



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
la lutte contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

SYNTHESIS REPORT OF PROCEEDINGS

Regional Workshop on “Revamping Groundnut Value Chains of West Africa through Aflatoxin Mitigation”

Theme: Call for Action to enrich livelihoods and economies

September 1-2, 2015

Dakar, Senegal



EXECUTIVE SUMMARY

The aflatoxin problem has been recognized as one of the biggest challenges to food and nutrition security, trade, and health across the African continent. Aflatoxins are highly carcinogenic toxins that are produced by strains of the fungi *Aspergillus flavus* and *A. parasiticus*. In most West African countries, groundnut, an important crop used in various forms including as a basic food and a cash crop, and which is one of the most susceptible crops to aflatoxin, has been the worst hit. Since 1960, groundnut production and exports from the West African region have been declining mostly due to aflatoxin contamination of groundnuts and groundnut products. Small holder farmers are most affected, because they are highly dependent on the groundnut production as it generates 60% of rural cash incomes in a number of countries in the region.

This report is a synthesis of the Regional Workshop on “Revamping Groundnut Value Chains of West Africa through Aflatoxin Mitigation” held in Dakar, Senegal, from September 1-2, 2015, under the theme “Call for Action to enrich livelihoods and economies.” The workshop brought together a total of 101 participants, mainly experts and policy makers from the member states of the Economic Community of West African States (ECOWAS), small and medium- enterprises and corporate food industries, research organizations and academia, development partners, Regional Economic Communities (RECs), government ministries from trade, agriculture and health, farmers organizations, the private sector, civil society and the African Union Commission.

The objectives of the workshop were to: 1) share perspectives on the state of the aflatoxin challenge in groundnut value chains in West Africa and opportunities for intervention; 2) discuss the current policy landscape of West African states in relation to aflatoxin control, food safety as well as trade and identify actions to address gaps; 3) discuss current technological practices for aflatoxin prevention and control and explore new options; 4) review and validate the ECOWAS aflatoxin control action plan as a step towards facilitating adoption in the region; and 5) identify new, and strengthen existing partnership opportunities among national, regional and international stakeholders in aflatoxin management and agree on strategies for mobilizing required investments to support priority activities. [The workshop program is available on the PACA website.](#)

The workshop facilitation was very participatory to foster open dialogue and knowledge sharing, and allow for the co-creation of solutions.

During Day 1, to set the scene for further discussions, participants heard presentations and discussed the history and potential of the groundnut industry in West Africa, the aflatoxin challenge to the groundnut sector and intervention opportunities, and the economic impact of aflatoxins in West Africa based on the cases of The Gambia, Nigeria and Senegal. Workshop participants briefly reviewed the challenges and opportunities for revamping the groundnut

value chains in West Africa before they had a deep discussion on lessons from private sector experiences. Inspired by several concrete examples, participants discussed opportunities and challenges for private sector engagement in the groundnut value chain, including: the essential role of smallholder farmers in the groundnut value chain in Africa; successful approaches for mitigating aflatoxin to make groundnut suitable for regional and global trade and safe for domestic consumption; alternative uses for rejected crops; and key elements to incentivize private sector investment in groundnut value chains in Africa.

Workshop participants discussed the ECOWAS Aflatoxin Control Action Plan (ECOACAP). They endorsed the plan as an excellent framework for action and made a number of suggestions to further strengthen and incorporate the plan into regional and national agricultural investment plans in West Africa. ECOWAS will incorporate feedback into the ECOACAP.

On day 2, participants focused on identifying actions needed in the areas of technology, policy, and finance to revamp the groundnut value chain in West Africa. They heard brief, technical presentations before spending time in small working groups. The working groups identified a range of key actions.

Priority actions for Technology:

- Testing: provide affordable and accessible rapid test kits in each AEZ in countries for tests at all critical points of the VC; build capacity in testing laboratories; establish national and regional testing/reference labs; raise awareness; establish M & E at country and regional levels
- Good Agricultural Practices: create a holistic, integrated approach; create a private sector-led Value chain centric aflatoxin management program; consider aerial, area-wide application of aflasafe (The Gambia and Senegal); develop and deploy low susceptibility varieties
- Good Production Practices (GPP) and Good Manufacturing Practices (GMP): define recommended technologies (basic - advanced) for every process step (drying, sorting, grading, product segregation, storage and transport); implement the recommended technologies in the value chain at country level
- Decontamination: evaluate efficacy of local clay in decontaminating groundnut cake and oil; adopt ammoniation technology for decontaminating groundnut cake; research small capacity filtration and refinement process for groundnut oil

Priority actions for Policy:

- Develop/ Update national policies on food safety (Policy, legislation and institutional framework)
- Establish risk assessment and a manual/guide to harmonise actions across the region
- Establish one commission under one roof to coordinate food safety in each country (food safety authority)
- Develop good Standard Operating Procedures (SOP), codes of practice and Good Agricultural Practices (GAP)

- Adopt policy on national food testing labs (maintenance, incentives, etc.)

Priority Actions for Finance:

- Create a national platform of all value chain actors to mobilize internal resources to control aflatoxin in countries
- Organize meeting at sub-regional and international level to raise finance for aflatoxin control
- Raise Awareness
- Create Regional Groundnut Value Chain Project with international and regional private sector players
- Improve processing technology and infrastructure

After prioritizing actions proposed by the work groups, workshop participants formulated the following four potential flagship projects aimed at revamping the groundnut value chain in West Africa through aflatoxin mitigation:

1. African Groundnut Project- Private Sector Led, Market Driven, Integrative PPPP (Public Private Producer Partnership): an integrated private-sector driven project covering the whole supply chain from field to fork. The project would start with value chain analysis and address: agronomic and postharvest practices; enforcement and compliance of standards; technical assistance embedded in the extension system; promotion and incentives for the private sector; strong advocacy and communication; creating an enabling policy environment. The project is envisaged to be implemented through public-private-producers partnership (PPPP).
2. Project on Improved Technology Package to Enhance Groundnut Value Chain Competitiveness: project to improve overall quality of groundnut with focus on enhancing availability and scaling of technologies informed by return on investment. Production and distribution of aflasafe identified as a main component, coupled with a strong training component and media communication.
3. The Flashpoint Project - Mainstreaming of Aflatoxin Control in Key Policy Instruments at Continental, Regional and National Level: aimed at ensuring aflatoxin control will be prioritized to attract the needed resources and investments to take advantage of opportunities for improved food safety, nutrition, food security, human health, and trade in a sustainable manner.
4. Innovative Financing - Establishment of a Special Purpose Vehicle for the Revamping of the Groundnut Value Chain: a project to engage Governments, Regional Economic Communities, global development partners and philanthropy working together to raise resources and create a special financing mechanism to address aflatoxin constraints in the development of the groundnut value chain (Aflatoxin Control), resulting in increased investment, productivity and trade in the groundnut sector.



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
la lutte contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

Table of Contents

EXECUTIVE SUMMARY.....	2
DAY ONE: 01 SEPTEMBER 2015.....	6
SESSION 1: Welcome, Opening and Process Outline.....	6
Opening Speeches.....	6
Introductions, Objectives and Process.....	10
SESSION 2: Scene-Setting.....	10
SESSION 3: Challenges and Opportunities.....	11
SESSION 4: Private Sector Experiences.....	12
Questions and Discussion.....	13
SESSION 5: ECOWAS Aflatoxin Control Action Plan.....	16
DAY TWO: 02 SEPTEMBER 2015.....	17
SESSION 6: Towards Priority Actions; Input Presentations.....	17
SESSION 6: Towards Priority Actions; Working Groups and Report Backs.....	18
Technology.....	19
Policy.....	20
Financing.....	21
Discussions on the Priority Actions.....	23
SESSION 7: Partnerships, Institutional Arrangements and 'Flagship' Projects.....	25
1. African Groundnut project- Private sector led, market driven, integrative PPPP (Public Private Producer Partnership).....	25
2. Improved technology package to enhance groundnut value chain competitiveness.....	26
3. The Flashpoint Project - Mainstreaming of aflatoxin control in key policy instruments at continental, regional and national level.....	27
4. Flagship Project Innovative Financing.....	28
SESSION 8: Closing.....	29
Reflections by the private sector representatives.....	29
Closing statement by PACA Secretariat.....	29
Closing Panel.....	30
Appendix 1: Participant List.....	33
Appendix 2: Workshop Expectations and Project Ideas.....	42
Appendix 3: Workshop stakeholder differentiation.....	43



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
la lutte contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

DAY ONE: 01 SEPTEMBER 2015

SESSION 1: Welcome, Opening and Process Outline

Opening Speeches

The opening session of the workshop (Session 1) included remarks from six speakers, representing the PACA Secretariat, the private sector, the research community, ECOWAS, and the governments of Nigeria and the host country, Senegal. In his welcome speech, Dr. Amare Ayalew, PACA Program Manager welcomed the participants to the workshop, noting that this is the first in a series of workshops that are being planned by the PACA Secretariat focused on generating actions to address aflatoxin in key value chains. The second workshop will be held in early 2016 in Nairobi, Kenya targeting the maize value chain. Groundnut, he observed, is an important crop in West Africa but aflatoxin has prevented the region from realizing the full potential of the groundnut value chain. Senegal in particular is a major groundnut producer, and is also very committed to address the aflatoxin challenge. Consequently, it was selected as one of the six PACA pilot countries. He observed that the workshop recognizes the value of partnership, especially the private sector support to national initiatives for addressing aflatoxin. Sustained efforts are required to make the system effective in addressing the aflatoxin challenge hence the need to agree on flagship projects that have the potential to bring change. This workshop will create a momentum to address other challenges.

Speaking on behalf of the CEO of the Pan-African Agribusiness and Agro-Industry Consortium (PanAAC), a regional network that promotes African business in the national, regional and global markets, Dr. Cris Muyunda, representing the private sector noted in his welcome remarks that groundnut is an important ingredient for local consumption, over and above the exports to regional and international markets. He observed that business opportunities can be created for the private sector in a revamped groundnut value chain in West Africa. He said that farmers, traders, shippers and thousands of small business enterprises stand to benefit from a revamped groundnut value chain in West Africa. He further called for experience sharing among stakeholders in the management of aflatoxin, and the application of lessons learnt to create models for aflatoxin management that will work for small businesses in the groundnut value chain in West Africa. He concluded by emphasizing the need for a coordinated approach, including: 1) developing national and regional groundnut strategies; 2) implementing integrated aflatoxin management strategies; 3) encouraging regulatory measures to control the flow of contaminated shipments in national and international trade; 4) establishing certified quality control laboratories; and 5) promoting exports through market prospecting and generic promotion of national products

Dr. Kenton Dashiell, the Deputy Director General, International Institute of Tropical Agriculture (IITA) suggested in his welcome remarks that the workshop participants develop a 5-year plan to revitalize the groundnut value chain in West Africa by addressing the aflatoxin

challenge. Groundnut is one of the crops that is most susceptible to aflatoxin. He informed the meeting that IITA has a strong research and development (R&D) programme on addressing aflatoxin in Nigeria and in Africa at large. The R&D work by IITA is synergistic to the efforts by ECOWAS to prioritize the aflatoxin problem because the challenge requires a comprehensive and multi sectoral approach to get real success through team effort.

Dr. Dashiell reminded the audience of the huge economic and health impacts of aflatoxin noting that studies by the World Bank estimates that in Senegal farmers' incomes can increase by USD300 million each year if aflatoxin is controlled. Aflatoxin has negative impact on people, especially children, and research by IITA and the University of Leeds show that aflatoxin levels are high in groundnut and there is significant correlation between aflatoxin exposure and frequency of groundnut consumption in the studied populations. He noted that there are many ways to control aflatoxin, and one of the most effective is Aflasafe, a biological control technology developed by IITA, US Department of Agriculture, University of Arizona and local partners (e.g. University of Ibadan in Nigeria). Aflasafe is effective and works in both pre- and post-harvest stages, enabling farmers to mitigate aflatoxin contamination. He concluded that in West Africa, success in tackling aflatoxin has been low due to decentralized and un-coordinated efforts limiting impacts. There is thus a strong need for a coordinated approach that includes soil management, quality seed, good agricultural practices (GAP), farmer and processor knowledge, safe alternatives, market incentives and enabling policies that involves all the sub-sectors to be able to achieve meaningful progress. Furthermore, the media and press should be more engaged in order to sensitize the public on the aflatoxin issue.

Dr. Lapodini Marc Atouga, the Commissioner for Agriculture, Environment and Water Resources of the Economic Community of West African States (ECOWAS), in a speech read on his behalf by Mr. Ernest Aubeé underscored the importance of groundnuts in the national economies of ECOWAS member states, observing that the region has been a leading producer for the regional and international markets, with Nigeria and Senegal in particular, accounting for 45% of the total production in Africa. However, West Africa has seen a decline in production, and the once famous groundnut pyramids in northern Nigeria and the groundnut barges in the River Gambia are all but history now. In particular, the presence of aflatoxin in ECOWAS member states has been one of the contributory factors to the decline of the groundnut industry, and poses a grave danger to the attainment of food security, promotion of regional and international trade and protection of human health.

The PACA-ECOWAS Partnership has placed mitigation efforts on aflatoxin in the priority list of developmental challenges in the region and in member states. This innovative partnership has produced very good milestones in pilot countries of Senegal, The Gambia and Nigeria. ECOWAS would like to extend the pilot to all 15 member states. Some of the measures to prevent harmful effects of aflatoxin include: 1) investments in human capacity development; 2) development of reliable, accessible and affordable technologies such as Aflasafe; 3) investment in laboratories and the required infrastructure; 4) improvements in compliance monitoring, enforcement and standards; 5) sensitization of populations on the strategies for prevention and mitigation; and 6) harmonization of existing laws and regulations at the national, regional and

continental levels. He concluded by noting that the ECOWAS Commission will continue to support all initiatives to mitigate aflatoxin in groundnut and other agricultural value chains in West Africa, and expressed gratitude to the partners involved in the project.

Arc. Sonny A. Echono, the Permanent Secretary, Federal Ministry of Agriculture and Rural Development, Nigeria, represented by Dr. Damilola Eniaiyaju, Director of Agriculture, addressed the workshop. In his speech, Dr. Echono noted that groundnut is a very important crop in Africa, which accounts for 28% of the global production, and in Nigeria which is currently ranked fifth among the major groundnut growing countries, after China, India, USA and Myanmar. Nigeria produces 30% of the total production in Africa estimated at 3.1 million tons in 2012. Groundnut production in Nigeria has, however, declined since the 60s when it was the country's most valuable single export crop, a consequence of oil discovery, which resulted in the abandonment of agriculture, including groundnut production.

Currently, aflatoxin contamination is one of the challenges facing groundnuts and related species in cereals, nuts and oilseeds. It has a deleterious effect on agricultural productivity and trade, human and animal health posing huge risk associated with the consumption of aflatoxin contaminated feed and food. The Federal Government of Nigeria (FGN) is working with IITA on the Nigerian Aflasafe pilot project for effective management of fungus producing aflatoxin through bio-control technology by incentivizing mass adoption of the product by smallholders, with initial results showing success stories. Aflasafe treated maize reduced aflatoxin levels, increased net economic benefits to farmers and improved health outcomes. The FGN through the Federal Ministry of Agriculture and Rural Development inaugurated an Inter-Ministerial Technical Committee on Mycotoxins to address this challenge through: supporting the development of the nation's plan for aflatoxin control; establishing the Africa Aflatoxin Information Management System (AfricaAIMS); supporting country led aflatoxin analysis and action planning (C-SAAP); and monitoring implementation of the plan with the AUC's PACA. Dr. Echono reported that Nigeria has established a groundnut value chain programme which was conceived in 2012 to improve production, processing, marketing and export of groundnut. ICRISAT has assisted the country in aflatoxin detection, and established two laboratories in two Nigerian universities. The success of the programme is also dependent on many local and international partners. He concluded by urging producing countries to exchange expertise and germplasm in order to revive the sector

In her welcome remarks, Dr. Janet Edeme, Officer in Charge of the Department of Rural Economy and Agriculture of the African Union Commission (AUC) and the incoming Chair of the PACA Steering Committee thanked the delegates for attending the workshop and conveyed greetings from the Commissioner for Rural Economy and Agriculture, Her Excellency Madame Tumusiime Rhoda Peace. She informed the delegates that the AUC is committed to work in partnership with the Regional Economic Communities, the member states, private sector, farmers, development partners and research and technical agencies to tackle the challenge of aflatoxin in the continent. She observed that this is high in the Agenda of the AUC, and PACA is one of the flagships for the Comprehensive African Agricultural Development Programme (CAADP) for the next decade to 2025 as part of implementation of the 2014 African Union

Heads of State and Government Malabo Declaration. She wished all the delegates a fruitful time and noted that the AUC is looking forward to and will be involved in the implementation of the outcomes from the workshop.

The Opening statement for the workshop by the Minister of Agriculture of the Republic of Senegal, was presented by Dr. Papa Abdoulaye Seck, the Secretary General of the Ministry of Agriculture. The Minister welcomed all the participants to Senegal on behalf of the government. He noted that the groundnut value chain and the aflatoxin challenge are issues that are important to Senegal. In particular, the groundnut value chain is one of the most important for Senegal because it is both a food crop, and a cash crop with high social and economic value to the country. It is estimated that 80% of the population are engaged in the value chain which brings income for producers and export earnings.

The Minister observed that in the 1960's Senegal was among the leading producer and exporter of groundnuts, and is a pioneer country with a long tradition and vast experience in groundnut research. Since it was established in 1928, the National Research Center for French West Africa has produced most of the groundnut varieties for Africa and even for the USA. Currently, aflatoxin is a major problem in the country affecting human and animal health and trade (non-tariff barrier) heavily impacting the economy. The World Bank estimates that Senegal could add USD 300 million to the economy if it addressed the aflatoxin problem. The AUC through PACA selected Senegal as a pilot country and this PACA programme is going to assist and help all countries to reduce risks, and develop a national roadmap. Senegal is open and ready to contribute to the implementation of the plan of action.

The Minister noted that agriculture is a priority for Senegal as demonstrated in the national programme to speed up agriculture in the country. The framework considers agriculture as a main line of food production to produce 1 million tonnes by 2017. Agriculture must be productive, competitive and sustainable and able to generate employment and income for producers and the country through exports. The Ministry feels that agriculture must be planned and executed differently. There is an urgent need to break away from old practices and establish partnership at the national level with all value chain actors, including research, permanent secretaries, producers, processor, manufacturers and exporters.

To reach the objectives that the government of Senegal has set, multiple interventions will be required, including technological innovations, varieties, adapted techniques, equipment and conservation and storage, and to consider the need for agriculture sustainability, through the use of alternative techniques such as biological control methods. The Minister expressed a need for better inter-sectoral coordination because agriculture, health and environment are linked and should be considered together rather than separately. Senegal has experience in addressing this challenge and would be happy to share these experiences. Senegal has laboratories and institutions that can support implementation of the outcomes of this workshop, including the regional center for biosecurity accredited for International Standards Organisation (ISO) 2017 standards, the directorate for production and control of sanitary and phytosanitary standards (SPS).

Introductions, Objectives and Process

The participants introduced themselves and discussed the workshop objectives and process. As part of the introduction, they were asked to carry out: 1) Sit at a table group with people you do not know (well); 2) quickly introduce each other by name and country; 3) (a) discuss and agree on ONE major expectations in this workshop, and ONE major investment or project idea that if implemented could radically resolve the aflatoxin problem facing groundnut value chains in West Africa. Participant feedback is summarized in Appendix 2.

Participants reviewed the stakeholder categories (Appendix 3) represented in the workshop and participants observed that women were under-represented (only 11 women present in the room). Participants recommended that the PACA Secretariat make sure that at least a quarter of participants in all PACA meetings are women, as recommended by the AU.

SESSION 2: Scene-Setting

This session consisted of the following three presentations;

- [The groundnut industry: past, present and future](#), by Richard Awuah, Nkwame from the Nkrumah University of Science and Technology, Ghana
- [The aflatoxin challenge to the groundnut sector in West Africa and intervention opportunities](#), by Lamine Senghor, La Direction de la Protection des Végétaux, Senegal
- [The economic impact of aflatoxins in West Africa: the case of Gambia, Nigeria and Senegal](#), by Joseph Ndenn, Iris Consulting, The Gambia; Papa Diedhou, Cabinet Bioscope, Senegal; Olusegun Atanda, McPherson University, Nigeria

During Q&A and discussions that followed these presentations, participants generated the following issues and recommendations:

- Build robust evidence through assessment of both the economic and health impacts of aflatoxin. Currently very little evidence exists on the health impact, but much is calculated on lost trade and economic impacts. The presentation on the economic impacts of aflatoxin in West Africa was part of evidence generation studies on the impacts of the aflatoxin and to determine the areas of interventions. PACA commissioned these studies and is now working to develop actions plans informed by findings of the studies. Impact of aflatoxin on food security as judged by quantum of food available in African countries is not visible because governments are not enforcing regulations to protect people. Governments should set evidence based limits to trigger policy action. Participants recommended that studies are needed to determine the costs and benefits (Cost Benefit Analysis) of the additional activities that a farmer will have to adopt in order to justify and make a choice on technology adoption.

- Agree on a safe limit for contamination that is not harmful to human health was discussed. The disparities in the safe limits threshold between African countries and EU were noted. In Senegal, for example, the threshold of contamination is 20ppb and in other countries, including the EU, the threshold is 4ppb. Therefore, harmonization among and between countries is needed. However, a balance needs to be struck between food safety and food security. In Senegal, if the threshold were to be set below 4ppb, many people will starve. At 20 ppb, food may still be safe and can be consumed. Some countries, however, are at a higher health risk with high Hepatitis B prevalence and aflatoxin contamination levels which increase risk of liver cancer by manifold. Participants recommended that African countries should agree on safe limits based on studies and risk assessment, which can allow for harmonization of standards.
- Control aflatoxin along the entire value chain, from the farm to markets. At the farm level, practical ways can be used to tackle aflatoxin problem and produce good quality agricultural products that can fetch premium prices through farmer incentive mechanism. Participants emphasized Good Agricultural Practices (GAP) and the use the Aflasafe technology. Aggregators and processors should also use Good Management Practices (GMP). Participants asked whether anyone has studied the effects of school feeding programmes, e.g. in Kenya.
- Explore potential for aflatoxin contamination control through genetically modified groundnut, but farmers are reluctant to adopt genetically modified organisms (GMOs). Participants noted that tools and strategies exist to reach healthy products without GMOs.

SESSION 3: Challenges and Opportunities

During this session, participants were asked to work in table groups and discuss, considering what has been presented so far and what they know, agree and report back on the two questions: 1) What is the highest priority specific challenge facing groundnut value chains in West Africa?; and 2) What is the highest priority opportunity in the groundnut value chains of West Africa?. A summary of the group reports is presented in Table 3 below.

Table 3. The highest priority specific challenges and the highest priority opportunity in the groundnut value chains of West Africa

The highest priority specific challenge	The highest priority opportunity
1) Aflatoxin contamination in groundnut	1) Demand – renewed market opportunities

<p>generally</p> <ol style="list-style-type: none"> 2) Challenges of coordination and integrated approach 3) Good management approach (create a system) 4) Challenge of farming, resource's, money 5) Awareness information communication, lack of information and data on the impact 6) Political engagement (political will and support) 	<p>for regional and international trade</p> <ol style="list-style-type: none"> 2) Opportunities to improve food safety generally 3) Opportunity to use PACA to renew the lost glory of groundnut 4) Aflasafe and other technologies as opportunities for dealing with the challenge 5) Opportunity to create awareness
---	--

SESSION 4: Private Sector Experiences

This session consisted of an interactive panel discussion on lessons from private sector experiences, opportunities and challenges for private sector engagement. The panel members included:

- Dyborn Chibonga, National Smallholder Farmers' Association of Malawi (NASFAM), Malawi
- Mustapha Colley, National Food Security for Marketing Corporation (previously GGC), The Gambia.
- Victor Nwosu, Mars, Inc., USA.

A summary of the interactive panel discussion is provided below.

Facilitator: What does your organisation do to deal with aflatoxin in groundnuts?

Dyborn (R): NASFAM believes that farmers even the smallholders are part of the private sector. Farming is business and we need to approach farmers with this mindset. We need to mobilize farmers to create cohesive groups that can reach farmers with services such as training. In Malawi, NASFAM mobilized farmers and trained them. As a result we can now meet the standards required to export to the European Union (EU) market which demands aflatoxin levels of 4 ppb or less.

Mustapha (R): We market groundnuts for export (not local markets). We buy from farmers (co-operatives) all over Gambia. We then carry out sensitization to create awareness because aflatoxin problems affect the whole value chain. We also focus on infrastructure, such as rehabilitating processing facilities. We are currently implementing a USD 30 million project and have a USD 7 million International Islamic Trade Finance Corporation (ITFC) facility for inputs.

Victor (R): Mars Group is present in 75 countries and is among the top five groundnut purchasers in the world. Everywhere we operate, we guarantee consumers the best quality in terms of safety. We require aflatoxin levels of 4 ppb or less, but we meet regulations that are different for each country. The conditions in developing markets such as Africa, India, and China are similar, and we customize by working with suppliers to be sure that they meet our specifications which are uniform across the board. The biggest opportunity is through the 'segregation' of peanuts. The processing is a crucial step.

Facilitator: What about aflatoxin in international trade, is aflatoxin being over-blown and used as a non-tariff barrier?

Victor (R): no, there is good reason to ban unclean products. We can clean groundnut value chains to the required standards to meet international market demands.

Facilitator: Is being a smallholder part of the problem?

Dyborn (R): No, about 60% of farmers in Africa will be left out if we ignore smallholders. The solution is to develop partnership. For example, NASFAM partnered with ICRISAT, and without this partnership and support from ICRISAT, we would not have been able to meet export requirements to Europe. Also, Twin Trading in England has helped us to market our produce in England. Other civil society organizations have assisted us with capacity building in many areas, including policy. Donors have provided funds. In summary, partnership is the key to help smallholders become aflatoxin free producers. We must work with smallholders at the center not as an afterthought.

Facilitator: Who is supposed to pay for controlling aflatoxin?

Mustapha (R): This should be a partnership between the government and the private sector, which is losing so much due to the aflatoxin problem. Our products have been rejected in Europe, so we lost in terms of the value and also the cost to bring these products back to our countries. Rejected shipments also mean loss of revenue. The private sector should also pay for aflatoxin mitigation.

Facilitator: What do you do with reject crops?

Mustapha (R): We process it into refined groundnut oil, which has lower quantities of aflatoxin and is considered safe. We do not sell crude groundnut oil in the Gambia.

Questions and Discussion

- The issue of processing contaminated groundnuts into oil is important. Aflatoxins are chemical components that can be extracted into the oil from contaminated groundnut. Cold press extraction of groundnut oil involves no chemical, no heat process that causes the toxin to go mainly with the hydrophilic portion, leaving some portions of the toxin in the hydrophobic portion. Groundnut cake can be detoxified, for instance through ammoniation and used as animal feed.

- Since funding commitments seem to come mainly from government, what are the investment opportunities for private sector in aflatoxin mitigation? What is the private sector doing to help the producers, both upstream and downstream? In the Gambia, Gambia Groundnut Corporation and National Agricultural Research Institute partnered in the past on research and better crops. Now there is thinking that we should support introduction of new varieties of groundnut seeds.
- In the Gambia, an ITFC facility has been created to scale up a groundnut export facility. Another facility is created for distribution of inputs to farmers. The facility is supporting Aflasafe trials in the Gambia, and results are promising. If found to be effective, Aflasafe will be piloted and the National Food Security for Marketing Corporation will buy the groundnuts at a premium price. The challenge now is that the marketing system is quantity based and not quality based.
- Groundnut exporters in Senegal have created collective pull incentives, for example in seed purchasing. We need to add free distribution of Aflasafe to fight the aflatoxin at the source. What is the potential to take this to scale across West Africa? Collective action through cooperatives is important because they can collectively market the products. You have an ingredient for success, take advantage.
- What is the role for value addition locally? There is a minimum level of aflatoxin that is acceptable, so what do we have to do to make the contaminated lots fit for local consumption? African governments should buy back contaminated produce from farmers, detoxify, and process to produce animal feeds.
- If both awareness and market incentives are created, would it be possible to get a premium price domestically through a labelling strategy? A premium price can be paid for a premium product, but it must be differentiated from the others. Everywhere, people decide based on their pocket book – success is infectious!
- The magnitude of the problem is huge. What is the cost of action, what is the role of the private sector and what is the role of the public sector, which has to finance many actions such as cheaper testing, climate adapted seed etc.?
 - We expect the public sector to work together on policy and enforcement issues. A major problem is lack of enforcement of policies and laws. The public sector must ensure that laws are enforced and implemented.
 - The public sector should create incentives for industry to invest. Incentives include: 1) good quality peanut, 2) good flavor and 3) steady reliable supply. The private sector is interested (e.g., three of the five biggest peanut consumers (purchasers) are represented at this meeting).
 - On the balance between the cost of action and inaction, a participant noted that the cost of inaction may be ten times greater than the cost of action. Action is required at all levels. Consider the fact that one contaminated seed can contaminate 48Kg. So, if you deal with the problem at the source (farmer) only, contamination can still happen at later stages.
 - Provide information to the public because awareness is critical for the public.

Quote: “The future belongs to the organized and if this workshop participants can be organized then the future belongs to all of us” (Dyborn Chibonga)

Following the panel discussions, participants were asked to discuss the following question and come up with two proposal per table: How can private sector more strongly and effectively contribute to the management of aflatoxin in groundnut value chains? A summary of the proposals suggested are presented in Table 4 below.

Table 4. The highest priority actions for the private sector to more strongly and effectively contribute to the management of aflatoxin in groundnut value chains as presented by the groups

Groups	Group Report back – Highest priority
Group 1	1. The private sector to fund research on inputs for pre and post-harvest and enhance the capacity of producers
Group 2	2. Better organization (facilitate contracting, identify the producers, know them, support them and enhance investments) of the private sector to fight aflatoxin effectively 3. Respect and implement GAP (Good Agricultural Practices)
Group 3	4. Private sector to purchase <i>aflasafe</i> , a technological solution in addressing aflatoxin, make it available to the producer and assist them in the use of <i>aflasafe</i> 5. Pay more for quality (pricing system)
Group 4	6. Contribute to improve the quality of the product by delocalizing the processing of groundnuts to attract local investors 7. Support technology transfer at the local level to increase the number of companies and increase access to resources for state and local people
Group 5	8. Raise awareness by private sector through effective Corporate Social Responsibility (CSR) strategies (similar to HIV, Ebola and tobacco) 9. Private sector to participate in the establishment and reinforcement of policies at national level
Group 6	10. Private sector to provide premium price for aflatoxin free [safe] products 11. Private services to add value to farm products through innovation and partnership platforms
Group 7	12. Create stronger and direct linkage between farmers and processors (e.g. through inputs, extension) for win-win to ensure that benefits are well spread 13. Establish better prices for aflatoxin free products
Group 8	14. Promote institutional innovations for private sector self-regulation to promote aflatoxin control (e.g. Kenya to develop premium prices for quality produce) 15. Promote evidence based awareness raising
Group 9	16. Private sector to support policy harmonization and standards (e.g., capacity building through seeds, technology and funding support)
Group 10	17. Establish higher prices for higher quality
Group 11	18. Work on formalizing the development of public private producer partnership (framework that indicates the roles and responsibility of this arrangement) 19. Promote commercial farming among smallholders by building a strong rural extension system

SESSION 5: ECOWAS Aflatoxin Control Action Plan

During this session, Mr. Ernest Aubee from ECOWAS made a presentation on the [ECOWAS Aflatoxin Control Action Plan](#) (ECOACAP), providing a summary of key features, including the Goal, Strategic Objectives, Expected Outcomes, Strategic Interventions, Resource Mobilization, and Proposed Coordination Structure. This was followed by a Q&A session during which the following issues and recommendations emerged.

- Building political buy in and developing ECOACAP content. The process started in 2011, at the CAADP Partnership Platform meeting in Yaoundé, Cameroun. ECOWAS engagement started by joining the PACA Steering Committee. ECOWAS, PACA and AUC organized a regional workshop on aflatoxin in 2013. Continuous consultations between ECOWAS and PACA secretariat, perseverance and advocacy in the member states have been important. West Africa has three of the six pilot countries.
- Implementation of the action plan has not started yet because the National and Regional Agricultural Investment Plans (NAIPs and RAIPs) are due for review. This review will consider aflatoxin as one of the key issues. Participants made two observations with respect to implementation. First, on institutional anchoring of the programme at the regional level, the plan states that CORAF will lead the implementation support. The programme, however, deals with myriad issues and stakeholder groups, including research, private sector, health actors, and producer organizations. CORAF is a research organization and may not have the required capacities and structure for implementation. Participants suggested that a mix of institutions be considered for the implementation because CORAF alone may not have sufficient capacity to implement. Secondly, ensuring that results are achieved should be a critical aspect of the programme. Participants proposed that a stronger Monitoring and Evaluation (M&E) plan be developed for the programme.
- Inclusive engagement of all actors and sectors. Participants recommended that the private sector be brought on board strongly. To mitigate aflatoxin, incentives should be created for farmers and private sector to invest in technologies and business opportunities. Investment opportunities for the private sector should be articulated, including for technology dissemination (e.g., for commercialization of Aflasafe).
- The plan should clearly articulate the roles and responsibilities of other actors. In particular, it should clearly distinguish the roles of different categories of NGOs and Civil Society Organizations because some are involved in advocacy while others are involved in service provisions.
- Participants recommended that health sector actors should be involved; e.g., through the SUN (Scaling up Nutrition) movement. Ernest reported that there is already involvement of the health actors. The Scaling up Nutrition (SUN) is involved through the NEPAD Agency which addresses aflatoxin and nutrition and ECOWAS has a Zero Hunger programme which looks at nutrition and health.
- Consider different resource mobilization strategies. The plan can attract more donor funding if it establishes grant mechanisms to support private and research organizations and not just research organizations as it is now. To ensure program sustainability,

participants recommended that activities at the regional level should be accounted for in the national plans, so as to attract funding from government budgets.

- Harmonize policy standards and integrate standards in the current structure for enforcement of standards across ECOWAS. Ernest reported that ECOWAS has developed quality standards for 25 commodities (food and agriculture). Approval by the Heads of State means that these standards become law, but ECOWAS does not have enforcement powers and relies on persuasion and advocacy. These laws should be enforced at the country level.
- Enhance enabling environment. A participant suggested that the enabling environment could be enhanced through the regional integration framework by educating custom officers, especially on the one border stop post.
- Build capacity for the estimation and detection of aflatoxin at the ECOWAS level. Once standards are set, can the private sector create criteria for analysis?
- Include evidence from the economic impact studies in the action plan to persuade the Heads of States to see the magnitude of the problems.

Participants also raised the following specific issues of clarification:

- On page 11 (part 2) mentions biocontrol technology including Aflasafe and Trichoderma. Can Trichoderma be used as a biocontrol? A participant comments that it is used in Bangladesh and France for fertilization of soil and is generally used as biocontrol agent in plant disease control.
- On page 16, the plan mentions two testing procedures but does not mention the costs. Africa needs a cheap testing toolkit and so far the majority of the testing is expensive. Imperial College in London has developed a testing kit costing USD50, which can be affordable to majority of farmers.
- On page 19 on alternative uses, an action point could be added for use of clay binders. However, the downside is that clay absorbs nutrients.

In concluding the discussion, Mr. Aubee noted that this is a continuous process and comments will be incorporated.

DAY TWO: 02 SEPTEMBER 2015

SESSION 6: Towards Priority Actions; Input Presentations

The second day started with a Recap of Day 1 followed by three input presentations to help participants identify actions needed in the areas of technology, policy, and finance to revamp the groundnut value chain in West Africa:

- [Towards Priority Technology Actions. Input presentation on Technology and best practice solutions for scaling up](#) by Ranajit Bandyopadhyay, IITA, Samuel

Njoroge, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Peter Cotty, US Department of Agriculture

- [Towards Priority Policy Actions. Input presentation on Policy frameworks and regulations for aflatoxin control in West Africa](#) by Kerstin Hell, Independent Expert
- [Towards Priority Financing Options. Input presentation on Who should finance aflatoxin control and why](#) by Alinani Simukonda, Entry Point Africa

Overall, participants were reminded that the groundnut value chain already exists and this should not be ignored. Projects developed should, therefore, ensure that proposed actions build on what is existing rather than proposing new activities. A summary of the comments and issues that emerged from the discussions following the presentations is presented in the table 5 below.

Table 5. Comments and issues arising from the presentations of Session 6

Area	Comments And Issues
Technology Actions	<ul style="list-style-type: none"> • Link technology and policy to the finance group to ensure that the actions proposed are financed and implemented
Policy Actions	<ul style="list-style-type: none"> • Include producers and all the value chain actors instead of producers only • Countries and RECs including ECOWAS are to review their NAIPs and RAIPs in response to the Malabo declaration. Ensure that these new plans reflect measures to address aflatoxin. The AUC summit in Abuja identified strategic commodities, and countries are to develop these further, including groundnut value chain • Build evidence and awareness to ensure that countries do not fail to take action because they may not see the challenge of aflatoxin, which is invisible and therefore will not see this challenge as a priority
Financing Options	<ul style="list-style-type: none"> • Invest in processing technology and infrastructure, as a driver for quality improvements in both the supply and the upstream components • Ensure that all commodity and value chain development projects that are funded by bilateral and multilateral institutions include aflatoxin control. This will draw the finance to the project • Create a regional groundnut policy. Groundnuts and aflatoxins are not a priority for some countries such as Ivory Coast, which imports groundnuts, but has cocoa as a priority.

SESSION 6: Towards Priority Actions; Working Groups and Report Backs

The participants worked in three groups and proposed the following priority actions, which are presented in the tables below.

Technology

Table 6. Priority actions for Technology

Priority Actions	Lead institution (responsibility)	Other collaborating & contributing institutions	Timeline for implementation
1. Testing		World Bank, ADB, FAO, ECOWAS, IFAD, PACA & Research Institutes	
<ul style="list-style-type: none"> Provide affordable and accessible rapid test kits in each AEZ in countries for tests at all critical points of the VC 	Ministry of Agriculture		Short term = 1-2yrs
<ul style="list-style-type: none"> Build capacity in testing laboratories 	Ministry of Agric. & Ministry of Health		Short term
<ul style="list-style-type: none"> Establish national and regional testing/reference labs 	ECOWAS & PACA		Long term = >5yrs
<ul style="list-style-type: none"> Raise awareness & Communication 	Media & Government		Short term & continuous
<ul style="list-style-type: none"> Establish M & E at country and regional levels 	Funding organizations & external Technical Groups		Short term & continuous
2. Good Agricultural Practices			
<ul style="list-style-type: none"> Create a holistic, integrated approach: Private sector-led Value chain centric aflatoxin management program 	Potentially driven 99% by Private sector	farmer organizations, private sector; commercial millers associations; NARS; CGIAR	Short term - Medium term
<ul style="list-style-type: none"> Consider aerial, area-wide application of aflasafe (The Gambia and Senegal) 	ECOWAS, PACA, IITA, Governments; Min. of Agriculture, Min. Health	GGC, DPV, Sodefitex	Short term
<ul style="list-style-type: none"> Developing and deploying low susceptibility varieties 	National breeding programs and ICRISAT	National seed councils, varietal release programs	Long term
3. GPP & GMP			
<ul style="list-style-type: none"> Define recommended technologies (basic - advanced) for every process 	Ministry of Agriculture & ECOWAS	Research Institutes, Farm & Industry Extension Services,	Short term = 1-2yrs

step (drying, sorting, grading, product segregation, storage and transport)		Private Sector, Civil Society Organizations to sensitize and monitor	
<ul style="list-style-type: none"> Implement at country level the recommended technologies in the VC 			Long term =>5yrs
4. Decontamination			
<ul style="list-style-type: none"> Evaluate efficacy of local clay in decontaminating groundnut cake and oil 	Research Institutes & PACA	Donor Organizations (FAO, USAID, EU), NGOs, Private Sector	Short term = 1-2yrs
<ul style="list-style-type: none"> Adopt ammoniation technology for decontaminating groundnut cake 	Suneor & ECOWAS	PACA & Donors	Short term – Medium term
<ul style="list-style-type: none"> Research small capacity filtration and refinement process for groundnut oil 	Research Institutes , Private Sector & PACA /ECOWAS	Donors	Medium term – Long term

Policy

Table 7. Priority actions for Policy

Action	Lead Institution	Other Collaborating agencies	TIMELINE
1. Develop/ Update national policies - on food safety (Policy, legislation and institutional framework)	Ministry of health and ministry of agriculture, state actors	Ministry of agriculture, ministry of health, Private sector, civil society, development partners and Government, farmers organisations	2016-2017
2. Establish Risk Assessment and a manual/guide to harmonise actions across the region	Government/State, AU, ECs	Private sector, civil society, farmers organisation, PTF (Codex, FAO)	2016-2017
3. Establish one commission under one roof to coordinate food safety in each country (food safety	Government	ECOWAS, AUC, regulatory agencies in each state	2016-2020

authority)			
4. Develop good SOP/codes of practice and GAPs	Farmers organisation, private sector, PACA, ECOWAS working with EUMOA, state actors		2016-2018
5. Adopt policy on national food testing labs (maintenance, incentives, etc.)	Government, PACA, ECOWAS, private sector	Civil society, farmers. PTF	2016-2020

Financing

Table 8. Priority actions for Financing

Priority actions	Description	Lead institution	Timeframe
1. Create a national platform of all value chain actors to mobilize internal resources to control aflatoxin in countries		Lead: National Plan for Investment in Agriculture Collaborating Partner: Institutions in charge of food safety	Short term
2. Organize meeting at sub-regional and international level to raise finance for aflatoxin control	Main issue: inform and communicate about aflatoxin and ensure that aflatoxin is integrated in agricultural development priorities.	Lead: CEDAO/ECOWAS Collaborating Partner: AUC-PACA	Short term
3. Raise Awareness	Awareness on the health and trade impacts of aflatoxin National institutions to fund awareness raising – grant making organizations Involve public media houses. <u>Some additional notes:</u> We need awareness to drive demand for aflatoxin safe food. Once people start demanding, then you have an opportunity	Lead: Ministry of Health and Ministry of Trade , MoA – Ministry of Finance – Financing Partners: ADB, WB, Development bank of west Africa can fund National programs; Build on Governments have made commitments under CAADP	Short Term

	<p>for all the other things to kick in. In order to generate demand for aflatoxin safe foods, we need to build awareness on the health benefits of aflatoxin safe products.</p> <p>Activities under awareness:</p> <ul style="list-style-type: none"> • Training of producers and other value chain actors • ICT to share information and good practices • Knowledge sharing about good practices <p>Awareness – three levels:</p> <ul style="list-style-type: none"> • Messaging: Impacts of aflatoxin as well as best practices targeted for • Tools: how to reach intended audiences • Private sector tools: Supporting the private sector in marketing and communication of aflatoxin free products <p>Awareness should be evidence based – providing evidence of the impacts (health, ag, trade), as well as actions that work. Avoid creating panic.</p>		
--	--	--	--

	<p>Awareness on best practices across value chains</p> <p>Processors should drive information about and guide adoption of technologies</p>	<p>Lead: Processing companies working with national institutions</p> <p>Financing Partners: Common Fund for Commodities; ITC (working in Gambia); WTO; USAID; BMGF; IFAD (Senegal); FAO</p>	<p>Short Term.</p>
<p>4. Create Regional Groundnut Value Chain Project – PPPP with international and regional private sector players.</p>	<p>Market-driven public private producer partnerships with multiple components (awareness, research). Projects should be driven by private sector including global companies that drive improvement of quality standards.</p> <p>For instance, companies such as Walmart need to build backward linkages, support producers through PPP that create shared value.</p>	<p>Lead: ECOWAS (bringing the political leadership together to endorse value chain project) with international and regional companies, and national governments. PACA for monitoring and coordination.</p> <p>Financing Institutions: USAID; DFID; JICA; international and regional companies</p> <p>GIZ is working with BMGF, cotton companies, etc. AGRA is working on relevant initiatives.</p>	<p>Medium Term (3-5 years)</p>
<p>5. Improve processing technology and infrastructure</p>		<p>Lead: ECOWAS</p> <p>Financing Partners: ADB – AFEXIM</p> <p>IDB, IFAD, WB, National Governments</p> <p>IFC, African Finance Corporation; Investment Companies; Venture Capital (e.g., Israeli company)</p>	<p>Medium Term</p>

Discussions on the Priority Actions

The discussions that ensued after the group presentation elicited the following comments and recommendations.

- **Market development and private sector value chains:** Technology should be the key in the interventions proposed. In the supply chain, processing technology drives everything and is crucial. Processing must be driven by the private sector to ensure sustainability and avoid collapse, which is common in most government driven initiatives. We should also work on seeds, where there are new technologies developed but there is no uptake. ICRISAT for example has developed seeds for the drylands but the Government of India has refused to allow these seeds to be used elsewhere.
- **Good agronomic practices and pre and post-harvest management:** Technology interventions should be complemented by good agronomic practices and better pre- and post-harvest management because these are also critical to address the aflatoxin challenge, especially among smallholder producers.
- **Communication and awareness:** Emphasize and support communication and awareness in a broader context including at national and regional levels targeting the different audiences. The aflatoxin problem is invisible so greater awareness among the private sector, for example, can enable them to be aware of investment opportunities thus attracting investments.
- **Financing:** Develop innovative finance to help mitigate and reduce risks at all stages of the groundnut value chain. In East Africa, for example, insurance products have been introduced that are reducing the risk for farmers and traders and these have consequently attracted banks to finance agricultural projects. In addition, public finance is needed, and governments should allocate money for addressing aflatoxin because it is a public health problem.
- **Policy action:** Several proposals were suggested in the policy action part, including: 1) Develop protocol for certification, as part of policy development to create certified groundnut. The risks to this should also be considered given that certification for groundnuts is very costly and may kill the peanut industry in Africa; 2) mainstream aflatoxin in key government policies including the NAFSIPs; 3) Assist government to set up unified food safety authorities. The AUC already has an initiative that will support governments.
- **Experience sharing:** Share experiences among players in the industry. The American peanut industry is the most successful and African private sector can learn from them. They established the American Peanut Council which is an umbrella association that advocates industry needs in policy. Consider establishment of a similar institution in Africa, such as an African Groundnut Council. Participants noted that there is risk in establishing a continental umbrella organisation before national organisations have matured enough to stimulate a bottom up rather than a top down approach. The continental umbrella organization can slow down the processes at the national level. Instead, PACA can use its platform to arrange side meetings with industry groups during national meetings.

SESSION 7: Partnerships, Institutional Arrangements and ‘Flagship’ Projects

The participants worked in small groups to further develop potential flagship projects. The following four flagships were developed; 1) Market driven value chain projects; 2) Technology packages for aflatoxin control; 3) Mainstream aflatoxin in policy key instruments; and 4) Innovative financing models for groundnut value chains. The details of each of the four potential flagship projects are presented below.

1. African Groundnut project- Private sector led, market driven, integrative PPPP (Public Private Producer Partnership)

Project title	African Groundnut project- Private sector led, market driven, integrative PPPP (Public Private Producer Partnership)
Objective/ description	<ul style="list-style-type: none"> • From field to fork • Activities in the whole supply chain
Challenges	
List of the MAIN activities required to implement the project	<ul style="list-style-type: none"> • Value chain analysis (reality is that there are hardly any processors) • Link with research (national and regional) • Seed – aspergillus resistant, multiple disease resistant and drought resistant, purity of seeds according to maturity duration <ul style="list-style-type: none"> ◦ develop commercial seed business; Private sector to multiply the seeds; • Agriculture: Good agriculture practices, prevention of losses • Aggregator collects from xx smallholder/ out grower farmers • Postharvest issues: dry to right moisture, select appropriate technology... (NOT at farmers level) • Appropriate storage (with air movement) (NOT at farmers level) • Pilot traceability system • Segregation/ testing – (what you do with bad stuff?) • Incentivize investors in larger scale groundnut processing, • Support to small and medium scale processors and traders to upgrade capacities; including informal market outlets/ vendors and traders • Food safety certification of processors/ testing and in handling and storage, based on risk assessment • Preshipment inspections • Grading (by processors) • Facilitate business linkages (buyers, processors, traders, farmers) for effective value chains • Extension/ technical assistance to processors • Policy / advocacy issues • Private sector associations – form follows function • Assess appropriate mechanization (equipment and system) in production • Assess appropriate mechanization in processing (including electronic

	<p>sorter, and blanching)</p> <ul style="list-style-type: none"> • Communication/ ICT/ awareness creation
A list of the MAIN expected outcomes and impacts	<ul style="list-style-type: none"> • Increase of income for farmers • Improved health <ul style="list-style-type: none"> ◦ Improved quality of locally consumed groundnut and groundnut products • Increased productivity <ul style="list-style-type: none"> ◦ Quantity and quality of nut produced ◦ Better seeds • Viable shelling and processing <ul style="list-style-type: none"> ◦ Improved quality ◦ Improved capacities • Increased volumes of export of groundnut <ul style="list-style-type: none"> ◦ Reduced rejection of product
The KEY partners needed to implement the project	<ul style="list-style-type: none"> • Private sector seed companies • Buying companies (international, national) • Service providers • Aggregator (can also be a sheller or buyer) • Processing companies and investors willing to go into groundnut processing • Farmers and Farmers organisations • Policy makers • Input suppliers (Aflasafe, equipment suppliers, seed supplier, • Research • Machinery (processing, production)
Next steps for development of the project (including any meetings, document development etc.):	<p>Revisit the document Champion: Victor Nwosu Champion support: Rita Weidinger, Wim Schipper, Mike Muchilwa, Jamie Rhoads, Mustapha B. Colley, Sam Ngogue, Klutse Kudomor, Konlambique Abdou</p> <p>Companies: Mars, Intersnack, (Nestlé) Partners: Donors/ Development. Partners: USAID/ PMIL, BMGF, BMZ/ GIZ, ICRISAT, EU, AGRA</p>

2. Improved technology package to enhance groundnut value chain competitiveness

Project title	Improved technology package to enhance groundnut value chain competitiveness
Objective	<ol style="list-style-type: none"> a. Improvement of groundnut quality b. Improvement on aflatoxin in groundnut
Challenges	<ol style="list-style-type: none"> a. Capacity building b. Application of appropriate technology c. Accessibility to market for groundnut

	<ul style="list-style-type: none"> d. Awareness e. Health of the consumers
List of the MAIN activities required to implement the project	<ul style="list-style-type: none"> a. Training b. Leverage and scaling-up available technology c. Evaluation of available technology d. Cost benefit analysis of technology e. Production and distribution of aflasafe f. Targeting ecological areas for application of technology g. Code of practice of aflatoxin along value chain. h. Engagement of media for communication
A list of the MAIN expected outcomes and impacts	<ul style="list-style-type: none"> a. Knowledge and skill development along the value-chain b. Awareness creation c. Adoption of appropriate technology d. Dissemination of available appropriate technology e. Improved health and income.
The KEY partners needed to implement the project	As indicated in the earlier group document
Next steps for development of the project (including any meetings, document development etc.):	Small working group to be selected by PACA secretariat.

3. The Flashpoint Project - Mainstreaming of aflatoxin control in key policy instruments at continental, regional and national level

Project title	The Flashpoint Project: Mainstreaming of aflatoxin control in key policy instruments at continental, regional and national level	
Objective	The mainstreaming of aflatoxin in these key instruments will ensure that the profile of aflatoxin control will be elevated and prioritized. This will ensure that aflatoxin mitigation attracts the needed resources to address the challenges and attract investments to take advantage of opportunities for improved food safety, nutrition food security, human health, and trade in a sustainable manner	
Challenges		
List of the MAIN activities required to implement the project	<ol style="list-style-type: none"> 1. Concept note 2. TOR for consultant 3. Recruitment of consultant(s) to develop proposal 4. Preparation of the project document 5. Validation of the document 6. Approval 7. Resource mobilization 	
A list of the MAIN expected outcomes and impacts	<u>Outputs</u> <ol style="list-style-type: none"> 1. Concept note 2. TOR 	<u>Expected Outcomes From Implementing The Project</u> <ol style="list-style-type: none"> 1. Level of aflatoxin exposure to

	<ol style="list-style-type: none"> 3. Project document 4. Aflatoxin control prioritized in key identified policies 5. Availability of means for the mainstream exercise 	<ol style="list-style-type: none"> 2. Increased opportunity for exports of groundnut to regional and international markets 3. Losses due to aflatoxin contamination reduced
	<p><u>Impact</u></p> <ol style="list-style-type: none"> 1. A revamped groundnut value chain 2. Reduced aflatoxin-induced cancer (HCC) and attendant deaths 3. Increased revenue gain from regional and international trade 4. Economic cost/burden of aflatoxin on GDP reduced 5. Nutritional status of the general population including children improved 	
The KEY partners needed to implement the project	<ol style="list-style-type: none"> 1. AUC/PACA, ECOWAS commission 2. ECOWAS member states 3. Donors 4. Consultants 	
Next steps for development of the project (including any meetings, document development etc.):	<ol style="list-style-type: none"> 1. PACA to define the next steps 	

4. Innovative Financing

Project title	Innovative Financing: Establishment of a Special Purpose Vehicle for the revamping of the <i>Groundnut Value Chain</i>.
Objective	Resource Mobilization to help address constraints in the development of the Groundnut Value Chain (Aflatoxin Control).
Challenges	
List of the MAIN activities required to implement the project	Prepare Business Plan that clearly outlines levels of funding; type of funding; and outline of activities to be funded.
A list of the MAIN expected outcomes and impacts	Increased Investment, productivity and trade in the ground nut sector.
The KEY partners needed to implement the project	Governments; Regional Economic Groupings, World Bank; IFC. USAID, GIZ, Melinda Gates Foundation; EU other Development Partners; Key Private Sector players.
Budget	USD50 million: Broken into Grants; Soft Loans, Trade Finance; Guarantees
Next steps for	Small working group to be selected by PACA secretariat.

development of the project (including any meetings, document development etc.):	Small working group to be selected by PACA secretariat.
--	---

SESSION 8: Closing

During the closing session, three representatives from the private sector were asked to reflect on the workshop, before the closing remarks by the representative of the PACA Secretariat, and a closing panel of speakers from the private sector, ECOWAS Commission, the African Union Commission (AUC) and the representative of the Government of Senegal.

Reflections by the private sector representatives

Mustapha observed that the meeting has been enriching and the commitment has been high. He learnt from the workshop that the private sector should spearhead the efforts to control aflatoxin because they are big stakeholders. Dyborn observed that there was richness and diversity and experiences and skills at the workshop. He noted that participants put the ideas together, and this is demonstrated in the number and quality of the potential flagship projects that have been developed. The ideas generated at the workshop can be implemented by all actors involved in the groundnut value chain, even if they are not part of the flagship. Victor observed that he too had learnt a lot, and has made a commitment to make things change. He observed that there is a huge opportunity for the private sector, and the sessions brought about a paradigm shift on the business approaches. He commented that the interaction among government, researchers, private sector and the manufacturing base should be continued and ideas explored further to strengthen the value chain. He noted that the suggestion about an industry-based body similar to the American Peanut Council is a forward looking idea that should be pursued. As the Chairman of the Board of Directors of the Peanut Foundation in the USA, he fully understands the benefits and advantages that such an entity can bring to bear on policy because of the influence of the industry.

Closing statement by PACA Secretariat

Dr. Amare Ayalew gave the closing statement of behalf of the PACA Secretariat. He observed that the workshop was very interactive and participatory and all worked to make the workshop a success. He appreciated the participation of everyone. The workshop was meaningful to PACA to chart concrete actions to take forward to revamp the groundnut sector. This sector deserves more than revival but should flourish to be at the level of the leading countries.

The workshop is not the end because the ideas and action areas proposed from the workshop will be developed further into concrete projects for implementation through an integrated and comprehensive process. He concluded by thanking workshop planning the task force members: International Institute of Tropical Agriculture (Kenton Dashiell and Ranajit Bandyopadhyay); International Crops Research Institute for the Semi-Arid Tropics (Haile Desmae and Rajeev

Varshney); Pan African Agribusiness and Agro Industry Consortium (Cris Muyunda); US Agency for International Development (Seydou Samake); ECOWAS (Ernest Aubee); Government of Senegal (Coly); the Pico East Africa for facilitation; PACA Steering Committee Members; Janet Edeme (AUC). He then presented the next steps, which are outlined in the table 9 below.

Table 9. The Next Steps from the Workshop

What	Whom	When
Include workshop participants in PACA Community list	<i>PACA Secretariat</i>	3 September 2015
Make PPT presentations available on PACA website	<i>PACA Secretariat</i>	3 September 2015
Share participants list with all participants	<i>PACA Secretariat</i>	16 October 2015
Workshop summary and communique	<i>PICO-EA and PACA Secretariat</i>	16 October 2015
Incorporate Workshop input into the Revision of the EACAP	<i>ECOWAS and PACA Secretariat</i>	31 October 2015
Share Flagship Project summaries	<i>PACA Secretariat</i>	31 October 2015
Conduct conference call or other appropriate next steps with Flagship Project champions	<i>PACA Secretariat and Champions</i>	7 December 2015
Develop Concept Notes for selected Flagship Projects (includes the timeline for proposal development and project financing)	<i>Lead Institutions and PACA Secretariat</i>	TBD
Develop Investment Plans and Project Proposals for Regional Flagship Projects	<i>Lead Institutions, Supporting Institutions and PACA Secretariat</i>	TBD
Eastern & Southern Africa Workshop on Enhancing Maize Value Chains through Aflatoxin Control	<i>PACA Secretariat</i>	2016 (Second quarter)

Closing Panel

A panel representing the private sector, ECOWAS, the African Union, and the Government of Senegal was constituted during the closing session, and the remarks of the individual members are summarized below;

Mr. Klutse Kudomor, Nestle on behalf of the private sector, thanked the AUC/DREA for leading PACA. He noted that many projects in Africa are addressing food security and there is so much focus on food safety and food quality. He underscored the need to address aflatoxin challenge through the lens of food security, whereby consideration should be made to both availability and safety of food. The safety aspect of the food security has a strong health dimension.

Measures are required to ensure that industries are not only compliant but also create value for society and industry. This requires the adoption of cost competitive ways of ensuring food safety (cheap and available and affordable to farmers). Training of farmers on food safety, and the relation to the health of their families is critical to both the farmers and to the food industry.

Mr. Ernest Aubee on behalf of the ECOWAS Commission thanked all the participants who attended the meeting. He appreciated the active support and engagement of the AUC through PACA secretariat, the PACA Secretariat and other stakeholders working on the aflatoxin challenge. He assured the participants that the decisions from the workshop will be evaluated and implemented by the ECOWAS Commission. ECOWAS Commission will support efforts in implementing ECOWAS Regional Agricultural Investment Programme and CAADP. ECOWAS Commission is planning a conference to assess the performance of the Programme. ECOWAS Commission's is committed to make concrete efforts in two main areas: mainstream the decisions from the workshop into the political process within ECOWAS (i.e., the workshop report will be transmitted to the ECOWAS Council of Ministers and the ECOWAS Heads of State and Government organ to obtain political support to drive the process forward); and mobilize resource to ensure financing and partnership. He urged the participating institutions to support PACA and increase investments in aflatoxin control and mitigation in Africa. In particular, attention should be paid to PACA to ensure the benefits to member states are realized and make a difference in the life of farmers, consumers, and the economy. Addressing the aflatoxin problem will ensure that Africa can export safe products and reduce the exposure and provide safe food to the African people. ECOWAS will be validating the Aflatoxin Control Action Plan for West Africa and all the points suggested will be taken on board through this process. He concluded by reminding the delegates not to leave the workshop without action, and thanked the President of Senegal who is the Chair of ECOWAS and the people of Senegal for their hospitality – Teranga!

Dr. Janet Edeme on behalf of the AUC observed that the workshop has been a very productive event across all the three areas that formed the workshop objectives and thanked all on behalf of the AUC. She noted that the AUC will continue to support member states. She reported that the communique and the summary report of the meeting will be presented at the inaugural conference of the Specialized Technical Committee (STC) on Agriculture, Rural Development, Water and Environment on 5-9 October 2015 in Addis Ababa, Ethiopia. She observed that the AUC is pleased with the outcome of the workshop, and mentioned that she will update the Commissioner for Rural Economy and Agriculture. She observed that financing options are going to be very critical for the project ideas. She appreciated the participants for their active participation, commitments, passion and interest and urged the participants to implement actions and monitor progress on the actions. She informed the meeting that the CAADP Result Framework is developing indicators on the Commitments contained in the Malabo declaration, which is part of the 10 years agriculture strategy and a part of the AU Agenda 2063. PACA as a subset of CAADP and is one of the flagship programmes for the Agenda 2063 in the first decade of the Agenda 2063. She concluded by thanking the interpreters, the PACA Secretariat staff and the Meridian Institute.

Ms. Soxhna Diop, speaking as the representative of the host country, the Republic of Senegal, reminded the delegates that the workshop concluded a strategic exercise on revamping the groundnut value chain in West Africa. She noted that during the workshop, the participants revisited the history, shared successful stories and best practices, and identified results and strategic actions on policy, financing and technology. She urged all stakeholders to implement the actions identified. In conclusion, she thanked the AUC and PACA for arranging the meeting in Senegal the country of hospitality, and officially declared the meeting closed.



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
la lutte contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

Appendix 1: Participant List

First Name/Prenom	Last Name / Nom:	Email Address:	Organization / Organisation	Country / Pays:
Akande	Adebowale	A.Akande@cgiar.org	IITA	Nigeria
Wale	Adekunle	w.adekunle@gmail.com	Special Advisor, Office of the President	The Gambia
Adeniyi Adebayo	Ajayi	nijas4real@gmail.com	Secretary National Groundnut Producers, Processors, and Marketers Association of Nigeria (NGROPPMAN)	Nigeria
Diana	Akullo	AkulloD@africa-union.org	African Union Commission	Ethiopia
Esso	Ama,	arspong@yahoo.fr		Togo
King-David Kwao	Amoah	kdkamoah@yahoo.com	Ghana Federation of Agricultural Producers (GFAP) National Farmers Platform	Ghana
FALL	Assane	cayorcenter@yahoo.fr	SENSLO/TOUBA	Senegal
Olusegun	Atanda	olusegunatanda@yahoo.co.uk	McPherson University/ African Society of Mycotoxicology (ASM)	Nigeria
Ernest	Aubee	aubee2008@yahoo.com	Economic Community of West African States (ECOWAS)	Nigeria

Amare	Ayalew	Amarea@africa-union.org	PACA Secretariat, African Union Commission	Ethiopia
Bèye	Babacar	bbeye@ita.sn	Institut de Technologie Alimentaire (ITA)	Senegal
Samb	Babacar	bioscope@arc.sn	Cabinet BIOSCOPE	Senegal
Segun	Babatunde	segun.babatunde@doreopartners.com	Doreo Partners	Nigeria
Diatta	Bacary	bacarydiatta@hotmail.com	Ministère du Commerce, du Secteur Informel	Senegal
Ranjit	Bandyopadhyay	r.bandyopadhyay@cgiar.org	International Institute of Tropical Agriculture	Nigeria
Toure Aminata	Barry	barryaminatou@yahoo.fr aminatatureba@gmail.com		Mali
Saidou Etienne	Bonkougou	bonkougou_etienne@yahoo.fr	INERA	Burkina Faso
ISSA	Boubacar	boubacar_issa@yahoo.fr	Directeur de la Normalisation, de la Promotion de la Qualité et de la Métrologie (DNPQM). Ministère des Mines et du Développement Industriel	Niger
CAMARA	Boulaye Dado	bcamara@suneor.sn	SUNEOR (Oil Company)	Senegal
Lynn	Brown	lynnrbrown1@me.com		

Dyborn	Chibonga	DCchibonga@nasfam.org	NASFAM	Malawi
Wezi	Chunga-Sambo	Chungaw@africa-union.org	PACA Secretariat, African Union Commission	Ethiopia
Peter	Cotty	picotty@email.arizona.edu	USDA-ARS, University of Arizona, Tucson	USA
Quist	Cyrill	cyrothadquist@yahoo.co.uk	Ministry of Agriculture	Ghana
Kenton	Dashiell	K.Dashiell@cgiar.org	International Institute of Tropical Agriculture (IITA)	Nigeria
Ouattara	Diakalia	diakamad@yahoo.fr		Cote D'Ivoire
Papa Madiallacké	DIEDHIOU	anifane@gmail.com	Université Gaston Berger, Saint-Louis (UGB)	Senegal
Soxhna	Diop	soxna19@gmail.com	Ministry of Agriculture	Senegal
Sonny	Echono		P.S. Ministry of Agriculture Nigeria	Nigeria
Janet	Edeme	EdemeJ@africa-union.org	African Union Commission	Ethiopia
Damilola	Eniaijeju	deniaijeju@gmail.com	Director of Agriculture, Ministry of Agriculture	Nigeria
Margaret	Eshiett	megesciett@yahoo.com	Standards Organisation of Nigeria	Nigeria
Chibundu	Ezekiel	Ezekielc@africa-union.org	PACA Secretariat, African Union	Ethiopia

			Commission	
Issa FAYE	Faye	issafaye2001@yahoo.fr	ISRA/CNRA	Senegal
Haji Slamatu J.	Garba	salamatujgarba@yahoo.com	Director Women Farmers Advancement Network (WOFAN)	Nigeria
Tetteh	Gbagidie	adano2001@yahoo.com	Ghana National Association of Farmers and Fishermen	Ghana
Gueye	Goule	goule.gueye@sodefitex.sn	Sodefitex	Senegal
Goulé	Gueye	goule.gueye@sodefitex.sn	BAMTAARE Services, Groupe SODEFITEX	Senegal
Maimuna	Habib	maimunahabib@gmail.com	Nigeria Agricultural Quarantine Service	Nigeria
Desmae	Hailemichael	H.Desmae@cgiar.org	ICRISAT	Mali
Jagger	Harvey	j.harvey@cgiar.org	Senior Scientist, ILRI (BecA-ILRI Hub)	Kenya
Orin	Hasson	Orin.Hasson@gatesfoundation.org	Bill & Melinda Gates Foundation	USA
Kerstin	Hell	k.hell@cgiar.org	International Institute of Tropical Agriculture/FAO/WHO codex trust fund	Benin
Paul	Houssou	houssou02@yahoo.fr	Institut National des Recherches Agricole du Bénin	Benin

Wade	Idrissa	idrissa.wade@gmail.com	ENSA/BIOSCOPE	Senegal
Cissé	Issa	thiecisse82@yahoo.fr	COPROSA- Cooperative des Producteurs d'arachide et de maïse	Senegal
Ousman M	Jarju	ousmanmiarju@gmail.com	Senior Research Officer Ministry of Agriculture	The Gambia
Archileo	Kaaya	ankaaya@caes.mak.ac.ug	Makerere University	Uganda
Jean	Kamanzi	jean.kamanzi@fao.org	United Nations Food and Agriculture Organization (UNFAO)	Zimbabwe
Tchala	KAZIA	kziatchala@yahoo.fr	ITRA	Togo
Nelson	Kennedy Olang'o Ojjo	nojjo@fara-africa.org	Forum for Agricultural Research in Africa (FARA)	Ghana
Richard	Kettlewell	rgwk@aol.com	Groundnut processing expert	Malawi
Henry Richard	Kimera	kimehenrich@gmail.com kimehenrich@yahoo.com	Consumer Education Trust (CONSENT)	Uganda
Mr Mamadou	Konaté	madous400@yahoo.fr	IER Projet Gestion de l'aflatoxine dans l'arachide (GestAflAr)	Mali
Klutse	Kudomor	klutse.kudomor@gh.nestle.com	Nestle Central & West Africa	Ghana

Fayinkeh	Mahamadou	mfayinkeh@yahoo.com	National Coordination of Farmers Association The Gambia (NACOFAG)	The Gambia
Onica	Makwakwa	omakwakwa@consint.org	Consumers International	South Africa
Diawara	Mariatu	mrdiawara@yahoo.fr	WAAP (West Africa Agricultural Productivity Program?)	Senegal
DJATOITE	Minto	djatminto07@gmail.com	Ministry of Agriculture	Togo
Gaye	Mody	mody_gaye@yahoo.fr	DPV	Senegal
Ekwa	Monono	ymekwado@yahoo.com	EKWA Farms CIG	Cameroun
Mike	Muchilwa	myrafiki2@gmail.com		
Lucy	Muchoki	Imuchoki@panaac.org/ info@panaac.org	Pan African Agribusiness and Agro Industry Consortium (PanAAC)	Kenya
COLLEY	Mustapha	mustco@qanet.gm	National Food Security for Marketing Corporation/GGC	Gambia
Cris	Muyunda	muyundac@yahoo.com	Pan African Agribusiness and Agro Industry Consortium	Zambia
Flaubert	Nana Sani	nana_sani@yahoo.fr	African Union - Interafrican Phytosanitary Council	Cameroon

Francis	Nang'ayo	f.nangayo@aatf-africa.org	AATF	Kenya
Joseph	Ndenn	josephndenn@gmail.com	IRIS consulting	The Gambia
Abdou	Ndiaye	adndiaye@refer.sn	AGRA	Senegal
Alpha Oumar	Ndoye	alphuse@yahoo.fr		Senegal
Magatte	Ndoye	magatendoye@gmail.com	Ministère du Commerce, du Secteur Informel	Senegal
Kassahun	Negash	kassahunnegash1994@gmail.com	AMREF	Ethiopia
Samuel	Njoroge	s.njoroge@cgiar.org	ICRISAT	
Brian	Nsofu	bnsofu@comesa.int	COMESA	Zambia
Victor	Nwosu	victor.nwosu@effem.com	Mars Inc.	USA
Folashade	Oluwabamiwo	oluwabamiwo.b@nafdac.gov.ng	NAFDAC	Nigeria
Paul	Omari	omari.paul@gmail.com	EatSafe Ghana	Ghana
Philip	Osano	philip.osano@pico-teamea.org	PICO	Kenya
Robert	Ouma	robert.ouma@pico-teamea.org	PICO	Kenya
Ernest Comlan	Pedro	lpenesco@yahoo.fr	Agro-economist Expert on Governance and Agricultural Policy Civil Society Champion CoP / UEMOA	Benin

Rex	Raimond	RRaimond@merid.org	Meridian Institute	United States
James	Rhoads	jrhoads@uga.edu	Peanut & Mycotoxin Innovation Lab, University of Georgia	USA
Awuah	Richard	awuahrt@yahoo.com	Kwame Nkrumah University of Science and Technology	Ghana
Kaka	Saley	kakainran@yahoo.com	Responsable du Laboratoire de Technologie Alimentaire de l'Institut National de Recherche Agronomique du Niger(INRAN)	Niger
Seydou	Samake	ssamake@usaid.gov	USAID	West Africa
Ibrahima	Sanou	sanouib1@gmail.com	National Laboratory for Public Health	Burkina Faso
Kebba	Sarr	kebba.sarr@yahoo.com	Plant Protection Services	The Gambia
Wim	Schipper	w.schipper@intersnack-procurement.com	Intersnack Group	The Netherlands
Lamine	Senghor	laminesenghor@hotmail.com	Ministry of Agriculture, Senegal	Senegal
Mahlet	Sileshi	Sileshim@africa-union.org	PACA Secretariat, African Union Commission	Ethiopia
Alinani	Simukonda	alinani@entrypointafrica.com	Entry Point Africa	Zambia

Winta	Sintayehu	Wintas@africa-union.org	PACA Secretariat, African Union Commission	Ethiopia
Muctar	Sonko	sonkomuctarr@yahoo.com	Food Safety and Quality Authority of the Gambia	The Gambia
Francois	Stepman	fstepman@gmail.com	PAEPARD	USA
Barbara	Stinson	BStinson@merid.org	Meridian Institute	USA
Abdoulaye	Sy	lavesythies@yahoo.fr	Agence Nationale de Conseil Agricole et Rural	Senegal
Florence	Temu	Florence.Temu@amref.org	AMREF	Ethiopia
Omar	Touray	omartouray@live.com	IRIS consulting	The Gambia
Rita	Weidinger	Rita.Weidinger@giz.de	GIZ/African Cashew Initiative	Germany
Mme Farmata	Yaro	aignay@yahoo.fr	Agence Nationale de la Sécurité Sanitaire des Aliments	Mali
SANE		Sanambel@gmail.com	Sanambel Production et Distribution Ziguinchor	Senegal

Appendix 2: Workshop Expectations and Project Ideas

Appendix 2(a): Expectations from the workshop

Discuss and agree on ONE major expectations in this workshop (use blue cards)
1) Identify clear economic incentives for farmers along the value chain
2) Integrated roadmap towards aflatoxin control for safe and consumable and marketable groundnuts
3) Create pragmatic solutions through a dynamic network
4) Coherent and coordinated action plan
5) Private sector drive sustainable action plan for aflatoxin management
6) PH and standards harmonization
7) National and regional strategy to control aflatoxin
8) Pre and post-harvest technology to prevent groundnut aflatoxin contamination
9) Better co-ordination along the value chain to control aflatoxin
10) Action that lead to the improvement of gnu and the value addition
11) Clear strategic plan for aflatoxin mitigation (clear is the emphasis)

Appendix 2(b): List of major investment or project ideas that if implemented could radically resolve the aflatoxin problem facing groundnut value chains in West Africa

Discuss and agree on ONE major investment or project idea that if implemented could radically resolve the aflatoxin problem facing groundnut value chains in West Africa (use white cards)
1) Increasing awareness and use of Aflasafe
2) Disseminate GAP (Good Agricultural Practices) to control aflatoxin
3) Provide processing facilities with adequate analytical support
4) Increase political support to fight aflatoxin
5) Invest in sustainable bio-control approaches
6) Invest in the uptake and up-scaling of proven aflatoxin control technologies/measures
7) Establishment of a Special Purpose Finance Vehicle (SPFV) for groundnuts value chain
8) Develop quality infrastructure for aflatoxin prevention and control
9) Promote resistant varieties, Biocontrol at regional and national levels
10) Market differential on higher quality groundnuts (private sector led)
11) Create major awareness of aflatoxin in the groundnut value chain
12) Provide equipment's for quality control including widely available rapid test
13) Collect data to support HACCP process

Appendix 3: Workshop stakeholder differentiation

Stakeholder category	No.	Comments by participants
Private sector	20	<ul style="list-style-type: none"> Private sector still low in representation Low presentation (about one fourth). PACA is no longer a government initiative and private sector are part of it
Public sector	40	<ul style="list-style-type: none"> The Public sector comprise the majority of the participants The bureaucracy in the public sector sometimes hinders progress The public sector has more women compared to the private sector, so we may need some farmers
Non-Public (e.g. CSOs, NGOs, donors, academic, research etc.)	18	<ul style="list-style-type: none"> We need to include the farmers as a special category
Farmers	6	<ul style="list-style-type: none"> Farmers are part of the private sector but have low representation
Media	8	<ul style="list-style-type: none"> Critical sector for information dissemination, awareness and public education The media should also be involved as participants and not just as reporters so that they can understand the issues