Moving Targets: Food System Transitions
Evaluating food systems performance & dynamics

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Multiple aims & trade-offs

Inclusive

Sustainable

Affordable

Healthy Diet
Food Systems Approach

- From consumption/nutrition to production/VCs
- Dovetailing technical & behavioural change
- Focus on critical drivers of change
- Involving public, private & civic actors
- Matching local to global outcomes
- Identifying solutions in other areas than where the problem occurs

→ From problem-solving to systems solutions
What is a Food System?

Definition

- all elements (people, inputs, environment, processes, infrastructure, institutions, etc)
- and activities related to production, processing, distribution, preparation and consumption of food
- and the outputs of these activities, including social, economic and environmental outcomes.

Focus

- specific attention for nutrition and health outcomes
- central role of diets (links/feedbacks between food systems and nutrition & health outcomes)
Drivers of food system change

**Food supply systems**
- Agricultural production
- Food storage, transport and trade

**Food environment**
- Consumer
  - Diet quality

**Food transformation**
- Food retail & provisioning

**Multiple Levels**
- Country
- Region
- Village
- Neighbourhood
- Family
- Intra-household

**Multiple Agents**
- Government
- Producers
- Traders
- Retailers
- Households
- Persons
Problem-oriented: hunger & malnutrition

Overlapping burdens of malnutrition

Source: FAO
Common impact fallacies

Higher yield → More Income → Better nutrition
Higher yield → Food Sales → Food purchases
Higher yield → Crop Diversity → Diet diversity
Higher yield → Lower losses → Higher income
Higher yield → Lower prices → Higher demand
How to do Food Systems Analysis?

Structure (statics)
- Focus on diets (consumer choice & nutrition status) as outcome
- Identify entry points that put into movement the food system (drivers)
- Understanding of pathways of change that involve multiple stakeholders

Behaviour (dynamics)
- Linking Demand & supply-side interventions (push/pull)
- Combining technical & behaviour change
- Considering local & global effects
Key elements of food system

- **Drivers:** Biophysical & Environmental (climate) Innovation, Technology & infrastructure Political & Economic (trade, governance) Socio-cultural (gender, culture, norms) Demographic (Urbanization, migration)

- **Components:** Supply chain (availability) Food Environment (soc-ec/polit context) Consumer behaviour (diet choices)

- **Outcomes:** Available, Accessible, Affordable, Safe, Sustainable & Healthy Food
Food Systems Transitions

Multiple Levels
- Inputs
- Production
- Value Chains
- Consumption

Multiple Agents
- Farmers
- Traders
- Government
- Retailers
- Households

Adaptive system:
- Interactions
- Feedbacks
- Learning loops

Multiple Outcomes
- Healthy Diets
- Sustainable & Resilient
- Food Safety
- Inclusiveness

Bargaining Solutions
Incentives & Innovations to overcome Trade-offs & to support Synergies
How to do M&E of Food Systems?

- Evaluating change processes (‘moving target’)
- Linking drivers to outcomes
- Critical mass & tipping points
- Capture behavioural responses
- Accepting risk/uncertainty
From traditional / linear M&E

Isolated, static, reductionist

Actors make rational decisions

Formal & sequential structures

Identifiable, linear cause-effect chains
Open, interactive non-linear systems

Informal and formal structures

Emergent / dynamic cause-effect relations

to Systems / Network M&E
M&E of Food System Transitions

- Focus on complex interactions (& feedbacks)
- Trade-offs between multiple outcomes
- Involvement of diverse stakeholders
- Deep dive into Conflicts & Bargaining processes
- Wide opportunities for Experiments
Adaptive Change = Using Interactions within the Food System to generate positive feedback (or reduce negative feedback) loops.

- Non-linear changes
- Dynamic interaction
- Networks linkages
- Collective norms
- Heuristic learning (discovery)
Entry points (for changing Food Systems)

What makes it a system intervention?

→ activities (interventions) that support changes in the relationships (interactions) between FS activities/stakeholders that are likely to result in better (improved) diets.

Possible entry points (‘drivers of change’):

● **Policy** Incentives (prices, norms & standards)

● **Business** Innovations (market contracts, new products, smart ICT, management practices, etc.)

● **Civic-driven** campaigns (training, information, networks, participation in governance, etc.)
Examples of Food VC innovations

- **PHL reduction Nigeria**
  Reducing PHL in tomato chain using crates with return system by traders
  → **Feedbacks**

- **Diet diversity Myanmar**
  Dietary diversity can be promoted through income & market diversification
  → **Linkages**

- **Schoolmeals Vietnam**
  Meals at school or workplace canteens changes eating habits at home
  → **Spillovers**
Examples of Food System Policies

**Regulation**
Food safety standards and sugar/fat taxes in UK, DK, Mexico

→ **Substitution**

**Certification**
Identifying product characteristics or producers origin

→ **Segmentation**

**Nudging**
Making access to healthier foods easy and convenient

→ **Social norms**
Women empowerment in Bangladesh (RCT)

Impact on empowered women, baseline (BL) and endline (EL)

- T1: Nutrition BCC (male extension officers)
- T2: Nutrition BCC (women groups)
- T3: Agricultural production training (extension officers)
- T4: Ag+Nut (AE)
- T5: Ag+Nut+Gender Sensitization (AE+HKI)

Empowerment → Asset Ownership → Production & Income Decisions → Nutrition
From Theory of Change to Impact Pathways

**Input**
- Policy incentives
- Business innovation
- Civic-driven change

**Output**
- Better access & availability
- Improved VC performance
- Improved knowledge

**Outcome**
- Conducive food environment
- Inclusive Food value chains
- Changing food choices

**Impact**
- Dietary diversity
- Nutritional adequacy
- Sustainable & Inclusive Food Systems

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Interventions

Changes in Conditions

Changes in Interactions

Behavioural Change
Outlook & challenges

- Strong dynamics of Food Systems drivers (urbanization, growth, etc.)
- Quite a diversity of Food Systems pathways
- Limited understanding of interactions between components (Environment, VCs and Consumer choice)
- Urgent need for better Stories of Change (process tracing, outcome harvesting, narratives)
- Wide opportunities for experimental and real-time M&E
Thanks for your attention

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