The Contribution of Poultry to Development & Poverty Reduction

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Outline

• Distribution and extent of poverty
• Rural livelihoods and the role of poultry
• Global trends in poultry sector growth
• Constraints to backyard poultry development and international initiatives
• Possible role of the commercial sector in support of backyard poultry
Poverty Should Concern Us All

Proportion of people living in absolute poverty (<1$/day)

Source: World Bank 2003
Sources of Income for the Rural Poor

Non-Agriculture
- wages
- self-employment
- other

Agriculture
- crops
- large ruminants
- sheep & goats
- pigs
- poultry
- other

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Chicken Ownership – Rural Viet Nam

Proportion (%) of households owning chicken

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>low 200 USD/year</td>
<td>60</td>
</tr>
<tr>
<td>low-medium 430 USD/year</td>
<td>70</td>
</tr>
<tr>
<td>medium 690 USD/year</td>
<td>75</td>
</tr>
<tr>
<td>med-high 1,120 USD/year</td>
<td>80</td>
</tr>
<tr>
<td>high 3,200 USD/year</td>
<td>85</td>
</tr>
</tbody>
</table>

Average chicken flock size

Source: 1998 Viet Nam LSMS
The Roles of Poultry in Poor Households

- Chicken, ducks, geese, etc
- Savings
- Food
- Fertilizer
- Crops
- Ponds
- Social networks
- Cash/barter

Social functions

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Cash/income Benefits – Rural Viet Nam

Percent of agricultural income

Source: Viet Nam; 1998 LSMS
Profitability of Backyard Chicken – Viet Nam

Average return per hen and year (values in USD)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs consumed/sold (nr)</td>
<td>20.0</td>
</tr>
<tr>
<td>Birds consumed/sold (nr)</td>
<td>4.25</td>
</tr>
<tr>
<td>Value of eggs consumed/sold</td>
<td>1.00</td>
</tr>
<tr>
<td>Value of birds consumed/sold</td>
<td>7.65</td>
</tr>
<tr>
<td>Depreciation of hen</td>
<td>0.20</td>
</tr>
<tr>
<td>Gross revenue/hen</td>
<td>8.45</td>
</tr>
<tr>
<td>Investment/hen</td>
<td>2.16</td>
</tr>
<tr>
<td><strong>Return on investment (%)</strong></td>
<td><strong>390</strong></td>
</tr>
</tbody>
</table>
Overall Sector Growth

Annual growth (%) in poultry numbers 1998 - 2003

Source: FAO, GLiPHA 2004
Growth of the Poultry Sector

Development of poultry numbers, 1998 = 100

Poultry meat production, million metric tons

Source: FAOSTAT 2004
Backyard Poultry Growth

Development of poultry numbers, 1998 = 100

- Brazil
- Guinea
- Ivory Coast
- Ghana
- Nepal
- Myanmar
- Laos
- Cambodia
- Vietnam

Source: FAOSTAT 2004
Main Constraints to the Backyard Sector

• High loss of young stock
  • Predation
  • Disease
  • Theft
• Poor yields of survivors
  • Parasites & diseases
  • Low-yield genotypes
  • Poor nutrition
• Poor institutional support
  • Extension services
  • Health services
  • Input supply

Outbreaks of Avian Flu 2004
## Major International Poultry Initiatives

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network for Poultry Production and Health in Developing Countries</td>
<td>Institution building for poultry development</td>
</tr>
<tr>
<td>ACIAR Effort on Newcastle Disease Control</td>
<td>Research and delivery of ND vaccines</td>
</tr>
<tr>
<td>International Network for Family Poultry Development (INFPD)</td>
<td>Information exchange</td>
</tr>
<tr>
<td>IFAD and other donors - projects</td>
<td>Implementation: credit, health &amp; extension services, some research</td>
</tr>
<tr>
<td>FAO – Pro-poor livestock policy initiative</td>
<td>Awareness raising, policy and institutional framework</td>
</tr>
</tbody>
</table>
The Dichotomy of the Poultry Sector

**Industrial Sector**
- Input supply
- Tech support
- Marketing
- Production
  - Broilers
  - Meat
  - Layers
  - Eggs

**Backyard Sector**
- Crops
- Household
- Other livestock
- Poultry
  - Backyard chickens & eggs
Potential Contributions of Industrial Sector

**Technical / Research**
- Genetics:
  - Birds that combine adaptive with productive traits
- Health management:
  - Novel vaccines & drugs
  - Adapted delivery mechanisms
- Nutrition
  - Feeding strategies for optimal resource use

**Institutional / Services**
- Producer organization
  - Contract farming
  - Specialization & coordination
- Knowledge transfer
- Input supply
  - DOCs
  - Feed
  - Medication

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Conclusions

• Poverty is still at unacceptably high levels, particularly in sub-Saharan Africa and Asia
• Poultry, both backyard and industrial, is the fastest growing livestock sub-sector
• Backyard poultry contributes to poverty alleviation/mitigation through integration into complex livelihoods strategies
• Industrial poultry is the most efficient response to the growing demand for affordable protein and offers (some) employment opportunities
• Little competition between the sectors but potential for support from industrial to backyard
References & Further Reading

Links to PPLPI Working Papers

#21 The Contribution of Livestock to Household Income in Vietnam: A Household Typology Based Analysis

#6 A Review of Household Poultry Production as a Tool in Poverty Reduction with Focus on Bangladesh and India

Links to AGA Livestock Sector Reports

Cambodia, Lao PDR, Thailand, Vietnam: Review of the livestock sector in the Mekong countries

Vietnam: Identifying barriers to entry to livestock input and output markets in South-East Asia

All documents can be downloaded from the PPLPI Website:
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