

# Indian Poultry Sector

Integrating Poor & Small-holders :  
Opportunities & Challenges



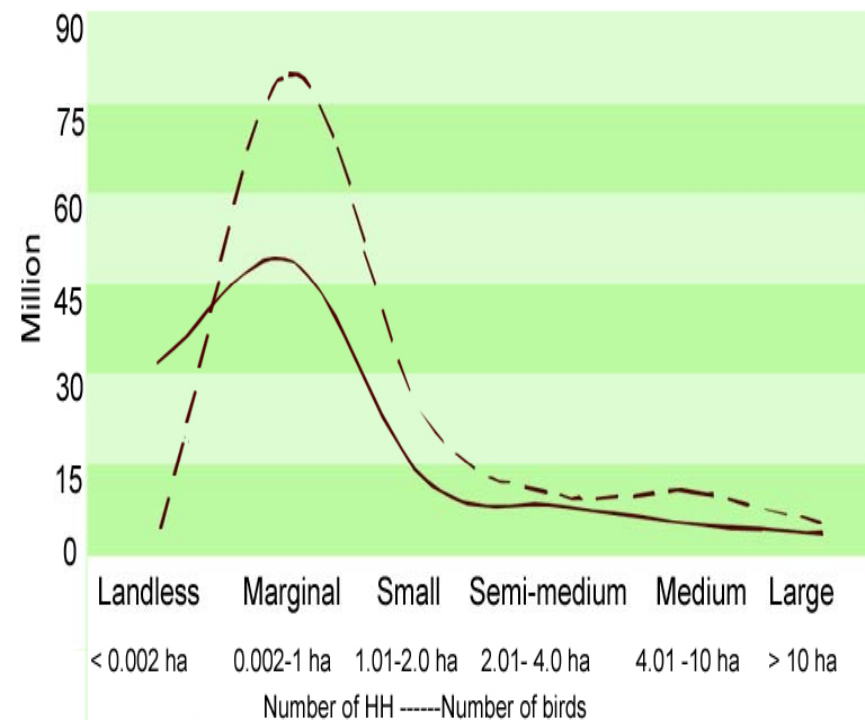
# Structure of Presentation

- 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

Distribution of poultry birds among Indian rural household, 2003



Source : Gol (2006a)

# Rapid transition from home consumption to commercial production

- in last three decades India has rapidly transited 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

Traditional  
*Desi* (Native)

Improved *Desi*

New Breed in  
same context

Small-scale  
Modern

- 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**

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

**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**

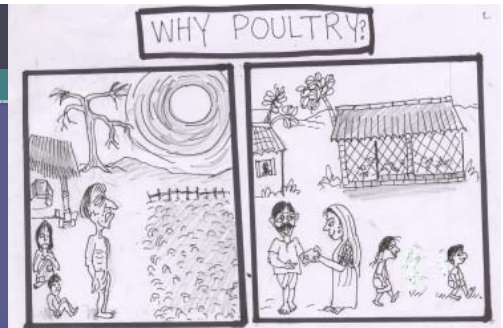
- Strong per capita income rises – 6 % p.a., increase household purchasing power

- 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 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 small-holder given the inherent technology, credit constraint

# Comparison with other Livestock Sector

	<b>Parameters</b>	<b>Dairy</b>	<b>Fisheries</b>	<b>Poultry</b>
<b>1</b>	<b>Dominant Production System</b>			
	Historical	Small-medium	Marginal-small	marginal
	Present	Small-medium	Marginal-small	large
<b>2</b>	<b>Employment</b>	high	high	medium
<b>3</b>	<b>Growth Opportunity</b>	4 %	5-6 %	10 %
<b>4</b>	<b>Commercial Requirement for Basic Seed Stock</b>	25-30 % Private	40-50 % Private	95 % Private
<b>5</b>	<b>Extension Support</b>	Very good	Moderate	Very low
<b>6</b>	<b>Public Investments</b>	high	High	Very low
<b>7</b>	<b>Focus of Public Extension</b>	Breed Improvement	Existing Breeds	Existing Breeds
<b>8</b>	<b>Farmer Social Profile</b>	Occupational	Strong occupational	Un - differentiated

# 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

Production of eggs and poultry meat in india, 1995-1996 to 2004-2005						
Year	Egg production			Poultry meat (1000 tonnes)		
	FAO estimates (1000 tonnes)	USDA estimates (million eggs)	GOI estimates (million eggs)	FAO estimates	USDA estimates	GOI estimates
	1	2	3	4	5	6
1995-1996	1496	28000	27198	624	590	—
1996-1997	1512	29100	27496	714	610	—
1997-1998	1579	32000	28689	648	630	—
1998-1999	1621	34000	29476	763	670	361.81
1999-2000	1675	35000	30447	875	690	382.3
2000-2001	2015		36631	1136	710	364.06
2001-2002	2130		38729	1307	1250	393.51
2002-2003	2190		39823	1460	1400	439.05
2003-2004	2222		40403	1662	1600	507
2004-2005	2468		45201	1715		507
2005-2006	2539					537
Growth rate 1998-2004(% per annum)	6.18	6.24	6.18	14.0	14.09	6.5
Growth rate 1998-2004(% per annum)	8.78		8.79	18.52	22.97	4.24

Sources: GOI,(2006); FAOSTAT (2006) as reproduced in GOI (2006), USDA estimates are from Foreign Service GAIN Report, Indian Poultry and Products Annual, various issues.

# 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

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- 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 in-accessible regions like NE – scarce feed,
11. **indigenise feed resources** reducing production cost

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- Thank you