TOWARDS HEALTHIER & SUSTAINABLE FUTURE FOOD SYSTEMS

Emerging Insights from Food System Innovations

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Food System Approach

- Linking production to consumption/nutrition
- Dovetailing technical with behavioural change
- Focus on critical drivers of change
- Involving public, private & civic actors
- Matching local to global outcomes

→ From problem-solving to systems solutions
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
Diverse Motives for Food Choices

**Eating Motivations**
- Liking
- Habits
- Needs
- Physical well-being
- Convenience
- Pleasure
- Tradition
- Nature concerns
- Sociability
- Price
- Physical appeal
- Weight control
- Affect regulation
- External demands
- Social image
Main trends & challenges

Connectivity
- Supermarket expansion & out-of-home consumption
- Food prices & market volatility
- ICT revolution in agri-food value chain

Resource intensity
- Rapid urbanization & growth of megacities
- Climate change and yield gaps
- Dietary changes & protein transition
Changing Rural & Urban Diets

**THE RURAL-URBAN DIVIDE**

<table>
<thead>
<tr>
<th></th>
<th>Calories (Kcal)</th>
<th>Protein (gms)</th>
<th>Fat (gms)</th>
</tr>
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<tbody>
<tr>
<td>Rural</td>
<td>2,153</td>
<td>60.2</td>
<td>31.4</td>
</tr>
<tr>
<td>Urban</td>
<td>2,071</td>
<td>56.5</td>
<td>41.6</td>
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</table>

Figures indicate per capita intake per day

<table>
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<th></th>
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<th>2011-12</th>
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</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Urban</td>
<td>57.2</td>
<td>55.7</td>
</tr>
<tr>
<td>Rural</td>
<td>Urban</td>
<td>57.2</td>
<td>55.7</td>
</tr>
</tbody>
</table>

Source: NSSO

- **Slowly reducing share of staples**
- **Strong increase intake of (ultra)processed food**
- **Moderate increase in fruit & vegetables**
- **Rising demand for animal-based food**

India: more calories, less proteins, more fats & sugar
Multiple Markets
Food purchase from multiple income sources

Casual Labour 30%
Cultivation 24%
Livestock 4%
Agricultural Labour 8%
Salary 7%
Rural Migration 4%
Urban Migration 13%
Enterprise 6%
Other 4%

Purchase of Food
- Open market
- Street vendors
- Corner shop
- Supermarket
- Fastfood
- Out-of-home

Income & market diversification may support dietary diversy
Nutrition-sensitive & circular Value Chains

• Packaging & storage for reducing loss and maintaining quality

• Reducing lead time & extending shelf life

• Efforts at the start of the value chain give returns at the end → agency coordination required

• Also promising for local vegetables varieties with high nutrient content
From institutional to home consumption

- School meals, hospital & prison canteens, company restaurants
- Support school enrollment and workplace attendance
- Direct nutritional effects (social protection; rapid hospital recovery)
- Spillovers to household behaviour
Personalized nutrition

• Nutritional labelling (Organic, Sustainable, Fair, GMO)

• ICT opportunities: internet shopping & home delivery (+ gender empowerment)

• Tailoring food supply to individual demands and needs (vouchers; Veg-on-Wheels)

• Individualized messages: Bar / QR codes in health apps, prompting healthy food
Pull & push policies

• Nudging consumers towards healthier food choices

  • Retail environment influences ‘easiness’ of food choices

  • Moderating intake of candies and soft drinks (barriers)

  • Taxing sugar and fat content (or: provider-get subsidies)
Public – private partnerships

Public Policies

- Price & non-price support for healthier food
- Focus on availability, safety & easiness
- Community platforms for procurement of healthy foods

Private Contracts

- Long-term contractual delivery agreements
- Involvement of all supply chain agents
- Mainstreaming sustainability & fairness (living wage)
Outlook & Future Challenges

1. Tailoring food supply to consumer’s motives & social norms

2. Public role for shaping a conducive (urban) food environment

3. Business partnerships to uplift food standards

4. Citizen platforms to enhance neighbourhood participation

5. Experiments towards food systems co-innovation
Thanks for your attention