

# The Dairy Sector & Poverty Reduction: A FAO Perspective

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**7<sup>th</sup> IFCN Dairy Conference**  
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Pro-Poor Livestock Policy Initiative



# Outline

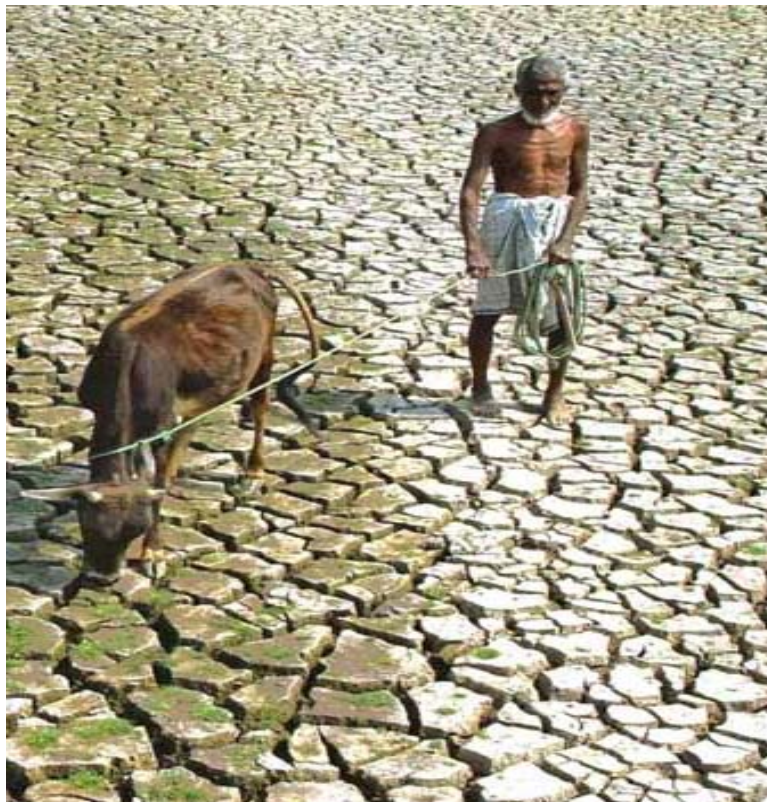
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- Incidence of extreme poverty & the role of livestock
- Global dairy developments
- Characteristics of smallholder dairy production
- FAO's smallholder dairy development work



# The Extent of **Extreme** Poverty

Global Poverty



- Globally 1.2 billion **extreme** poor (<1USD/day)
- 800 million **extreme** poor in agriculture
- 600 million **extremely** poor livestock keepers

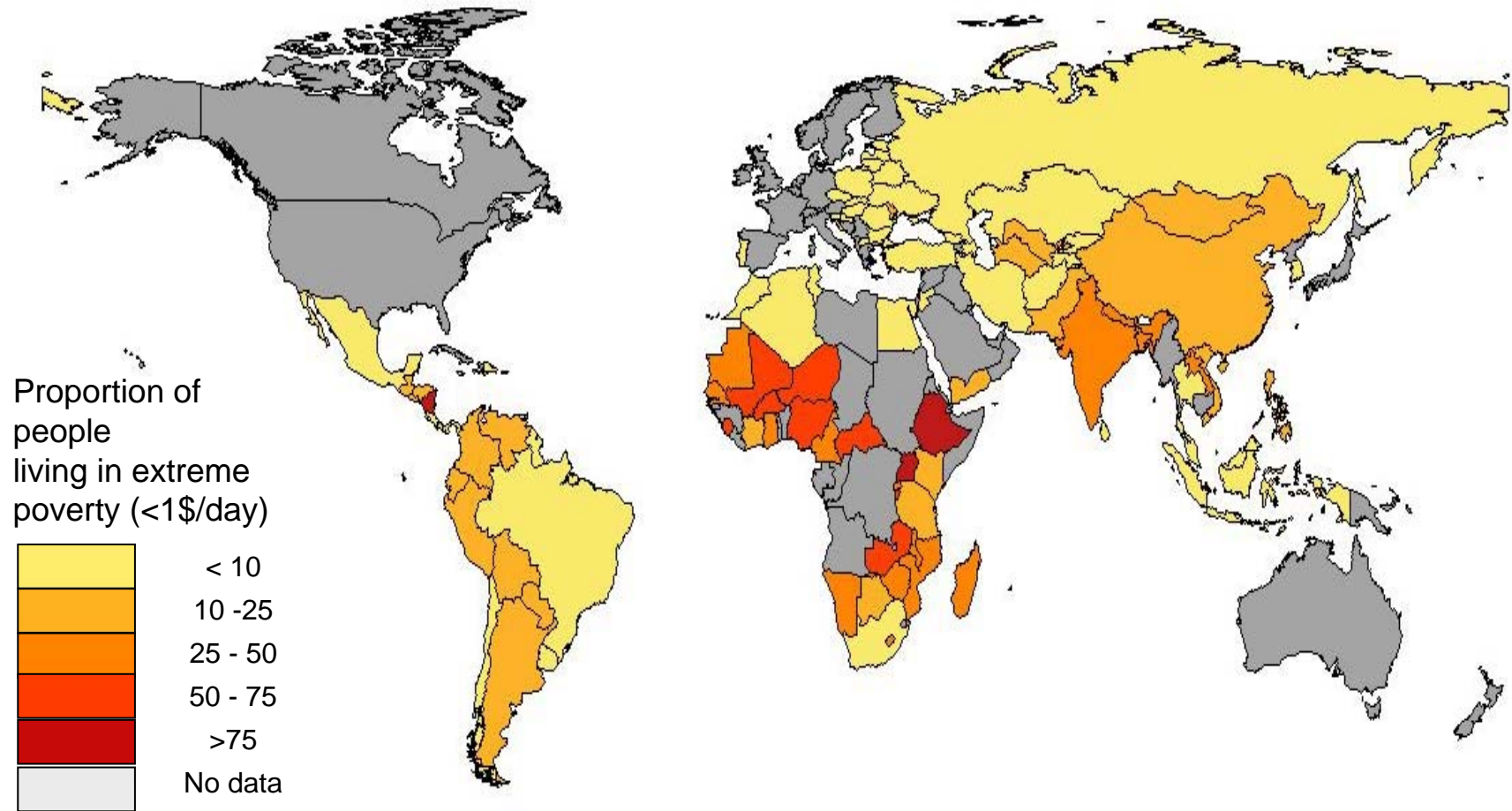


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# Regional Incidence of Extreme Poverty

Global Poverty



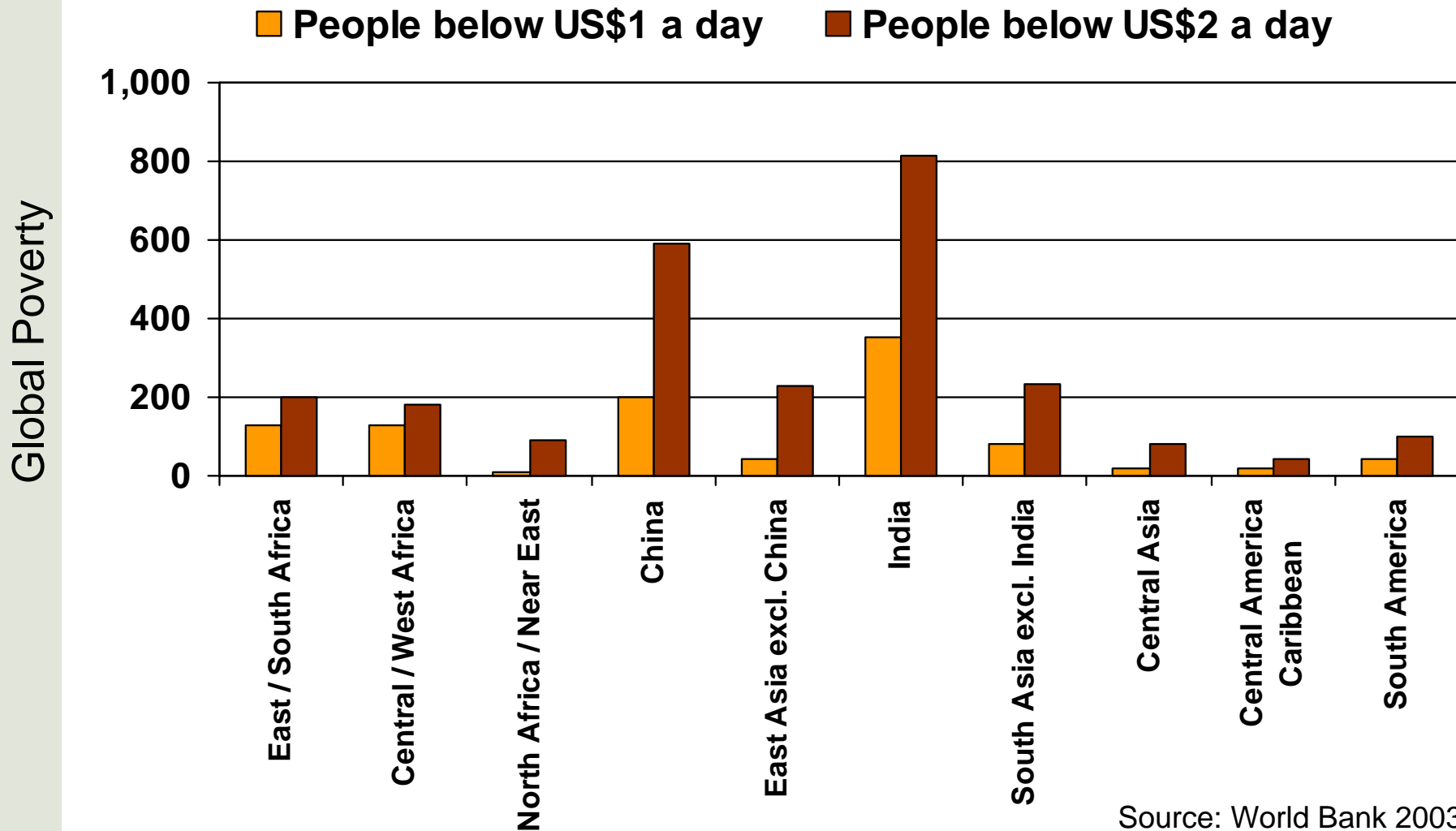
Source: World Bank 2003



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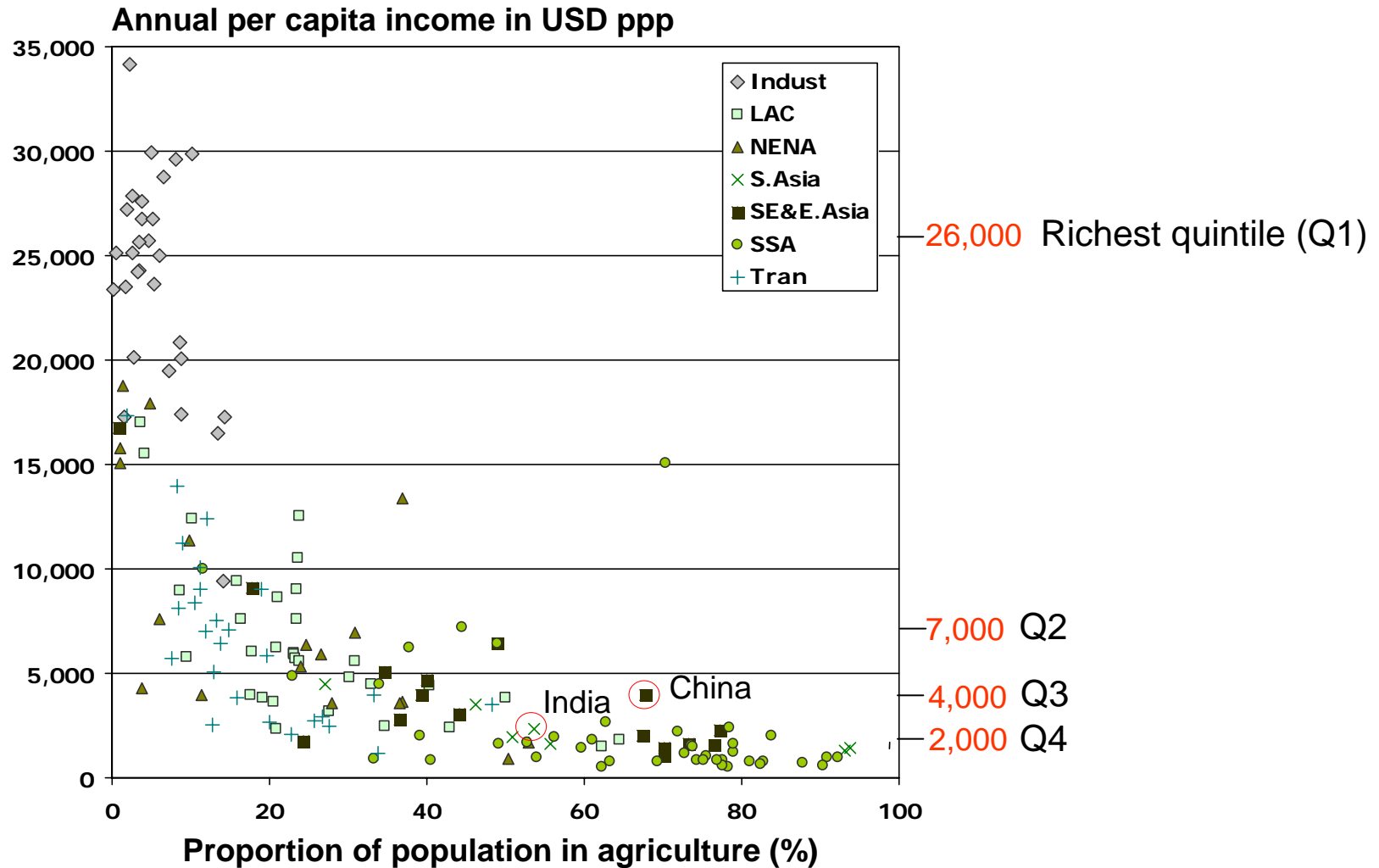


# Number of Poor (Millions) by Region



# Average Incomes by Region

Global Poverty



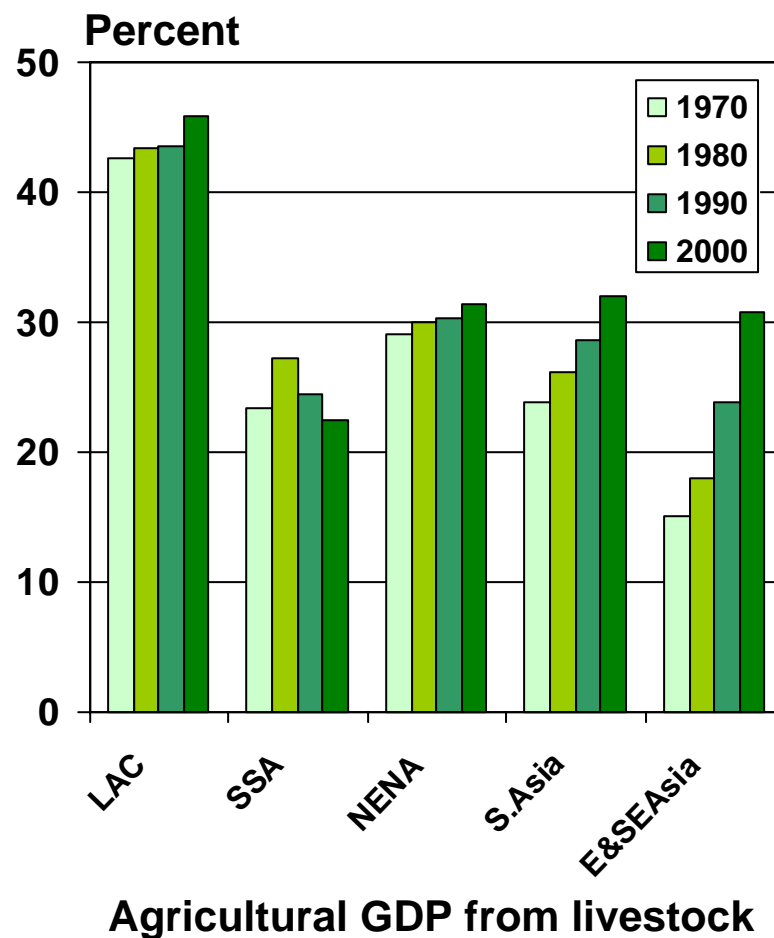
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# The Role of Livestock

- Agricultural **populations** are still growing
- Little scope for expansion of agricultural **land**
- The **value** of produce per area needs to increase

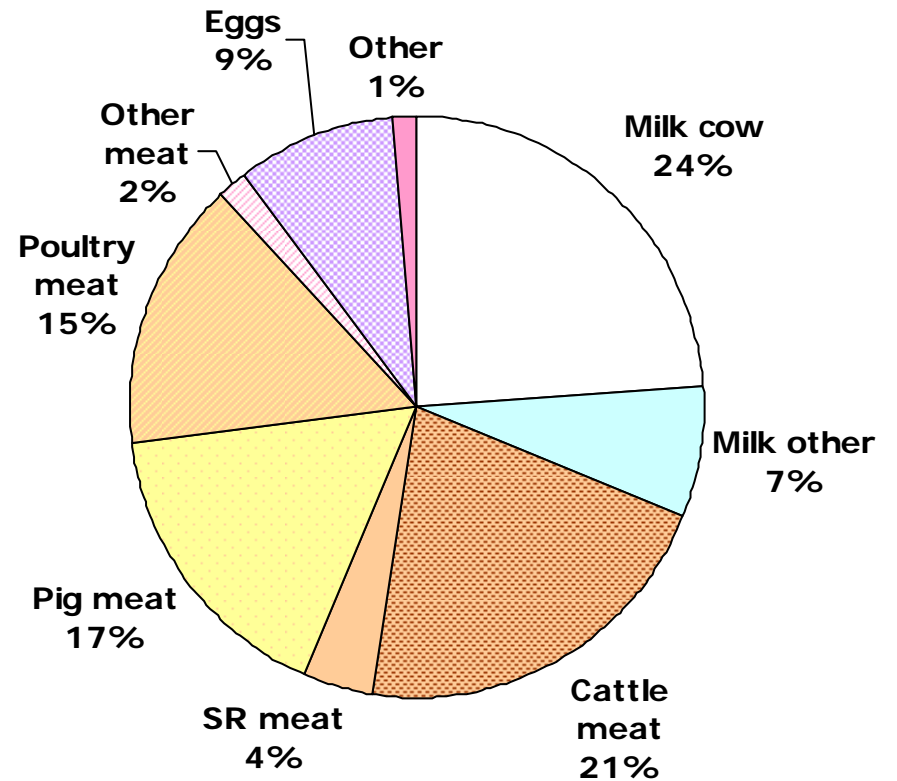


# Value of Livestock Products 2000

Global Dairy



Source: FAOSTAT



538 billion Int\$



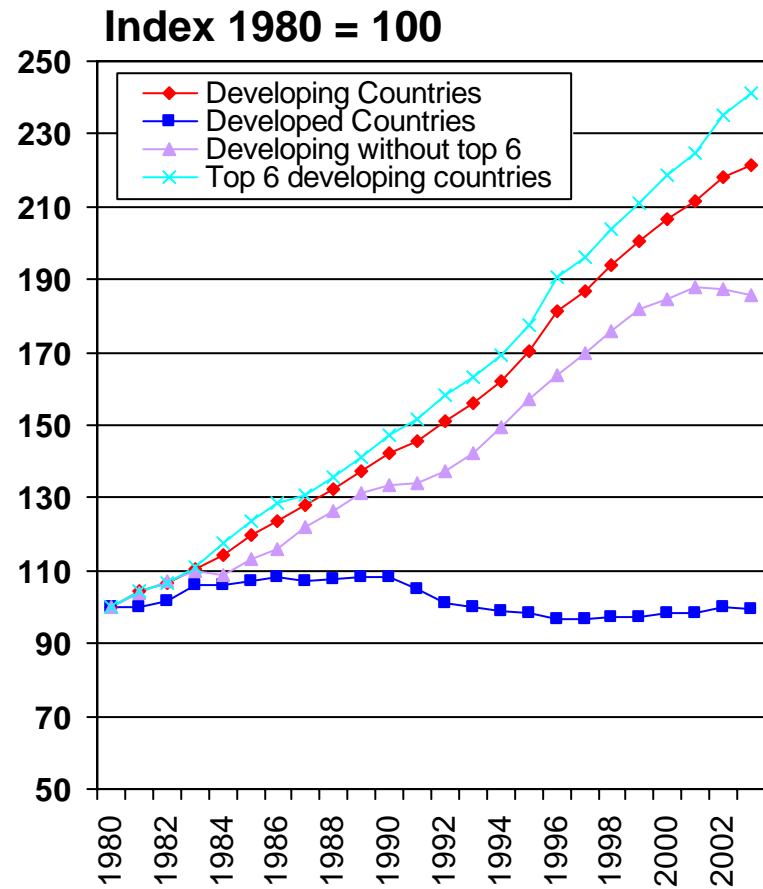
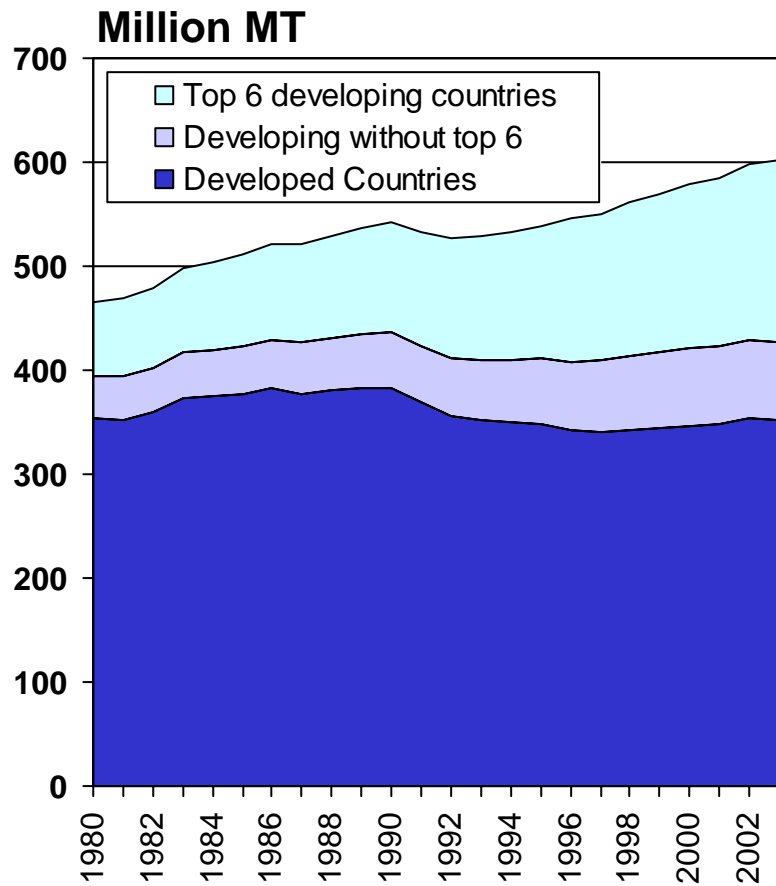
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# Dairy Production Trends

Global Dairy



Source: FAOSTAT 2005

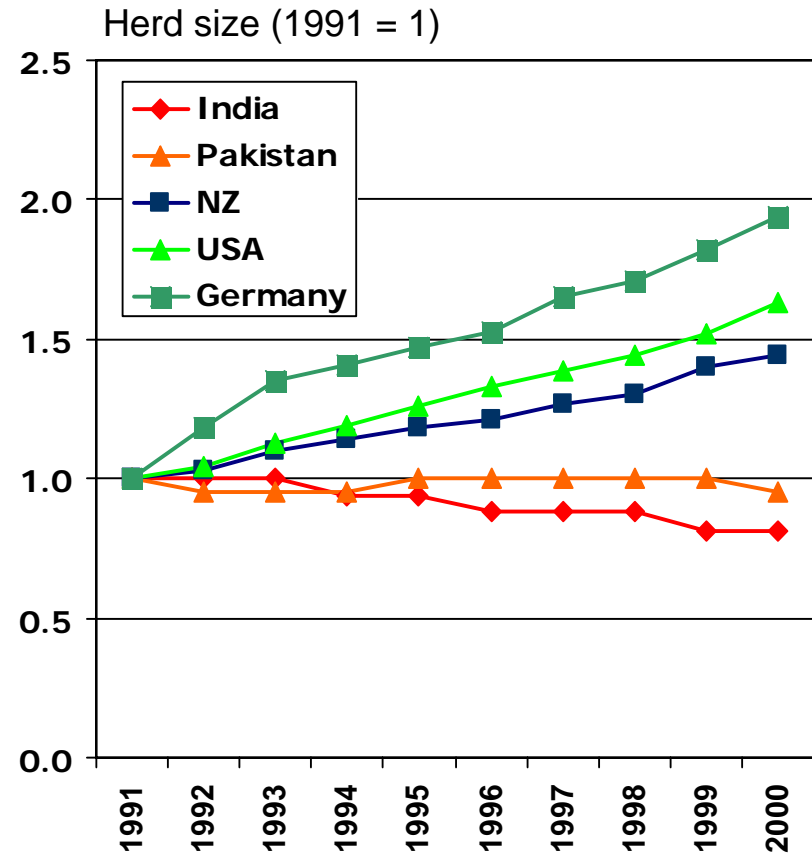
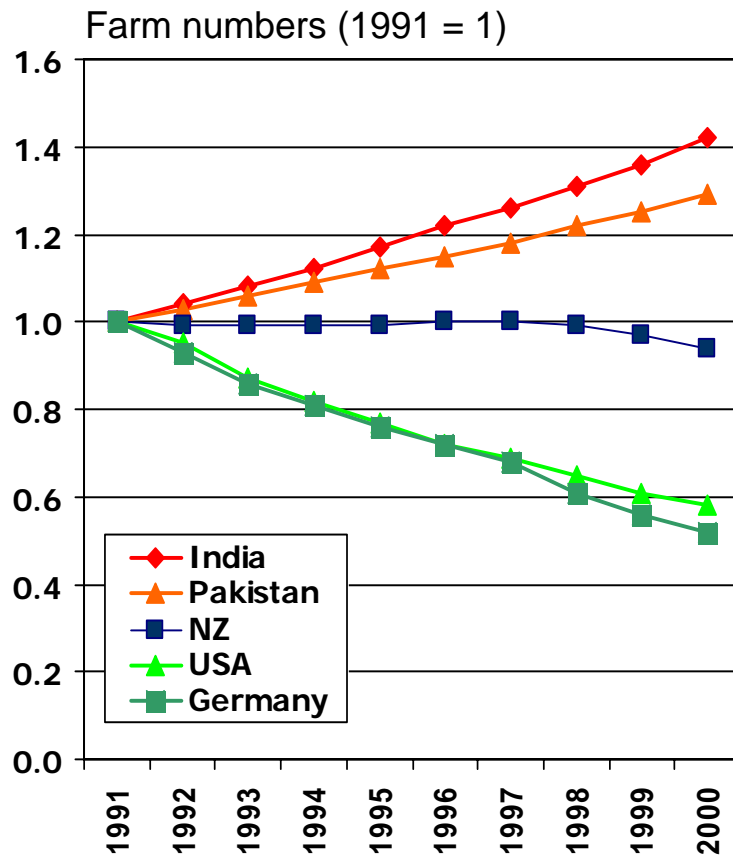


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# Dairy Farm Trends

Global Dairy



Source: IFCN 2003



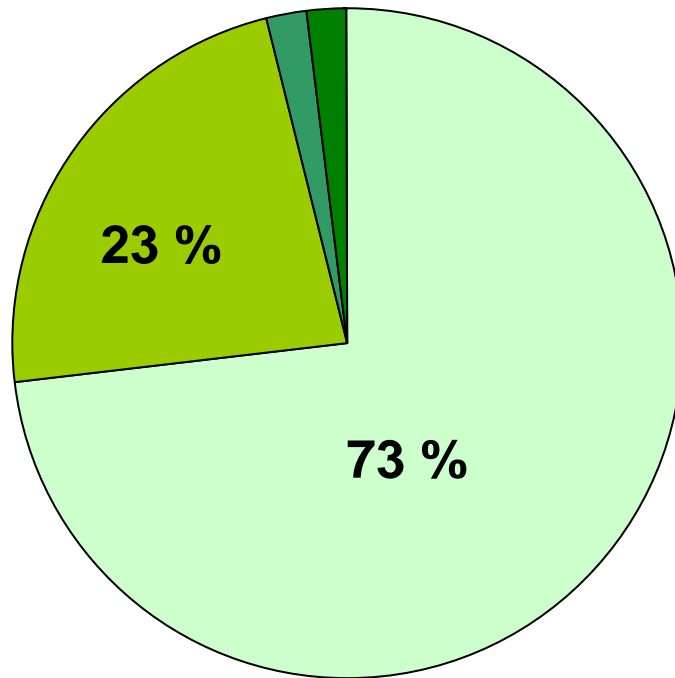
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# India: Dairy Stock by Herd Size (2001)

85 million dairy households

Smallholder Dairy



Herd size class (nr of cows)  
■ 1 to 2 ■ 3 to 4 ■ 5 to 20 ■ >20



Source: IFCN 2003



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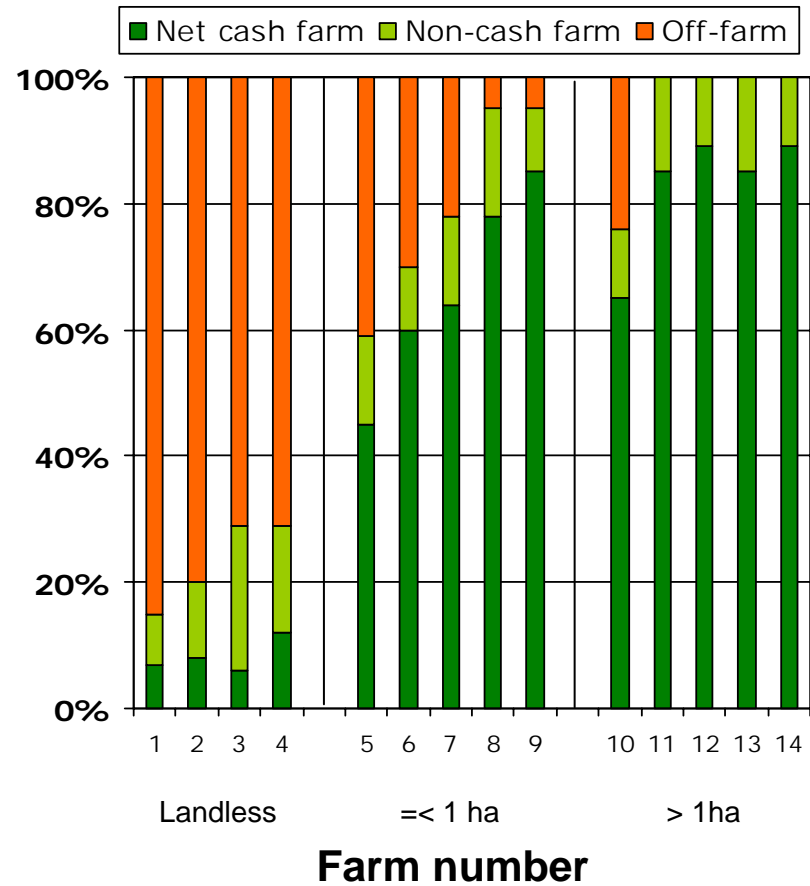


# India: Dairy 'Farm' Income Structure

Smallholder Dairy



Source: PPLPI Working Papers

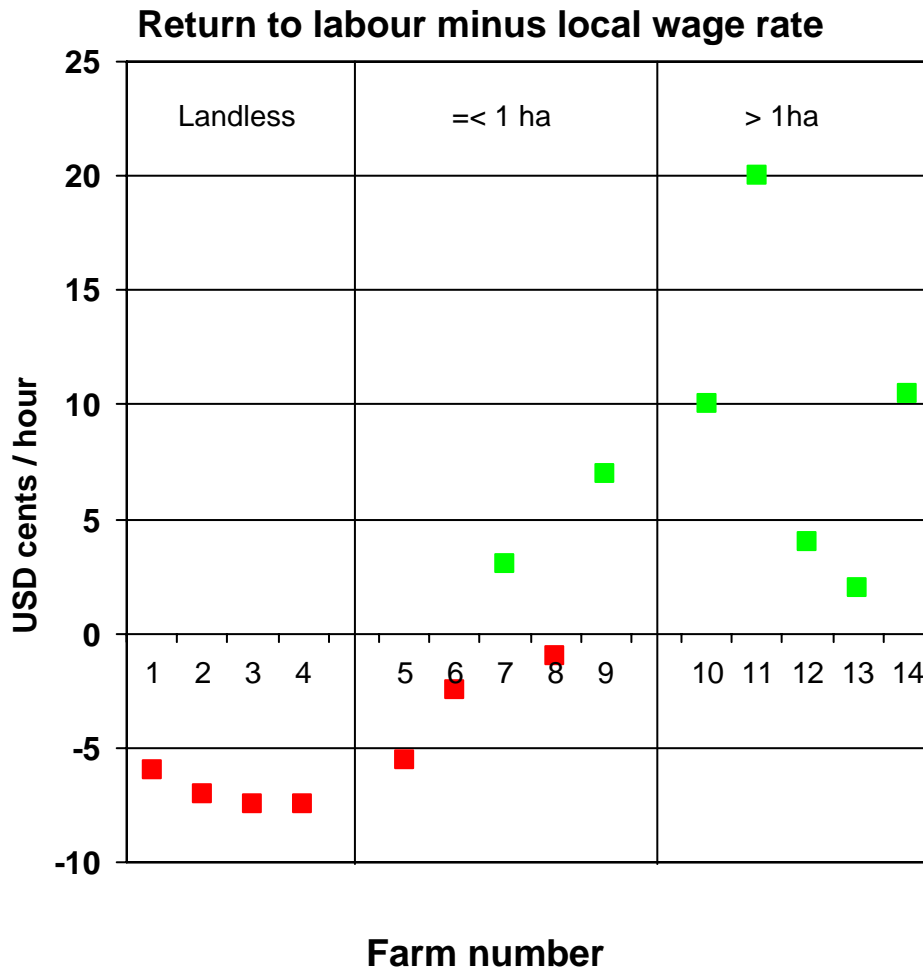


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# India: 'Dairy' Return to Labour

Smallholder Dairy

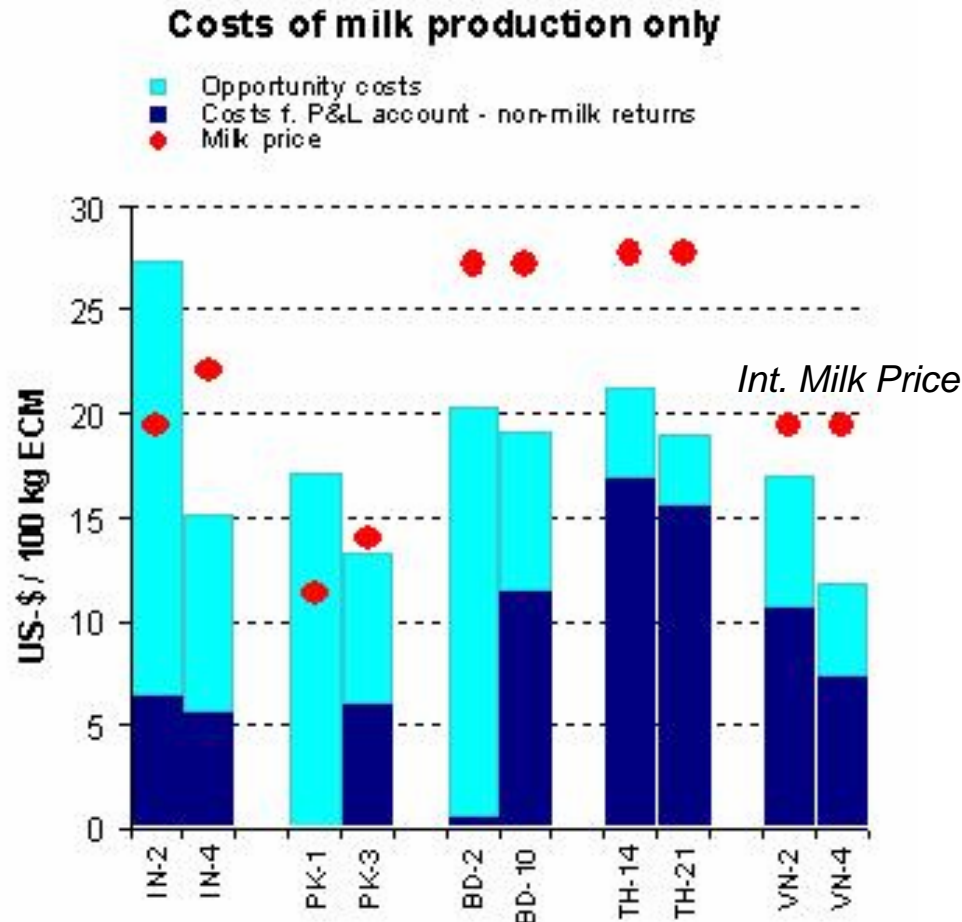


- Landless and marginal smallholders gain most income from off-farm sources
- Return to labour for landless and marginal rural smallholders is often below local wage rate
- Larger farms make a profit from dairying and often generate employment for non-family members



# Milk: Cost/Unit and Prices Received

Smallholder Dairy



Source: PPLPI Working Papers



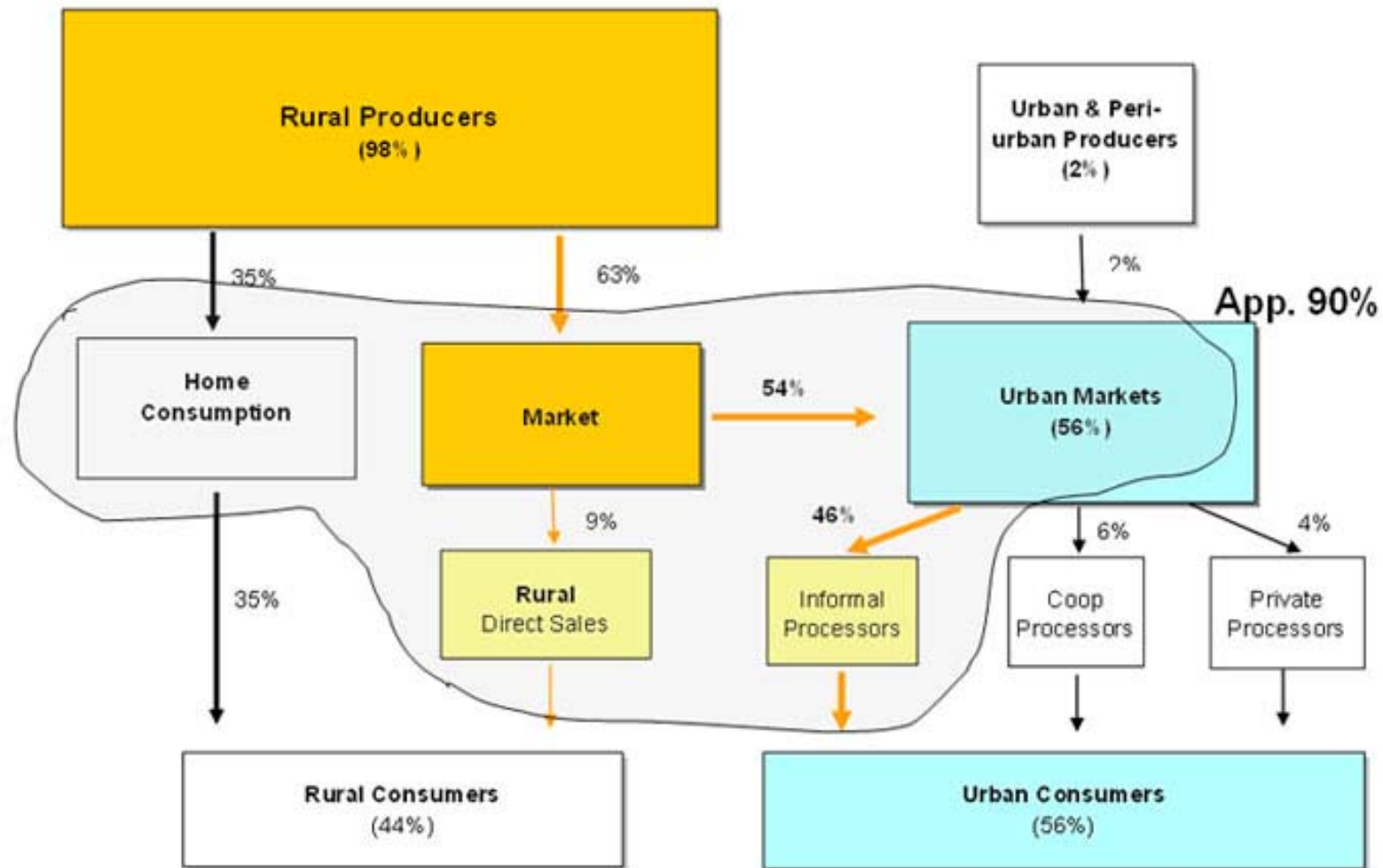
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# India: Dairy Market

Smallholder Dairy



Source: Staal et al. (in prep)



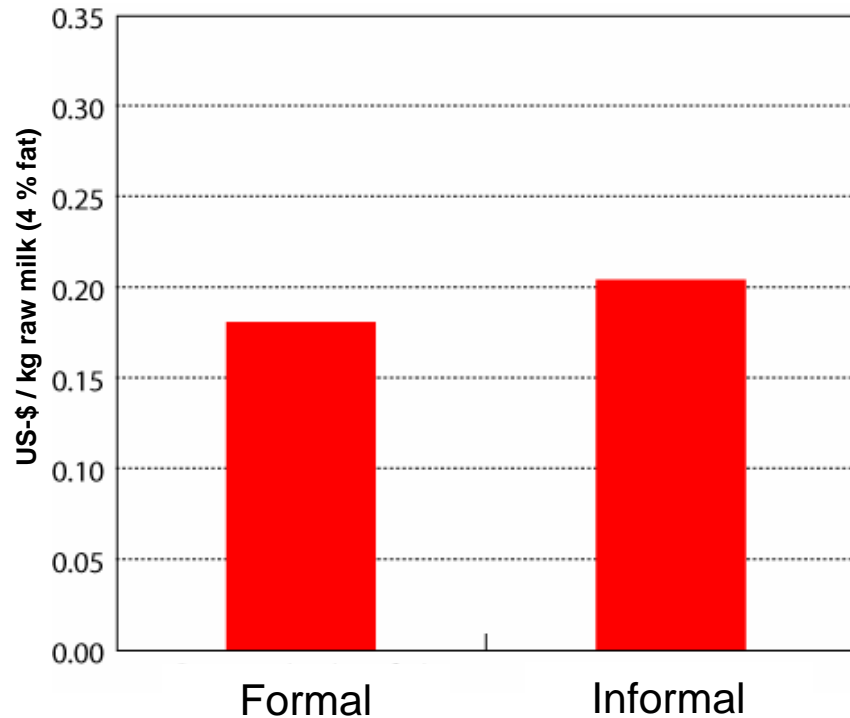
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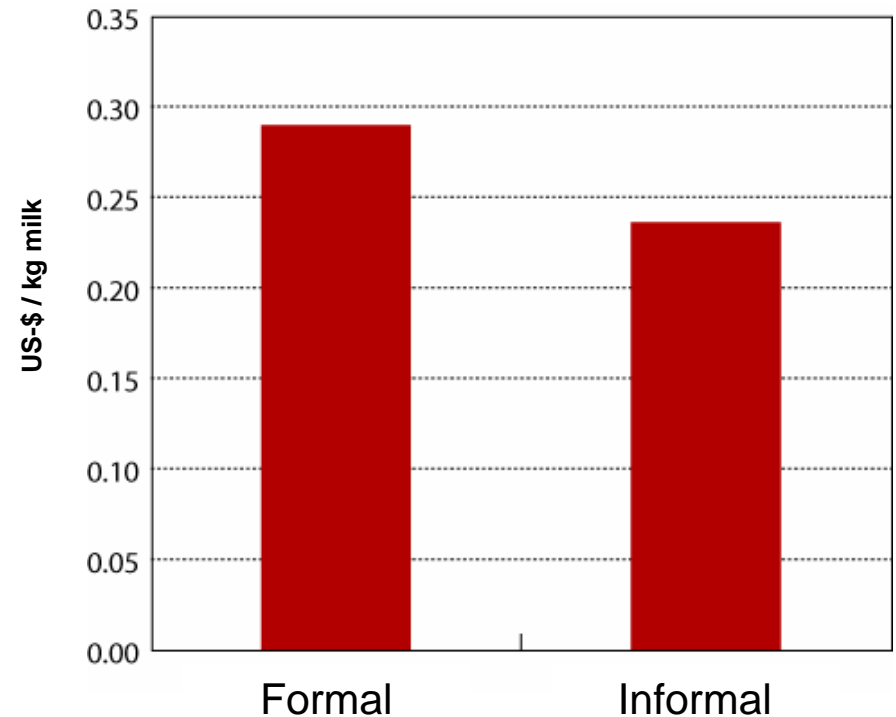
# India: Milk Price by Market Channel

Smallholder Dairy

### Producer price



### Consumer price



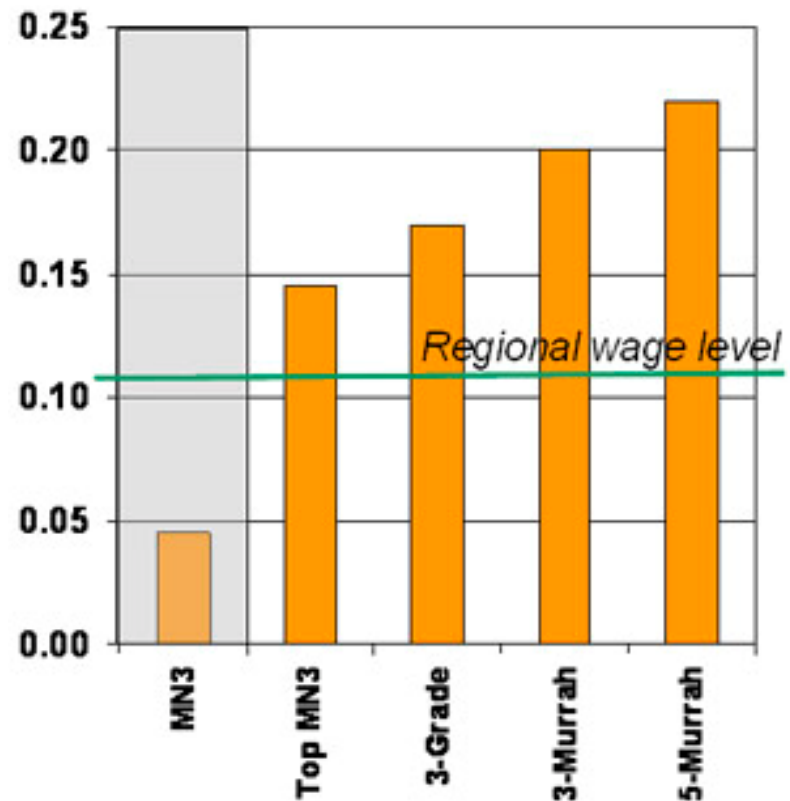
Source: Saha and Hemme, 2003



# Dairy Development 'Ladder' for AP

- **MN3:** 3 local buffaloes in Mahboobnagar district
- **Top MN3:** Productivity increase through improved management
- **3-Grade:** Productivity increase through genetic improvement
- **3-Murrah:** Productivity increase (milk yield) by further genetic improvement
- **5-Murrah:** Economies of scale (in labour use) through herd expansion

Return to labour (USD/hour)



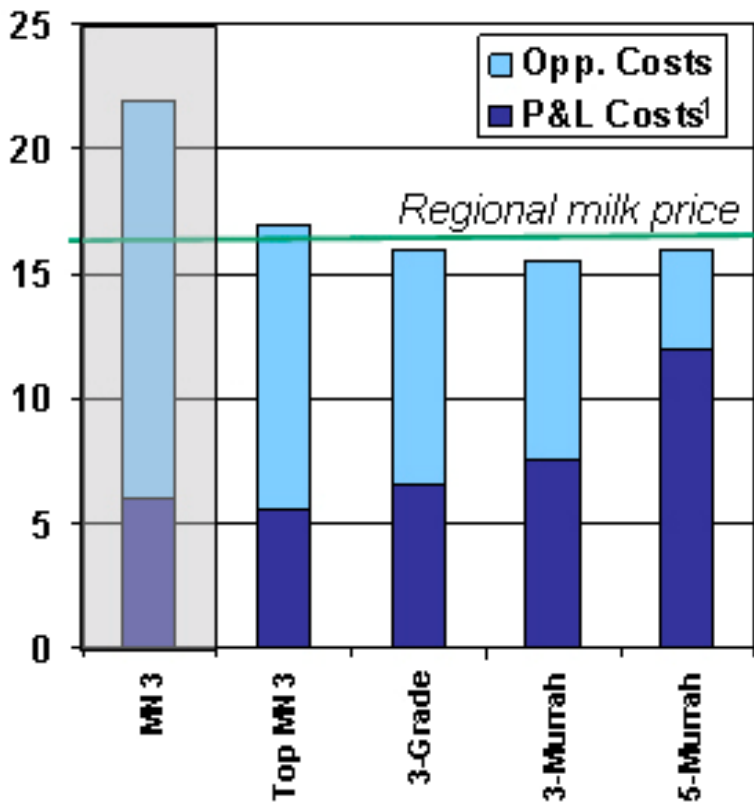
Source: Garcia et al. (in prep)



# Production Costs

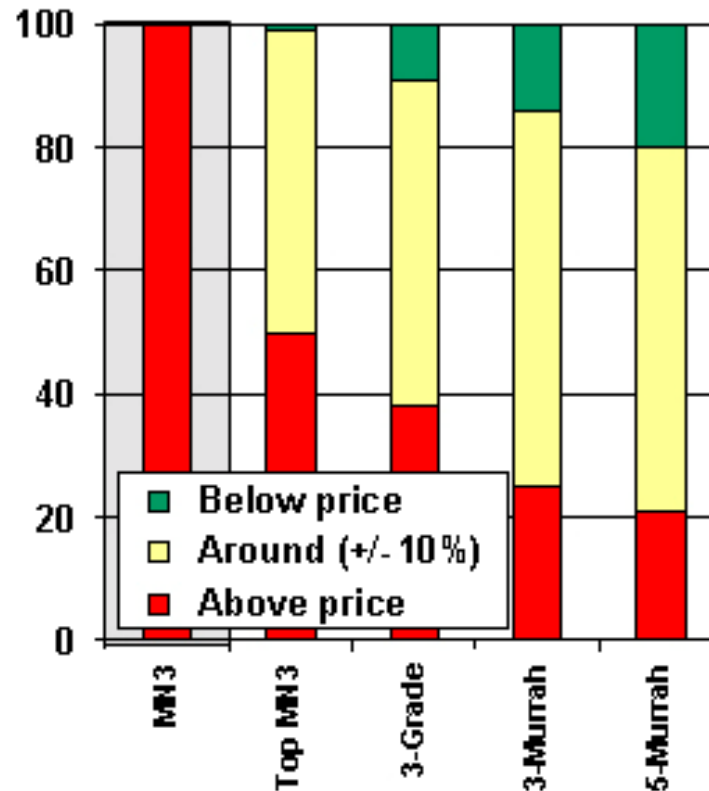
Smallholder Dairy

USD/100 kg milk



<sup>1</sup> minus non-milk returns

Probability of cost being:



Source: Garcia et al. (in prep)



# Conclusions

- Almost 1 in 3 farmers lives in **extreme** poverty
- **Livestock** offer the potential for farmers to increase returns to shrinking land
- **Milk** is a highly valued livestock commodity
- Growth in demand for and production of milk is high in most **developing** countries
- Increasing demand from **low-income** households met largely by increasing production of **small-holder** farmers
- ‘Median’ smallholders are **cost competitive** (produce at or below international price)
- Ample scope for low-cost **productivity** increases and welfare improvement



# FAO's Roles



- Field projects (production / processing)
  - Short term (FAO TCP funded)
  - Long(er) term (Extra-budgetary)
- 'Normative' actions
  - Lessons learned
  - Information dissemination (technical, production & processing)
  - Lactoperoxidase network





# Pre-requisites for Engagement

- Stable demand
- Market access
- Local feed resources
- Support services
- Institutional capacity
  - Communal
  - Private sector
- Processing tradition

## Employment generation along value chain



# References & Further Reading

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## Links to PPLPI Working Papers

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

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

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

#16 The Economics of Milk Production in Orissa, India, with Particular Emphasis on Small-scale Producers

#20 The Economics of Milk Production in Chiang Mai, Thailand, with Particular Emphasis on Small-scale Producers

#33 The Economics of Milk Production in Hanoi, Vietnam, with Particular Emphasis on Small-scale Producers

#34 The Economics of Milk Production in Cajamarca, Peru, with Particular Emphasis on Small-scale Producers



**For more information please visit the PPLPI website:**

[www.fao.org/ag/pplpi.html](http://www.fao.org/ag/pplpi.html)

[www.fao.org/ag/againfo/projects/en/pplpi/publications.html](http://www.fao.org/ag/againfo/projects/en/pplpi/publications.html)



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