External Shocks & Adjustments in Smallholder Livestock Production

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The Future of Poultry Farmers in Viet Nam after HPAI
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Outline

• Livestock sector characteristics

• The role of livestock in rural incomes

• Adjustment options to external shocks – value chain certification
Livestock Ownership in Viet Nam

% Households Owning Livestock

Urban

Major Urban
Middle Urban
Small Urban
Northern Mountain
Red River Delta
North Central Coast
South Central Coast
Central Highlands
Southeast
Mekong River Delta

Rural

Source: 1998 VLSS
Households Engaged in:

Livestock

Poultry
Poultry Flock Size & Composition

Flock Size

Flock Composition
Rural Income Sources

- Self-employment: 18%
- Wages: 9%
- Other: 11%
- Agric.: 62%

Average: USD750 / household / year
Poverty line: app. USD650 / hh / year

Source: 1998 VLSS, PPLPI 2005
Viet Nam: Rural Household Types

**Type:**

- **‘Diversified’**
  - with market-oriented agriculture (>75% sold)
  - with semi-market-oriented agriculture

- **‘Agricultural’**
  - market-oriented
  - semi-market-oriented
  - subsistence (<25% sold)
Rural HH: Agricultural Incomes

Source: Viet Nam; 1998 LSMS
Spatial Heterogeneity

Sample composition of typologies by agro-ecological region - total and rural sample

- Northern Mountains and Midlands
- Red River Delta
- North Central Coast
- Central Highlands
- South Central Coast
- Southeast
- Mekong River Delta

Sample composition:
- Total sample
- Rural sample

Types: 1, 2, 3, 4, 5
Income from Poultry

Share

Total per Area
Chicken Ownership – Rural Viet Nam

Proportion (%) of Households Owning Chicken

Average Chicken Flock Size

Income Quintile

Income Quintile

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Poultry Sector Composition

Flocks by Size Class
- 95%: 7.9 million flocks (85%)<br>- 5%: <50 birds
- 0%: 50-249 birds
- 0%: 250-999 birds
- 0%: >999 birds

Poultry by Flock Size Class
- 55%: >118 million birds (77%)
- 16%: 250-999 birds (15%)
- 3%: 50-249 birds (3%)
- 26%: <50 birds (30%)
Profitability of Backyard Chicken

### Average Return per Hen and Year (Monetary Values in 1,000 VND)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs consumed/sold (nr)</td>
<td>35.0</td>
</tr>
<tr>
<td>Birds consumed/sold (nr)</td>
<td>6.7</td>
</tr>
<tr>
<td>Value of eggs consumed/sold</td>
<td>49.0</td>
</tr>
<tr>
<td>Value of birds consumed/sold</td>
<td>244.7</td>
</tr>
<tr>
<td>Depreciation of hen</td>
<td>6.3</td>
</tr>
<tr>
<td>Gross revenue/hen</td>
<td>287.4</td>
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<tr>
<td>Investment/hen</td>
<td>50.0</td>
</tr>
<tr>
<td>Return on investment (%)</td>
<td>575.0</td>
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</tbody>
</table>
Poultry Income by Poverty Status

Share of total income derived from poultry by income quintile

Share of total income from poultry:
- < 1%
- 1 - 2%
- 2 - 3%
- 3 - 4%
- > 4%

Source: VHLSS 2002
Poultry Keeping and Poverty

% Households below poverty line

Source: 2002 VLSS

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Coping Strategies for Smallholders

Endogenous

• Gains through price increases of substitute products
• Intensification of other farming activities (e.g. pig production)
• Engagement in ‘new’ farming activities (e.g. fruit)
• ‘Release’ family labour for labour market (e.g. construction)
• Draw on savings and social networks

Exogenous

• Compensation
  • partial (20% of value of culled bird)
  • late (several months delay is not uncommon)
  • none for revenue foregone
• Restocking assistance
  • delayed
  • inopportune
• Diversification assistance
  • ‘Supply-chain certification’
Poverty & Market Access

Poverty Density

Accessibility
Quality Recognition in Supply Chain

Broiler: 23,000 to 24,000 VND / kg
Local: 44,000 to 45,000 VND / kg !!!
Market Flow: Resources and Income

Supply Chain - Resource Flow

- Behaviour:
  - Market Participation
  - Risk Management

- Incentives:
  - Quality
  - Technology Transfer

Value Chain - Income Flow

- Producers
- Assemblers
- Processors
- Certification
- Distributors
- Retailers
- Consumers
Certification & Risk Management

- Government gains
  - Testing moves downstream reducing costs
  - More rapid disease identification
  - Lower control costs
- Consumers gain
  - Food and disease risk reduction
  - Quality improvement
  - Product differentiation
- Producers gain
  - Market access
  - Extension services & technology transfer
Conclusions

• Livestock play a complex role in the rural economy, but poultry can be an important catalyst for smallholder poverty reduction in Viet Nam

• In a dynamic export-oriented economy, an essential way to promote rural livelihoods is by improving the terms of urban market access for small farmers.

• A multi-level approach to (rural) development and poverty reduction may be desirable, e.g.
  • Macro – infrastructure investment and good governance
  • ‘Median’ poor – livestock development targeted at households above a critical level of resource and financial capacity, focusing on extension services, standards, and product quality certification
  • Poorest – labour market facilitation
References & Further Reading

PPLPI Working Papers:

No. 21 The Contribution of Livestock to Household Income in Vietnam: A Household Typology Based Analysis


PPLPI Research Reports

Integrated Poverty Assessment of Livestock Promotion: The Case of Viet Nam

Pilot Programme for Certified Smallholder Poultry Supply Chains for Hanoi

For more information please visit the PPLPI website:
www.fao.org/ag/pplpi.html
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