

# 4th Partnership for Aflatoxin Control In Africa-Partnership Platform Meeting

(4TH PACA-PPM)



A Decade of Partnership for Aflatoxin Control – Looking Back To Define The Future of Aflatoxin Control in Africa”

December 6-7, 2023, Nairobi, Kenya

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# Acknowledgement



**Josefa Leonel Correia Sacko**

The 4th PACA-PPM was held under the patronage of H.E. Josefa Leonel Correia Sacko, Commissioner for Agriculture, Rural Development, Blue Economy, and Sustainable Environment (ARBE) of the African Union Commission.

# Aflatoxins: Africa's Silent Development Challenge

**B**etween March and June of 1981, two neighbouring districts in Kenya, Makueni and Kitui, reported a total of 12 deaths caused by acute aflatoxicosis. This was due to the consumption of maize meal contaminated with aflatoxins. A similar incident occurred in Kenya in April 2004, where 317 cases were reported, resulting in 125 deaths. This incident was also caused by the consumption of contaminated maize. In Tanzania, a total of 68 cases of acute aflatoxicosis occurred between 14 May and 14 November 2016, of which 20 died (Kamalam, et al., 2018).

Aflatoxins caught the attention of the world in the 1960s following the death of about 100,000 young turkeys on poultry farms. A study associated the deaths to feeds, namely, Brazilian peanut meal, which was highly toxic to

poultry and ducklings with symptoms typical of Turkey X disease. The toxin-producing fungus was identified as *Aspergillus flavus* (1961). Hence, the toxin was named Aflatoxin by its origin (*A.flavis*--> Afla). This discovery has led to a growing awareness of the potential hazards of these substances as contaminants of food and feed, causing illness and even death in humans and other mammals.

Over the years, aflatoxins have undergone several toxicological evaluations and dietary exposure assessments by the Joint FAO/WHO Expert Committee on Food Additives (JECFA). During the thirty-first meeting, the Committee concluded that aflatoxins are a potential human carcinogen.

Consequently, the WHO declared aflatoxins as

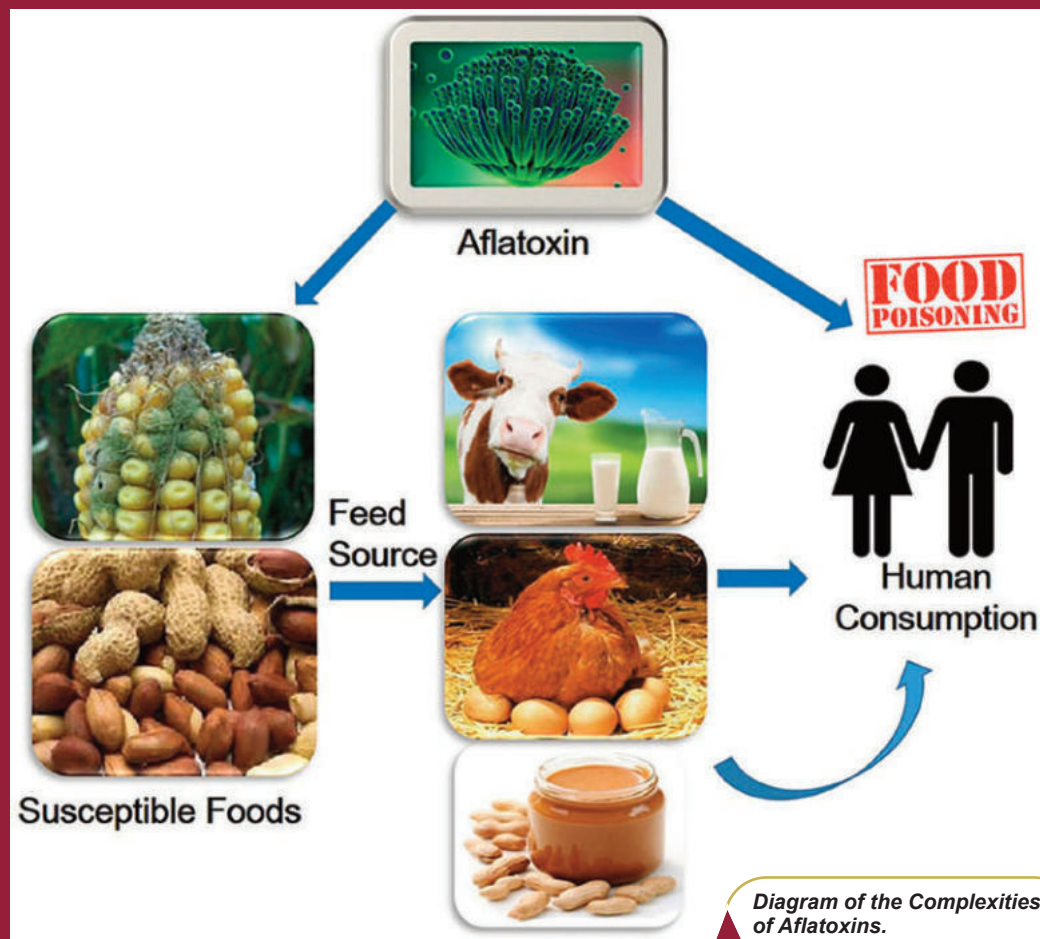


Diagram of the Complexities of Aflatoxins.  
Credit: PubMed Central (PMC)

“poisonous substances” that pose a severe health threat to humans and livestock and a significant economic burden, causing an estimated 25% or more of the world’s food crops to be destroyed annually (WHO, 2018).

The menace of aflatoxins cuts across several geographical regions of the world, as it is influenced by climatic conditions. The entire area covering 40°N and 40°S of the equator has tropical climatic conditions that favour the growth of the aflatoxins. This includes parts of the USA, Europe, and Africa. However, Africa seems to suffer the brunt of the menace of aflatoxins. An annual cost of over USD 750 million accrues to aflatoxin contamination of crops, while the European Union (EU) regulation reportedly costs food exporters an estimated USD 670 million yearly (Gbashi, et al., 2018).

In November 2012, the AU Joint Conference of Ministers of Agriculture and Ministers of Trade endorsed the formation of the Partnership for Aflatoxin Control in Africa (PACA) to help minimise the harmful effects of aflatoxins on the continent. PACA’s activities, including awareness, advocacy, research, and knowledge generation, have led to significant actions by member states, including developing national aflatoxins plans as part of the national

agriculture investment plan under the CAADP framework work of revolutionising agriculture.

A study conducted by AUC-PACA between 2016 and 2017 revealed that significant food staples such as groundnuts and maize in West Africa (including Nigeria, Senegal, and The Gambia) and Eastern Africa (including Malawi, Uganda, and Tanzania) were found to be highly contaminated with aflatoxins. This contamination negatively affects animal health, leading to significant economic losses due to reduced performance, reproductive disorders, and increased veterinary interventions.

Consequently, some countries like Tanzania have mobilised over 35 million USD, including a grant from the Africa Development Bank (AfDB) to address the challenges of aflatoxin. At the same time, Malawi has been able to source almost 1 million Euros from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH for similar purposes. Other countries like Kenya and Senegal have committed several millions of dollars from their respective national budgets for various interventions.

## PACA -PPM

One of the strategic approaches by PACA to execute its mandate is the biennial forum dubbed the Partnership for Aflatoxin Control for Africa (PACA) Partnership Platform Meeting (PPM)-PACA PPM that brings together diverse stakeholders to review previous activities based on which new strategies are developed, or activities are adopted.

The first PACA PPM was held in October 2014 in Addis Ababa, Ethiopia, and affirmed PACA’s strategic approach in the aflatoxin mitigation efforts. The second PACA PPM was held in October 2016 in Entebbe, Uganda, and it endorsed the 2nd phase of PACA from 2016-2022. The Third PACA PPM happened in

October 2018 in Dakar, Senegal, under the theme “Scaling Up Country-Led Models for Sustainable Aflatoxin Mitigation in Africa”. The 3rd PPM facilitated the development and packaging of the country-led model based on the success and lessons learnt from the piloted six countries (Malawi, Nigeria, Tanzania, The Gambia, Senegal, and Uganda); it also recommended for adoption by the AUC policy organs the ‘Strategic Framework for Scaling Holistic Country-Led Model for Aflatoxin Control in Africa’, and it was rightly endorsed by the 36th Ordinary Session of the Executive Council in February 2020 in Addis Ababa, Ethiopia, through the Decision number EX.CL/Dec. 1074(XXXVI).



*Ms Lucy Muchoki, Chair of the CAADP Non-State Actors Governing Council, delivering her welcome Remarks*

## The 4th PACA -PPM

The two-day continental meeting was held from 6-7 December in Nairobi, Kenya, to review efforts at the management and mitigation of aflatoxins.

It was under the theme “A Decade of Partnership for Aflatoxin Control – Looking Back To Define The Future of Aflatoxin Control in Africa”.

The meeting, as usual, formed part of PACA’s strategic approach of engaging stakeholders every two years to review the progress of the implementation of the aflatoxin mitigation effort, as well as help design new approaches. It was scheduled for 2020 but was postponed due to the COVID-19 pandemic.

The 4th PACA-PPM was used to acknowledge the 10th anniversary of PACA. Therefore, the meeting was used to assess progress in implementing the PACA strategy and the management of aflatoxins in Africa over the past decade. Also, it helped to define a new 10-year continental strategy for controlling aflatoxins. Technical presentations, panel and expert discussions characterised the meeting.

Participants included Regional Economic Communities, officials of member state government ministries from agriculture, trade and health, farmers’ organisations, the private sector, civil society, development partners, and the African Union institutions, among others. Partners included the Bill and Melinda Gates Foundation, USAID, AGRA and the Kenyan Ministry of Agriculture and Livestock Development.

The two-day meeting was characterised by the following:

- Open Ceremony, where the leadership of some stakeholders made commitments, presented views, called to a specific action, proffered suggestions, etc.
- Presentations: Technical Presentations by various experts, a recount of previous experiences and challenges, panel discussions and brainstorming sessions.
- Develop and present a communique which would guide or be used as the framework for developing the strategy for the next decade.
- Closing ceremony with a presentation of the way forward by a participant



**Professor Jerome Afeikhena, Special Advisor to Commissioner ARBE-AUC**

## Opening Ceremony

The opening ceremony was marked with Speeches on various related issues.

During the opening ceremony, Professor Afeikhena Jerome, Special Advisor to the African Union (AU) Commissioner for Agriculture, Rural Development, Blue Economy and Sustainable Environment (ARBE), read a statement on behalf of Her Excellency Ambassador Josefa Sacko.

Ambassador Sacko described aflatoxin as a pervasive food safety challenge in Africa because it contaminates major dietary agriculture commodities such as maize and

groundnuts and requires serious attention to address the problem.

She praised PACA for its achievements in the six pilot countries: Malawi, Nigeria, Tanzania, The Gambia, Senegal, and Uganda. As a result, 12 new countries, namely Angola, Benin, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Mali, Rwanda, Togo, and Zambia, have signed up for support.

Furthermore, she commended PACA for creating data-driven portals such as the African Information Management System (AfricaAims, the Africa Food Safety Index (AFSI)) and a new initiative to establish an African food safety data hub. This project aims to enhance the availability of information for informed decision-making regarding food safety in the continent. Josefa Sacko, therefore, tasked PACA with utilising its experience to support the broader food safety management on the continent.

Mr Collins Marangu, Director of the Plant Protection and Food Safety Directorate of the Kenyan Ministry of Agriculture and Livestock Development, in a speech to officially open the meeting, highlighted that food safety, especially aflatoxin contamination, is a significant development challenge in most African countries caused by weak implementation of national food control systems, inadequate funding, outdated regulated policies, insufficient information, and lack of adoption of appropriate technologies, among other reasons. He urged the meeting to develop practical solutions to help mitigate aflatoxin and improve food safety standards in the continent.

According to Ms Jennifer Maurer, the Resilience Coordinator at USAID, data from the US Centers for



**Mr Marangu, Director of Plant Protection and Food Safety, delivering his address**



**Ms. Jennifer Maurer, Resilience Coordinator, USAID**

Disease Control (CDC) shows that approximately 4.5 billion people living in developing countries are exposed to dangerous levels of aflatoxins through their diet. These toxins can cause chronic health issues and food insecurity. The situation is expected to be even more severe in sub-Saharan Africa as most of the food staples in the region are prone to aflatoxin contamination.

She mentioned that USAID recognises aflatoxin as a food safety challenge and broadly a food insecurity problem that requires a systematic approach, including "robust investment in food safety throughout the food system."



**Dr Aggrey Agumya, Executive Director, FARA**

Dr Aggrey Agumya, Executive Director of the Forum for Agriculture Research in Africa (FARA), called for increased collaboration amongst the research community and other stakeholders to help identify solutions to some of the continent's food safety challenges, including aflatoxins.

He expressed FARA's readiness as the continental apex organisation for research and innovation to actively engage in the continent's agenda to control Aflatoxins and play a role in implementing PACA's agenda over the next decade.

He recognised the research and development work the International Institute of Tropical Agriculture (IITA) carried out in developing an aflatoxin mitigation technology called Aflasafe. However, he also emphasised the need for more collaboration among the research community to generate and scale up further innovations.



**Ms Kefilwe Roba Moalosi, AUDA-NEPAD**

In her speech, Ms Kefilwe Roba Moalosi, Senior Nutrition and Programme Officer at AUDA-NEPAD highlighted that unsafe food, including aflatoxin contamination, has far-reaching consequences beyond health issues and can also negatively impact development.

She suggested that tackling food safety in African countries requires collaboration among governments, producers, consumers, and all actors in the value chain, including aflatoxin mitigation.

Ms. Moalosi expressed her delight in PACA's innovative role, which extends beyond aflatoxin to finding solutions for food safety in Africa.



# Technical Presentations

Name and Profile

Topic and link 



**Dr Amare Ayalew, Program Manager PACA-AUC**

“State of PACA 2023: Key Achievements and Lessons from Ten Years Implementation”

[https://docs.google.com/presentation/d/1xNlvJHNN3i\\_FD3AtcQhZGr2rHhTy7PNk/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true](https://docs.google.com/presentation/d/1xNlvJHNN3i_FD3AtcQhZGr2rHhTy7PNk/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true)



**Ms. Wezi Chunga, Senior Program Officer, PACA-AUC**

“The Next Decade of Aflatoxin Control In Africa”

<https://docs.google.com/presentation/d/1OjaOmqhOIdeaO0uu7VOGSWmCy7qBq-x-/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>



**Ms. Mweeme Kambombi, Plant Health Inspector, Zambia**

“Experience from Domesticating PACA’s Country Led Model for Aflatoxin Control: Lessons and Tools”

<https://docs.google.com/presentation/d/1gefMH2YaNu5X5MH4EFrxrtiYrIZcx-1f/edit#slide=id.p1>

Name and Profile

Topic and link 



**Dr Blaise Outtara, FAO**

“FAO/WHO Food Control System-Assessment Tool”

<https://drive.google.com/file/d/1vPUDjKchL41DxPMCagdfmYhCGZkWAJQB/view?usp=sharing>



**Mrs Faustina Atupra, Foods and Drug Authority (FDA)-Ghana**

“Implementation of The PACA Country Led Model For Control Of Aflatoxins in Food and Feed in Ghana”

<https://docs.google.com/presentation/d/1K9azLTWvx0Wv6W1-164WGxA6vK00bwK2/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>



**Prof. Archileo N. Kaaya (PhD)**

“Experience of Uganda Post PACA Pilot Phase”

[https://docs.google.com/presentation/d/1wj06Q9qyAAgtUz2wrDtFzxCqrORsZ\\_w0/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true](https://docs.google.com/presentation/d/1wj06Q9qyAAgtUz2wrDtFzxCqrORsZ_w0/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true)

Name and Profile	Topic and link 
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**Mr Isaac Goka, Alliance for a Green Revolution in Africa (AGRA)**

**“The Importance of Food Safety for Food Systems Transformation”**

<https://docs.google.com/presentation/d/1-haZ1AOFNIMqRvci3uggp6uofDLdDa50/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>



**Ms. Winnie Osulah, Gender Specialist, TANAGER, Kenya**

**“Report of Gender Analysis in Food Safety”**

<https://docs.google.com/presentation/d/1ZO1wQjZXGjwwxEgrSd1x1JNDx1UR1XKV/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>



**Professor Limbikani Matumba, Lilongwe University of Agriculture and Natural Resources. Malawi**

**“Harmonizing Aflatoxin Sampling and Testing Protocol”**

<https://docs.google.com/presentation/d/1-2qVW7p6HZTsj90wLxIVBqsgVB2LRvIM/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>

Name and Profile

Topic and link 



**Clepin Josephat Mbekomize**  
Project Manager - TANIPAC

“Tanzania Initiative for Preventing Aflatoxin Contamination (TANIPAC) Project: Brief and Progress Status”.

<https://docs.google.com/presentation/d/14oIdw49rJZqTgMEZz1mVE5Lgudx94gNz/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>



**Jane Wanza, International Institute of Tropical Agriculture, (IITA)**

“Scaling Food Safety Solutions in Africa: The Aflasafe Experience”

<https://drive.google.com/file/d/1aeJTsjX-ddUexPyKCRhT18Db-TarBex/view?usp=sharing>



**Dr George Mahuku, International Institute of Tropical Agriculture (IITA)**

“Emerging Risks to Food Safety; Conflicts, Climate Change And External Shocks”

<https://docs.google.com/presentation/d/1cdIgAYdStfDLn2Thhciwrvj9us4wJ1kw/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true>

Name and Profile

Topic and link 



**Nadine Umutoni, Project Coordinator, African Organisation for Standardization-ARSO**

**“Harmonising Aflatoxin Standards Across Africa -The Case of Aflatoxin M1”**

[https://docs.google.com/presentation/d/1BJAYTiqdmeablwWC98Ofm55u-jLOwZ\\_9/edit?usp=sharing&oid=17826948373636181591&rtpof=true&sd=true](https://docs.google.com/presentation/d/1BJAYTiqdmeablwWC98Ofm55u-jLOwZ_9/edit?usp=sharing&oid=17826948373636181591&rtpof=true&sd=true)



**Goule Gueye, BAMTAARE, Senegal**

**“Aflasafe manufacturing and distribution in Senegal”**

[https://docs.google.com/presentation/d/1A322c68y\\_KF8gkhAoZV6X0c10cYFxfWC/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true](https://docs.google.com/presentation/d/1A322c68y_KF8gkhAoZV6X0c10cYFxfWC/edit?usp=sharing&oid=117826948373636181591&rtpof=true&sd=true)

## Panel Discussions



*From Left: Mr Wendrash Abera, Food safety and nutrition advisor, EFDA, Ethiopia; Dr Wolfasa, Ashagrie Zewdu, Associate Professor of Food Science and Nutrition, Addis Ababa University; Dr Leopold S. Nanema, Secretaire Executif du CNSA, Burkina Fasa; Mrs Roukiyato Boukari, MAEP, Benin*

### 1. Topic: “Scaling Aflatoxin Control from 6 to 12 Countries”

#### Takeaways

- Farmers and other actors involved in the affected crop value chain must be included in the efforts to mitigate aflatoxin at the country level.
- Improved stakeholder engagement is crucial for buy-in and adoption by target groups.
- It is necessary to conduct assessments and generate evidence based on individual country contexts to address

- aflatoxin effectively.
- Aflatoxin mitigation should be a part of the broader food safety solutions.
- Establishing national food safety technical committees in the 12 new countries is critical.
- Enhance capacity and resources to support intervention implementation.
- Establish a clear distinction between the FAO/WHO food control assessment tools and the PACA six-step model so that patrons are not confused.



From left: Dr Chris Muyunda, former chair of the CAADP Non-State Actors Coalition, Professor Paul Kachapulula, University of Zambia, and Ms Kefilwe Moalosi, AUDA-NEPAD. Moderator: Mr. Tayani Vincent Banda, CALA Food Systems Champion

## Topic 2: “Aflatoxin Interventions-Reflections Over Ten Years and Aspirations for the Next Decade.”

### Takeaways

- Aflatoxin contamination is not just a food safety concern but also a development challenge due to its negative impact on public health, trade, and food security.
- Rather than using scare tactics, it is important to have empirical evidence of the adverse health effects resulting from the consumption of aflatoxin-contaminated maize.
- The adoption of relevant environmentally friendly technologies is crucial to benefit farmers.
- Aflatoxin mitigation efforts must be sustainable at the country level.
- Concerted efforts are required at the continental level to make Africa competitive in certain agricultural commodities, such as groundnuts, by addressing aflatoxin challenges in the value chain.
- Aflatoxin mitigation and management should be addressed within the CAADP framework.



From Left: Goule Gueye, BAMTAARE, Senegal; Cleptin Josefat, TANIPAC, Tanzania; Bhubhinder Sing, Agro Z, Arusha, Tanzania; Dr. George Nahuka, IITA.

## Topic 3: “Use of Aflasafe to improve food system in Africa.”

### Takeaways

- Packaging and selling of Aflasafe should be informed by the capacity of the smallholder farmers to patronise.
- It is important to note that Aflasafe is driven by demand, so the behaviour of farmers must accept the technology.
- Labelling and voluntary declaration of aflatoxin-free commodities should be considered despite the perceived challenges that may arise.
- Investors should be incentivised to invest more in producing and distributing technologies like Aflasafe.
- Governments should be encouraged to approve Aflasafe since this would enhance patronage by farmers.



## Group Brain Storming Session

Strategies for Aflatoxin Control in Africa in the Next 10 Years

### Group 1





**Group 2**



**Group 3**



**Group 4**



**Group 5**



## Takeaways from the Brainstorm Sessions

- Increase in private participation in the aflatoxin control effort.
- More improved engagements with governments and national systems.
- Enhanced communication and behaviour change communication interventions
- Collaborative engagements among research institutions, PACA and governments
- Increased support by PACA to all member states similar to Tanzania-TANIPAC
- Funding for research to enhance the development of innovative technologies



## Summary of Communique

The participants, in a 25-point communique, among others,

- Took cognisance of the need for an inclusive and multi-sectoral approach in the fight against aflatoxin,
- Recognised that the knowledge and experience gained in aflatoxin mitigation could be scaled out to other countries.
- Asserted the adoption of technology, such as Aflasafe, to advance aflatoxin mitigation efforts.
- Recognised the need to enhance public awareness and education on aflatoxin in the continent
- Suggested the need to build resilience in food systems,
- Advocated for the promotion of and investment in research and development and regional and national cooperation in the fight against aflatoxins, among others.
- Involvement of the private sector in the aflatoxin management and mitigation efforts

## Meeting Closing Remarks

**H**onourable Michael Roberto Kenyi Legge, Former Minister of Agriculture, Central Equatoria State-South Sudan and Assistant Professor at the University of Juba, South Sudan, who gave the closing remarks on behalf of the participants, expressed concerns about reports of some African countries rejecting agricultural commodities such as maize and groundnuts which are produced in other African countries due to aflatoxin contamination because that could potentially harm the progress of the African Union Agenda 2063 and may undermine the principles and good intentions of the African Continental Free Trade Area (AfCTA).

Prof Legge advocated for capacity building, attitudinal change, effective planning and policy development on aflatoxin management and mitigation efforts by African countries.

He challenged PACA to engage with the governments of AU member states as the first line of engagement. This can enhance linkages and networks for concerted efforts in aflatoxin mitigation.

Prof Legge also called for increased participation of farmers and farmer groups in PACA activities.



**Michael Roberto Kenyi Legge,  
University of Juba, South Sudan**

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