



NUTRITION *in* CITY ECOSYSTEMS



Schweizerische Eidgenossenschaft
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Nutrition in City Ecosystems

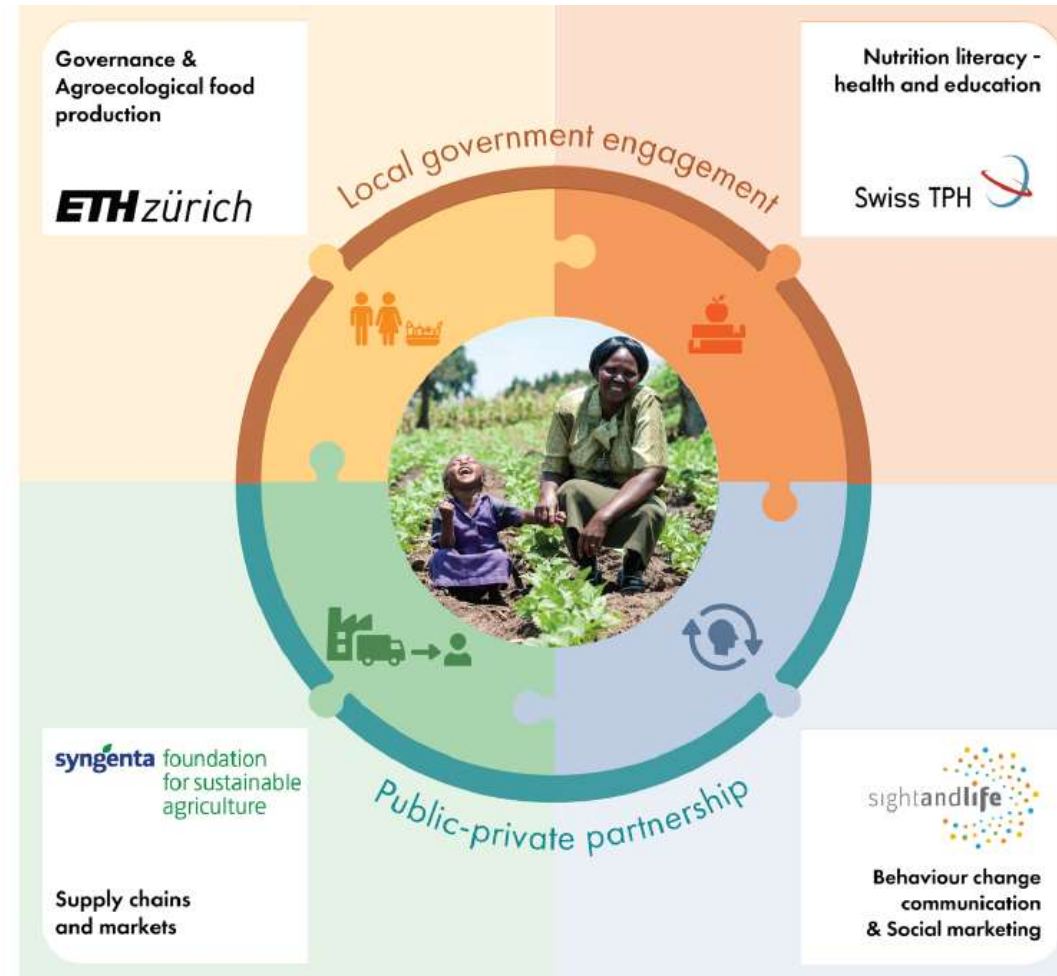
Rocio Escobar Bravo & Marnie Pannatier



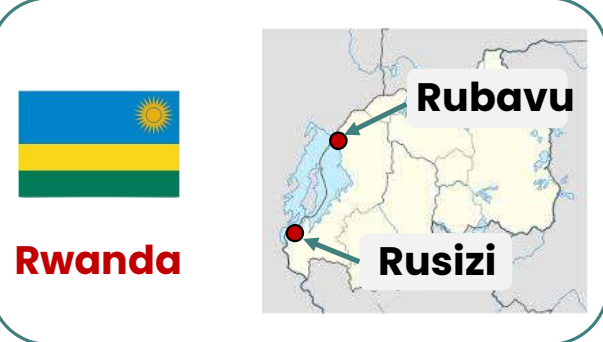
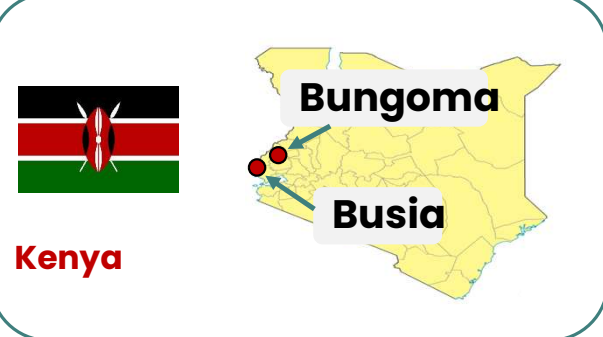
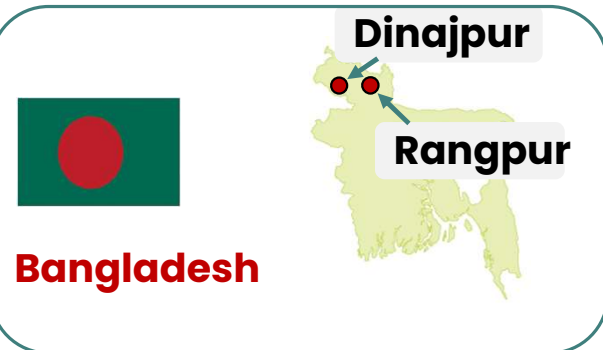
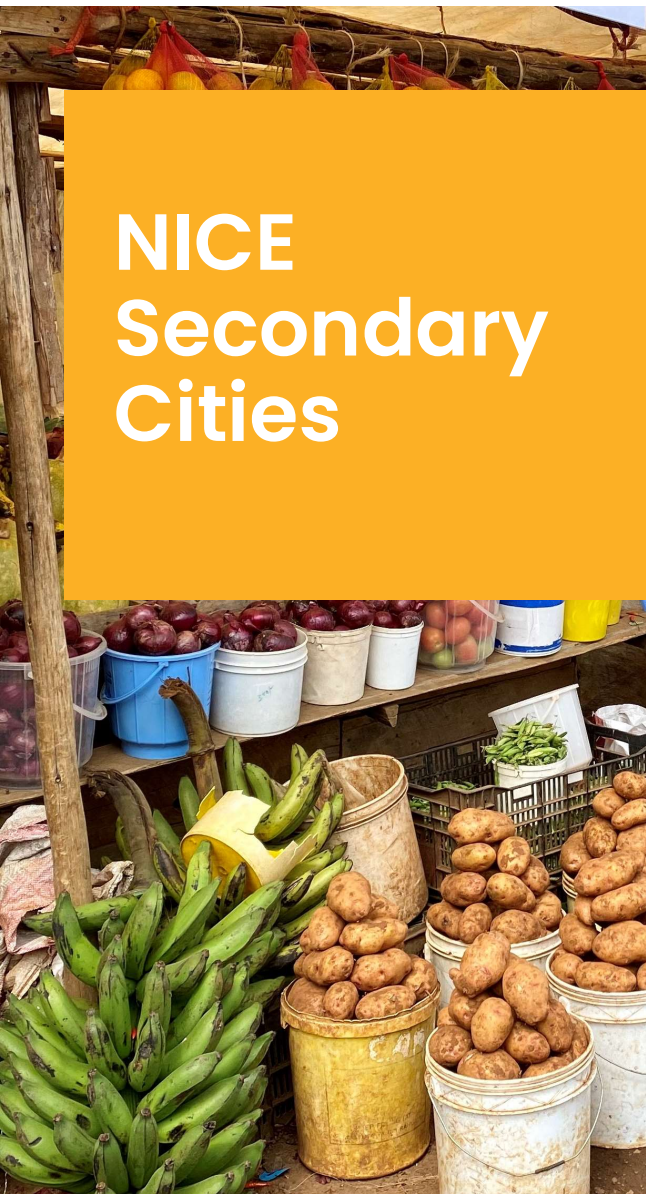
Partnering across the food value chain

Goal: Improve **health and nutrition** & **reduce poverty** for populations of city regions, especially women, youth & vulnerable groups

1. GOVERNANCE: Women and youth are involved in urban **governance structures** that incentivize food systems for improved nutrition
2. SUPPLY: City populations enjoy the enhanced **availability and production** of affordable, healthy, diverse, agroecologically produced local foods
3. DEMAND: City population's **knowledge increases, and demand is created** for the consumption of nutritious and agroecologically produced foods
4. SCALE UP: City-knowledge hubs ensure **horizontal and vertical exchange**, thereby shaping urban-rural food environments and informing national and global policies



NICE Secondary Cities





Food Value Chain

City population enjoy the enhanced availability and production of affordable, healthy, diverse and agro-ecologically produced local foods

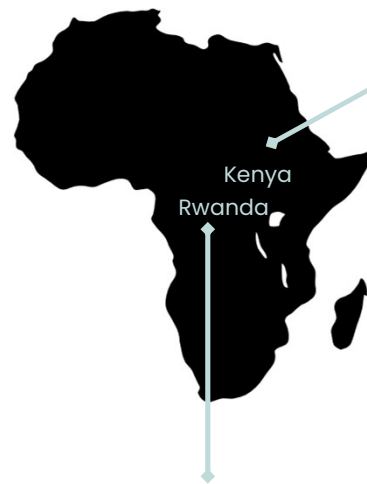
- Better knowledge about farming system and value chains through agroecological projects
- More urban and peri-urban women and youth in production and post-harvest value added activities
- Access to output market is increased

- Guideline based on the framework on nutrition-sensitive value chains developed by IFAD
- Local stakeholders: government, women and youth group, farmers representative, agroecological, value chain and nutrition experts
- Selection criteria:
 - Government buy-in
 - Nutrition-improvement potential
 - Production feasibility
 - Market potential
 - Income generation
 - Agroecology potential
 - Consumers buy-in

Value Chain Selection



Value chains Rwanda Kenya



Bungoma & Busia

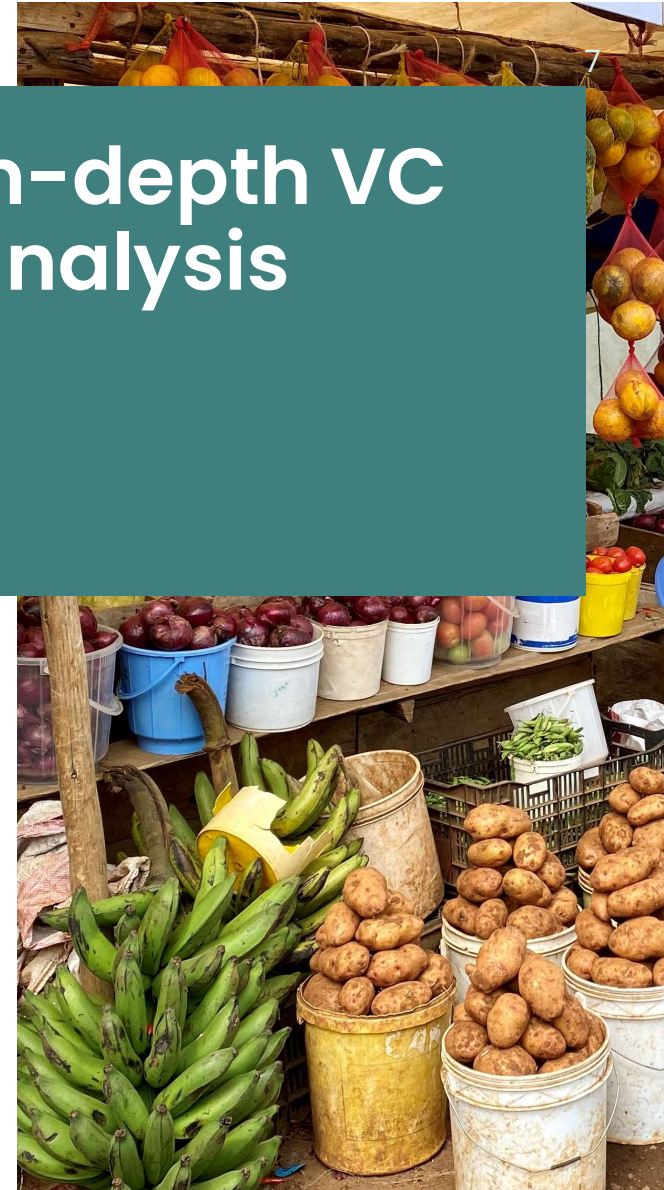
- ✓ African leaf vegetables
- ✓ Indigenous poultry
- ✓ Groundnuts
- ✓ African leaf vegetables
- ✓ Orange fleshed sweet potato
- ✓ Indigenous poultry

Rubavu & Rusizi

- ✓ Cabbage, onion, carrot
- ✓ Egg/Poultry
- ✓ Fish
- ✓ Tomato

1. VC mapping and characterization
2. Understanding the constraints and opportunities on the supply side of the VC
3. Understanding the constraints and opportunities related to nutrition value
4. Understand the constraints and opportunities on the demand side of the VC

In-depth VC analysis



SHARP

Self-evaluation and **H**olistic **A**ssessment of climate
Resilience of farmers and **P**astoralists from the **FAO**

GOAL OF THE ORIGINAL TOOL

To assess the resilience to identify the vulnerabilities in
social-ecological systems (SES) so that action can
be taken to create a more sustainable future for
people and land

LINK WITH AGROECOLOGY

Based on **13 agroecosystem indicators** with particular
focus on the prevalence of existing **knowledge**
Project name
systems generated by food system practitioners

Farmers' Survey



Better knowledge about farming system and value chains through agroecological projects

- Technical workshop for value chains selection
- Conduct in-depth value chains analysis
- Farmers' survey (SHARP)
- Identification of interventions

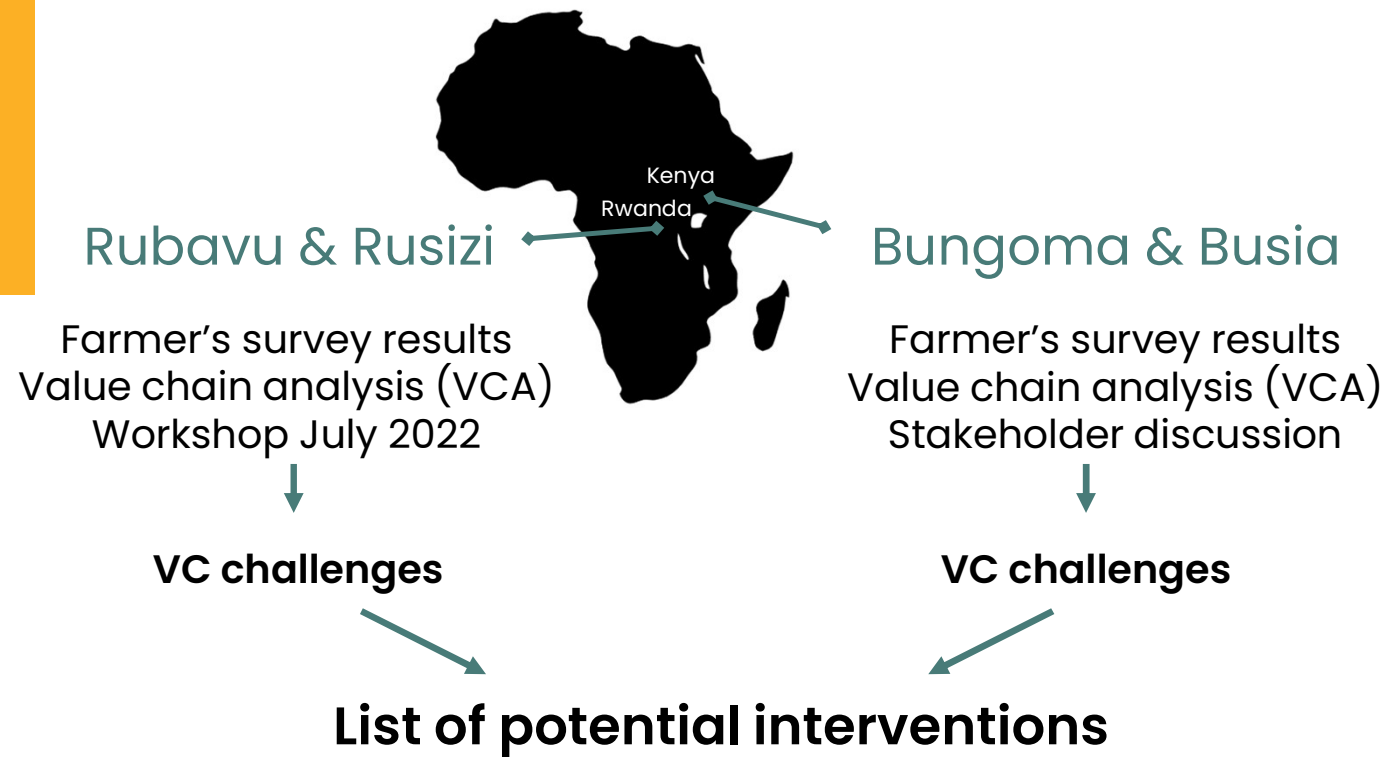
Food Value Chain





Interventions Rwanda Kenya

Participatory Intervention decision-making



Evaluation system for the selection of interventions

1. Alignment with agroecological FAO elements



2. Impact on resilience scores



3. Impact on nutrition



4. Feasibility





Evaluation of interventions



1. Alignment with agroecological FAO elements

1. Culture and food traditions
2. Diversity
3. Efficiency
4. Recycling
5. Resilience

Selection of interventions aligning with at least 3 or more elements

Evaluation of interventions

2. Impact on resilience scores from Farmer's survey (SHARP)

Example

Technical advice and/or training on erosion control through the application of agroforestry





Evaluation of interventions

Score 1

Number of resilience modules that can benefit from the intervention

Example of resilience modules in SHARP

Disturbances

Income sources, expenditures, and savings

Non-farm income generating activities

Land access

Utilization of new and adapted varieties

Animal production practices

Water conservation practices and techniques

Water access

Crop production

Landscape characteristics

Trees



Evaluation of interventions

Score 2

Number of resilience modules with lowest scores
that can benefit from the intervention

Example of Resilience modules

Score

Disturbances	6.6
Income sources, expenditures, and savings	6.8
Non-farm income generating activities	7.2
Land access	7.5
Utilization of new and adapted varieties	7.5
Animal production practices	7.6
Water conservation practices and techniques	7.9

Resilience scores < 8
= Very low farmer resilience

Landscape characteristics	8.9
Trees	8.9

Evaluation of interventions



3. Impact on Nutrition

1. Quantity of Calories
2. Nutritional quality
3. Diet diversity

Scoring system: From 0- 5. Potential to positively impact a nutrition component

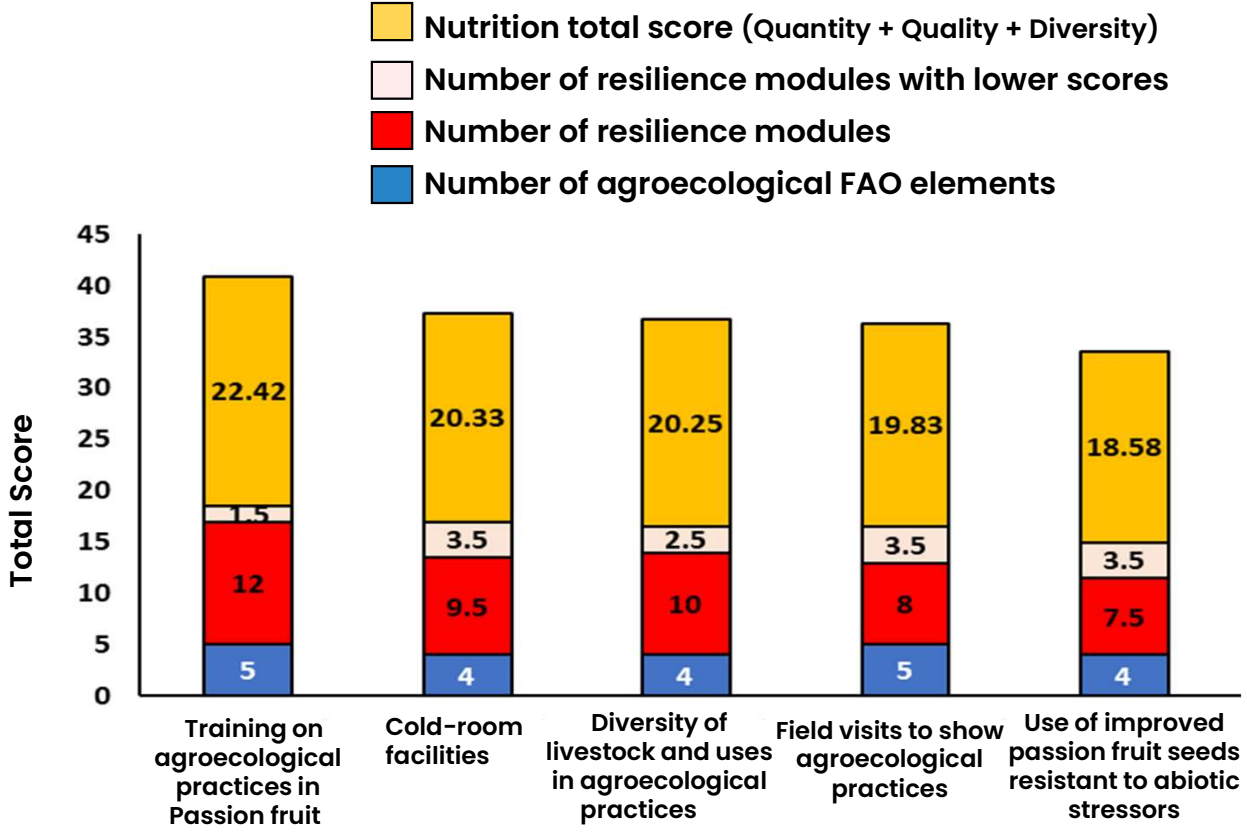
Total nutrition score: Sum of individual scores





Evaluation of interventions

Final Score



Prioritization of interventions based on **Total score**



Evaluation of interventions



4. Feasibility

- Technically
- Financially

Evaluation: Experts from the cities and project manager

Outcome: Elaboration of a **Final list**



What is next? Validation

Participatory Workshops

- **Lead farmers**
- Country managers
- City coordinators
- Facilitators

- **Open discussion**
- **Selection of interventions** (~80 % of the final list)

Next step

Implementation in 2023 in coordination with country managers and local experts



Thank you
for your
attention



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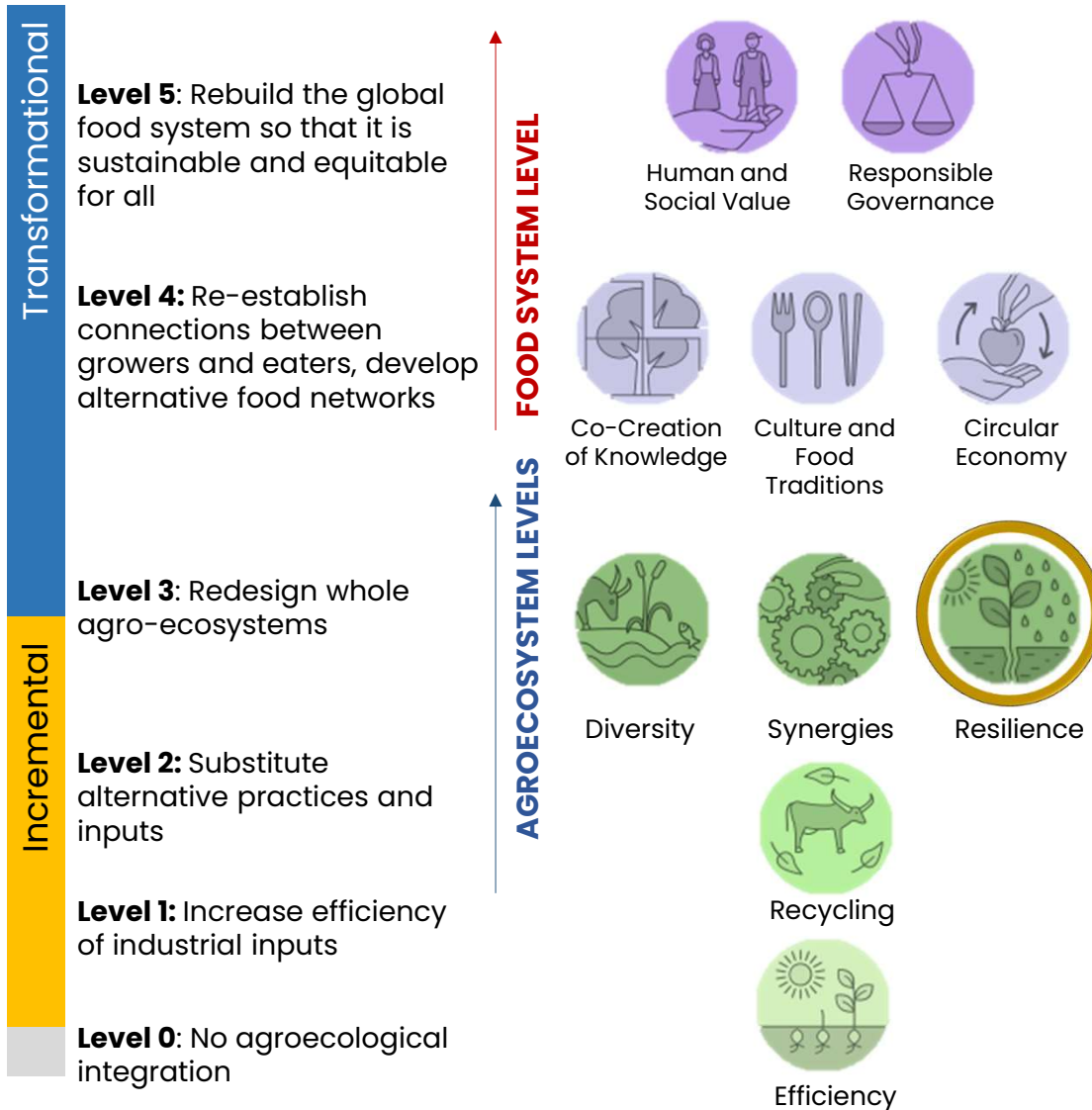
Swiss Agency for Development
and Cooperation SDC

Swiss TPH 
Swiss Tropical and Public Health Institute

ETH zürich



syngenta foundation
for sustainable
agriculture



SHARP
Resilience modules