference lobby.

For Sponsorship details, send an email to: bobadoyed@getafrica.org
or call: +2348120561552.

CALL FOR ABSTRACTS

We encourage you to submit your research paper, which, if accepted by our scientific committee, will be presented at the conference via oral or poster presentation, and stand a chance to be published in one of the reputable indexed journals.

The conference is seeking submissions related to the following conference thematic areas: mitigating biological threats, infectious diseases, genomics in addressing biosecurity threats, data in health security, biobanking infrastructure, vaccine strategy for infectious diseases, Cultural, Anthropological, Social and Economic impact of emerging infectious diseases CASE and other emerging issues.

To submit your abstract, please attach in an email and send it to: bobadoyed@getafrica.org
Paper Submission Deadline: May 30, 2022



8th African Conference on One Health and Biosecurity

Theme: "Strengthening Health Security and Mitigating Biological threats in Africa."

26th - 28th October, 2022 | Lagos, Nigeria.

CALL FOR ABSTRACTS

Thematics Areas

1. Mitigating biological threats in Africa
2. Emerging Infectious Diseases as an accelerating phenomenon
3. The importance of genomics research in addressing biosecurity threats in Africa
4. (4) Importance of Data in enhancing health security
5. Biobanking infrastructure
6. The need for a Vaccine strategy for emerging infectious diseases in Africa
7. The Cultural, Anthropological, Social and Economic Impact of Emerging Infectious Diseases (CASE)
8. Other emerging issues such as - (a). Climate change and biosecurity threats in Africa
(b) Harnessing the digital revolution and digital platforms to advance biosecurity in Africa

Guidelines for Abstract Submission

- A 200–300-word electronic abstract must be submitted latest by **May 30, 2022**.
- Kindly submit your abstract to **bobadoyed@getafrica.org**.
- Specify platform or poster presentation preference. You will be notified of the fate of your submission by **June 15, 2022**. Important Dates to note:
 - Abstract submission due: **May 30, 2022**.
 - Abstract acceptance

Conference Registration Fees

\$50 - Students- Normal delegate	\$200 - Non-African Delegates - Normal Registration
\$100 - African Delegates - Normal Registration	Delegates with accepted abstracts will have a 25% reduction in their registration fee.

Download Full Document Here
<https://bit.ly/GETCallforAbstracts>

Conference 2022: <https://www.getafrica.org/events/conference2022/>
bobadoyed@getafrica.org, ifeoluwa@getafrica.org | +234 806 769 9338

GET WEBINAR SERIES

GET is organizing a monthly webinar to create an avenue to discuss building forward better and creating stronger partnerships, policy, and practices, especially in One Health and Biosecurity.

We have organized two (2) editions of the webinar series in 2022, January and February, with the themes: **“Reducing Biological risks from Increasing Laboratory Activities in Africa”** and **“Understanding the Link between Climate Change and Global Health Security”**, respectively. We had over 400 participants join the webinars from different parts of the world. You can still join us for subsequent editions.

FREE REGISTRATION + E-CERTIFICATES AVAILABLE!

For notifications and updates, kindly visit www.getafrica.org to subscribe to our mailing list.

We look forward to having you on board for the subsequent editions of GET webinar series to learn and connect with global experts.



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WEBINAR SERIES

JANUARY EDITION

Topic: Reducing Biological Risk from increasing Laboratory Activities in Africa

Registration link:
<https://bit.ly/GETWebinarJanuary>

📅 Wednesday, 19th January, 2022
🕒 12:00pm - 2:00pm (WAT) 📍 Zoom

SPEAKERS



PROF. ABIODUN DENLOYE
Professor in the Department of Zoology and Environmental Biology at Lagos State University, Lagos, Nigeria.



DR. BABATUNDE SAKA
Coordinator, GET Lagos Project & Technical Consultant on One Health and Biosecurity, Lagos State Ministry of Health.



DR. OLIVIER MANIGART
Senior Team Leader - Support to the Regional Epidemiological Surveillance System for West African Health Organization.



DR. AYODOTUN BOBADOYE
Chief Operating Officer, GET Consortium
Moderator



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WEBINAR SERIES

FEBRUARY EDITION

Topic: Understanding the link between Climate Change and Global Health Security

Registration link:
<https://bit.ly/GETWebinarFebruary>

📅 Wednesday, 23rd February, 2022
🕒 12:00pm - 2:00pm (WAT) 📍 Zoom

SPEAKERS



PROF. WILLIAM OGARA
Professor in the department of Public Health, Pharmacology and Toxicology, University of Nairobi, Kenya



DR. AYODOTUN BOBADOYE
Chief Operating Officer, GET Consortium



JENNIFER KUHL
Program Coordinator Global Climate and Health Alliance



DR. GITHINJI GITHATI
Group Chief Executive Officer AMREF Health Africa



MR. GBOYEGA OLORUNFEMI
Principal Consultant, Environmax Global Resources Ltd.
Moderator

GET ONE HEALTH SCHOOL PROJECT (GHSP)



GET One Health Ambassadors-Community High School

GET inaugurated One Health Ambassadors in its four adopted schools in Ibadan, Oyo State, Nigeria in February 2022. One hundred and five (105) Students were inducted as One Health Ambassadors in the various schools, while the induction process included proper orientation of the projects and highlighting the responsibilities of the Ambassadors.

GET One Health School Project (GHSP) is a student-focused project initiated by Global Emerging Pathogens Treatment Consortium to introduce the concept of One Health to students in various secondary schools in Africa through communication, coordination, and collaboration actions.

The vision of this project is to sensitize the young generation on creating a nation of healthy people and animals living in a balanced ecosystem.



GET One Health Ambassadors-Loyola College



GET One Health Ambassadors-Qiblah College



GET One Health Ambassadors-Saint Catherine High School

GHSP Is Open for Sponsorship and Partnership.

For further inquiries, please contact: Dr. Bobadoye Ayodotun, Chief Operating Officer (GET)

Telephone: +2348120651552, Email: bobadoyed@getafrica.org



BIORISK-MANAGEMENT AND PUBLIC EMERGENCY TRAINING

GET was actively involved in a training on bio-risk management and public health emergency preparedness organized by the office of the National Security Agency (NSA) in collaboration with the World Health Organization (WHO), and other technical partners at Reiz Continental Hotel Abuja from the 24th – 28th of January 2022. The training was designed for security agencies across the nation to stimulate engagements around bio-risks management and emergency preparedness.

The Chief Operating Officer of GET, Dr. Dotun Bobadoye, facilitated a session on Climate Change and Emerging Public Health Diseases.

The Hon. Commissioner for Health, Prof Akin Abayomi was also present at the training and his presentation focused on Biological Agents of Concerns.

Dr, Saka Babatunde, GET-Lagos State Project Coordinator on One Health and Biosecurity spoke on Agro-Terrorism and Food Borne Threats.

Dr. Bamidele Mutiu, the Director of Lagos State Biobank spoke on Biobanking and Biosecurity: Issues and Challenges.

Maj. Gen. BM Mongunu (Rtd), National Security Adviser presented an award to the speakers as resource persons at the training.



**TRAINING ON
BIO-RISK MANAGEMENT AND PUBLIC HEALTH EMERGENCY PREPAREDNESS
@ REIZ CONTINENTAL HOTEL ABUJA. DATE: 24-28 JANUARY, 2022**

Group photograph of all participants present at the training



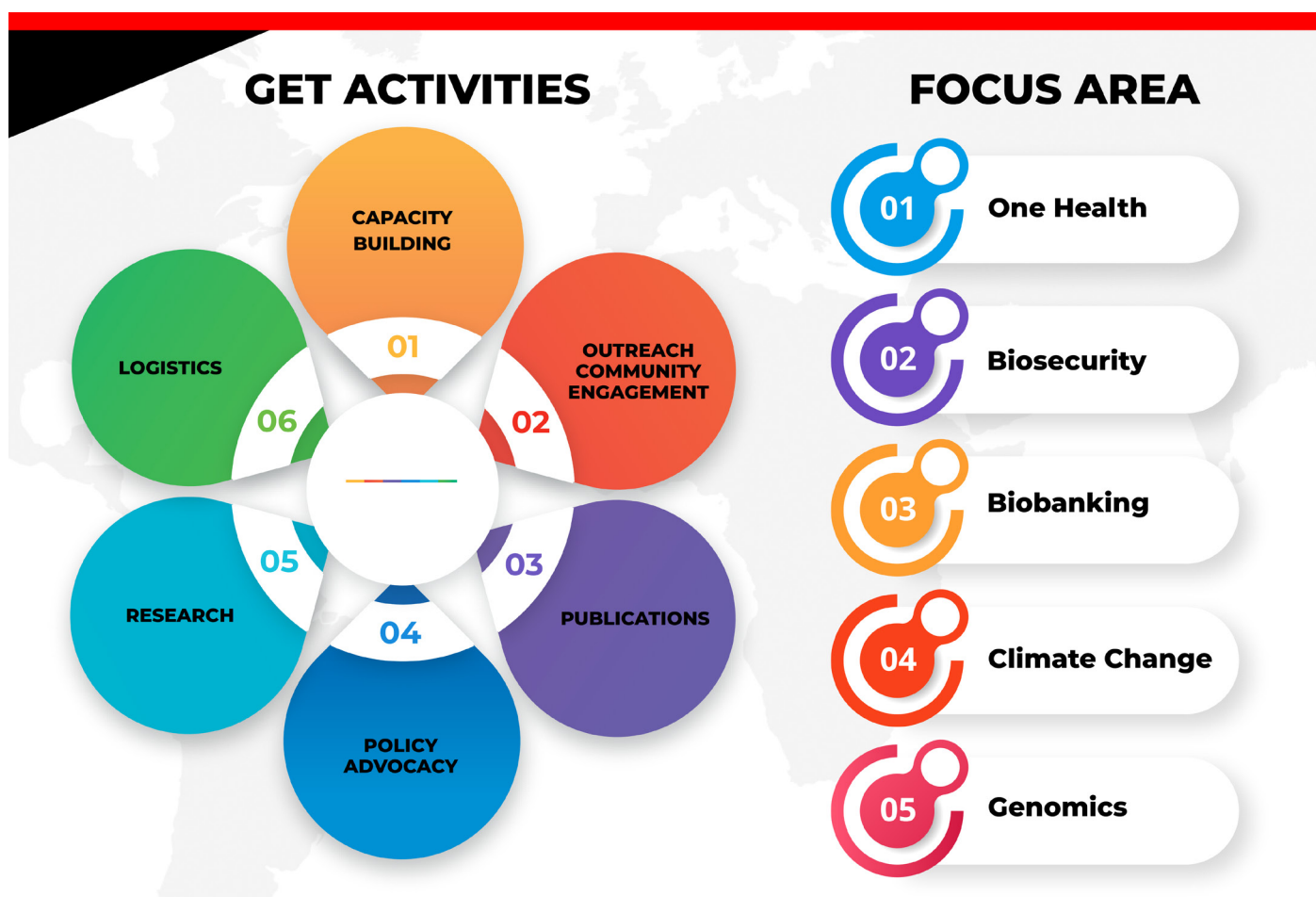
**TRAINING ON
BIO-RISK MANAGEMENT AND PUBLIC HEALTH EMERGENCY PREPAREDNESS
@ REIZ CONTINENTAL HOTEL ABUJA. DATE: 24-28 JANUARY, 2022**

Chief operating officer of GET Consortium-Dr. Bobadoye Ayodotun seated with the technical assistant to Hon. Comm. For health in Lagos State-Dr. Olamide Okulaja during the training



The Honorable Commissioner for health, Prof. Akin Abayomi with some partners at the training

ONGOING / UPCOMING PROJECTS IN GET



Global Emerging Pathogens Treatment Consortium (GET) has established itself as a leading biosecurity think tank in Africa specializing in research, projects, capacity building etc.

There are some ongoing and UPCOMING PROJECTS in GET. The central aim of these projects is to develop effective and innovative policy initiatives to support Africa's institutional strengthening and preparedness to tackle infectious disease outbreaks, public health emergencies and pandemics as it has been from the inception of GET and in line with GET vision.

Listed below are the upcoming projects in GET;

- Publications; Newsletters, Journals, Technical Papers, and Policy Briefs
- Webinars and Seminars relating to One Health and Biosecurity
- Organizing the 8th African Conference on One Health and Biosecurity
- GET-Lagos State Projects
- GET One Health School Club (GHSC) Project
- GET Fellowship Programs
- Genomics Project
- Contracts and Consultancies
- Institute for One Health & Biosecurity

SCHOLARSHIPS/GRANTS OPPORTUNITIES

- The Future Rising Fellowship Program 2022 for Young Changemakers (\$5,000 Stipend)
<https://www.opportunitiesforafricans.com/the-future-rising-fellowship-program-2022/>
Application Deadline: March 10th, 2022
- Kaduna State Government, Kashim Ibrahim Fellows Programme 2022 for Young Nigerians (Fully Funded)
<https://www.opportunitiesforafricans.com/kaduna-state-government-kashim-ibrahim-fellows-programme-2022-for-young-nigerians-fully-funded/>
Application Deadline: March 13th, 2022
- Westerwelle Young Founders Programme - Spring 2022 for Young Entrepreneurs from Emerging and Developing Countries (Fully Funded to Berlin Germany)
<https://www.opportunitiesforafricans.com/westerwelle-young-founders-programme-spring-2022-for-young-entrepreneurs/>
Application Deadline: 14th March 2022
- The AFRICA KOMMT! Fellowship Programme 2022/2024 for Future Leaders from Africa (Fully Funded to Germany)
<https://www.opportunitiesforafricans.com/the-afrika-kommt-fellowship-programme-2022-2024/>
Application Deadline: March 30th, 2022
- Call for Ideas for 2022 Regional Projects
<https://www2.fundsforngos.org/latest-funds-for-ngos/call-for-ideas-for-2022-regional-projects/>
Application Deadline: April 4, 2022
- Call for Innovations to Improve Sustainability and Resilience of Farms to Impact Climate Change
<https://www2.fundsforngos.org/latest-funds-for-ngos/2022-call-innovations-to-improve-the-sustainability-and-resilience-of-farms-to-impact-of-climate-change/>
Application Deadline: April 8, 2022
- WISE Edtech Accelerator Programme 2022/2023 for Education Technology Projects
<https://www.opportunitiesforafricans.com/wise-edtech-accelerator-programme-2022-2023/>
Application Deadline: April 14, 2022 - 16: 00 GMT
- UNEP-CTCN Adaptation Fund Climate Innovation Accelerator 2022 for Developing Countries
<https://www.opportunitiesforafricans.com/unep-ctcn-adaptation-fund-climate-innovation-accelerator-2022/>
Application Deadline: April 30, 2022
- Women's World Summit Foundation – Prize for Women's Creativity in Rural life 2022
<https://www.searchdonation.com/funds/display/?id=644>
Application Deadline: April 30, 2022
- The United Nations Academic Impact/MCN Millennium Fellowship 2022 for Emerging Leaders Worldwide
<https://www.opportunitiesforafricans.com/the-united-nations-academic-impact-mcn-millennium-fellowship-2022/>

Application Deadline: Ongoing

- Google Kick Start Global Online Coding Competition 2022 for Coders Worldwide
<https://www.opportunitiesforafricans.com/google-kick-start-global-online-coding-competition-2022/>

Application Deadline: Ongoing

- IBM Research Internship Program 2022 for Young Africans
<https://www.opportunitiesforafricans.com/ibm-research-internship-program-2022/>

Application Deadline: Unspecified

UPCOMING INTERNATIONAL CONFERENCES

- **Food Science and Food Safety Summit**, April 11-12, 2022 – London, UK
- **Global Summit and Agriculture & Organic Farming**, May 6-7, 2022 – Melbourne
- **9th International Conference on Food Pathogens and Food Safety**, June 13-14, 2022- Canada
- **5th International Conference on Probiotics and Prebiotics**, June 27-28, 2022 – Canada
- **7th Global Conference Food Security, Food Safety and Sustainability**, Sept. 16-17, 2022- Canada
- **2nd World Conference on Climate Change and Global Warming**, May 6-8, 2022, Hungary

For more, visit: <https://www.conferenceseries.com/environmental-sciences-meetings>

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FIND OUT MORE ABOUT THE ORGANIZATION

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