



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
lutter contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

Partnership for Aflatoxin Control in Africa (PACA):

What is PACA about?

The Aflatoxin Problem

Aspergillus flavus, a fungus commonly found in soils and on plant matter, including grains or cereals, peanuts, and other legume crops, produces aflatoxin, a highly carcinogenic toxin. FAO estimates that 25% of world food crops are affected and countries situated between the 40°N and 40°S of the equator are most at risk, with the combination of heat and high moisture levels as the key factor in facilitating the growth of the fungus. Aflatoxin contamination is often not appropriately controlled or regulated within the African continent except when the product is targeted for international markets. As a result, millions of people living throughout the continent consume high, unsafe levels of aflatoxin through their diets, including those who may be aware of the risks. Beyond affecting crops, aflatoxin also has negative impacts on the production of healthy livestock through contaminated feeds, causing a decrease in production of milk and eggs, leaving toxic residues in dairy, meat and poultry products, and causing serious illness to animals. Due to limited use of quality inputs, poor crop management, improper post-harvest handling and drying, and inadequate storage conditions coupled with high levels of on-farm consumption of grains and legumes, the smallest and most impoverished producers, their families and their livestock are at the greatest risk.

Chronic aflatoxin ingestion has been shown to cause liver disease and, in high concentrations, death in both humans and domestic animals. Aflatoxin is also strongly linked to immune-system suppression, increased susceptibility to diseases, and growth retardation, notably stunting. These are especially relevant for the populations of Africa which depend on cereal, especially maize-based diets, and who consume high amounts of groundnuts and other legumes.

Aflatoxin contamination is without a doubt a major problem in Africa. However, its quantitative magnitude of impact on African farms, warehouses, processing facilities, and food products is generally unknown. Economic losses to producers and traders due to aflatoxin contamination in grains and legumes, although considered to be significant, also have not been quantified, and a mapping of the distribution of aflatoxin contamination by commodity across the continent is yet to be done. What is known, however, is that the pervasive and chronic consumption of aflatoxin-contaminated foods and feeds throughout the continent continues to pose a significant threat to both human and animal health and that it constitutes a significant threat to food security and livelihoods.

Clearly, the nature of the problem, and its multi-dimensional impacts means that prevention and control of aflatoxin is only possible with a comprehensive, systematic approach, involving a

broad range of stakeholders working on food and agriculture security, trade and health in Africa and globally.

What is PACA?

In response to the threat of aflatoxin to consumers and economies in Africa, stakeholders from African governments, the private sector, funding organizations, farmers' organizations, and other civil society organizations identified, in 2010, the need for an Africa-wide approach to the prevention and control of aflatoxin. Consequently, during the seventh Comprehensive African Agriculture Development Program's (CAADP) Partnership Platform in March 2011, participants urged the Africa Union Commission (AUC) to oversee the establishment of a Continental SPS Working Group to mainstream sanitary and phyto-sanitary (SPS) matters in the CAADP framework and the establishment of the Partnership for Aflatoxin Control in Africa (PACA).

The first PACA organizational meeting took place in October 2011. In 2012, the AUC worked first with an Interim Steering Committee, and since the PACA Launch and inauguration, with a Steering Committee representing interests across relevant sectors in Africa, to develop structures and approaches for effective functioning of PACA, including a start at articulating the broad objectives of the Partnership (*see below*). PACA was formally launched and the Steering Committee inaugurated on 31 October 2012. Members of the Steering Committee are:

- African Union Commission (Represented by Dr. Yemi Akinbami)
- African Agriculture Technology Foundation (Represented by Dr. Francis Nang'ayo & Dr. Douwehan (Jacob) Mignouna)
- African Medical and Research Foundation (Represented by Dr. Florence Temu & Dawit Seyoum)
- Common Market for Eastern and Southern Africa (Represented by Ms. Martha Byanyima & Mr. Frank D. Mugenyi)
- Consumer International (Represented by Ms. Onica Makwakwa)
- East African Farmer's Federation (Represented by Mr. Stephen Muchiri)
- Economic Community of West African States (Represented by Mr. Ernest Aube)
- Forum for Agricultural Research in Africa (Represented by Dr. Wale Adekunle & Dr. Wole Fatunbi)
- International Institute for Tropical Agriculture (Represented by Dr. Kenton Dashiell & Dr. Victor Manyong)
- Pan African Agribusiness and Agro Industry Consortium (Represented by Ms. Lucy Muchoki)
- U.S. Agency for International Development (Represented by Mr. Jeff Hill & Ms. Jennifer Maurer).

The Steering Committee is being supported in its work by the Meridian Institute, working in close partnership with the AUC and a broad range of partners, and with funding provided by the Bill & Melinda Gates Foundation as well as the Department for International Development (DfID) of the UK. Currently supported by the Meridian Institute, the process for setting up the PACA Secretariat is well underway. The process provides for the transitioning to an Africa-based Secretariat hosted by the AUC as soon as possible.

PACA Objectives: What needs to be done?

Even as it works on structures and operational issues critical for the institutionalization of PACA, the Steering Committee and its predecessor Interim Steering Committee have given substantial thought to what needs to be done to significantly improve aflatoxin prevention and control. Through interviews and meetings with stakeholders, a number of key areas of action required for a comprehensive approach to aflatoxin prevention and control have been identified. The analyses have identified potential interventions which include approaches designed to prevent aflatoxin contamination pre- and post-harvest, to reduce exposure, and to help direct contaminated crops/products to alternative safe uses. It is considered that new information from (strategically commissioned) studies, along with the results from field assessments and trials and experiences by stakeholders, will inform policies, standards, regulations, and other incentives that will drive scaling up of on-the-ground control actions along the value chain. It is clear that while many actions can be taken to reduce aflatoxin exposure to local consumers and to improve opportunities to access markets for aflatoxin-safe products, these need to be supported by appropriate policy and regulatory measures. In addition, capacity development initiatives are needed to raise awareness about the dangers of aflatoxin, as well to provide human resource base and functioning institutions that will lead and facilitate, in a sustainable manner, successful implementation of proven aflatoxin prevention and control strategies.

What might constitute PACA comparative advantage and niche?

Given the many players involved in aflatoxin work at different levels in Africa, an important consideration in establishing PACA has to be the identification of an appropriate niche for an initiative of this kind: As a Partnership, PACA has to add value to what individual stakeholders – the partners – are already doing. Clearly, partnership brokerage, advocacy, facilitation of information sharing, knowledge management, capacity development, and policy dimensions of aflatoxin, as well as development of a sustainable resourcing mechanism for aflatoxin control are crucial elements for PACA. In addition, there is an urgent need for coordinated aflatoxin control projects that reduce exposure to this toxin, decrease barriers to trade, and improve human health. In particular, African countries, organizations, and institutions, and others

investing in aflatoxin control want to be sure that their limited funds go to directly addressing this problem.

Accordingly, while the exact activities and shape of PACA are still being developed and will be informed by input from a wide range of African and international partners – as part of the PACA strategy development process now underway – key elements that underpin the PACA vision and mission have been identified, including the following:

- Within the general framework of CAADP and its continent-wide and regional efforts on SPS issues, PACA will provide consistent coordination and coherent leadership to the continental efforts on aflatoxin prevention and control.
- PACA's mission is *to improve the health, income, and livelihoods of African farmers, farm households and consumers, by addressing the agriculture and food security, health, and trade issues associated with aflatoxin prevalence and exposure in Africa.*
- In order to achieve this mission, research and deliberations of the process to date has led to the suggestion that PACA needs to do or facilitate the following:
 - support implementation of effective aflatoxin control projects;
 - integrate aflatoxin programs within existing frameworks;
 - create an innovative, durable structure and transparent governance system;
 - advocate for aflatoxin control and engage leadership across sectors;
 - establish a PACA network, knowledge management and information sharing platform; and
 - mobilize resources and develop a sustainable funding mechanism for aflatoxin prevention and control.

For example, PACA could work with national structures to support strategic country-level actions, including: Enhancing the regulatory environment to support cross-country harmonization and scaling up of technology solutions; awareness raising and advocacy; and some specific assessments that could benefit from multi-country efforts or approaches.

PACA, by its design, should support creation of public goods that benefit the continent (and beyond). It should principally engage in actions that make contributions at continental, regional and sub-regional levels within the continent. That is, PACA should focus on those activities that are multi-country in nature or can be scaled up or replicated to regional or continent-wide levels, focusing on interventions for which it has a clear comparative advantage.

As part of the actions to achieve its objectives, PACA aims to engage the many organizations working to control aflatoxin in Africa. A *Partnership Platform* mechanism is envisaged. A functioning PACA Platform will provide a forum for information sharing, identification of systemic challenges to aflatoxin prevention and control and co-creation of solutions. The platform will form the basis for coordination among stakeholders, and co-ownership of PACA,

helping identify synergies, avoiding duplication and leveraging of resources. The nature of the convening process and facilitation of the platform will be defined by stakeholders and explicitly articulated in the PACA strategy.