



Panel session:

# Improving the food security and livelihoods of smallholder communities

Speakers: Dr Ambrose Agona, Professor Paul Bosu, Dr Manfred Kaufmann, Dr Lakmini Mendis, Chantal Wieckardt, Neil Willsher

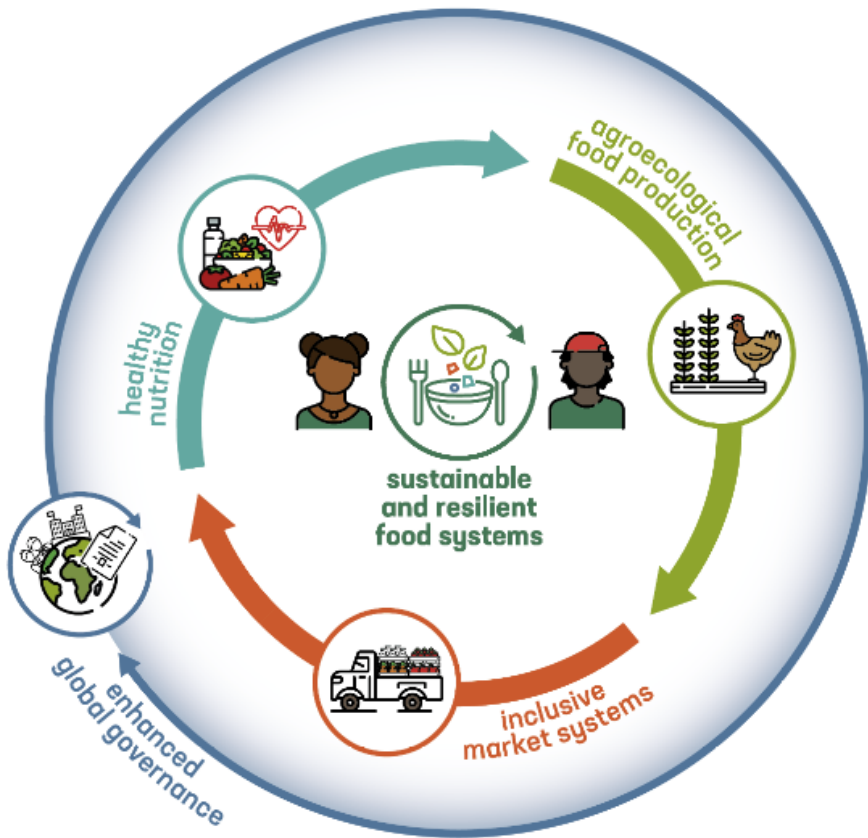
Chair: Dr Ulrich Kuhlmann



# Food and Nutrition Security – The challenges we face

- Interrelated global crises (climate, biodiversity, health) and poverty;
- Exacerbated by the war in Ukraine;
- Invest in resilient food systems;
- The UN Food System Summit (2021) National Pathways as starting point;
- Addressing concrete problems of and develop sustainable solutions for small-scale farmers -- reaching scale

# Food Security – the challenge we face: donor perspective



- ***Drivers***

Conflicts, Climate Change, COVID, Costs

- ***2-fold response***

humanitarian aid and long term food systems transformation

- ***Multilateral engagement***

Coordinated response at global level: Rome, UN, WB

- ***Nexus approach***

combine humanitarian/development/peace building responses

- ***Call for systemic change***

Swiss focus is on entire food systems, agroecology and nutrition

- ***Long-term engagement at all levels***

combine national, regional and global engagements





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# **IMPROVING THE FOOD SECURITY AND LIVELIHOODS OF SMALLHOLDER COMMUNITIES: CHALLENGES IN UGANDA**

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**PRESENTED DURING CABI 21<sup>ST</sup> REVIEW CONFERENCE AT VOCO  
OXFORD THAMES HOTEL, UNITED KINGDOM 27<sup>TH</sup> SEPTEMBER 2022**



# INTRODUCTION

- ❑ As a key pillar of the Ugandan economy, the agricultural sector is a critical driver of economic growth and poverty alleviation. Uganda's agricultural sector is dominated by stakeholders with low levels of productivity with more than 39% still stuck in subsistence economy
- ❑ The sector is highly exposed to co-variant risks which include weather, biological, infrastructural, price, input and output market risks. This is further exacerbated by natural disasters like drought and landslides that result into both crop and livestock losses.
- ❑ Poor policies and uncontrolled population growth greatly affect food security in the country, especially in terms of Availability, Accessibility, Utilisation and Stability





# CAUSES AND CHALLENGES OF FOOD INSECURITY IN UGANDA

- ❑ Food insecurity exists in Uganda where some people lack sustainable physical access to enough safe, nutritious and socially acceptable food for a healthy and productive life. It may be chronic, seasonal or temporary, either way resulting into catastrophic amounts of human suffering.
- ❑ Multiple factors are responsible for food insecurity viz. Population growth, climate change and climate variability, increasing cost of food, unemployment, poverty and loss of biodiversity
- ❑ Root cause of food insecurity in Uganda is poverty- Food stress are experienced among the poorest households in both rural and urban areas



The underdeveloped agriculture, characterised by over reliance on primary and traditional agricultural practices, poor soil fertility, drudgery, minimal use of external farm inputs, environmental degradation, significant food crop loss both pre- and post harvest, limited value addition, product differentiation and diversification, and inadequate storage and preservation methods that result in significant commodity price fluctuations are the major challenges experienced by smallholder producers.

- ❑ Below average and poor temporal and spatial distribution of the rainfall patterns =delays in planting or stunted or failed –early planted crops = below normal seasonal income from crop sales and limited availability of food stock to feed the ever increasing population growth
- ❑ Late planted crops especially, maize, suffer heavy infestations by FAW or African armyworm

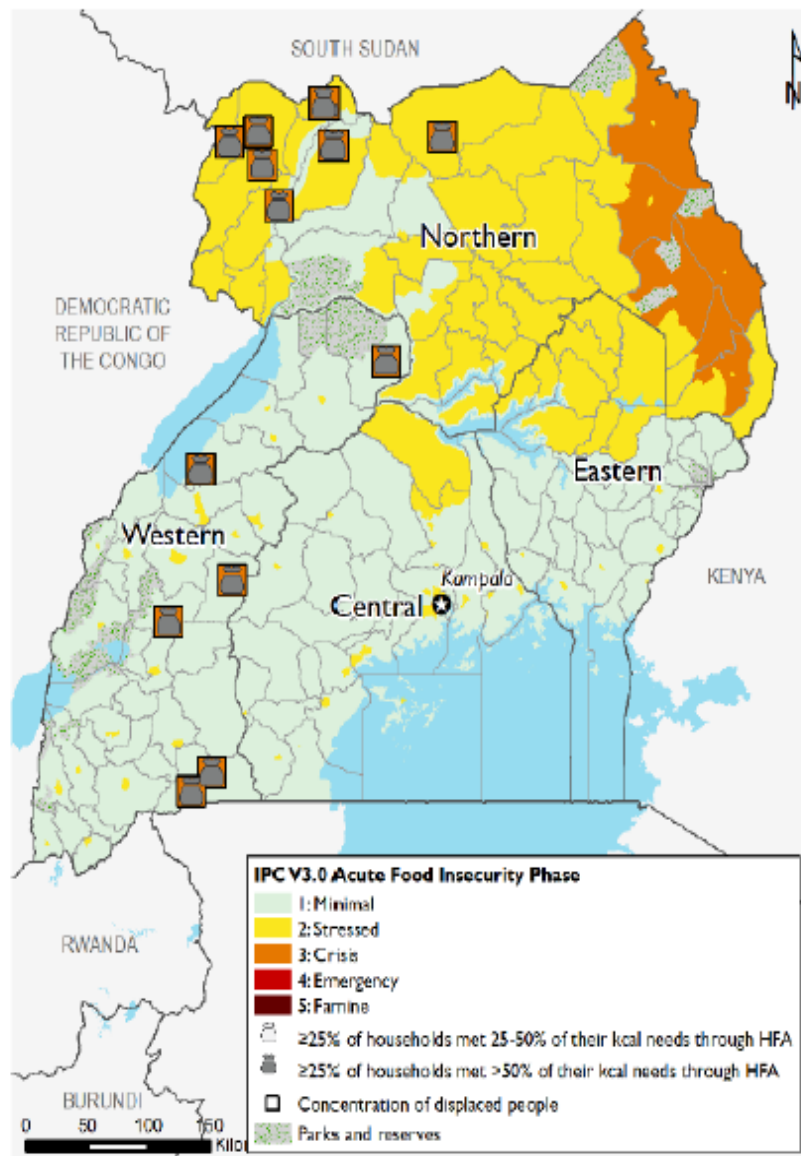




# EVIDENCE OF FOOD INSECURITY IN UGANDA

- ❑ The Karamoja sub-region is the most affected area in Uganda, and the communities experience high levels of acute food insecurity at crisis level or worse due to insecurity, impact of COVID-19 pandemic and high food prices – 61% of the population in Karamoja live in poverty 3 times higher than the national poverty level. The region is semi arid and famine is exacerbated by insecurity due to rampant cattle rustling and nomadism.
- ❑ Poor food consumption patterns, exhibited by inadequate food processing and direct consumption of large portions of the harvest without taking into consideration what will happen in the near future have contributed to increased levels of acute malnutrition.
- ❑ Females of reproductive age and children are the most vulnerable to food insecurity. Due to social and cultural norms, females reduce their own intake to provide for their husbands and children that in turn, reduce their dietary diversity and intake that results in micronutrient deficiencies

## Projected food security outcomes, June to September 2021



Source: FEWS NET

















British Environmentalist, Sir Jonathan Purrit said *“It’s no good blaming climate change or food shortages or political corruption. Sorry to be a neo-Malthusian about it but continuing population growth in this region makes periodic famine unavoidable – as many people having pointed out since the last famine. Many of the children saved by the money raised over the next weeks will inevitably be back again in similar feeding centres with their own children in a few years time”!*





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A photograph showing three individuals in a field. On the left, a man with glasses and a white shirt is leaning over, examining a plant. In the center, a woman wearing a white headwrap and a light-colored jacket looks on. On the right, another woman wearing a blue headwrap and a purple top is also looking at the plant. They are surrounded by green foliage, and the background shows a bright sky with scattered clouds.

# Improving food security and livelihoods in an increasingly turbulent world

**Ulrich Kuhlmann, Wade Jenner & Rob Reeder**

September 27, 2022



# Our current challenge

850 million people were going hungry every day and healthy diets were out of reach for 3 billion people.



# The global crisis

World hunger is now being compounded by:



CLIMATE CHANGE



COVID-19 PANDEMIC



WAR IN UKRAINE



A photograph of three people in a field of green plants. A man in a patterned shirt stands on the left. Two women, one in a yellow shirt and one in a blue shirt with a white collar and a white cap with 'plantwise' on it, are looking at a smartphone together. The woman in yellow is holding a bunch of green leafy plants.

# PlantwisePlus – CABI's response to the food crisis

**PREDICT**

**PREVENT**

**PREPARE**

**PRODUCE**





# PlantwisePlus – Vision

**INCREASED  
INCOMES**

**SAFER FOOD**

**HIGHER QUALITY  
FOOD**

**SUSTAINABLE  
CROP PRODUCTION**



A woman with dark hair, wearing a light blue patterned shirt, is sitting in front of a large pile of colorful cacao pods. She is holding a large, light-colored bag. The pods are in various colors including yellow, red, and brown, with some showing signs of being processed.

# PlantwisePlus – Impact pathways

**PEST  
PREPAREDNESS**

**FARMER  
ADVISORY**

**PESTICIDE RISK  
REDUCTION**











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## Plantwise Plus – Response

- Accelerate efforts to support sustainable and resilient food systems;
- Flexible and demand-driven approach;
- PW+ addressing concrete challenges to FNS at different levels;
- PW+ partnering with different stakeholders.

# PlantwisePlus: donor perspective



- ***Adressing specific gaps of Plantwise***  
Well informed planning process, proof-of-concept phase to test approach, followed by evaluation to assess and fine-tune
- ***Comprehensive results framework***  
Focus on quantitiy and quality of food, environment, climate through perparedness, farmer advice and pesticide risk reduction  
→ food safety adressed, what about healthy, diverse diets?  
→ plant production adressed, what about post-harvest pest control?
- ***Demand driven and demand responsive***  
user needs assessments, market research  
→ how to generate additional demand?
- ***Going digital:***  
mapping of existing tools, targeted development of new tools  
→ long term vision: complement or replace face-to-face advice?  
→ potential of Artificial Intelligence?





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# **Focus of the Programme**

**Reduction of crop losses and production of quality food by empowering smallholder farmers through:**

- ① Pest preparedness: Detection and response to pest outbreaks**
- ② Farmer advisory: Deliver digital advisory tools**
- ③ Pesticide risk reduction: Human health and biodiversity, Food safety.**



# PlantwisePlus Programme in Uganda

- ❑ Initiated work on providing sustainable solutions to manage Papaya mealybug in Kenya, South Sudan and Uganda to enhance food and nutrition security and protecting biodiversity.

Activities include release of the natural enemy *Acerophagus papayae* for classical biological control and capacity building of smallholder farmers and extension workers for sustainable management

- ❑ Capacity building of agro-input dealers in low risk pesticides and promotion of the bio-protection portal launched with MAAIF in 2020