



Partnership
for Aflatoxin
Control in Africa

Partenariat pour
lutter contre
l'aflatoxine en Afrique

Parceria para o
Controle da
Aflatoxina em África

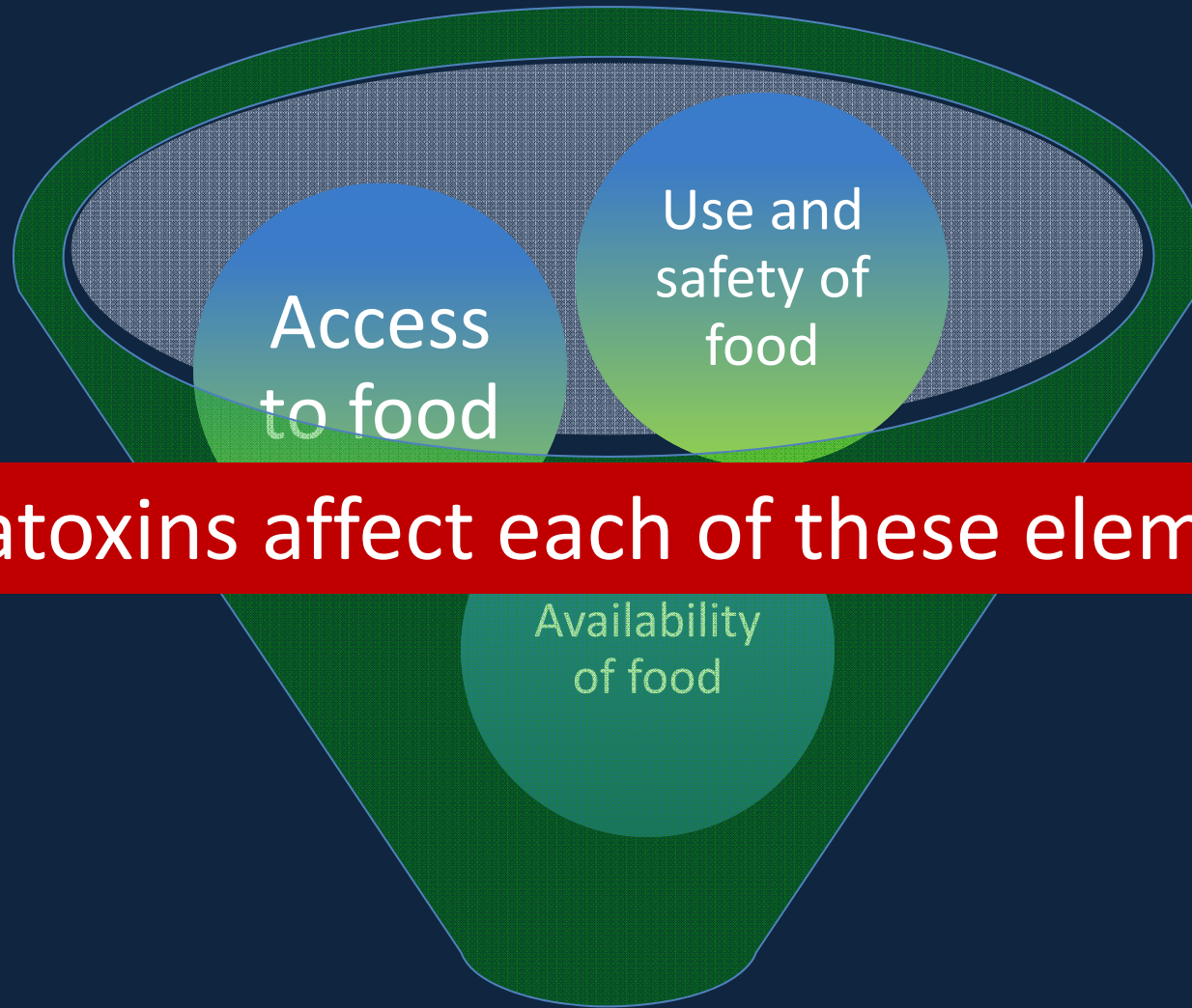
الشراكة من أجل مكافحة
الافلاتوكسين في أفريقيا

“PACA”

Holistic Approach to Addressing the Aflatoxin Challenge in Africa

ADFNS 2013, 30 October 2013

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Food and Nutrition Security

What are aflatoxins?

- Fungal metabolites (naturally occurring)
- Produced by strains of *Aspergillus flavus* and *A. parasiticus*
- Highly stable compounds, withstand normal food/feed processing procedures



www.ipm.iastate.edu

Aflatoxin contamination

- Could occur preharvest, harvest, handling and storage
- Maize, groundnut, cottonseed and byproducts are highly susceptible but occurs in diverse food and feed produce
- Aflatoxins could be carried over through milk, meat and egg of animals fed on contaminated feed

Effects of aflatoxins on health

- Fatal at high concentrations; e.g. in Kenya in 2004, 125 persons died due to aflatoxin poisoning (Probst et al., 2007)
- Linked to:
 - Liver cancer
 - Stunted growth and being underweight in children
 - Suppression of human immune system

4.5 billion people chronically exposed (WHO, 2004)

Aflatoxin impacts on trade

- Because of serious health hazards importing countries regulate aflatoxins
- Regulations directly impact regional and international trade
- Lost trade affects economies such as traditional groundnut exporting countries of Africa and income and livelihood of farmers
- Undermines efforts to streamline SPS issues continent-wide

Aflatoxin impacts on agriculture

- When contaminated food is condemned unsafe for food, the supply is impacted (e.g. recently in east Africa, large quantities of maize was taken out of the food chain)
- Contaminated food is likely to be consumed by smallholder farmers and their families affecting food safety (food security)
- **25% of the world food supply is contaminated with aflatoxins (FAO, 2000)**

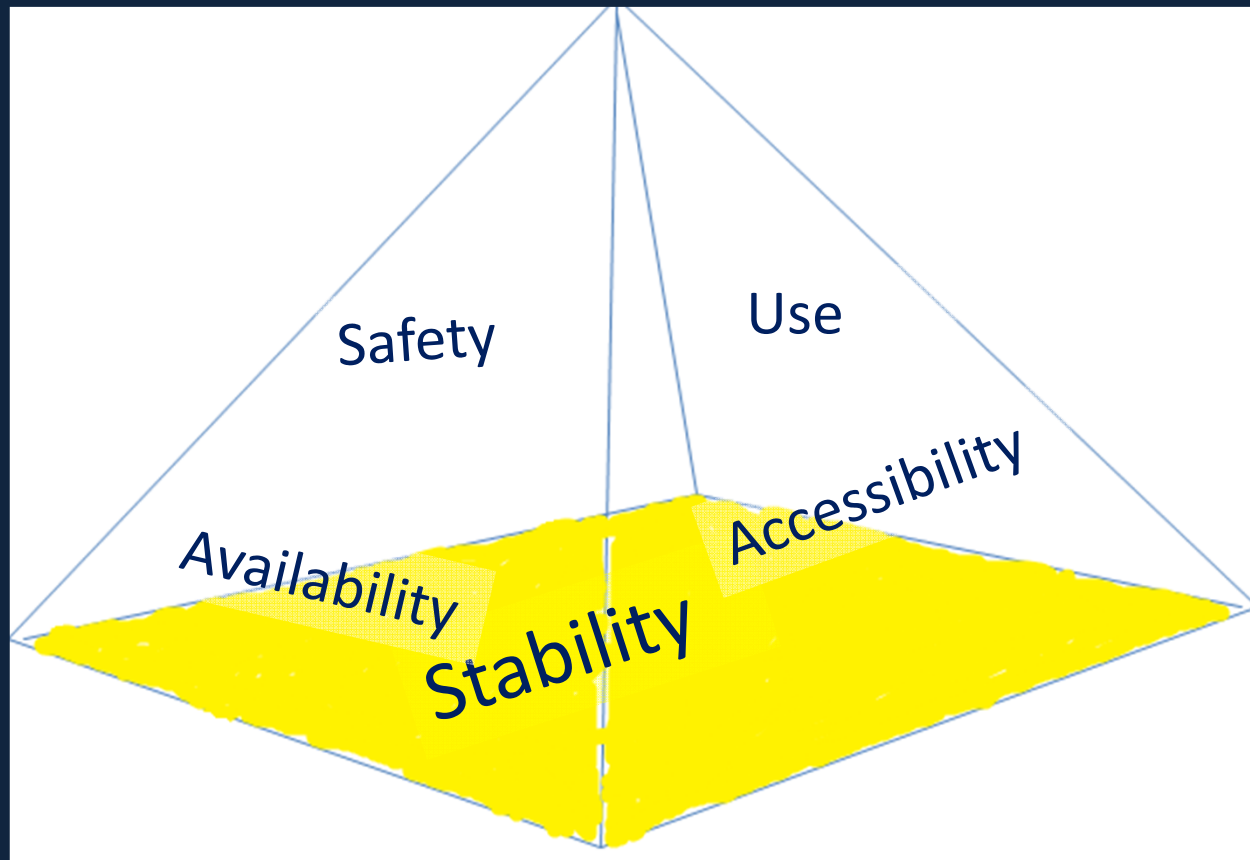




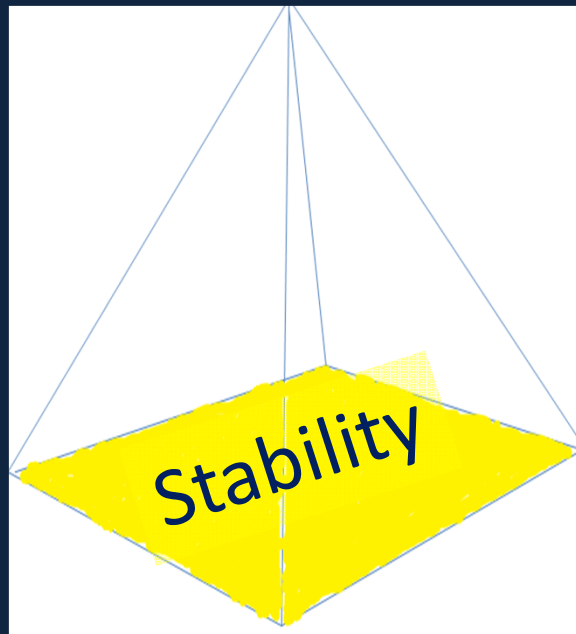




When components of F&NS are at optimum stability is at its best



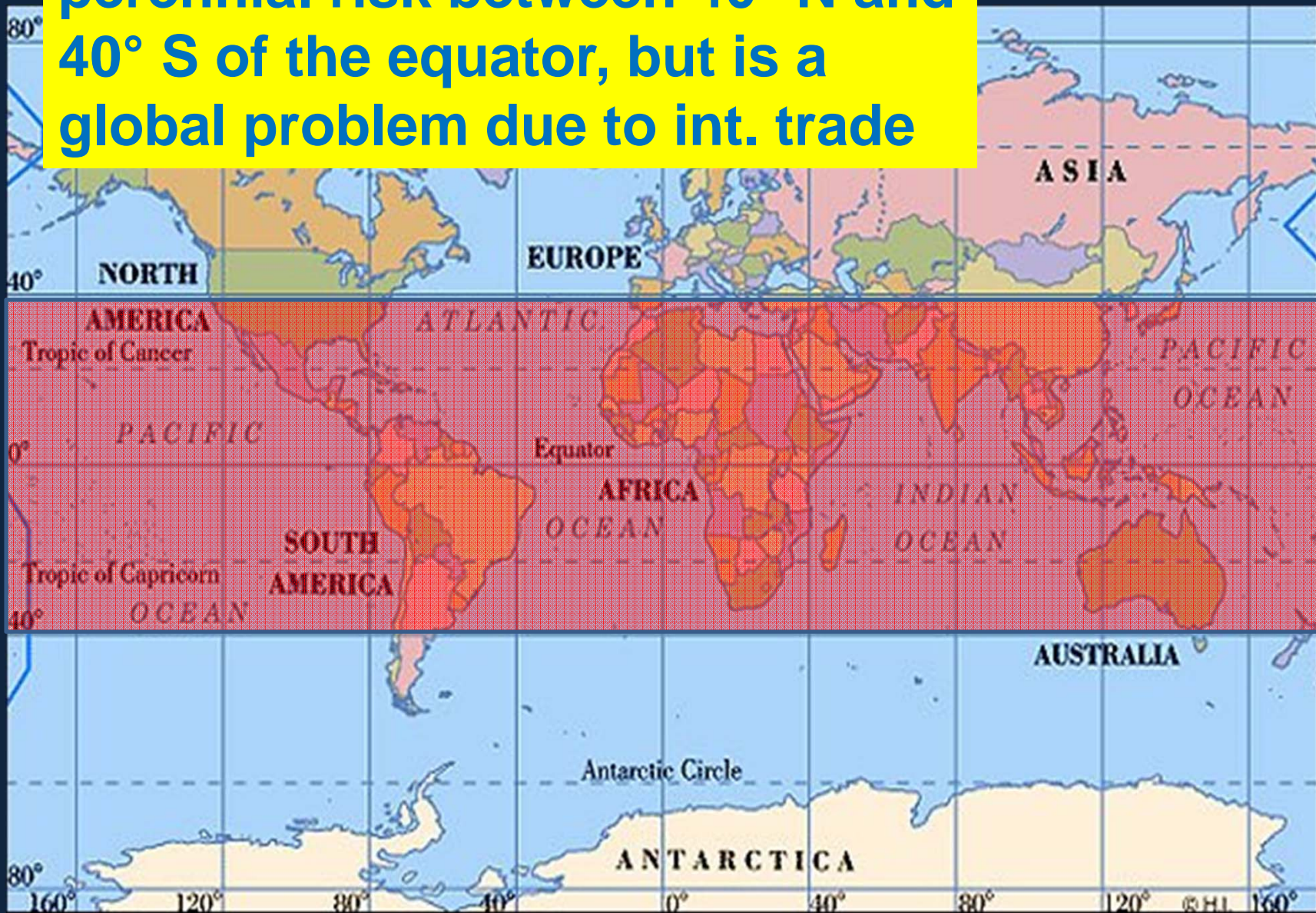
When aflatoxins affect components of F&NS, “stability” is impacted



Factors in the Aflatoxin Challenge in Africa:

- Conducive climatic conditions
- Traditional crop production practices
- Inadequate harvesting, drying and storage practices
- Policy and institutional capacity
- Lack of awareness

Aflatoxin contamination is a perennial risk between 40° N and 40° S of the equator, but is a global problem due to int. trade



Aflatoxin control

- Aflatoxin contamination is a complex problem:
 - Hard to solve by a single actor/discipline
 - Requires multi-stakeholder actions
 - Need to focus on the cause rather than the symptoms
 - No single answer
- Integrated and coordinated actions needed

A 'bag of tricks' (integrated valid options) to address the complex aflatoxin problem:



Photo credit:
africabags.org

What is PACA?

- Innovative consortium aiming at coordinating aflatoxin mitigation and management across health, agriculture and trade sectors in Africa.
- Africa-based, Africa-led effort
- Aims to adapt proven solutions, and identify new ones, that will work for African situation.



PACA Genesis

Date and Location	Event
23 March 2011, Yaoundé, Cameroon	CAADP PP, asked AUC to explore establishment of PACA
3-4 October 2011, Nairobi, Kenya	PACA organizational planning meeting under the auspices of AUC
1-2 March 2012, Maputo	PACA Interim Steering Committee meeting
25-27 June 2012, Ibadan	PACA Interim Steering Committee meeting
31 October 2012, Addis Ababa	PACA officially launched at AUC
01 Nov. 2012, Addis Ababa	Steering Committee inauguration
April 2013, Dar es Salam	PACA Strategy consultation workshop
Since May/June 2013	PACA has developed frameworks and started sustained actions

AFLATOXINS: FINDING SOLUTIONS FOR IMPROVED FOOD SAFETY

Mobilizing Political Support: Partnership for Aflatoxin Control in Africa

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RESEARCH PROGRAM ON
Agriculture for
Nutrition
and Health
LED BY IFPRI

2020sm
VISION
FOR FOOD, AGRICULTURE,
AND THE ENVIRONMENT

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Aflatoxins are highly toxic fungal metabolites produced by certain strains of *Aspergillus flavus* and related species in diverse foods and feeds. These toxins have wide-ranging impacts on human and animal health, trade, and food security. Tropical regions between 40°N and 40°S of the equator, which include the entire African continent, are chronically affected by aflatoxins. Furthermore, traditional crop-production practices that are

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2012, PACA was forma
inaugurated by th

Gener
info

PACA Strategy 2013-2022

September 2013

October 31,
was



PACA Comprehensive Program

Food Security | Trade | Health

Policy, standards and regulations

Testing (sampling; diagnostics)

Pre-harvest including
beneficial fungi

Post-harvest
drying, storage,
handling

Market
development:
structured
demand,
alternative uses

Consumption

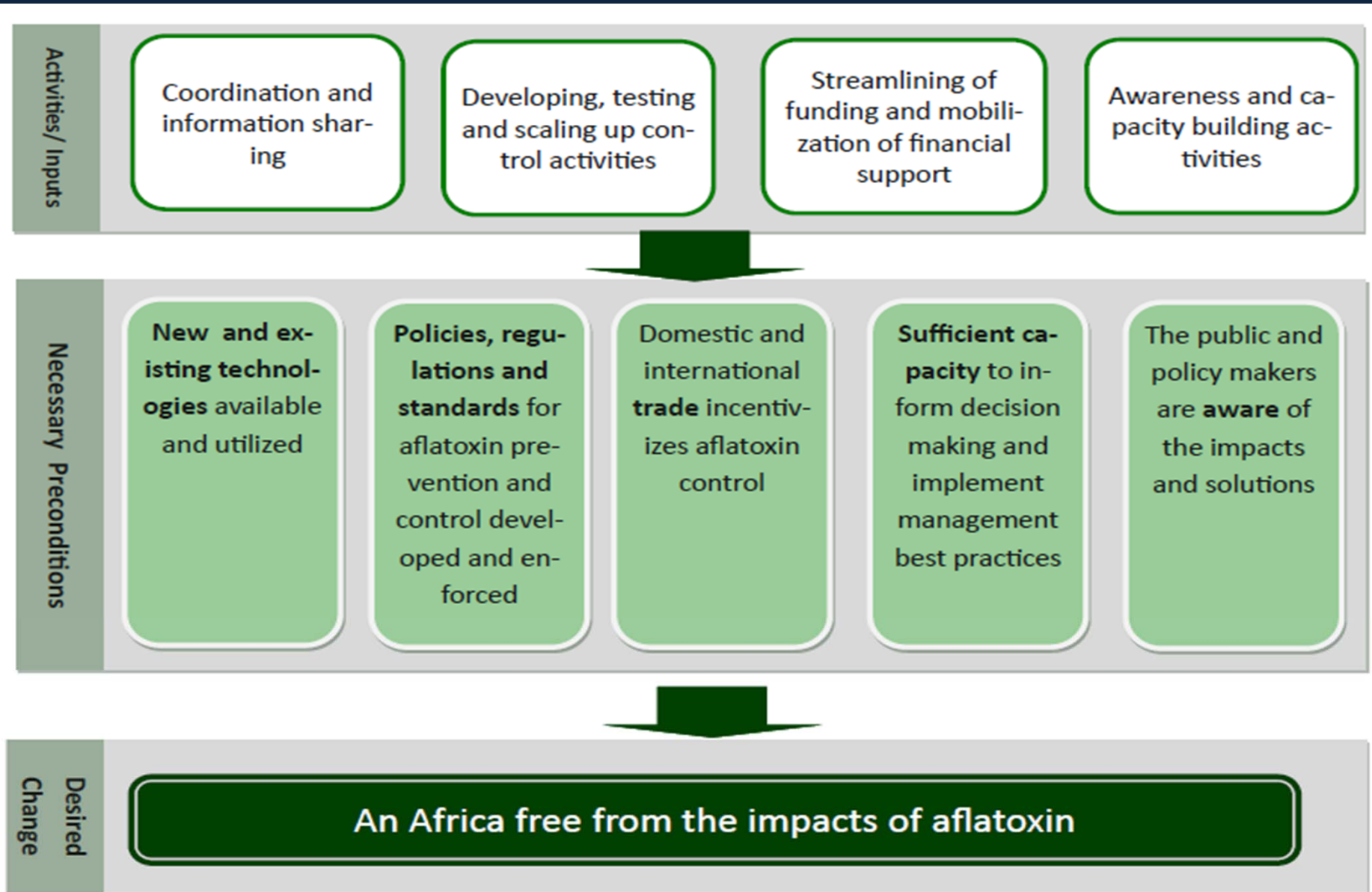
Training, communication, and capacity strengthening

Economic
Assessments

Food Security
Assessments

Health
Assessments

PACA's theory of change



Conclusion

- Aflatoxins are insidious poisons that affect public health, trade and food security
- Aflatoxin is a complex problem that can be addressed through integrated measures and coordinated actions
- The competitiveness of the African continent is seriously undermined unless the aflatoxin problem is addressed proactively
- Member States, RECs and AUC are prioritizing aflatoxins, more needs to be done and concerted efforts pay

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Agriculture and Food Security

Partnership for Aflatoxin Control in Africa (PACA) collection

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