Thanks to FES & SDPI

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Key Words (Pathways) to Sustainable Development

Pathways to Sustainable Development

3D Space

Union Council (Pakistan)/ Ward(TZ)/ GN (Sri Lanka)/ Gewog (Bhutan)/ Parishad Council (Bangladesh) / Parish (UK)

Future

District or Sub District Level

Now
What are the core challenges of Implementation and how could we resolve them to ensure Sustainability?
Marginal & Small Producers
/ Resource Poor

External Market & Intermediaries

Liberalization, Privatization & Globalization: Scale, Specialization, Large Capital & Intensive Technology

Weather & Climate

Rich & Large Farmers

Poor & Vulnerable Farmers

External Inputs

Bio-diverse produce portfolio
Integrated Agriculture & Economies of Scope

Culture of Agriculture, Health & Education
### Moral, Technical & Systems Perspective at different levels of economic activity

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Primary Economic Activity</th>
<th>Secondary Economic Activity</th>
<th>Tertiary Economic Activity</th>
</tr>
</thead>
</table>
| **Moral Perspective:** Primary Stakeholders | • Small & marginal Farmers  
• Rural Youth  
• Resource Poor | • Industrialists  
• Ancillary Industries  
• Engineers  
• Industrial Workers | • Banks & Financiers  
• Large Wholesalers, Distributors & Retail Chains  
• MBAs/Professionals  
• Neo classical Economists |
| **Technical Perspective:** Production Efficiency & Nutritional Efficiency | **Economies of Scope** | **Economies of Scale** (Step Function of Scaling Process) | **Economies of Scale** |
| **Systems Thinking & Sustainability:** Institutional Architecture & their relationship | • Open System  
• Interconnections  
• Interdependence  
• Higher frequency of interactions  
• Bio-diverse and networked relationship  
• Greater depth of relationships that not only facilitate efficiency but sustainability | • Closed System  
• Relationships are more linear as in a chain  
• Relationships are contractual in nature  
• Institutional architecture is a top-down design  
• Chain, contractual, arms length relationship is preoccupied with achieving efficiency | • Relationships are more linear in design  
• Relationships are contractual with institutional buyers and need to be contractual as well as personal with retail buyers.  
• Institutional architecture is a top-down design |
Economic Activities & Process of Transformation

**PRIMARY ACTIVITY**
- AGRICULTURE

**SECONDARY ACTIVITY**
- INDUSTRIAL PROCESS

**TERTIARY ACTIVITY**
- MARKETING

Baby Corn Processing Factory

Baby Corn Processing Factory (step function of scaling)
## Language, Logic, & Values under the different Paradigms

<table>
<thead>
<tr>
<th>External Competition based Industrial Market Economy</th>
<th>Parameters</th>
<th>External Cooperation based Socio-Cultural Sustainable Ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clan Values: Take and Accumulate for self or a small group</td>
<td>Values</td>
<td>Universal Values: Service, Sacrifice &amp; Love for Sustainable community</td>
</tr>
<tr>
<td>Efficiency Market Competition</td>
<td>Logic</td>
<td>Sustainability Trust &amp; Cooperation</td>
</tr>
<tr>
<td><strong>Scale</strong>, Intensive Technology</td>
<td><strong>Rationale &amp; Performance Indicators</strong></td>
<td><strong>Scope</strong>, Appropriate Technology</td>
</tr>
<tr>
<td>Instrumental Rationality, Risks, ROI (Profit), Economic indicators; GDP</td>
<td></td>
<td>Emotional, Moral, Social, Psychological, Challenges, Satisfaction, Sustainability indicators; Well being</td>
</tr>
<tr>
<td>Top-Down Welfare State as per state regulations Rivalry &amp; Competition</td>
<td>Approaches</td>
<td>Bottom-up Direct Community Welfare &amp; Self Reliant communities Communitarian Spirit</td>
</tr>
</tbody>
</table>
Pathway to Sustainable Development

Action Research
Organizational Design & Institutional Architecture for Sustainable Governance

Design Principle, Strategy and Implementation
Balancing opposing Paradigms

Social Capital and Financial Capital
Social Capital  
Social Wealth  
Trust & Cooperation  

Frequency of Interactions  
Depths of Engagement  

Positive Feedback from the Engagements
Decentralization
Convergence
Community
Cooperation

Governance

NCSCS - LBSNAA
A Transition System Design for recreating Sustainable Community System

Marginal & Small Producers / Resource Poor

External Market & Intermediaries

External Inputs

Bio-diverse produce portfolio
Integrated Agriculture & Economies of Scope

Liberalization, Privatization & Globalization: Scale, Specialization, Large Capital & Intensive Technology

Culture of Agriculture, Health & Education

Weather & Climate

CES: Local People Owned & Managed Community Enterprise System at GP Level
Community Enterprise System Design

SIZE
SCOPE
TECHNOLOGY
MANAGEMENT
OWNERSHIP

Institutional Architecture & Relationships

MARKET LANDSCAPE
DECENTRALIZATION & RESOURCE CONVERGENCE
Paradigms of Organizational Design

Technically not feasible

- Small vs. Large
- Multiple vs. Few
- Low vs. High
- Dispersed vs. Concentrated
- Simple vs. Complex

Practically Unsustainable

Source: Nayak, Amar KJR (2010), Optimizing Asymmetries for Sustainability: A Prism for Agriculture & Rural Development in India, DEAR, NABARD Seminar, Mumbai & XIMB Sustainability Seminar Series 1.0, Dec 2009

Space & Nuclear, Military, Hydro-electricity, Solar Power
Aircraft, Information Technology, Automobiles, Heavy Industries
Agriculture, Retail, Food Processing, Insurance, Banking, Service Providers, etc
District or Sub District Level

Union Council (Pakistan)/ Ward(TZ)/ GN (Sri Lanka)/ Gewog (Bhutan)/ Parishad Council (Bangladesh) / Parish (UK)
**Institutional Architecture & Relationships**

**District Level**
- Marketing Organizations
- Marketing Outlet In Urban/Industrial Town
- Retail MNCs

**Block Level**
- Block Level Value Addition of Specific Products (P1, P2, P3…P12)
- Categories of the District

**GP / Cluster Level**
- Community Enterprise System (FPO/PC/ PACS)

**Value added Product**
- Block to District
- Block to FPO
- Interchange of different graded Produce (P1, P2, P3) among the Blocks

**Value added Product**
- FPO to local market

**Surplus Raw Produce**
- Farmer to FPO
- FPO to Block

FPO-1
- Local Value Addition & Marketing of some Items

FPO-2
- Local Value Addition & Marketing of some Items

FPO-n
- Local Value Addition & Marketing of some items

P1
- Block to District
- Block to FPO
- Interchange of different graded Produce (P1, P2, P3) among the Blocks

P2
- Block to District
- Block to FPO
- Interchange of different graded Produce (P1, P2, P3) among the Blocks

P3
- Block to District
- Block to FPO
- Interchange of different graded Produce (P1, P2, P3) among the Blocks
Organizational Design & Institutional Relationship for Sustainable Community Systems

- **Community Enterprise System (CES)**
  - Family
  - Village
  - Cluster (GP)
  - Ecology

- **CES Operated by Trained Coordinators, & Facilitators from the Local Community**

- **Optimal Size**
  - Leverage Scope
  - Appropriate Technology
  - Ownership and internal Resource Generation
  - Governance & Management by Producers/Farmers

- **Design Variables of CES**
  - Mobilize Community to build **Trust & Cooperation** among Members and People in the Cluster
  - Sell surplus from the basket of produce, undertake **Value Addition & Market**
  - Provide Emergency, Consumption & Production **Credit** and Support Village Retail Outlets in remote villages
  - Adopt **Sustainable Agricultural Management** Practices with NRM and Integrate other Production Activities across 365 days
  - Converge Resources for Community **Health, Education, Environment & Basic Rural Infrastructure**

- **External Institutional Champions**
  - Converging Resources from NABARD, PR, NRLM, OLM, Agriculture, Cooperation, RD, District Admin with technical & managerial support from Local Academic/Development Organizations

- **Net Income**
  - Local & Urban Markets (200 KM from CES)
http://centre.lbsnaa.gov.in/ncscs/

National Centre for Sustainable Community Systems
Thank You