Indian Poultry Sector

Integrating Poor & Small-holders: Opportunities & Challenges
Structure of Presentation

- Current Scenario of Indian Poultry Sector
  - SWOT Analysis
- Small-holder Poultry Livelihoods
- Challenges, Opportunities and Ways forward
Poultry Sector in India

- Poultry occupies a unique position in the livestock economy of India characterized by coexistence of intense (technology, capital, scale) with integrated production & marketing and the other based on the traditional knowledge and practices
  - Small scavenging poultry production system is most wide-spread animal production system with “known” skills, moreso with landless/other resource poor (unlike cattle)
    - It has potential to reach more households than cattle development programs (resource neutral)
  - Modern Poultry – world’s fastest growing poultry industry and fastest growing agri-allied sector in India
Rapid transition from home consumption to commercial production

- In last three decades India has rapidly transitioned from Back-yard to Commercial Poultry
  - Decline in back-yard poultry, small-farmers are getting crowded-out
  - 3-decades back 70% of poultry population was “native bird” and accounted for 70% of egg production, today over 80% poultry production is “intensive managed production system”
  - Availability from 5 eggs per capita per annum in 1950s is now over 50 eggs per capita
- Policy and public institutions has not kept pace with changing reality
**Feature of Small-holder Production System**

<table>
<thead>
<tr>
<th>Traditional Desi (Native)</th>
<th>Improved Desi</th>
<th>New Breed in same context</th>
<th>Small-scale Modern</th>
</tr>
</thead>
</table>

- Across categories ...
  - Lower cost of labour and supervision
  - Higher quality of husbandry, shorter response time
  - Lower waste disposal
  - Better risk management in a diversified portfolio
- Beyond production system employment along supply chain – service providers – vaccinators, technology-extension, bulking agents, vending etc.
- Poverty and environment sustainability
- Direct impact on income as also through local consumption
- Given the low unitary value of inputs & services as also low unitary value of birds, creating full-time employment requires working out the flock size in context of leveraging productivity advantages, low opportunity cost of labour and inputs
- Nutrition, ready cash income and as financial stock (*liquid-asset*) are important to the household and thus even small flock size of 8-9 is significant
• Successive rural development/livelihoods project indentified livestock (poultry) development as pro-poor intervention
  ▫ Very few successes – beyond breed, feed, housing – skills as key gap
  ▫ Leveraging age-old poultry-keeping tradition, ethno-veterinary practices
• Extension failure – reworking schemes and staff animal husbandry department, re-orienting/re-tooling and working with community poultry workers may be required
• Poverty reduction impact needs to factor nutrition and gains from income in hands of women
### Current Scenario (2010)  
Extrapolated from FAOSTAT/GoI

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg Production</td>
<td>59 million eggs</td>
</tr>
<tr>
<td>Poultry Meat Production</td>
<td>2.3 million tonnes</td>
</tr>
<tr>
<td>Per Capita Consumption</td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td>55 eggs per annum</td>
</tr>
<tr>
<td>Meat</td>
<td>1.8 kg per annum</td>
</tr>
<tr>
<td>Contribution to GDP</td>
<td>1.2 % at Rs.350 billion, 10 % of live-stock sector</td>
</tr>
<tr>
<td>Employment</td>
<td>Over 3 million people (CARI Vision 2025 – 5m)</td>
</tr>
</tbody>
</table>

### Future Outlook: much stronger

- Commercial poultry sector’s growth at 18.6 % per year is expected to continue (USDA)
- OECD-FAO Agriculture Outlook 2008-2017 demand and supply to grow at 4.8 % and 5.2 % per year over the next decade

Driven by both **demand** & **supply**
- Strong per capita income rises – 6 % p.a., increase household purchasing power
- Rural-Urban Migration
- low priced products
- High income elasticity of demand
The Big Opportunity!

- 1 billion+ population with per capita income increase of 5-6% annually makes India a very large market
- Bridging consumption gaps between NIN/NAC recommended 180 eggs and 11 kg. meat (all) can create 10 million jobs, ie 5-fold increase in egg industry and 10-fold increase in broiler industry
- Increase in per capita consumption of 1 egg or 50 gm poultry meat will generate estimated 25,000 additional jobs [GoI, 2005]
- Current level of growth itself creates opportunities for 60,000 jobs in primary sector
- Renewed focus of planners on address nutritional deficiencies – protein, Vit A – poultry best suited
- Most economical source of animal protein without any religious taboo
- 80% of egg & poultry meat is targeting 30% urban India – vast untapped potential
Solid Strengths

- **World class production infrastructure** – Genetic research and Breeding, Vaccines and Animal Health Products, Specific Pathogen Free Eggs, Disease Surveillance & Monitoring
- **World class productivity** – 320 eggs hen housed, 1.8 kg broiler in 6 weeks,
- **Self-sufficient genetic stock**
- Global No. 2 Egg producer and No. 5 Poultry meat producer
- **Cost of production** next only to Brazil – huge potential to tap growing global demand
- International **Competitiveness** Ranking – Dr Geoff Fairhurst (World Poultry, Jan 2005) - India No 1
- **75 % of non-vegetarian** food consumed in India comes from poultry produce
- Highest return on capital and per unit land, best biological efficiency in animal meat category
Weakness

- **Skills Deficit**: 39 veterinary colleges, CPTI, BVR-IPMT etc. has not kept pace with growth of industry and demand for increase in efficiency at all levels of value chain.
- The dominant production system is high input-high output, using commercially developed strains - shrinking space of vast million traditional poultry rearers.
- Formal financial systems not supportive of investments.
- Untapped international market – landed cost disadvantage due to subsidies by EU/USA to their farmers - create level playing field.
- Agriculture or Industry – status is not consistent.
  - Some states have resorted to taxing even live meat, differential VAT structure for equipment, ingredients.
- New urban consumers of ‘convenience food’ – taxation impact of increase in 25-30 % MRP.
Threats

• Protection to domestic poultry markets withdrawn however restriction on import of feed ingredients like corn, soya remain
• Huge price volatility – lack of institutional markets – Market Stabilisation Fund/MSP/Forward Trade
• Disease outbreaks
• Increased housing costs
• Feed ingredients cost, competition with food & fuel
Role of Poultry:
- Supplementing family income
- Generating gainful employment in rural sector
- Provider of nutritional food to millions
- Insurance against nature vagaries – drought, famine
- Utilisation of non-edible agri by products

11th Plan salient features
- highest targeted growth across all sectors of 10% p.a.
- growth higher than overall growth target and much above agriculture
- Institutional restructuring of development machinery
- Public-private partnership
- Producer organisation like “Anand”

Matched by very low investment - less than 4% of AH&Fisheries ~ Rs.150 crores
- Implicitly acknowledging growth to be guided by private capital
- Also marginalisation of smallholder given the inherent technology, credit constraint
### Comparison with other Livestock Sector

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Dairy</th>
<th>Fisheries</th>
<th>Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dominant Production System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical</td>
<td>Small-medium</td>
<td>Marginal-small</td>
<td>marginal</td>
</tr>
<tr>
<td>Present</td>
<td>Small-medium</td>
<td>Marginal-small</td>
<td>large</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>high</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td><strong>Growth Opportunity</strong></td>
<td>4 %</td>
<td>5-6 %</td>
<td>10 %</td>
</tr>
<tr>
<td><strong>Commercial Requirement for Basic Seed Stock</strong></td>
<td>25-30 % Private</td>
<td>40-50 % Private</td>
<td>95 % Private</td>
</tr>
<tr>
<td><strong>Extension Support</strong></td>
<td>Very good</td>
<td>Moderate</td>
<td>Very low</td>
</tr>
<tr>
<td><strong>Public Investments</strong></td>
<td>high</td>
<td>High</td>
<td>Very low</td>
</tr>
<tr>
<td><strong>Focus of Public Extension</strong></td>
<td>Breed Improvement</td>
<td>Existing Breeds</td>
<td>Existing Breeds</td>
</tr>
<tr>
<td><strong>Farmer Social Profile</strong></td>
<td>Occupational</td>
<td>Strong occupational</td>
<td>Un-differentiated</td>
</tr>
</tbody>
</table>

- **Dairy**
- **Fisheries**
- **Poultry**
Data Challenges

- Policy Inputs is also distorted by huge data deficits, improved of late still at all stages gaps exist
- Consumer Preference patterns – NSSO captures data as “meat, fish and eggs” – poultry is not included as separate item – preference switch from other meat forms ??
- Database for feed and feedstuff is lacking – USDA estimates
- Given the paucity of data the true impact of sector is under-estimated

<table>
<thead>
<tr>
<th>Year</th>
<th>FAO estimates (1000 tonnes)</th>
<th>USDA estimates (million eggs)</th>
<th>GOI estimates (million eggs)</th>
<th>FAO estimates (million eggs)</th>
<th>USDA estimates (million eggs)</th>
<th>GOI estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-1996</td>
<td>1496</td>
<td>28000</td>
<td>27198</td>
<td>624</td>
<td>590</td>
<td>___</td>
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<tr>
<td>1996-1997</td>
<td>1512</td>
<td>29100</td>
<td>27496</td>
<td>714</td>
<td>610</td>
<td>___</td>
</tr>
<tr>
<td>1997-1998</td>
<td>1579</td>
<td>32000</td>
<td>28689</td>
<td>648</td>
<td>630</td>
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<tr>
<td>1998-1999</td>
<td>1621</td>
<td>34000</td>
<td>29476</td>
<td>763</td>
<td>670</td>
<td>___</td>
</tr>
<tr>
<td>1999-2000</td>
<td>1675</td>
<td>35000</td>
<td>30447</td>
<td>875</td>
<td>690</td>
<td>___</td>
</tr>
<tr>
<td>2000-2001</td>
<td>2015</td>
<td>36631</td>
<td>36631</td>
<td>1136</td>
<td>710</td>
<td>364.06</td>
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<tr>
<td>2001-2002</td>
<td>2130</td>
<td>38729</td>
<td>38729</td>
<td>1307</td>
<td>1250</td>
<td>393.51</td>
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<tr>
<td>2002-2003</td>
<td>2190</td>
<td>39823</td>
<td>39823</td>
<td>1460</td>
<td>1400</td>
<td>439.05</td>
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<tr>
<td>2003-2004</td>
<td>2222</td>
<td>40403</td>
<td>40403</td>
<td>1662</td>
<td>1600</td>
<td>507</td>
</tr>
<tr>
<td>2004-2005</td>
<td>2468</td>
<td>45201</td>
<td>45201</td>
<td>1715</td>
<td>507</td>
<td>507</td>
</tr>
<tr>
<td>2005-2006</td>
<td>2539</td>
<td>537</td>
<td>537</td>
<td>6.5</td>
<td>6.5</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Growth rate 1998-2004 (% per annum)

- Egg production
- Poultry meat (1000 tonnes)

Making Poor Participate ....

- Coexistence of Commercial (high input & high output) & Scavenging (low-input & low -output)
  - **Tribal areas, low poultry developed areas – reach of modern poultry is difficult**
  - **Geographic Space:** more than 60 % of eggs is produced in AP, Maharashtra, Punjab, Haryana, TN and over 60 % poultry meat is produced in AP, Maharashtra, Punjab, Karnataka and West Bengal
  - space and relevance in household livelihoods systems is much higher particularly for landless - 10-20 % of total household income

- Leverage Rural Urban Divide in Consumption – 100 eggs per capita per annum urban to 15 eggs in rural areas, similarly 2.1 kg poultry meat in urban areas to 0.15 kg in rural areas. 95% of the poultry meat is in wet market strong cost implications of transporting large distances

- Institutional Mechanism for Pro-poor vertical integration, contract farming/cooperative farming – match the shift in structure & operation of industry
• Strong correlation of poultry development with supply of “skills”; availability to raw materials – success of AP which produces one-fifth of India poultry output
• **Can small-holders compete with modern industry**
  - Dr. Delgado: Margin per kg using family labour higher
  - Presence of small local markets
  - Marked preference
  - Productivity advantages
  - Low Opportunity cost of labour
Summarising discussions .......

1. Institutional architecture supported by policy measures **Co-existence and growth of both production-systems** (village-based & scale-intensive)
   - 80% of birds in China are local-type in rural-production system

2. Substantially **increase public investments**
   - Provide for institutional development that overcomes disproportionately high transaction cost that small-holders face in securing quality input & market access

3. Create institutional mechanisms for **“skills infusion”**

4. **National Poultry Development Board** (on the lines of NDDB, NFDB) – to create structured impetus, orchestrate PPP, leverage inherent strength & dynamism of sector

5. Missing **“voice”**: contributes (Rs.35000 crore) more than sugarcane (Rs.25,776 crore), 70% of fisheries (Rs.49,891 crore) – absence of strong farmer lobbying

6. **Processed Chicken** – build missing infrastructure, rationalise taxation recognise challenge is both “category conversion” and “product”

7. Create and ground **“poultry-centered diversified farming systems”** – increase mean household income, reduced variability, smoothen lumpy farm income flows

8. **Provide Insurance Cover** – on lines of “live-stock insurance”

9. Poultry placed in OGL; retail boom – **“priority procurement”** [Thailand has standing policy]

10. Optimise production systems for inaccessible regions like NE – scarce feed,

11. **indigenise feed resources** reducing production cost
• Thank you