



SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



## 2<sup>nd</sup> Global Webinar West + East & South Africa Regional Webinar

*Food systems, Climate change & Nutrition*



SDC A+FS Network

# Food Systems Learning Journey

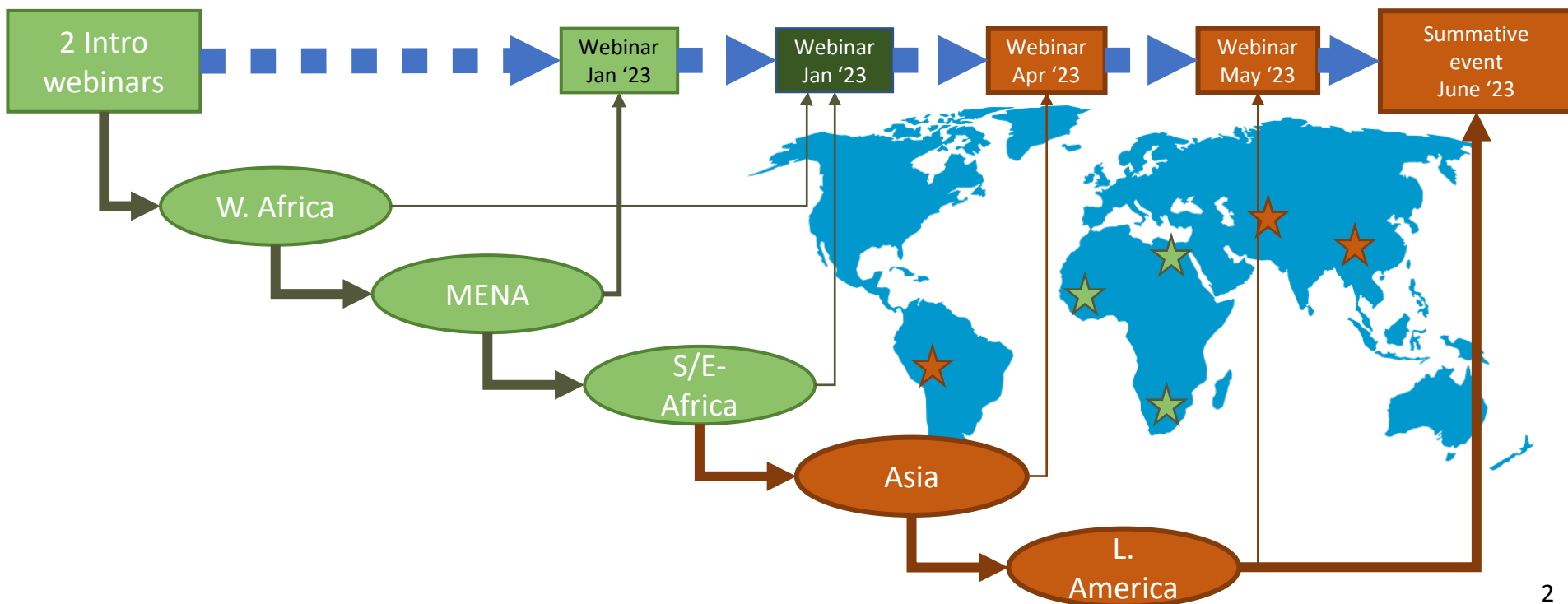
A learning adventure taking us around the globe to understand and act more systemically



**Aim :** - develop our understanding of and capacities in addressing food systems, and  
- provide the tools and first steps to integrate this more holistic approach in our interventions, programmes and projects.

**When :** September 2022 to June 2023

**For who :** A+FS network members, SDC partners, friends.





## ***Sub-Sahara Africa Webinar – Climate Change & Nutrition***

- Welcome & Introduction
- Food Systems – what, why, how ?
- Changement Climatique comme point d'entrée  
*Afrique de l'Ouest - contexte & conclusions de l'atelier régional*
- Nutrition as an entry point into Food Systems  
*East and Southern Africa context & takeaways from the regional workshop*
- What does this look like : 2 concrete examples
- Key learnings from the workshops – food system approach & process
- Q&A [incl. Mentimeter]
- What's next ?



SDC A+FS Network

# Food Systems Learning Journey

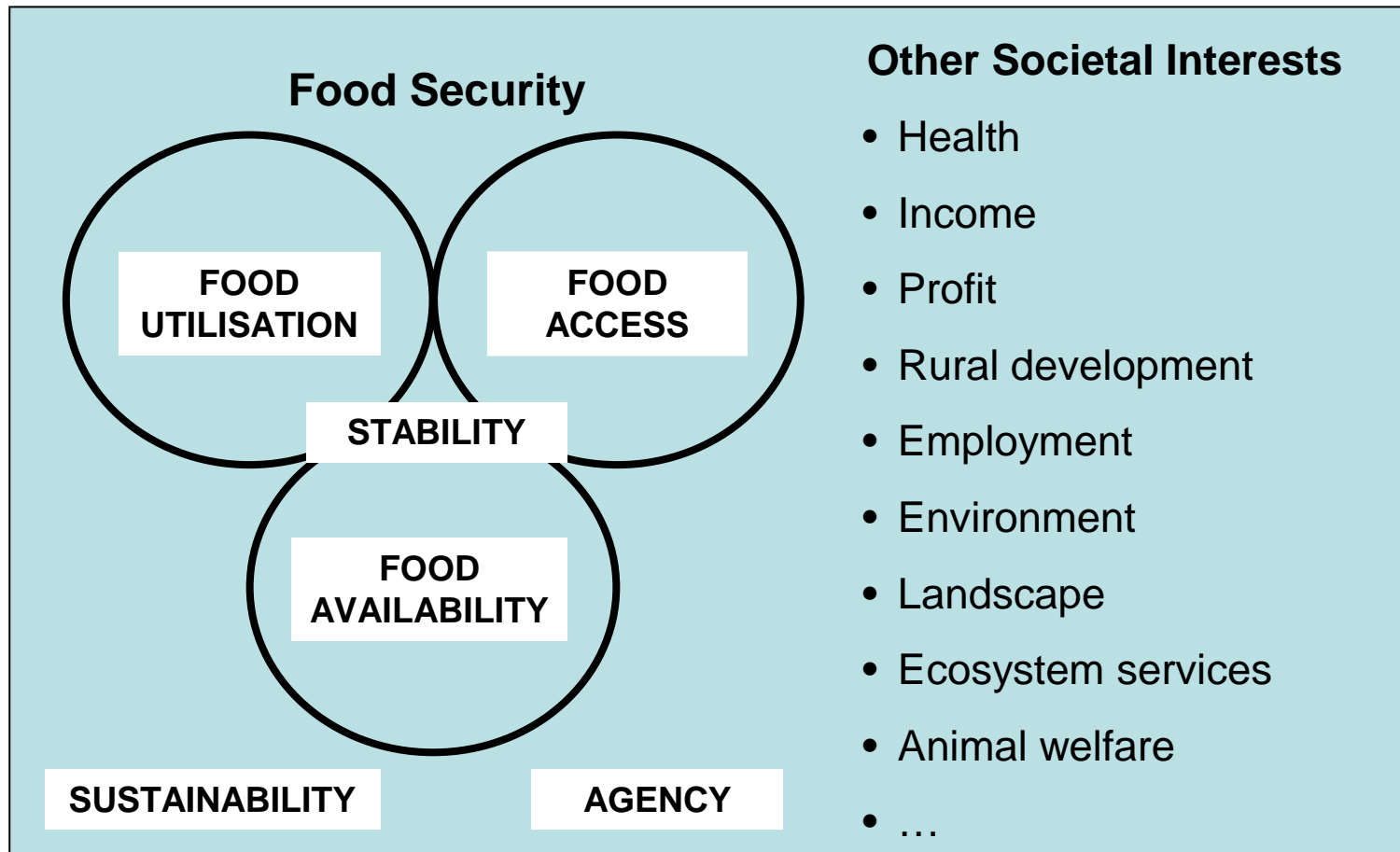
A learning adventure taking us around the globe to understand and act more systemically



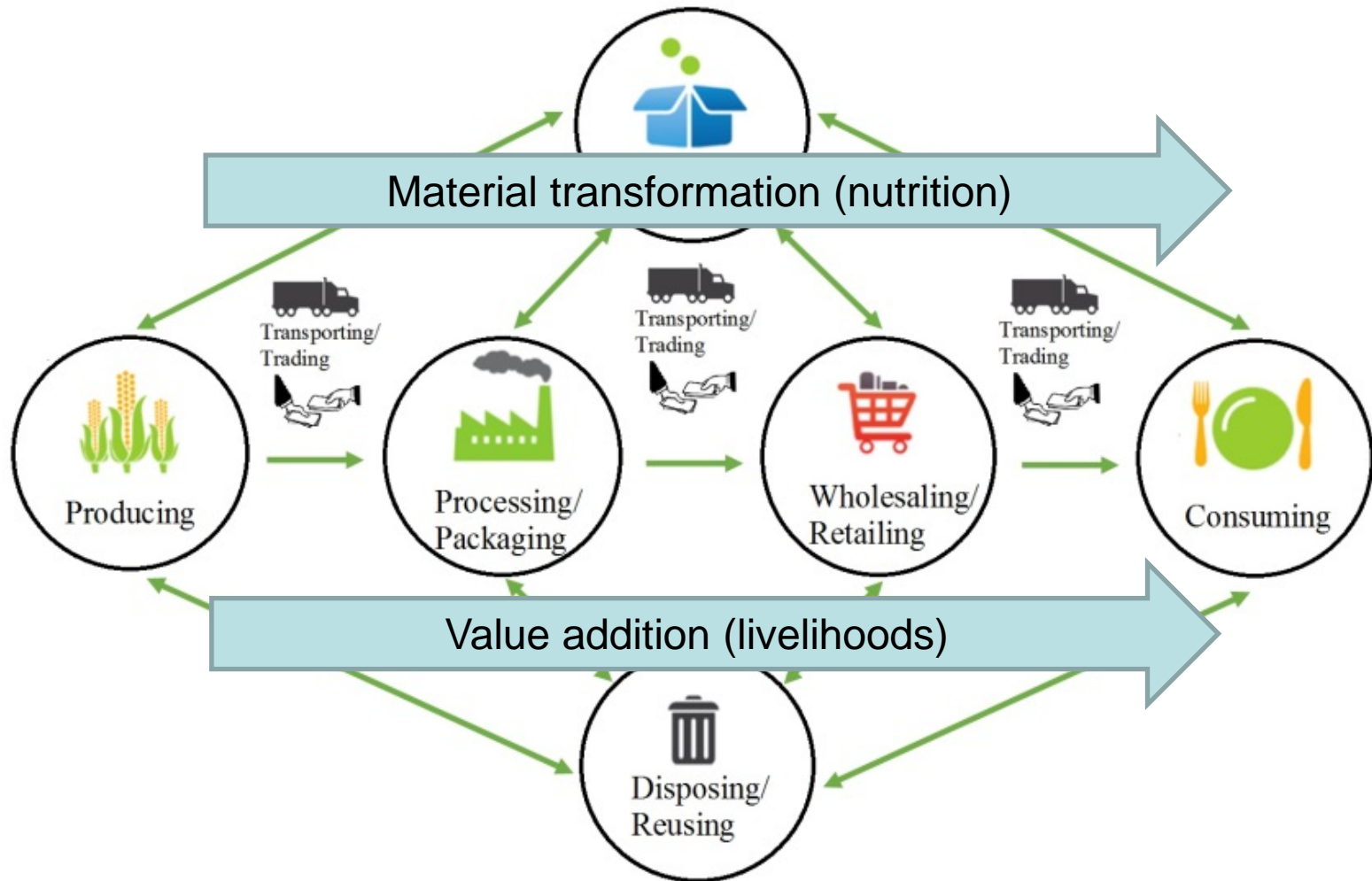
## Food systems Concepts & dynamics

*John Ingram, Consultant, UK*

# What do we want from Food Systems?



# Food Systems include 'Activities'



# Food System 'Activities' lead to 'Outcomes'

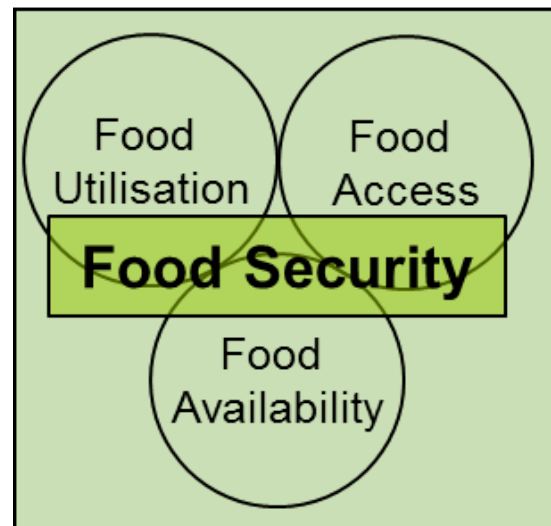
**'Activities' and 'Outcomes':**  
Balancing the 'What We Want'  
with the 'What We Do' and the 'What We Get'

Trade-offs!

Synergies!

## Socioeconomic Outcomes

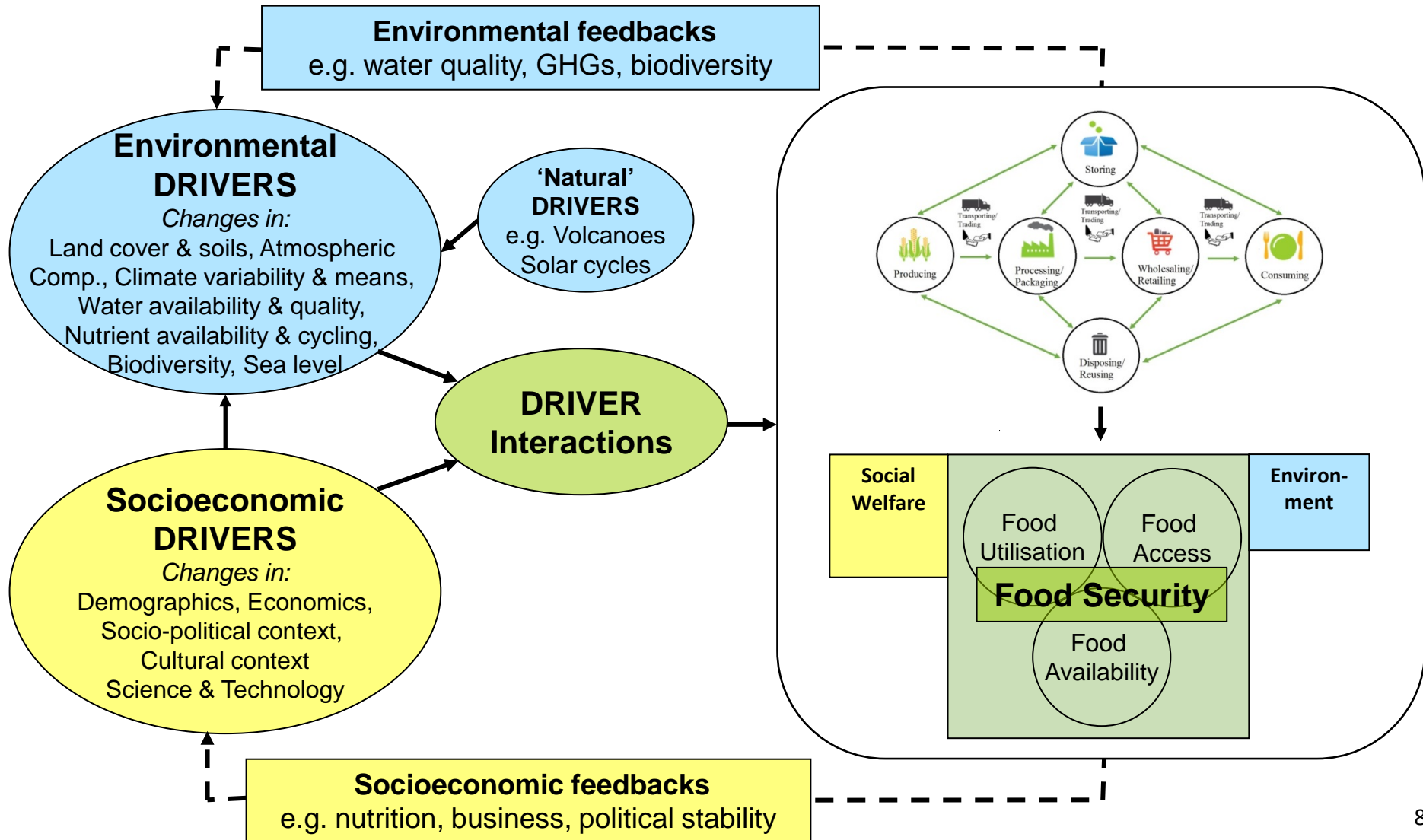
- Income
- Employment
- Profit
- Social capital
- Political capital
- Human capital
- ...



## Environmental Outcomes

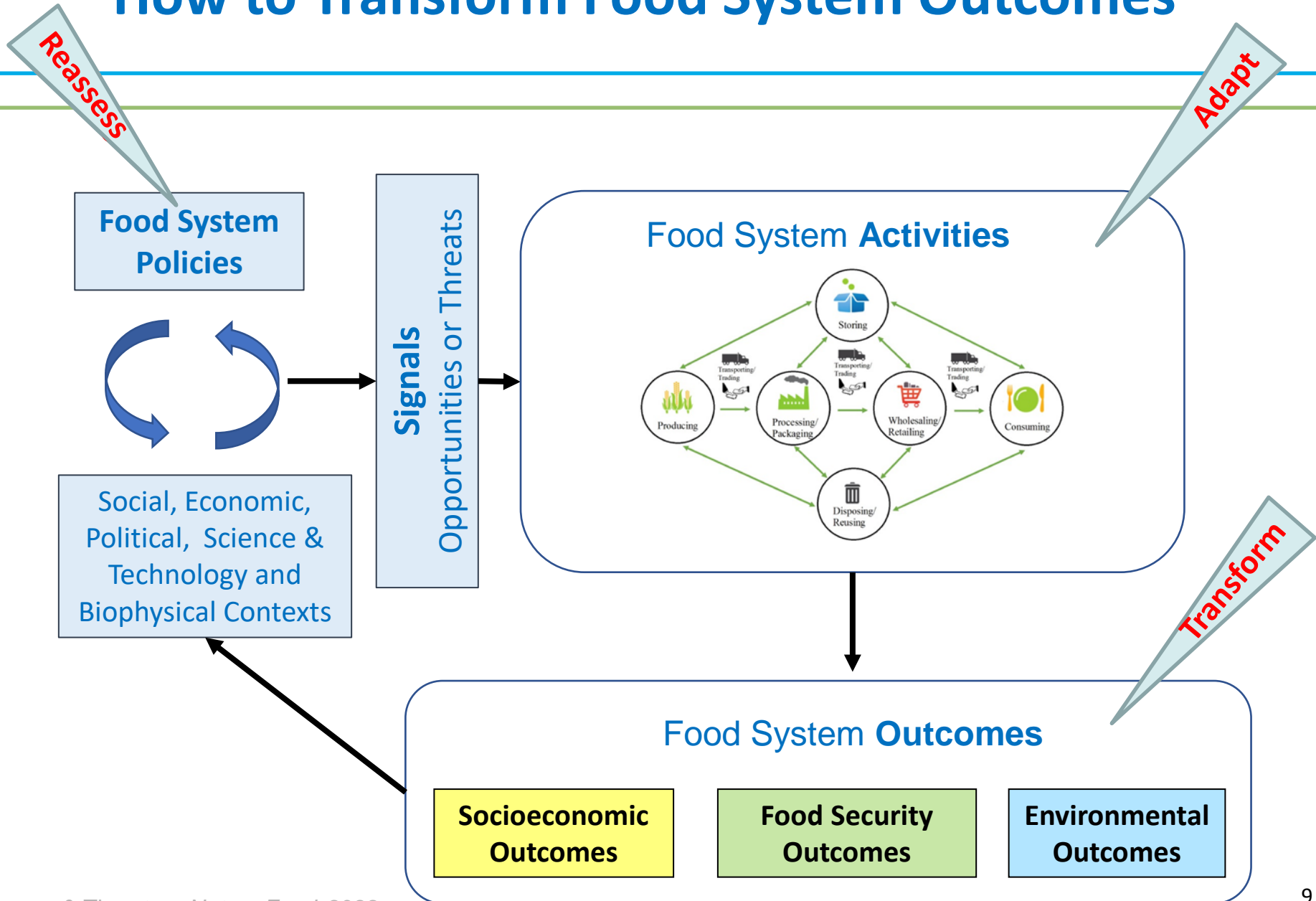
- Climate change
- Water availability
- Water quality
- Biodiversity
- Biogeochemistry
- Soil degradation
- ...

# And Food Systems also include 'Drivers' and 'Feedbacks'





# How to Transform Food System Outcomes

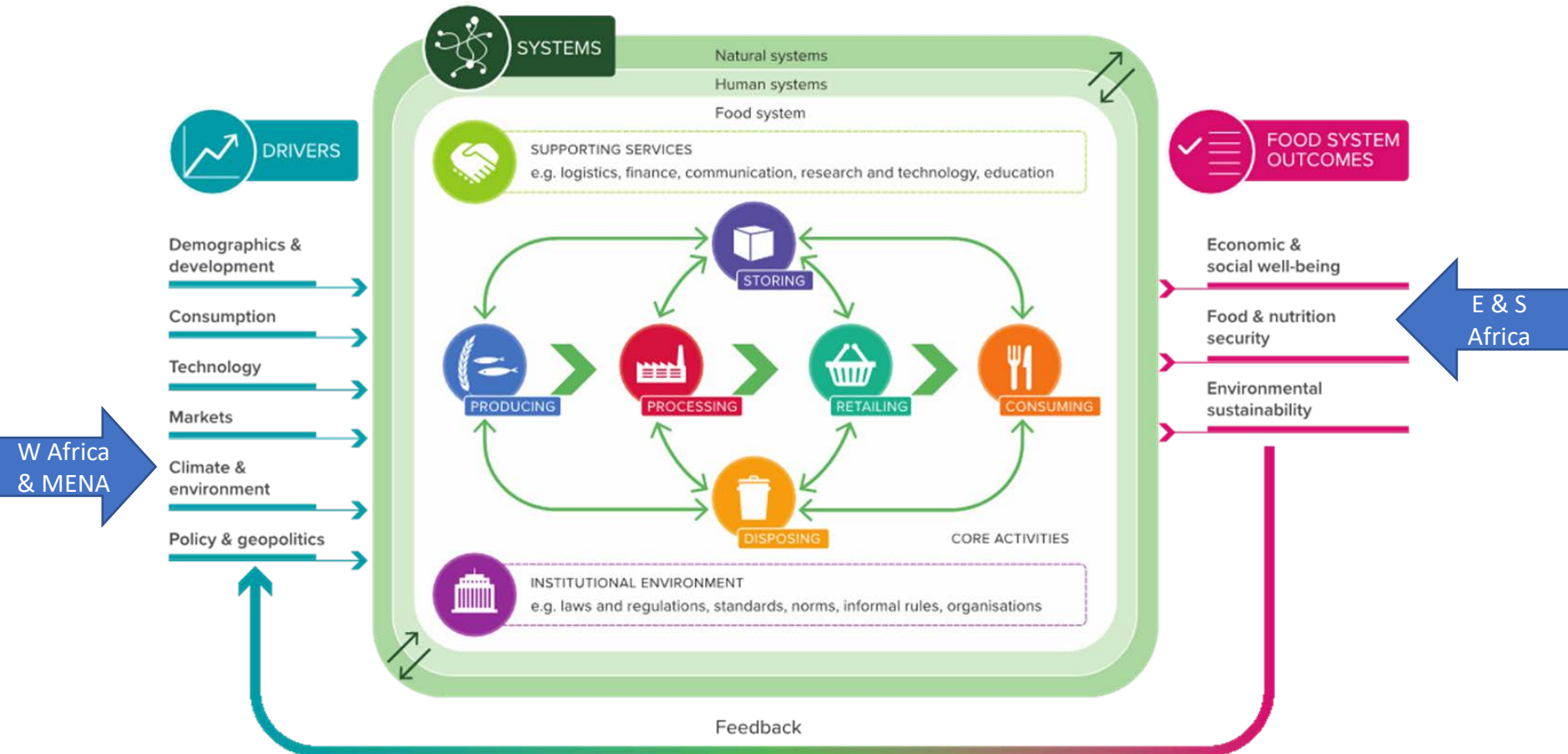




SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically





SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



## Changement climatique et systèmes alimentaires

### Afrique de l'Ouest

*Theodore Kabore, PAM, Mali*

# La sécurité alimentaire...

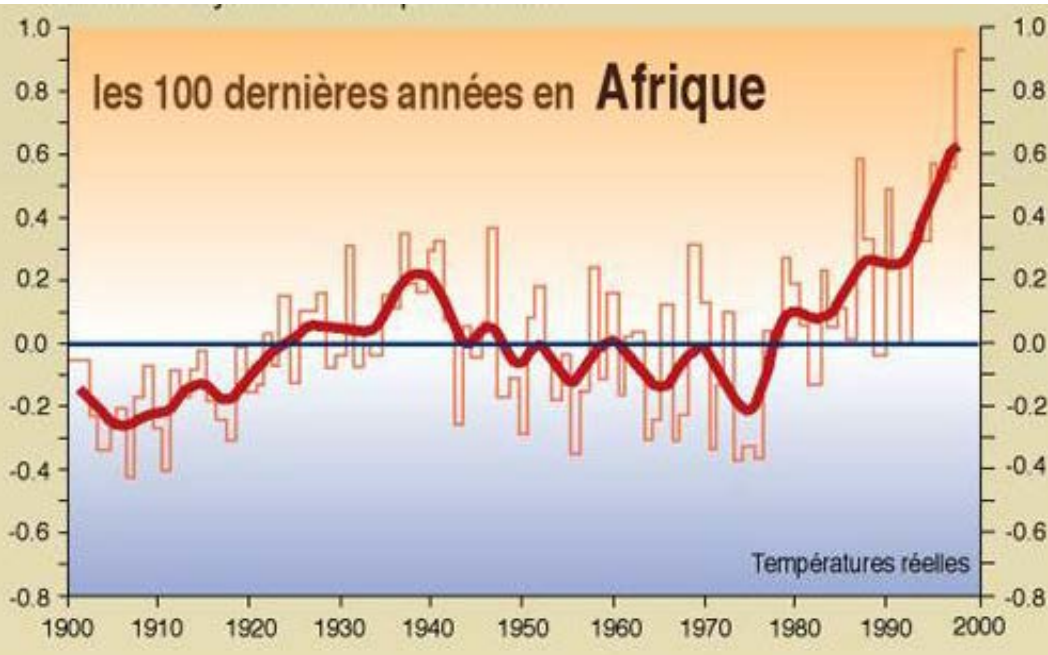
... existe lorsque toutes les personnes, à tout moment, ont un **accès physique, économique et social à une alimentation suffisante, sûre et nutritive pour répondre à leurs besoins alimentaires** et à leurs préférences alimentaires pour une vie active et saine.

*(UN-FAO World Food Summit 1996, 2012)*



... est universellement applicable  
... est plus que la production alimentaire  
... repose sur les systèmes alimentaires

# Systeme alimentaire... Réalité du CC

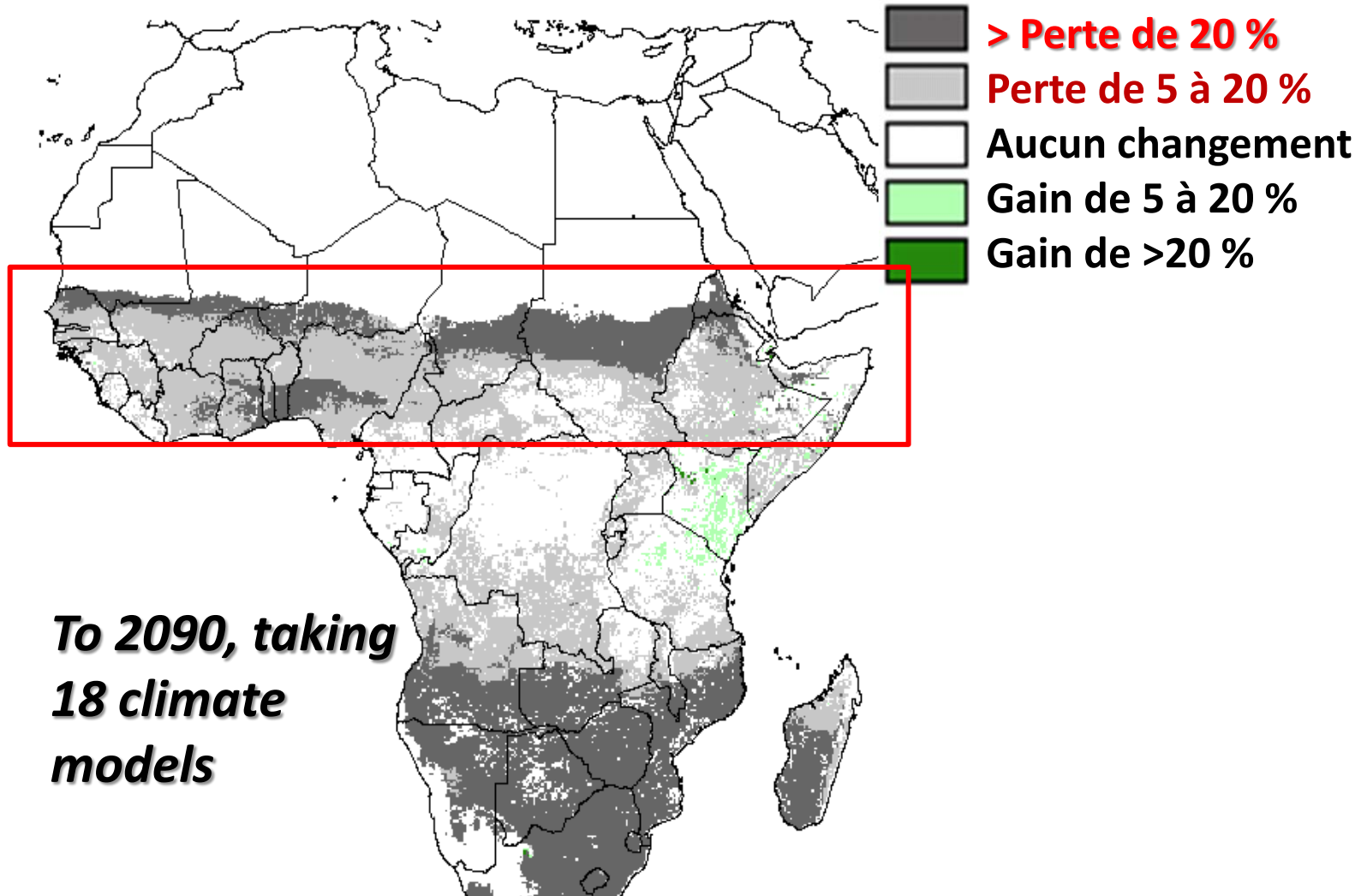


***Afrique : T° simulée  
augmente plus que  
l'augmentation moyenne de  
T° à l'échelle mondiale***

***Rapport spécial du GIEC  
sur le réchauffement  
climatique : seulement 09  
ans pour agir **pour**  
**empêcher un réchauffement  
de plus de 1,5 °C*****

# Systeme alimentaire... vulnerabilite de l'agriculture face aux CC

*Durée de la période de croissance (%)*



# Systeme alimentaire... vulnerabilite de l'agriculture face aux CC (FAO, 2018)

- *Le secteur agricole absorbe **>26%** des dommages totaux et des pertes dues aux extremes climatiques (**>80%** lorsqu'ils sont causes par la secheresse)*
- *CC causera 71 millions de personnes en situation d'insécurité alimentaire (1/2 en Afrique subsaharienne)*
- *Corollaire : perte d'emploi & de revenus, probleme de nutrition & bien-être...*
- *Degradation des terres et des ecosystemes naturels*

# Et nous savons également comment les activités actuelles du système alimentaire ont un impact sur l'environnement mondial

- Sol **33% dégradé**
- Eau douce **20% aquifères surexploités**
- Biodiversité **60% de perte**
- Ressources marines **29% surexploitées; 61% entièrement pêché**
- Et la pollution: produits chimiques, plastiques, déchets, ...



ARTICLES  
<https://doi.org/10.1038/s43016-021-00225-9>

nature  
food

Check for updates

**Food systems are responsible for a third of global anthropogenic GHG emissions**

M. Crippa<sup>1</sup>, E. Solazzo<sup>1</sup>, D. Guizzardi<sup>1</sup>, F. Monforti-Ferrario<sup>1</sup>, F. N. Tubiello<sup>2</sup> and A. Leip<sup>1</sup>

**NATURE FOOD** | VOL 2 | MARCH 2021 | 198-209



# Équilibrer nos intérêts met au défi

---

Assurer la sécurité alimentaire d'une population croissante, plus riche et urbanisée, tout en minimisant la dégradation de l'environnement et les maladies liées à l'alimentation

*sur fond de stress et de chocs*

➤ épuisement des ressources naturelles

*et*

➤ de nombreuses économies rurales en stagnation

*et*

changement climatique

*et*

changements sociaux, socioculturels et économiques

# "Déballer le système alimentaire » *Spécifique à chaque contexte*

## **Exemple Mali: Leviers pour les systèmes alimentaires résilients** ***Voir Profil des systèmes alimentaires au Mali***

***Effets négatifs CC: budgétisation concrète de programmes nationaux inclusifs de formation & de développement, de gestion & de restauration des RN***

***Forte pression anthropique sur RN (exploitation de bois pour la consommation domestique & transformation agroalimentaire artisanale): investissements structurants pour des programmes de R&D dans le domaine des énergies renouvelables (énergie solaire), pour répondre à la demande importante en énergie dans les systèmes alimentaires.***

***Programme d'investissement sur les infrastructures routières, de stockage et de commercialisation: A faire en fonction des zones de production et de consommation, des pôles économiques et du plan d'aménagement du territoire***

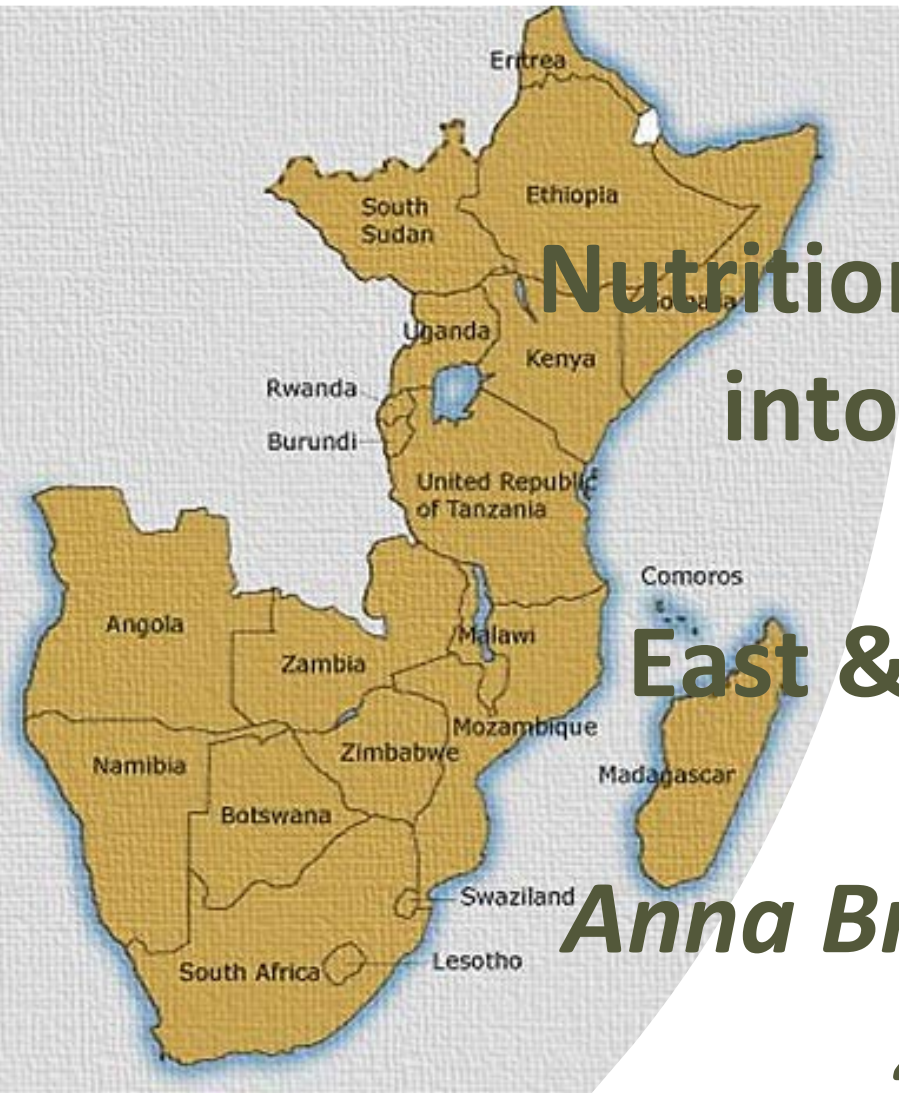
***Mise en œuvre de programmes spéciaux pour endiguer la prévalence de la pauvreté et de l'insécurité alimentaire et nutritionnelle, la malnutrition et la sous-nutrition des populations, ainsi que pour favoriser la génération de revenus chez les plus démunis: pour prendre en charge l'écart «rural/urbain» en matière d'accès aux infrastructures et équipements sociaux de base.***



SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically

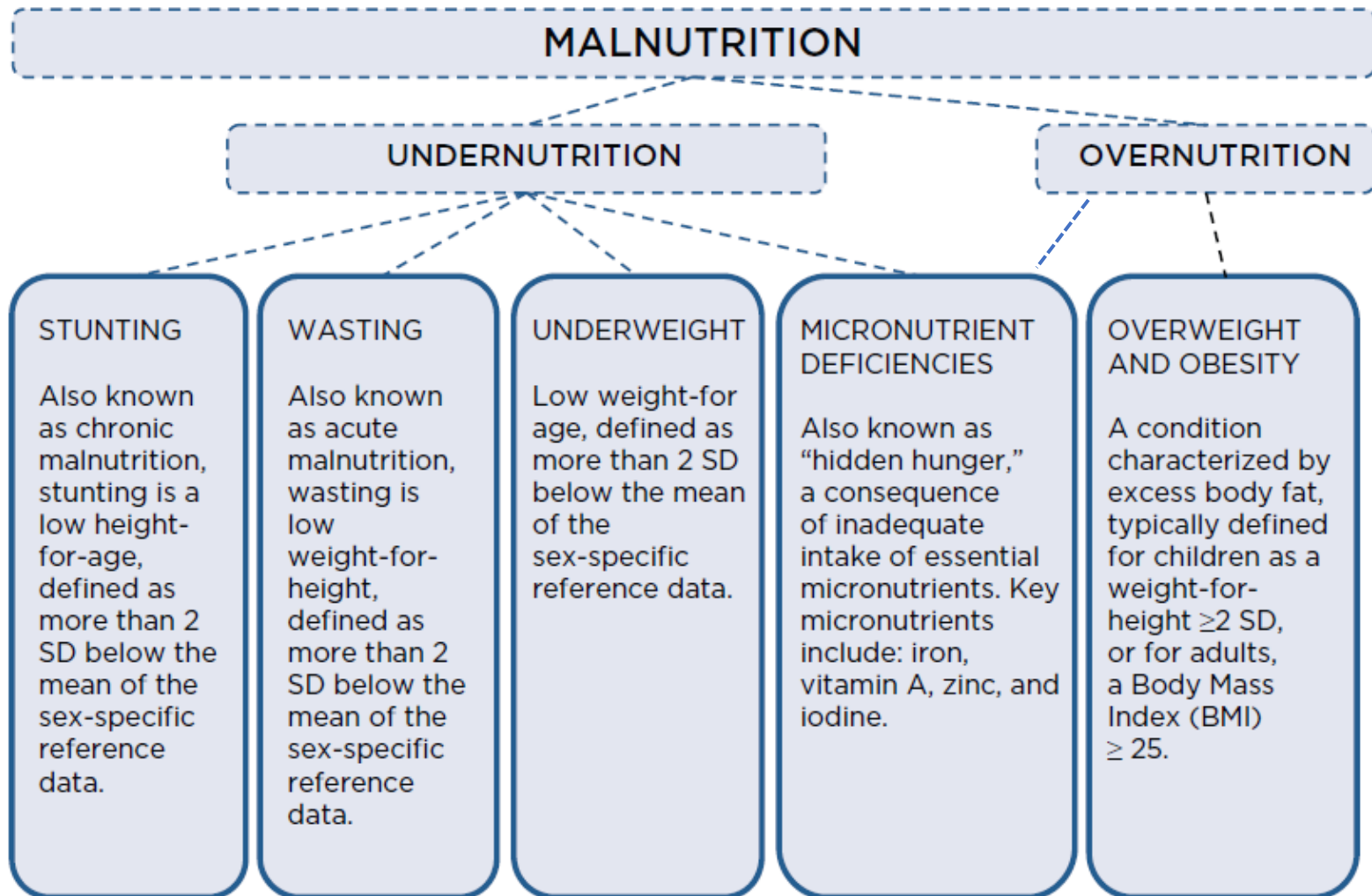


**Nutrition as an entry point  
into Food Systems**

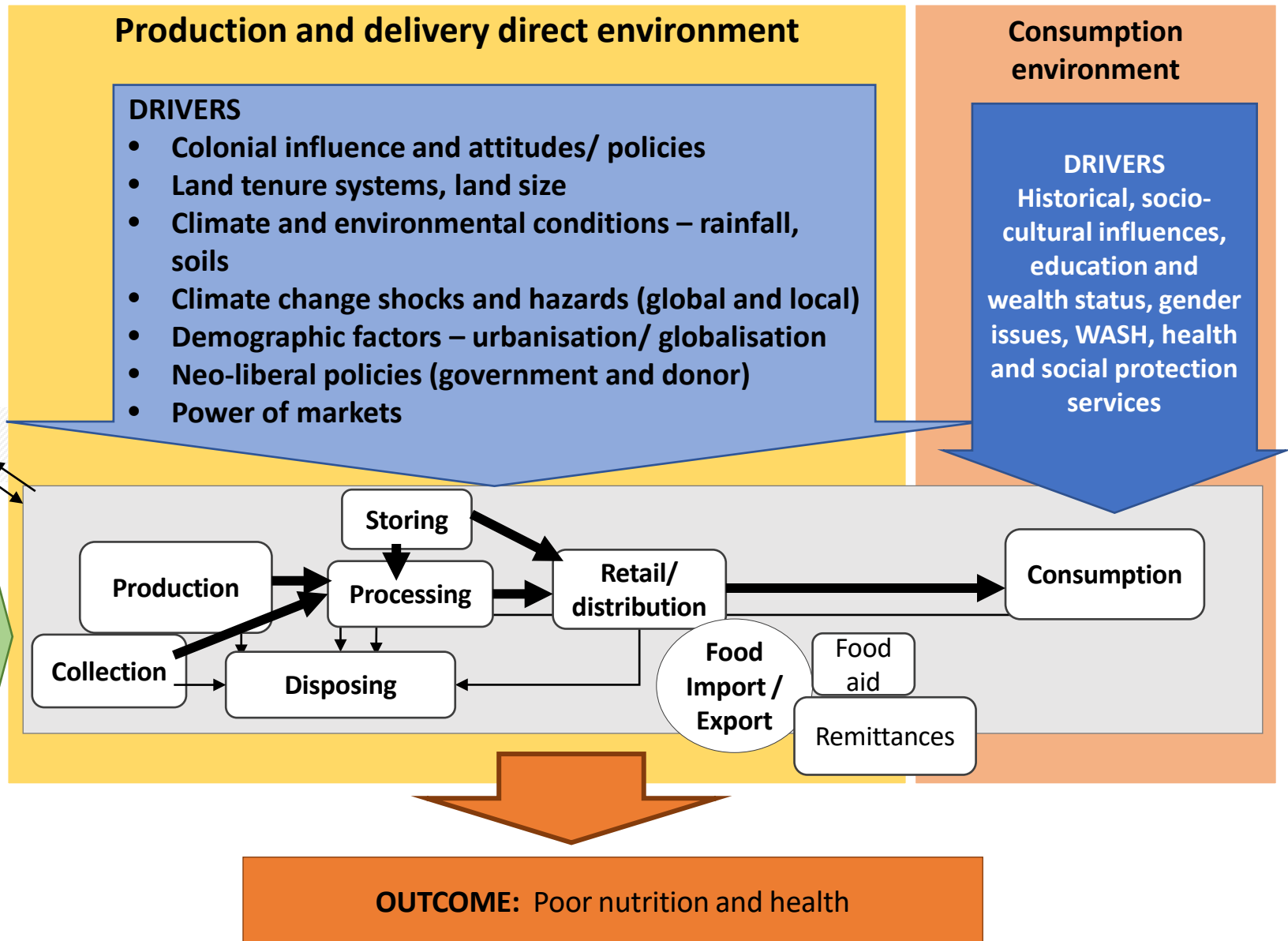
**East & Southern Africa**

***Anna Brazier, Consultant,  
Zimbabwe***

# Key terms in malnutrition literature



# Nutrition in Food systems



# Food system typologies

## 1. Rural / traditional

*ex. Zimbabwe, Malawi, Kenya*

## 2. Informal/ expanding

*ex. Uganda, Namibia, Angola*

## 3. Emerging/ diversifying

*ex. Botswana, South Africa*

## 4. Modernising/ formalizing

*No African country*

## 5. Industrial/ consolidated

*No African country*



- “Nutritious food” more affordable because of raised incomes
- Higher production/ consumption of animal products less plant based food and staples
- Fewer ppl. employed in agriculture more in processing and food services
- Larger landholdings, increased mechanisation and more inputs
- More wage earners and more women in the workforce – increased demand for processed convenience food
- More GHG emissions from food system
- Higher rates of diet-related deaths
- “objectives to minimize environmental and climate change consequences and improve nutrition and health are not being met”.

# What is a healthy diet?

WHO definition but...

- Can be contested
- Healthy diet vs. food sovereignty - needs to be culturally and agroecologically appropriate
- Sustainably produced?
- Nutrition data? What causes stunting?

## Nutrition challenges

- Women - time and labour-stressed (children in school, young people are not interested in agriculture)
- Lack of nutritious convenience food
- Few rurally based food processing and manufacture enterprises
- Very hard to change people's behaviour



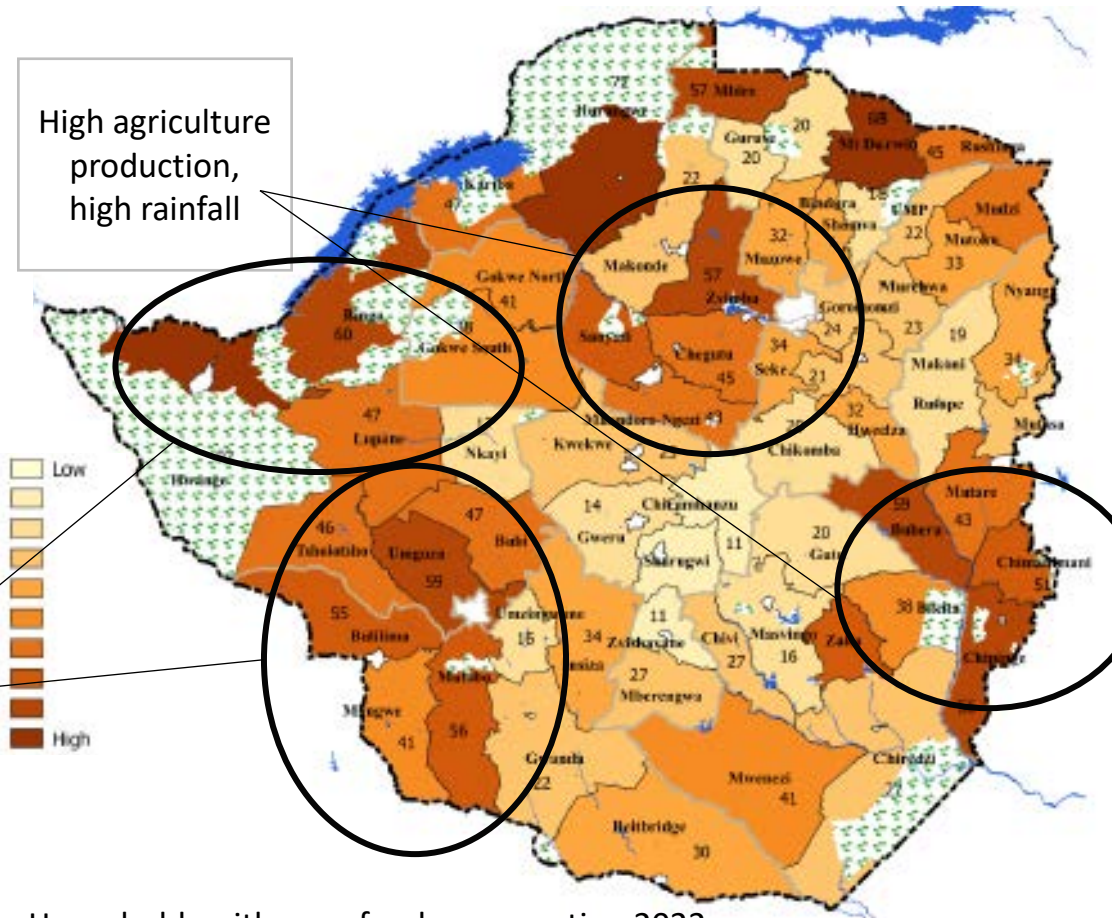
# Zimbabwe case study

Perceptions that traditional foods are inferior - values and priorities

Weak markets for nutritious food

Food aid – changing dietary preferences, creates dependency and apathy

High food insecurity





# Big trade – offs

Action	BUT...
Increased incomes through cash crops = economic growth	Environmental degradation and poor nutrition- better incomes often = worse diets
Diversification of production and agroecology for environmental protection and improved nutrition	Increased labour burden on women, less time to produce and prepare nutritious food

# Key takeaways

- Nutrition specific and nutrition sensitive approaches are both important
- Communities may produce a lot of nutritious food but does not mean it is being consumed
- Production (value chains) does not mean consumption
- Increasing peoples wealth does not necessarily improve their diet and often makes it worse
- Needs to be more focus on building local markets for local products



SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



## What does this look like ?

## 2 examples

**PNFL**

***Programme d'appui à la  
valorisation des produits  
forestiers non ligneux***

Implementé : au Burkina Faso

par : ONG Tree Aid BF & Gouvernement national  
entre 2021 et 2024, 3ème et dernière Phase

**Abel GOUBA**  
**DDC Burkina**

# **Amélioration de la sécurité alimentaire et sécurisation des revenus des populations à travers les PFNL- Burkina Faso**

**Abel GOUBA / DDC Burkina Faso**

25.01.2023

# Contexte et justification



## Contexte :

- Burkina Faso: Grande dépendance de l'agriculture et de l'élevage aux conditions climatiques
- Récurrence des chocs climatiques (inondations, sécheresses, irrégularité des pluies, etc.)
- Déficit en production céréalière (crise alimentaire en 2008-09; 2021-2022)

**Alternative** : combler les déficits alimentaires par l'utilisation des produits forestiers non ligneux (PFNL) : fruits et graines, feuilles, fleurs, sève et exsudats, tiges et écorces, miel, paille et insectes.

## Objectif :

Contribuer à améliorer la situation alimentaire et nutritionnelle des populations rurales et accroître leurs revenus par la valorisation des PFNL.

- Améliorer les modèles de production domestique, de proximité, →  situation alimentaire/nutritionnelle
- Améliorer l'accès au marché de producteurs marginalisés, →  revenus
- Gérer et préserver les ressources forestières à travers des pratiques durables d'exploitation et des reboisements (Atténuer les risques liés au CC, préserver les patrimoines culturels)

# Quelques résultats

- Disponibilité sur une plus longue période de feuilles fraîches pour l'alimentation, diversité alimentaire/nutritionnelle des ménages et autonomie économique des femmes → Réalisation + 400 Jardins Nutritifs (moringa, baobab, légumes)
- Amélioration du score de diversité alimentaire dans certaines localités (28%).
- Contribution à la réduction de la malnutrition infantile (éducation nutritionnelle, hygiène culinaire, biscuit enrichi au PFNL, ...)
- Contribution à l'augmentation des revenus additionnels +14% (construction de la chaîne d'approvisionnement en PFNL)
- Gestion et préservation de l'environnement (sécurisation des sites forestiers, RNA, transplantation, MED, parc de karité, etc.)

# Défis du Projet

Favoriser l'accessibilité à une alimentation saine et responsable des populations par la combinaison de modèles « alternatifs »

- ✓ Meilleure organisation et structuration des acteurs des filières pertinentes retenues.
- ✓ Construire des modes de production diversifiée et de distribution durables
- ✓ Connexion/réseautage entre acteurs des chaînes d'approvisionnement basé sur des modèles d'affaire fiables et viables
- ✓ Amélioration des capacités d'investissements et de la compétitivité des entreprises PFNL
  - construire une stratégie commerciale, intéresser les acteurs privés à s'investir dans les filières
  - améliorer l'accès aux financements
  - réalisation des infrastructures structurant les filières

Préserver les ressources forestières et accroître la production des espèces pourvoyeuses des PFNL (contexte d'insécurité civile, pression anthropique, crise humanitaire, alimentaire,...)







## *Consumption of Resilient Orphan Crop Products for Healthier Diets*

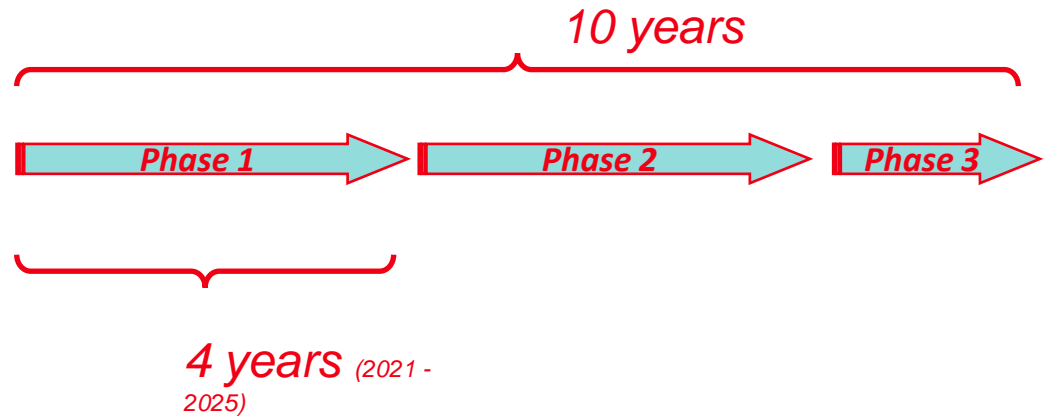
**Implemented** : in Tanzania, Niger, Chad and India  
by a Consortium of partners  
between July 2021 & June 2025 – Phase 1

**Veronica MASSAWE**  
*SWISSAID Tanzania*

# Countries

Tanzania  
Tchad  
Niger  
India

# Duration



# Consortium

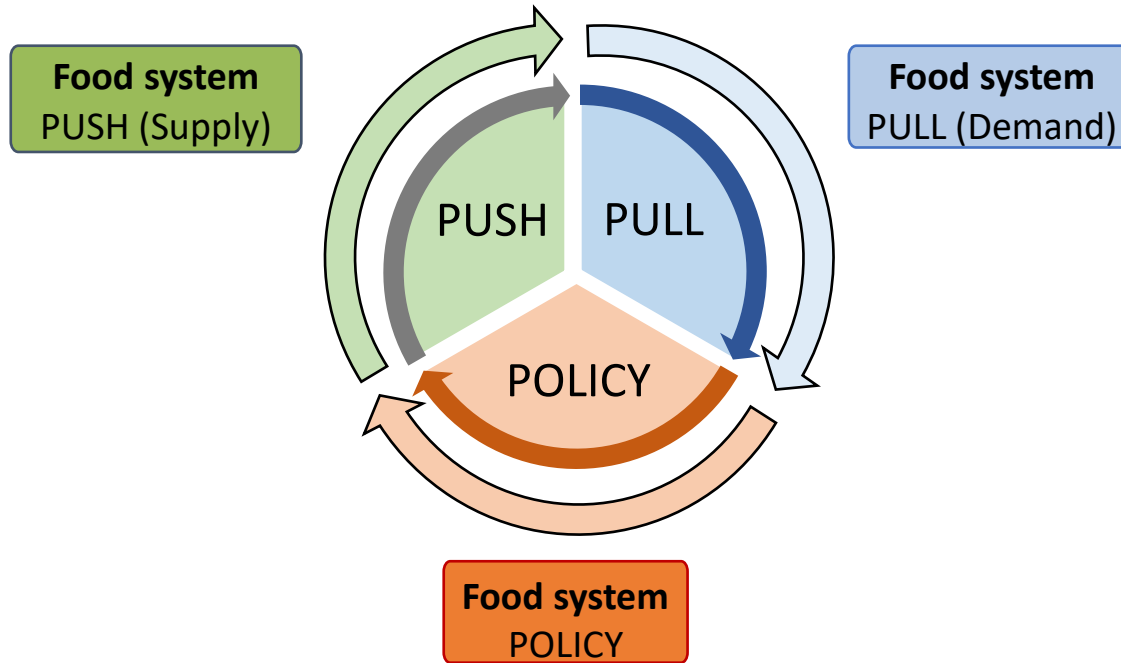


# Beneficiaries

*Push: 8'000 peasants*

*Pull : 30'000 consumers*

# Theory of Change



Drivers: growing poverty due to global challenges of climatic uncertainties, **biodiversity loss**, growing population and **malnutrition**.

The project applies participatory learning and action, **creation of linkages** and networks between consumers and producers and engage in policy dialogs and social movements

# Key successes – Bambara bean

- NUS nutritional profiles developed. The example Bambara Bean!
- 4 NUS products developed, in the final stages of products development
- Awareness on nutrition benefit of NUS in the communities. Porridge flour from Bambara beans
- 1800 Peasants have been linked to consumers

# Key challenges

- Loss of agrobiodiversity: need of high diversity at variety level to find the best of adapted to climate changes
- Culture and beliefs (growing Bambara bean stops rain, eating leafy vegetables is a sign of poverty, etc)
- Lack of reliable nutrition status data at local level
- It is behaviour change intervention, therefore takes time

Thank you for your attention



**SWISSAID** 



SDC A+FS Network

# Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



# Key learnings from the workshops

## Food system approaches & process

*John Ingram*





SDC A+FS Network

## Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



### The Food System framework helps people and organisations:

- Clearly differentiate between food systems *activities* and *outcomes*, and *drivers* and *feedbacks*.
- Understand the critical relationships between food system actors and their motivations needed to enhance food system outcomes.
- Use food systems framing to inform policy dialogues, and particularly related to governance (e.g. regarding water in water-scarce regions).
- Use portfolio sense-making when designing interventions, and especially in relation to identified gaps.
- Identifies opportunities for, and value of, intra- and inter-project synergies and collaboration.
- Recognises and addresses trade-offs to improve food system outcomes.
- It is not necessary to address the whole food system in projects, but it is important to be aware of where the project 'fits' within the system.



SDC A+FS Network

## Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



### Systems thinking and system 'tools' help:

- Set boundaries and framing to clearly define project scope.
- Understand others' perspectives and values.
- Raise awareness of the food system in its entirety even if choice is then made to focus only on one or other element (sub-system).
- Understand and better manage the positive and negative interactions across spatial and temporal levels (BATWOVE).
- Identify and manage stakeholders (stakeholder mapping).
- Most effectively at project design-level (transformation stmts & backcasting).



SDC A+FS Network

## Food Systems Learning Journey

A learning adventure taking us around the globe to understand and act more systemically



### Workshop Reflections from participants

#### The Food System framework:

- Was noted as key to identifying the drivers and to considering their role in affecting the system in the future.
- Showed more clearly how an increase in agricultural production does not necessarily lead to greater food security.
- Highlighted how the food system is dynamic, complex adaptive system, drawing attention to the feedback loops.
- Is useful at sub-national and national levels but is harder to work with at regional level due to increased complexity.
- Is useful for identifying gaps which can be used for identifying themes for funding calls for new projects.
- Shows how projects can be made more holistic especially when developing the theory of change, vision and log frames.



## Further Reflections:

It was also noted that while projects do not have to address the whole food system, it is important to be aware of it.

- Breaks siloed thinking.
- Identifies gaps in project opportunities (such as processing and other aspects of the 'missing middle').
- 'Surfaces' potential trade-offs, especially between targeted objectives and other people and/or entities (e.g. environmental factors)
- Unpacks complex contributors to food system outcomes.

It was also noted that some aspects needed further inclusion:

- Demography as a driver
- Agricultural inputs (e.g. seeds, equipment)
- Energy availability
- Transport and logistics
- Waste management and potential valorisation
- Environmental considerations



SDC A+FS Network

## **Food Systems Learning Journey**

A learning adventure taking us around the globe to understand and act more systemically



## **Upcoming Workshops**

### ***Regional workshops : linking with DRR & CC***

*Asia / Tashkent – 16<sup>th</sup>/17<sup>th</sup> March (ENG)*

*Asia / Bangkok – 20<sup>th</sup>-22<sup>nd</sup> March (ENG)*

**→ *Asia online event: 5<sup>th</sup> April 2023 9 – 10:30 CET***

### ***Regional workshop : linking with markets***

*Latin America – Cochabamba 19<sup>th</sup> – 21<sup>st</sup> April (ESP)*

**→ *Latin America online event: 5<sup>th</sup> May 16 – 17h CET***

**Thank you for  
joining us!**



**See you soon....**



**... in Uzbekistan ?**

**... in Thailand ?**

**... in Bolivia ?**

**... or online?**

**If you have not already  
done so, don't forget to  
sign up to :**



- our Food Systems learning journey**
- our A+FS network**