Smallholders in the Era of Globalization

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Outline

• Global overview of agriculture and development trends
• Rural livelihoods: Viet Nam and India
• ‘Globalization’ and trends in agricultural trade
• Possible impact on smallholders
Agricultural Land 2000

Global Overview

Global total: 5.0 billion ha

- E&SE. Asia 16%
- Indust. 24%
- Trans. 13%
- LAC 16%
- SSA 18%
- NENA 9%
- S. Asia 4%

Source: FAOSTAT
Human Population 2000

Global total: 6.2 billion

- E&SE. Asia 30%
- S.Asia 22%
- SSA 10%
- NENA 7%
- LAC 9%
- Trans. 7%
- Indut. 15%

Source: FAOSTAT
Agricultural Population 2000

Global Overview

Global total: 2.6 billion

- E&SE. Asia 45%
- SSA 15%
- S.Asia 28%
- NENA 5%
- LAC 4%
- Trans. 2%
- Indust. 1%

Source: FAOSTAT
Agricultural Population & Land

Agricultural population

Million people

Agriculture land availability

ha / ag worker

Global Overview

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Pro-Poor Livestock Policy Initiative
Global Poverty (<1 USD/day)

Source: World Bank 2003
Agricultural Production

• In developing countries, land productivity must increase (land is limiting factor)
• In developed countries, labour productivity must increase (labour is limiting factor)
Net Agric. Production 2000

Global total: 1,337 billion Int$

- E&SEAsia 29%
- S.Asia 14%
- E&SEAsia 29%
- S.Asia 14%
- LAC 11%
- Trans. 7%
- NENA 5%
- SSA 6%
- Indust. 28%

Source: FAOSTAT
Net Livestock Production 2000

538 billion Int$, 40% of Ag production

- E&SE. Asia: 22%
- S. Asia: 11%
- NENA: 4%
- SSA: 3%
- LAC: 13%
- Trans.: 9%
- Indust.: 38%

Global Overview

Source: FAOSTAT

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Livestock Share of Agriculture

Proportion of agricultural production from livestock

Source: FAOSTAT

Global Overview

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Value of Livestock Products 2000

Source: FAOSTAT

538 billion Int$
Livestock Labour & Land Productivity

Labour productivity

Int$/ag Worker

Land productivity

Int$/ha ag area

Global Overview

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Livestock Population Trends (LSU)

Global Overview

Percent annual growth 1990 - 2000

-0.5 -0.5 - 0.5 0.5 - 1 1 - 2 > 2 No data

Source: FAOSTAT (2002)
Main Points

- Agricultural populations are still growing in most low-income countries
- Land per agricultural worker in these countries is limited and decreasing
- Increasing land productivity therefore is key both to maintain food security and to reduce poverty
- In most countries, land productivity is increased by, among other things, ‘diversifying’ into livestock
- ‘Livestock diversification’ entails increasing stocking rates rather than improved livestock performance
- The reverse of all above trends is occurring in industrialized countries
Farming/Livestock Systems

- **Industrialized Countries**: very labour saving, very capital intensive - large scale dairy, industrial pigs and poultry, ranching, feed lots
- **SSA, SA, SEA**: labour intensive, land saving or scavenging – small scale dairy, pastoral, landless & backyard pigs and poultry
- **NENA & LAC**: labour saving, capital intensive – majority of livestock - labour intensive, land saving or scavenging – majority of holdings
Vietnam: Rural Income Sources

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

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

Source: 1998 VLSS, PPLPI 2005
Vietnam: Rural Household Types

Type:
- Diversified with market-oriented agriculture
- Diversified with agriculture for home consumption
- Agriculture, market-oriented
- Semi-market-oriented
- Subsistence

Source: 1998 VLSS, PPLPI 2005
Vietnam: Returns to Livestock

USD/LU per year

Source: 1998 VLSS, PPLPI 2005
India: Dairy Household Income

- Income per hh member (USD/day)
  - Landless
  - Small-holders<br>  - ‘Large’ farmers

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Source: PPLPI Working Papers
India: Income Structure

Source: PPLPI Working Papers
India: Return to Labour

- Larger farms make a profit from dairying and often generate employment for non-family members.
- Landless and marginal smallholders gain most income from non-farm sources.
- Return to labour for landless and marginal rural smallholders is often below local wage rate.

Source: PPLPI Working Papers
Dairy Farm Trends

Farm numbers (1991 = 1)

Source: IFCN 2003
Main Points

- Agriculture (still) is the main source of income in rural areas and provides some income to most rural households
- However, non-agricultural income is also important and households diversify and are diverse
- Productivity differences between households are very large
- On-farm labour and livestock productivity of low-resource households is extremely low
- For these low-resource households the rural labour market is crucial
- Broad-based agricultural growth is a major stimulus for the rural labour market (horizontal linkages)
Globalization & Trade

• Opening economies: increased mobility of capital, goods and services
• Strong push for standardization and harmonization of standards
• Development of new supply chains and ‘products of mixed origin’
• Heightened emphasis on ‘bio-security’ measures for biological products’
Agricultural Exports 2000

Global total: 415 billion US$

Source: FAOSTAT
Livestock Product Exports 2000

Global total: 76 billion US$

Source: FAOSTAT
Trends in Agricultural Exports

Globalization & Trade

Million USD2000

All agricultural products

Livestock products

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Livestock Share in Agricultural Exports

Global average: 18% of agricultural exports

Source: FAOSTAT
Agricultural Imports 2000

All agricultural products

- E&SEAsia: 10%
- S.Asia: 7%
- NENA: 7%
- SSA: 2%
- LAC: 7%
- Trans: 6%
- Indust: 66%

Livestock products

- E&SEAsia: 9%
- S.Asia: 0%
- NENA: 6%
- SSA: 1%
- LAC: 7%
- Trans: 5%
- Indust: 72%

Globalization & Trade

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Net Agriculture Trade Values 2000

Source: FAOSTAT
Projected Net Trade in Meat (‘000 MTs)

Source: FAO 2002

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Globalization & Trade

North America

Latin America

Sub-Saharan Africa

Near East / North Africa

South Asia

East Asia

European Union (15)

Industrial Countries

2015: 7,930
2030: 9,920

2015: 1,770
2030: 2,770

2015: -2,360
2030: -3,520

2015: -80
2030: -410

2015: -280
2030: -740

2015: -1,900
2030: -1,090

2015: -2,950
2030: -4,000

2015: -80
2030: -410

85 Net Export

-24 Net Import

Industrial Countries

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2030: -1,090

2015: -2,950
2030: -4,000

2015: -80
2030: -410

85 Net Export

-24 Net Import

Source: FAO 2002
Projected Net Trade in Milk (‘000 MTs)

2015: 8,900
2030: -12,500

2015: -9,550
2030: -13,000

2015: -1,200
2030: -1,500

2015: -6,350
2030: -6,700

2015: -3,600
2030: -5,200

2015: -8,900
2030: -12,500

2015: 3,500
2030: 5,200
Transition Countries

85 Net Export
-24 Net Import

Source: FAO 2002

Globalization & Trade

A Living from Livestock
Pro-Poor Livestock Policy Initiative
Main Points

- Globalization has only had significant impacts on agricultural trade in industrialized countries, LAC and E&SE Asia
- The largest increase in trade occurred in the 1970s
- Only a relatively small proportion of agricultural products and an even smaller proportion of livestock products is traded
- The vast bulk of this agricultural trade takes place between industrialized countries
- The latter are net exporters of livestock products but net importers of other agricultural products
- All other regions are (and will remain) net importers of livestock products (especially dairy products)
Globalization & Smallholders

- Demand for food of animal origin in industrialized countries is saturated, while it is growing in other regions.
- Livestock/food industry of industrialized countries can only expand by increasing exports and/or by investing ‘abroad’.
- Investment will occur in areas where demand density is high, the law rules and minimum infrastructure is in place.
- Products for middle to high income consumers.
- Sourcing of primary inputs: locally and/or imported.
- FDI in other sectors and from other sources too!!
Vietnam & Globalization

1. Baseline Scenario:
   - Admission of China in the WTO
   - Removal of quotas on textiles to the US and the EU
   - Expansion of the EU to 25 members
   - Agricultural productivity growth of 2 percent/annum

2. Unilateral Liberalization (UL):
   - Removal of all import tariffs
   - Removal of all export subsidies

3. Full Global Liberalization (GTL):
   - Same as 2, except that the tariffs to all countries are removed

4. Doha SDT (DSDT):
   - Removal of all exports subsidies
   - Domestic support and tariffs are reduced, preserving the Special and Differential Treatment of developing countries (smaller cuts) and no cuts in the least developing countries.
Trade Liberalization & Poverty

Unilateral

Global

Doha STD

Globalization & Smallholders

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Vietnam: Poverty & Livestock

Poverty Incidence

Livestock Dependency

Globalization & Smallholders

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Simplified Dynamics

- **Rural households**: 64.1 Mio
- **(Peri-)Urban households**: 15.7 Mio
- **Non-agric. households**: 28.2 Mio
- **Agricultural households**: 35.9 Mio
- **Agricultural households**: 1.2 Mio
- **Non-agric. households**: 14.5 Mio
- **Subsistence households**: 3.9 Mio
- **Semi-commercial hhs**: 21.4 Mio
- **'Commercial' households**: 10.6 Mio

Globalization & Smallholders

Capital flows
Main Points

• **Interactions** between livestock, other agricultural factors, inputs, and outputs and the rest of the economy are complex.

• **Private capital** is indispensable to expanding smallholder livestock capacity.

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

PPLPI Working Papers

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

A Review of Milk Production in Bangladesh with Particular Emphasis on Small-scale Producers

A Review of Milk Production in Pakistan with Particular Emphasis on Small-scale Producers

A Review of Milk Production in India with Particular Emphasis on Small-scale Producers

FAOSTAT: http://faostat.fao.org

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