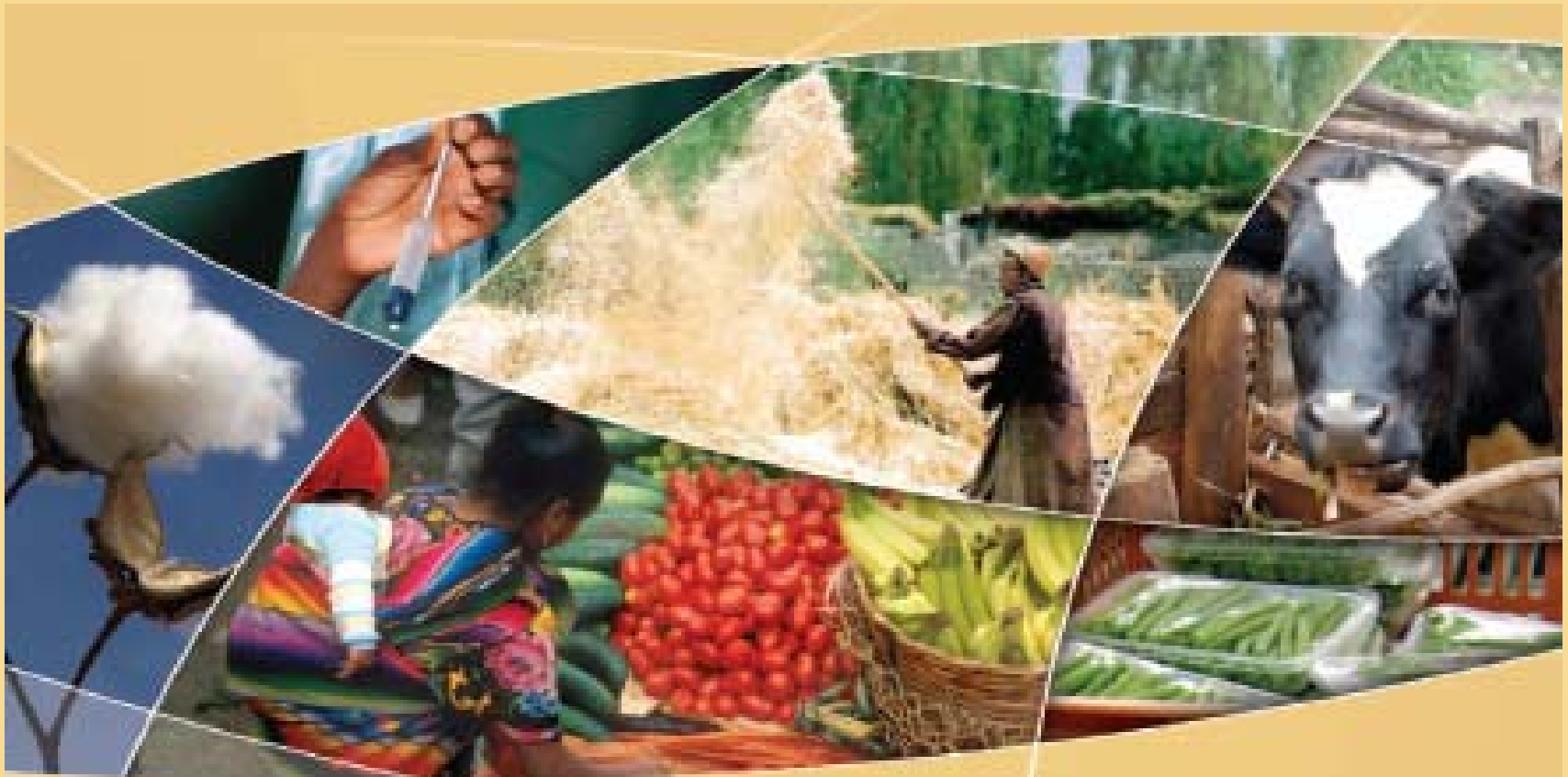


# *Agriculture for Development*

## *Options for India*



# Agriculture for development in the headlines

INSIDE THIS WEEK: TECHNOLOGY QUARTERLY

**The  
Economist**

DECEMBER 8TH-14TH 2007

[www.economist.com](http://www.economist.com)

Why you should still be scared of Iran  
The world's best and worst schools  
Unzipping your genes  
The beginning of the end for Chávez  
Our books of the year

INSIDE THIS WEEK: A 14-PAGE SPECIAL REPORT ON INNOVATION

**The  
Economist**

OCTOBER 13TH-19TH 2007

[www.economist.com](http://www.economist.com)

Gordon Brown's disastrous retreat  
How the super-jumbo changes air travel  
Meet Fred Thompson  
Has commercial property peaked?  
Che Guevara, the man and the myth



## China, beware



The leaders meet,  
the cities grow,  
the peasants are  
left behind

# Agriculture for development in the headlines: why?

- ❑ Sharply rising food prices and price volatility
- ❑ Rising rural-urban & regional income disparities
- ❑ Millennium Development Goal unmet, with 75% of world poor rural
- ❑ Threats to the family farm and rural exodus
- ❑ New demands on agriculture: biofuels, healthy foods, environmental services
- ❑ Health epidemics linked to agriculture
- ❑ Climate change, competition for water

# WDR 2008's main message

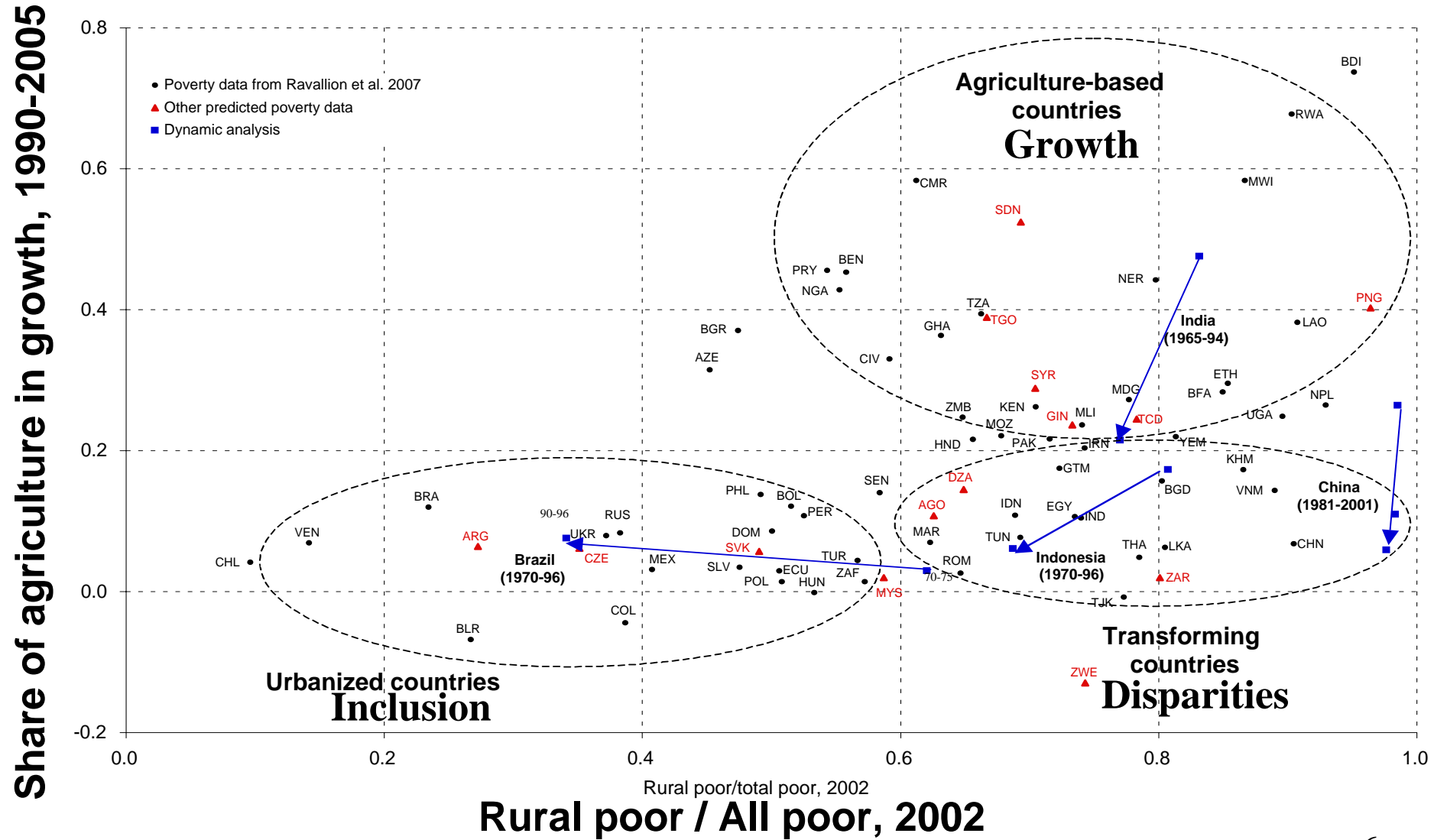
**To capture agriculture's potential for development -- and address the headline issues --, it must be given a more prominent place in government and donor priorities.**

**How to do it successfully?**

# Outline of the presentation

1. The potential of agriculture for development
  - Three “worlds”, with different functions of agriculture for development
  - Multiple pathways out of poverty
2. This potential has been under-used
3. But significant new opportunities exist
4. With also new challenges to be met
5. Agriculture for development: What options for India in the WDR framework?

# 1. Potential of agriculture for development: Three “worlds”



India graduated from an agriculture-based to a transforming country

# 1. Potential of agriculture for development in transforming countries

1. **A source of livelihoods** for rural households:

Agriculture to reduce poverty; rural-urban and regional income disparities

2. **A source of environmental services:** Agriculture to mitigate climate change, conserve water

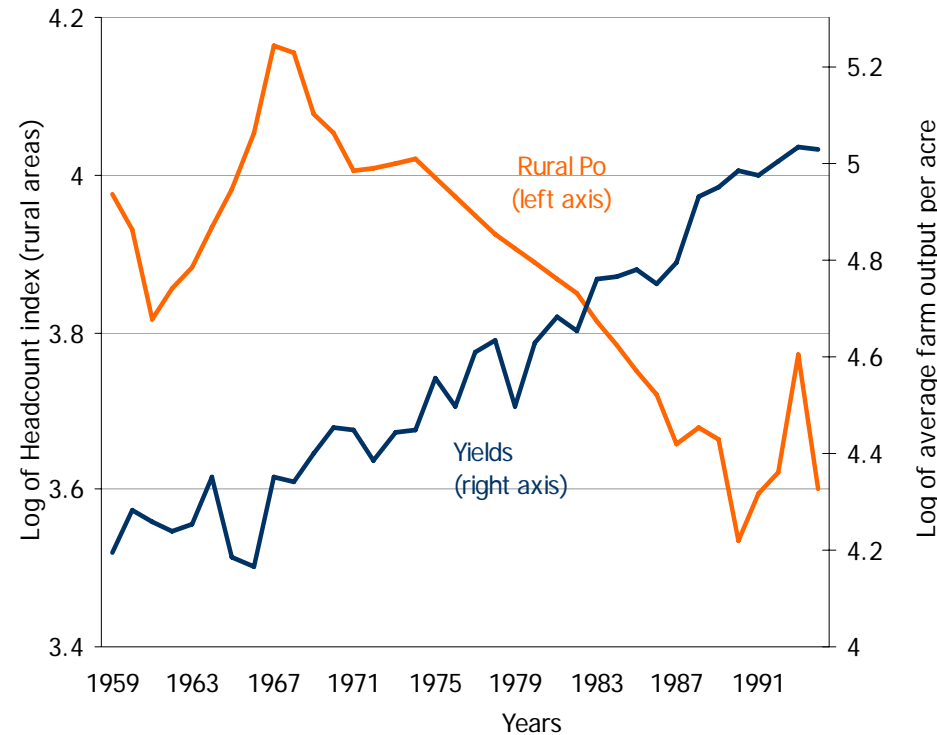
**--> Numerous success stories**

# A source of livelihoods

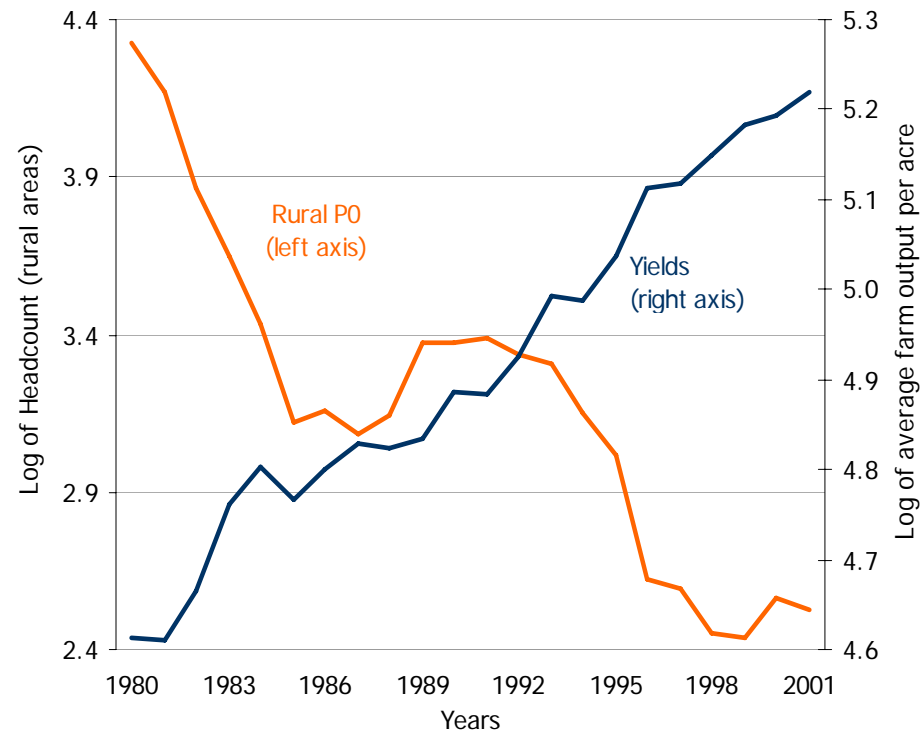
## Successes in reducing poverty

### Yields and rural poverty rates

#### India 1967-1988



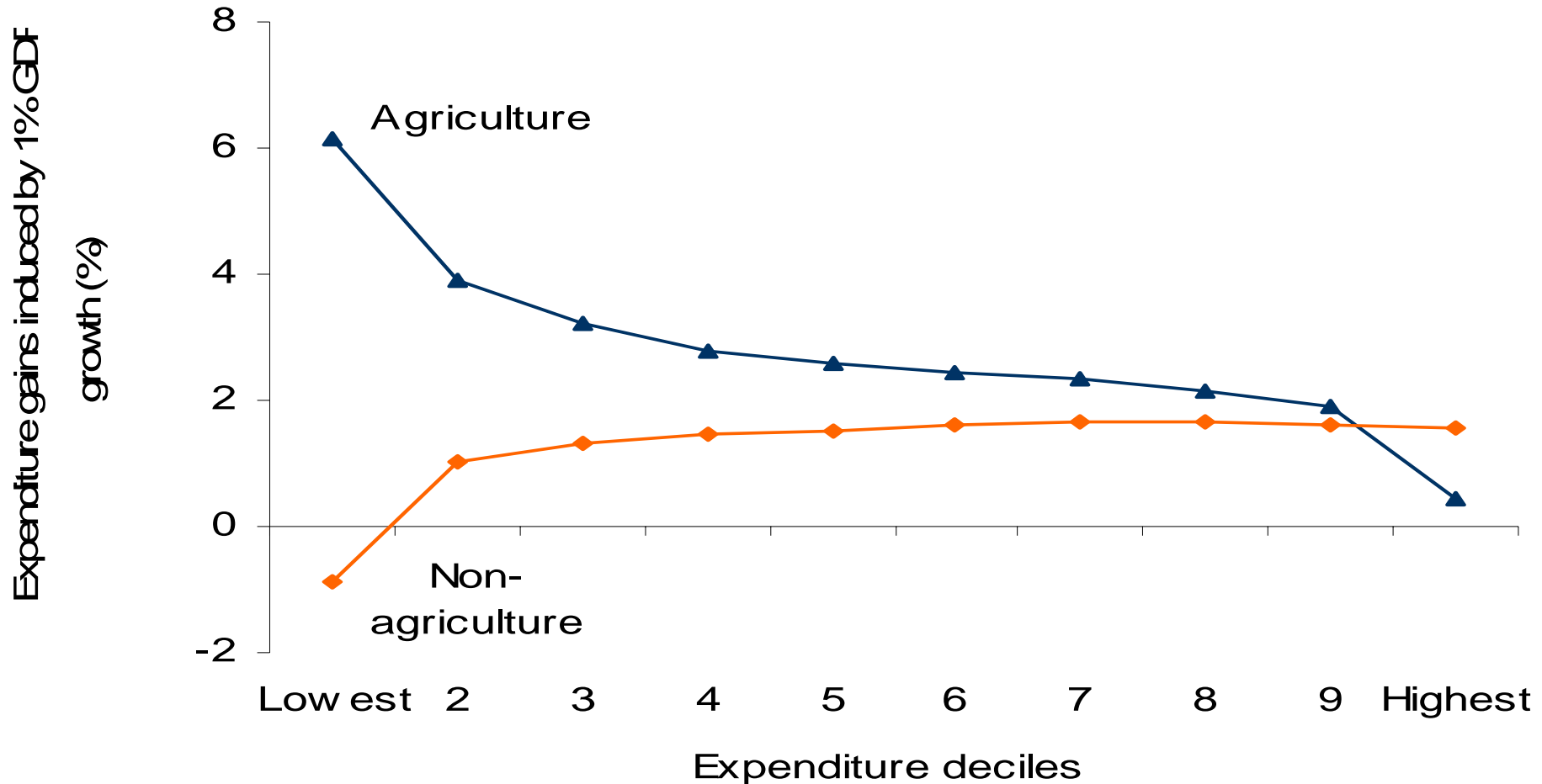
#### China 1980-2001



**India: millions out of hunger during the Green Revolution**

**China: 350 million rural people out of poverty in 20 years**

# A source of livelihoods: Agriculture's capacity to reduce poverty



## Cross country analysis:

**Growth originating in agriculture is 2-3 times more effective for the poor than growth originating in non-agriculture**

# Potential of agriculture for development :

## Multiple pathways out of poverty


- ❑ **Farming: access to land and productivity**
  - Commercial smallholders (with efficient markets and value chains)
  - Smallholders in transition to commercialization
  - Subsistence farming with social assistance
- ❑ **Rural labor: access to jobs**
  - Agricultural wage labor (medium and large farms)
  - Wage labor and self-employment in the rural non-farm economy
- ❑ **Migration: access to urban opportunities and remittances**

### Typology of rural households

--> Differentiated policies and comprehensive approaches

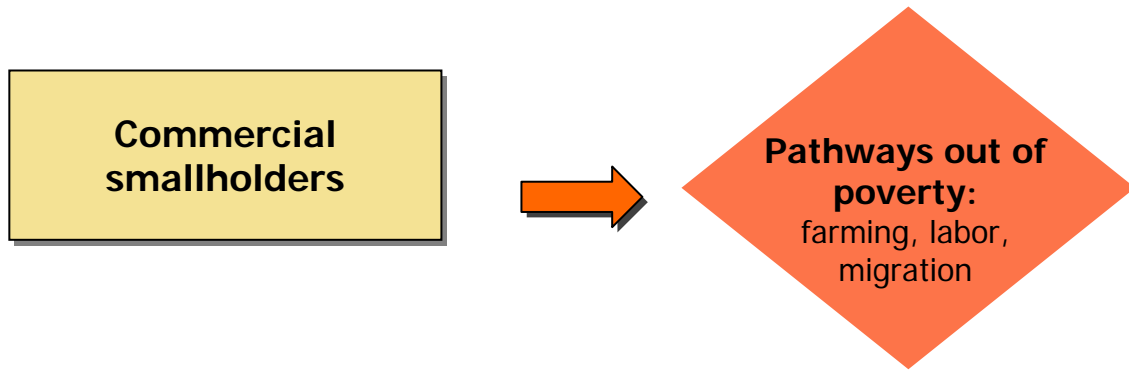
# Potential of agriculture for development :

## Multiple pathways out of poverty



**Pathways out of  
poverty:**  
farming, labor,  
migration

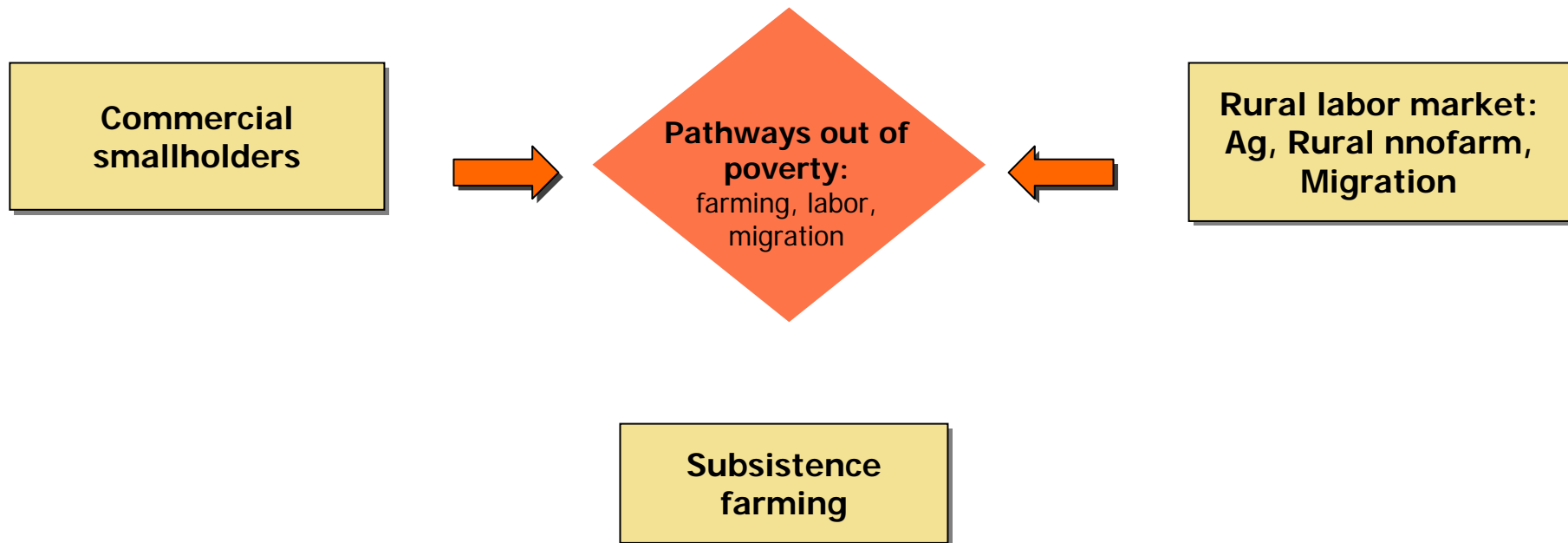
# Potential of agriculture for development : Multiple pathways out of poverty



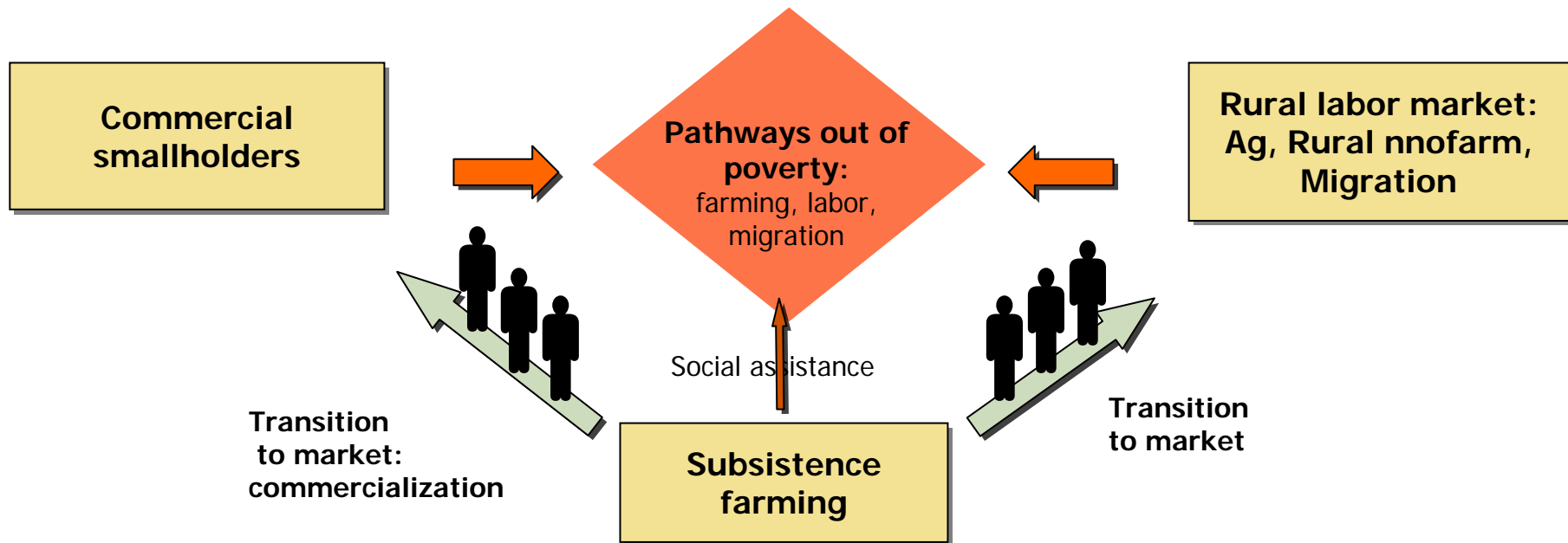
# Potential of agriculture for development : Multiple pathways out of poverty



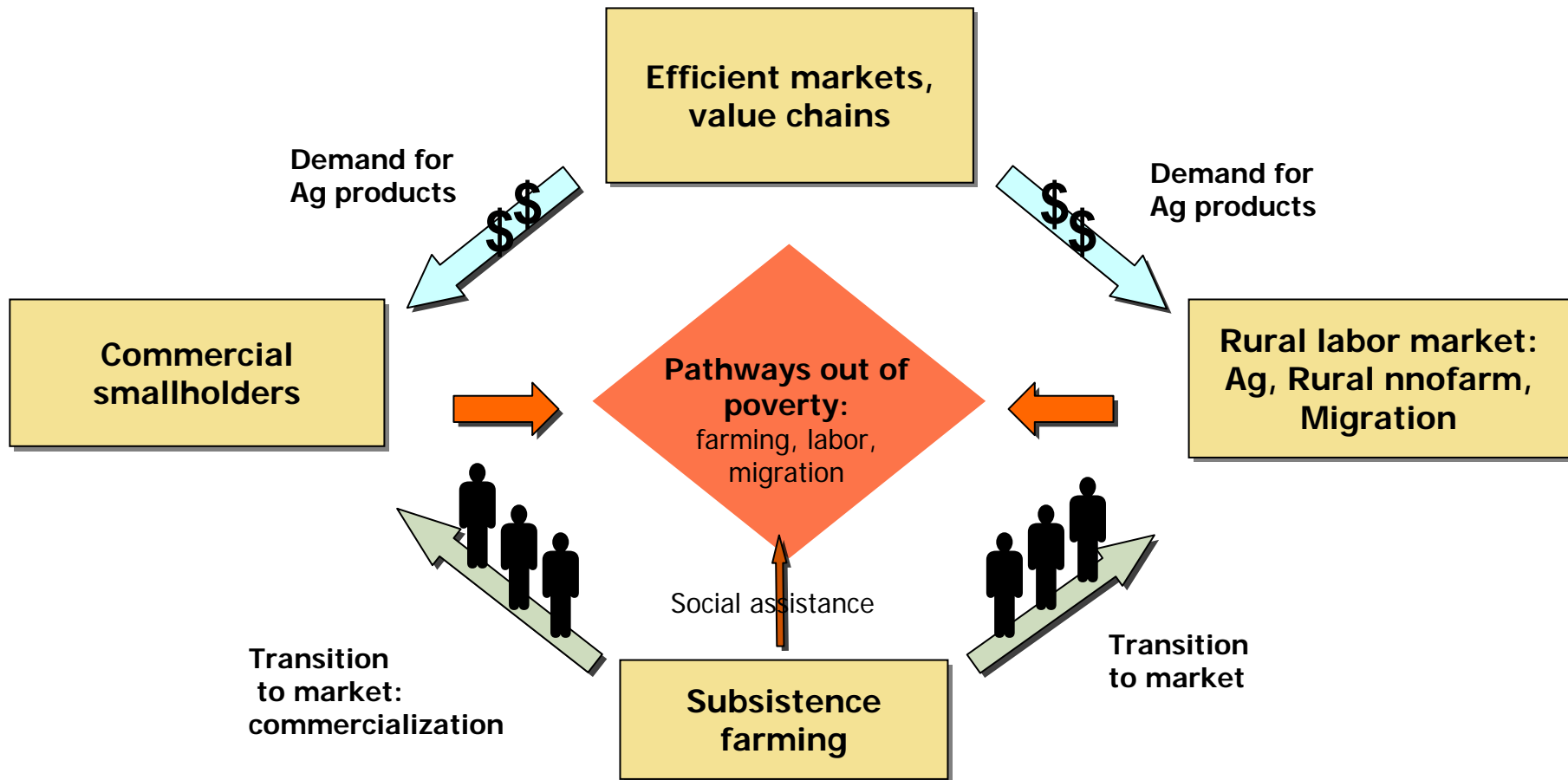
# Potential of agriculture for development : Multiple pathways out of poverty



# Potential of agriculture for development : Multiple pathways out of poverty

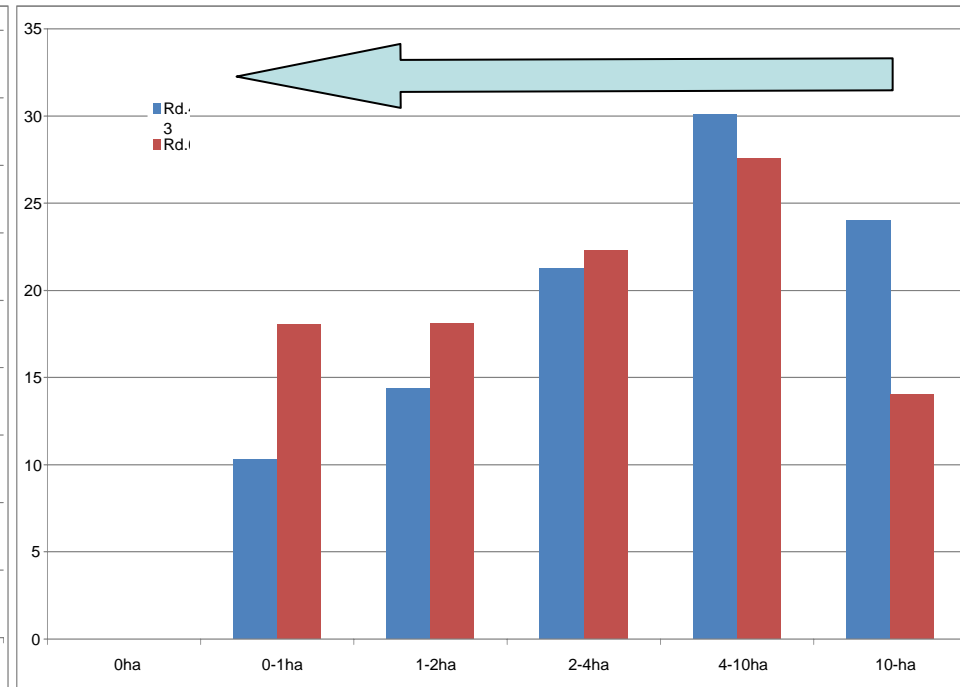
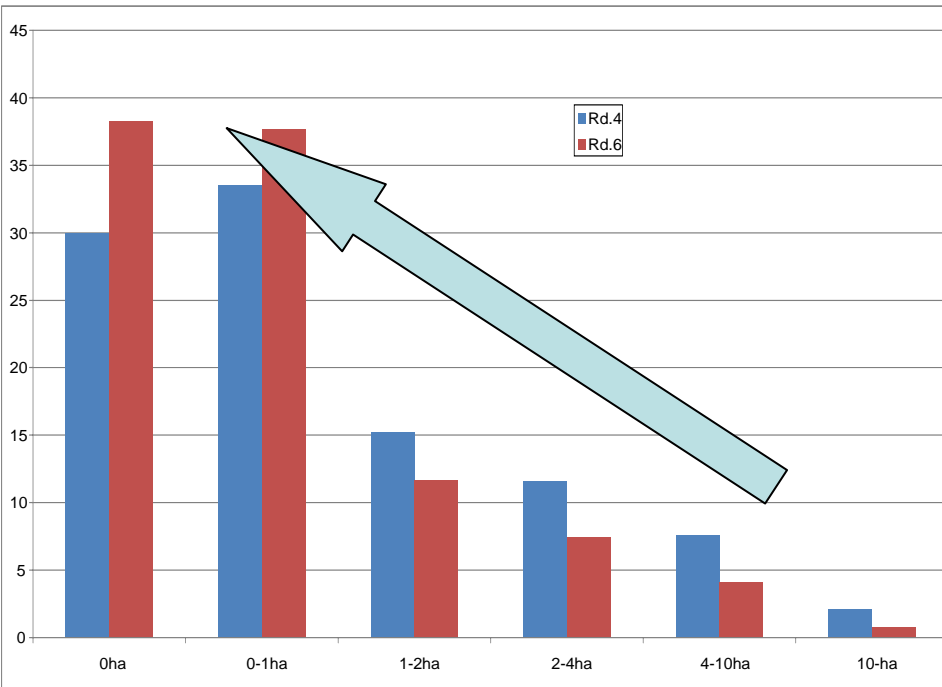


# Potential of agriculture for development : Multiple pathways out of poverty



# India: changing status of rural households, 1987 & 04

## Access to land



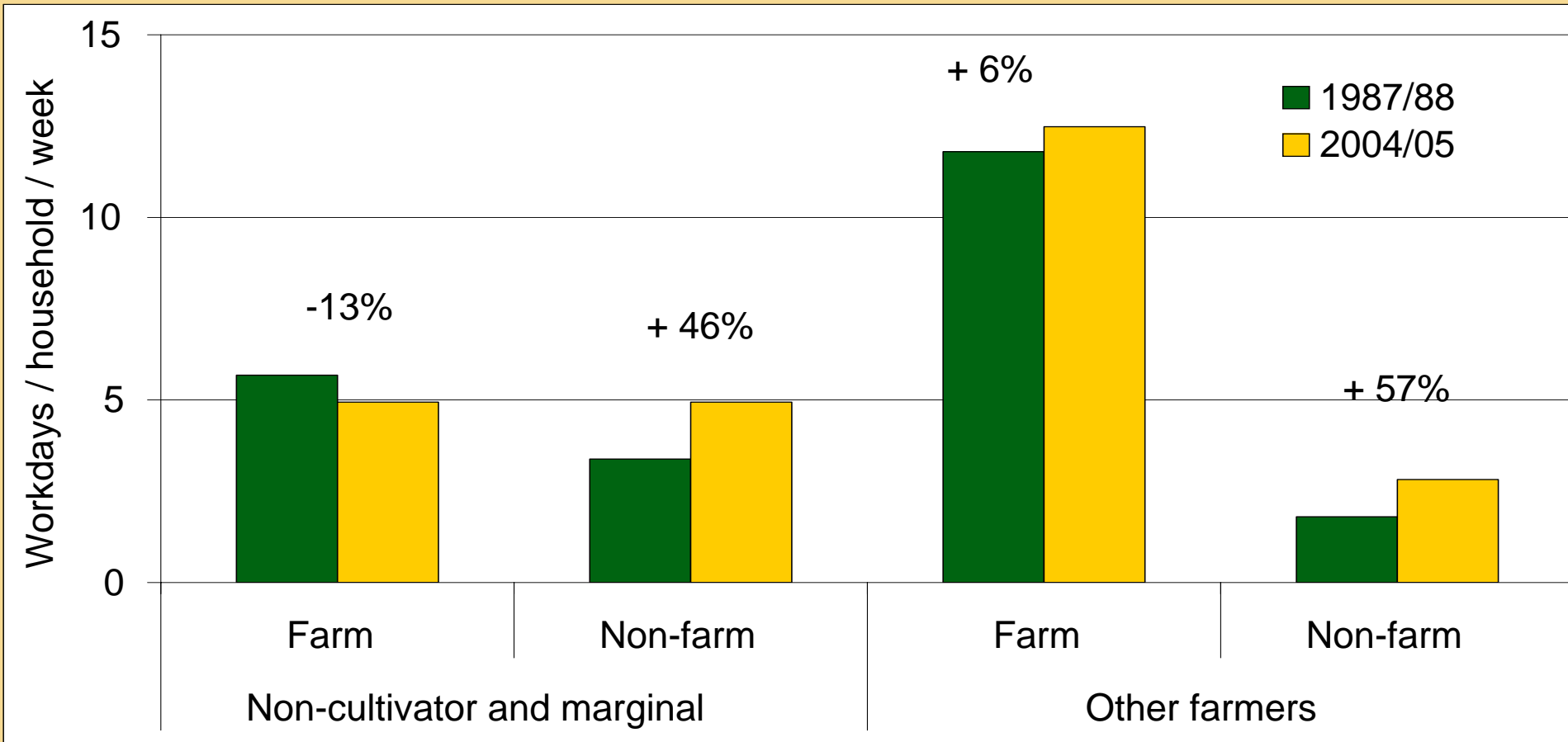
**% distribution of households  
by farm size: loss of access to land**

**% distribution of farm area  
by farm size: declining farm size**

**Rural households are being squeezed out of land**

# India: changing status of rural households, 1987 & 04

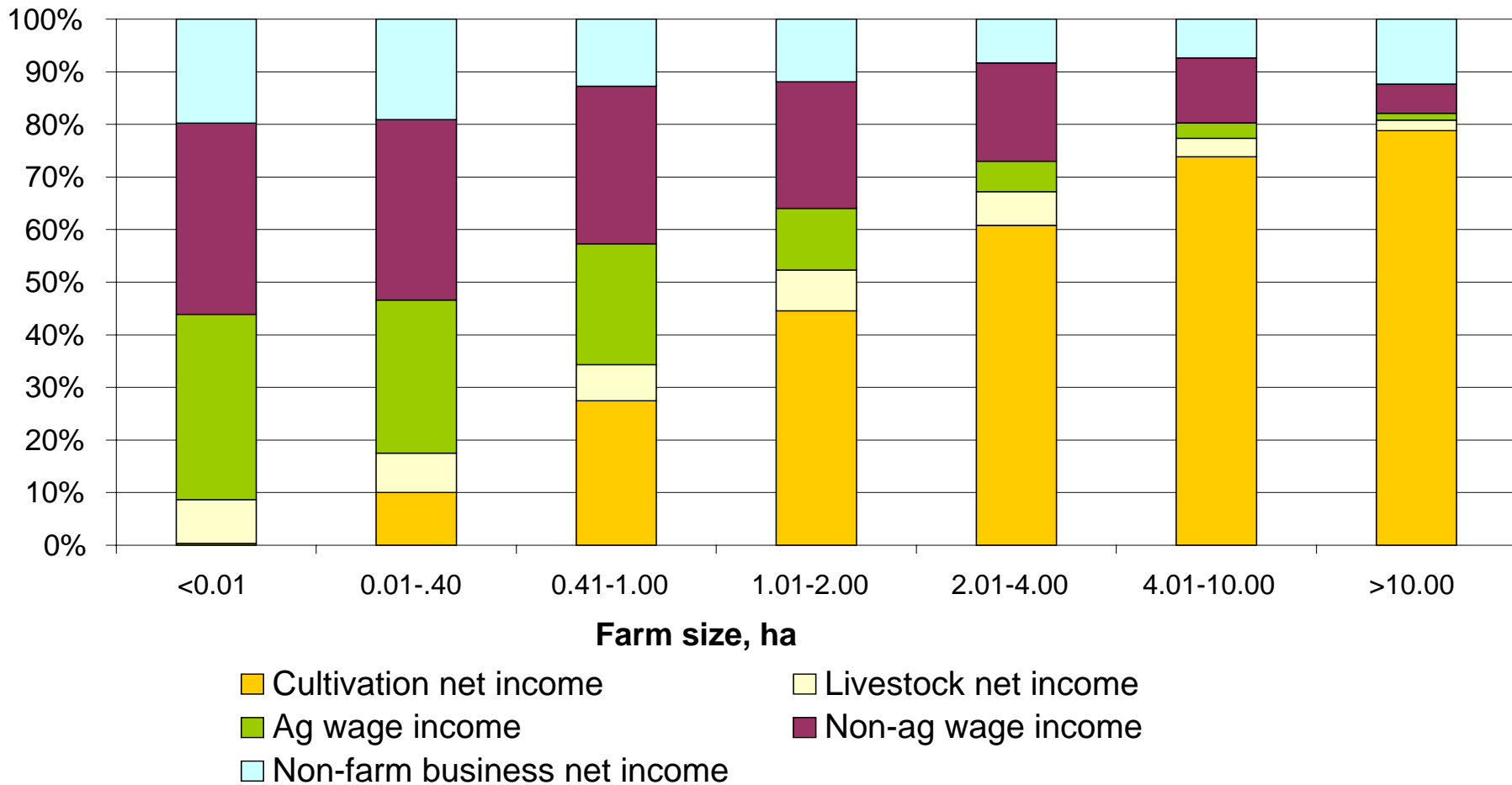
## Labor allocation



**Non-cultivators and marginal farmers work less in agriculture and more in the RNFE; other farmers more in agriculture and the RNFE**

# India: Status of rural households

## Sources of income for farmer households 2002-03 (% by farm size)



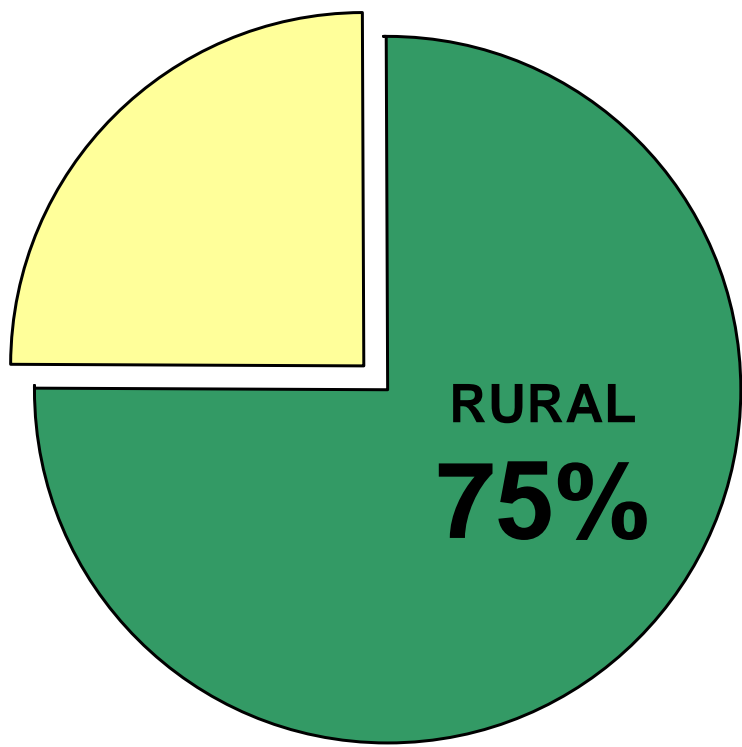
**Smaller farmers rely relatively more on livestock, agricultural labor market, and earnings in the rural nonfarm economy**

# India: Status of rural households

- ❑ Squeeze on access to land: population growth and low migration
  - ❑ Farm households increase work in agriculture: role of intensification in high value crops
  - ❑ Landless lose access to farm employment
  - ❑ Both landless and landed increase employment in the rural nonfarm economy
- > Critical roles of HVA and RNFE, require access to land and/or labor skills. Populations left behind: casual workers and SC/ST**

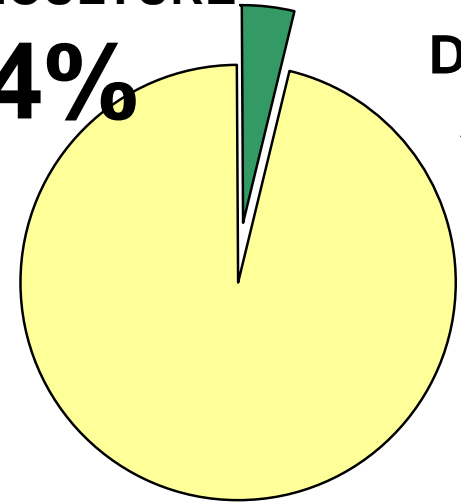
## 2. The potential of agriculture for development has been under-used

**WORLD POOR**



**AGRICULTURE**

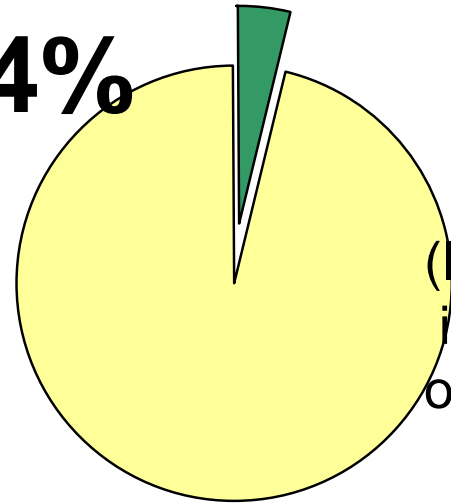
**4%**



**OFFICIAL DEVELOPMENT ASSISTANCE**

**AGRICULTURE**

**4%**

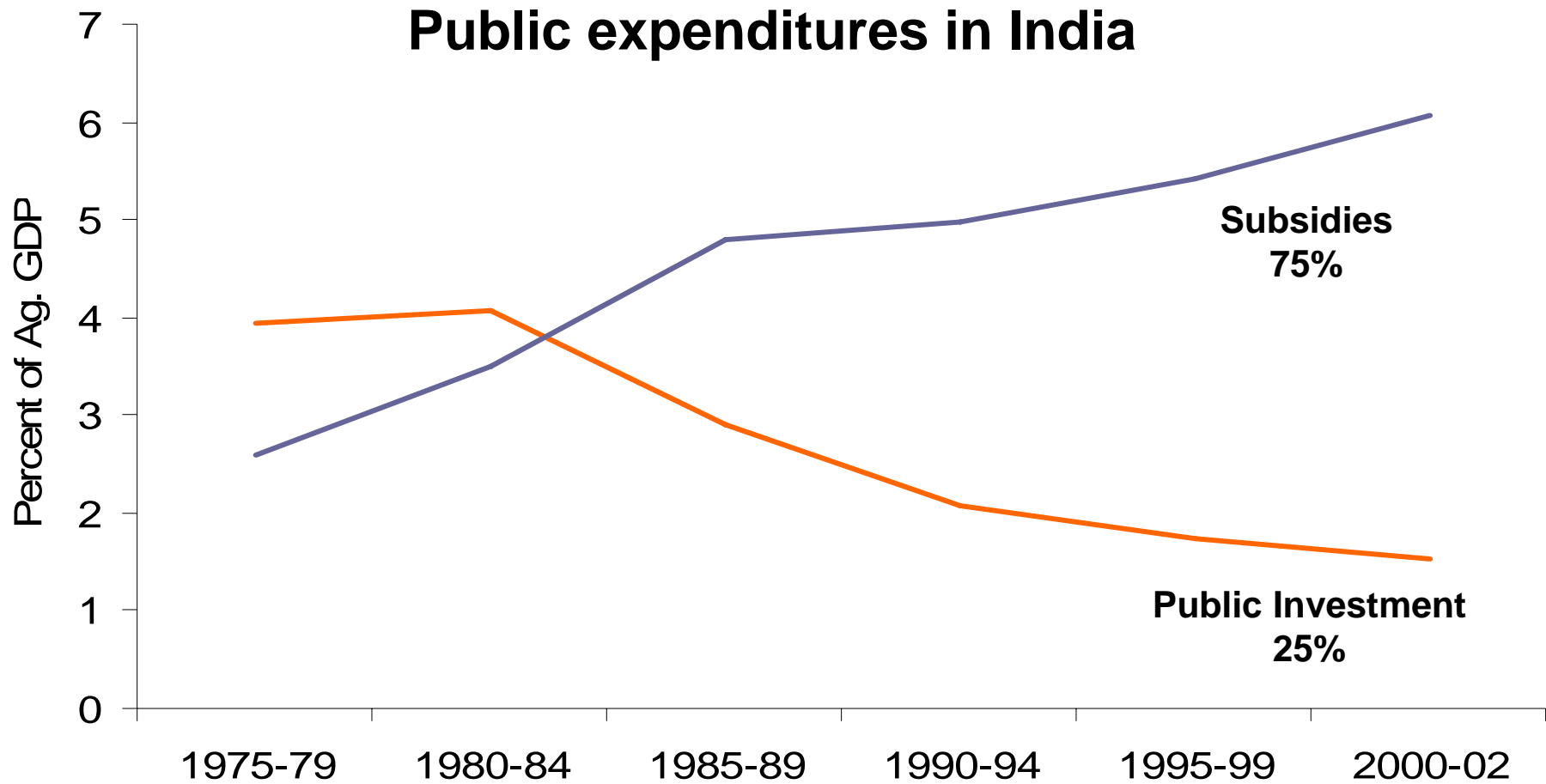


**PUBLIC SPENDING (SS-Africa)**

(India public investment: 2% of Ag GDP)

**Agriculture main livelihood**

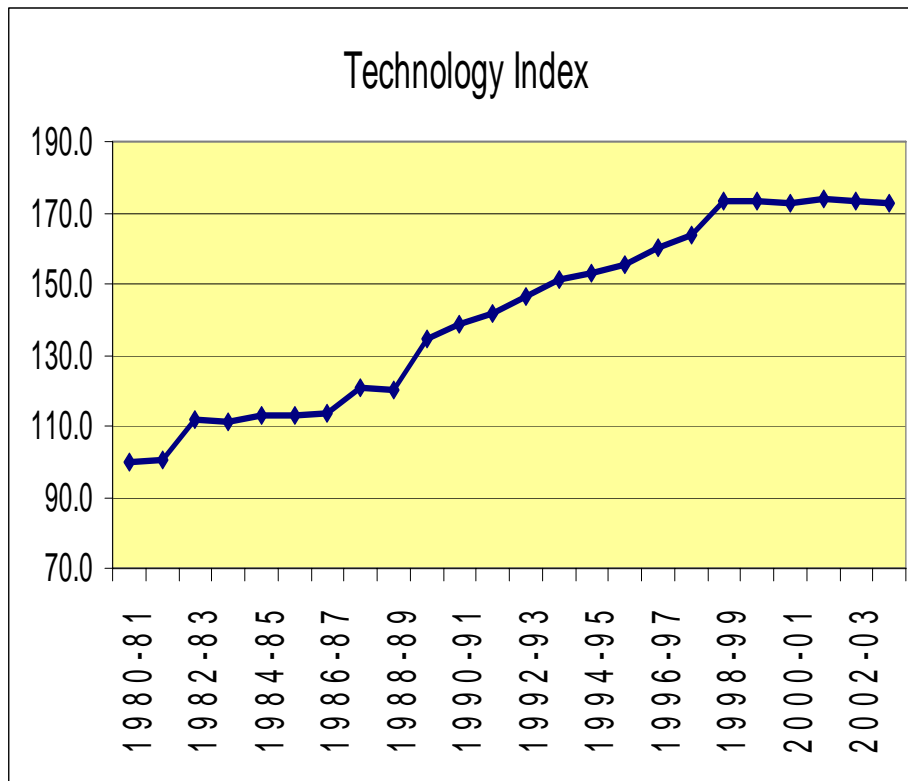
# India: With much mis-spending on agriculture



**Address political economy of farm subsidies**

# Slowdown in yield growth and large yield gaps in many states

## Slow down in progress in yields for 10 major crops



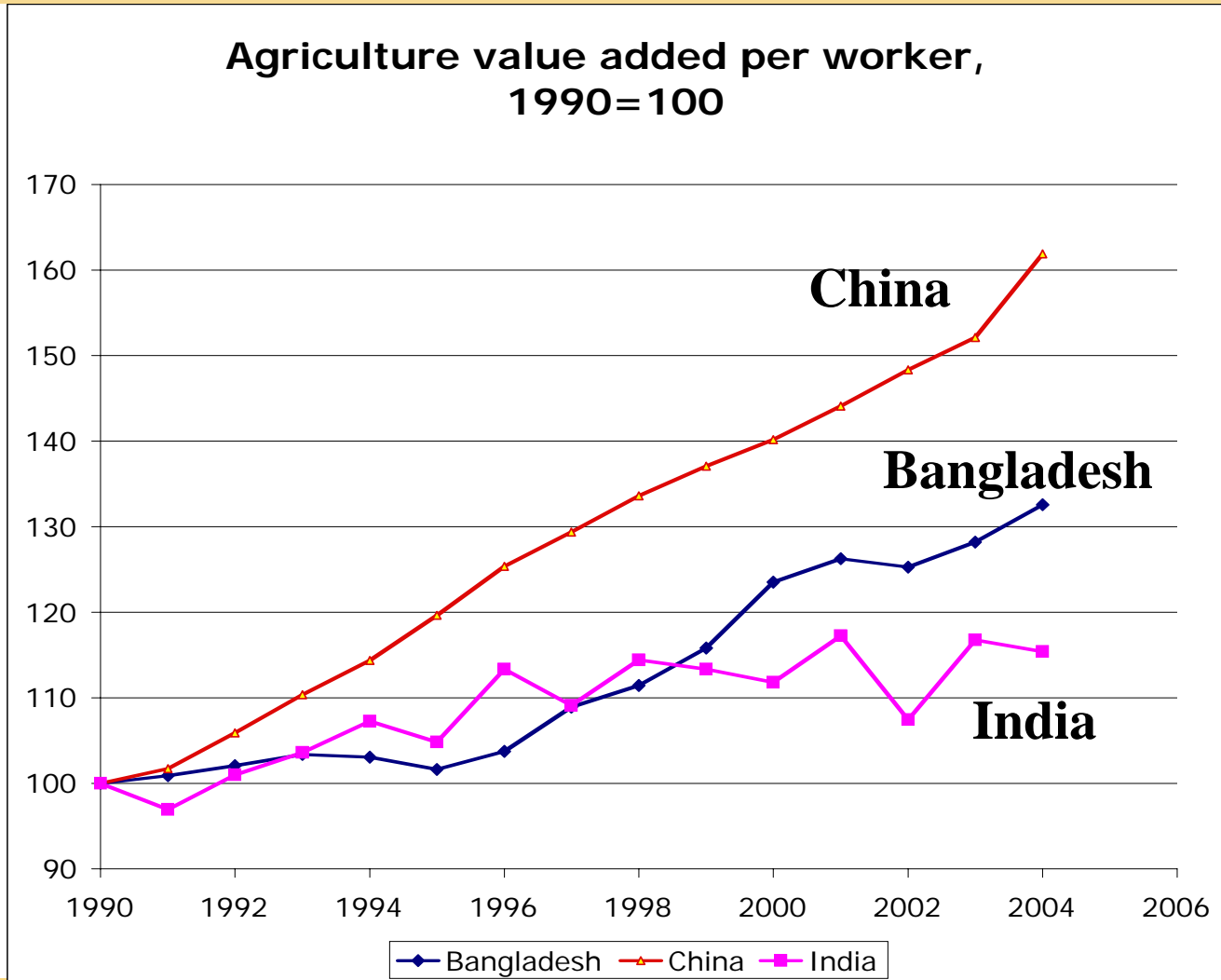
**Need invest more in research**

## With large gaps between potential and actual yields (2003-05)

- ❑ Wheat: 6% (Punjab) to 84% (M.P.)
- ❑ Rice: Over 100% in Bihar and UP
- ❑ Maize: 7% (Gujarat) to 300% (Assam)
- ❑ Soybean: 7% (Rajasthan) to 185% (Karnataka)
- ❑ Sugarcane: 16% (A.P.) to 167% (M.P.)

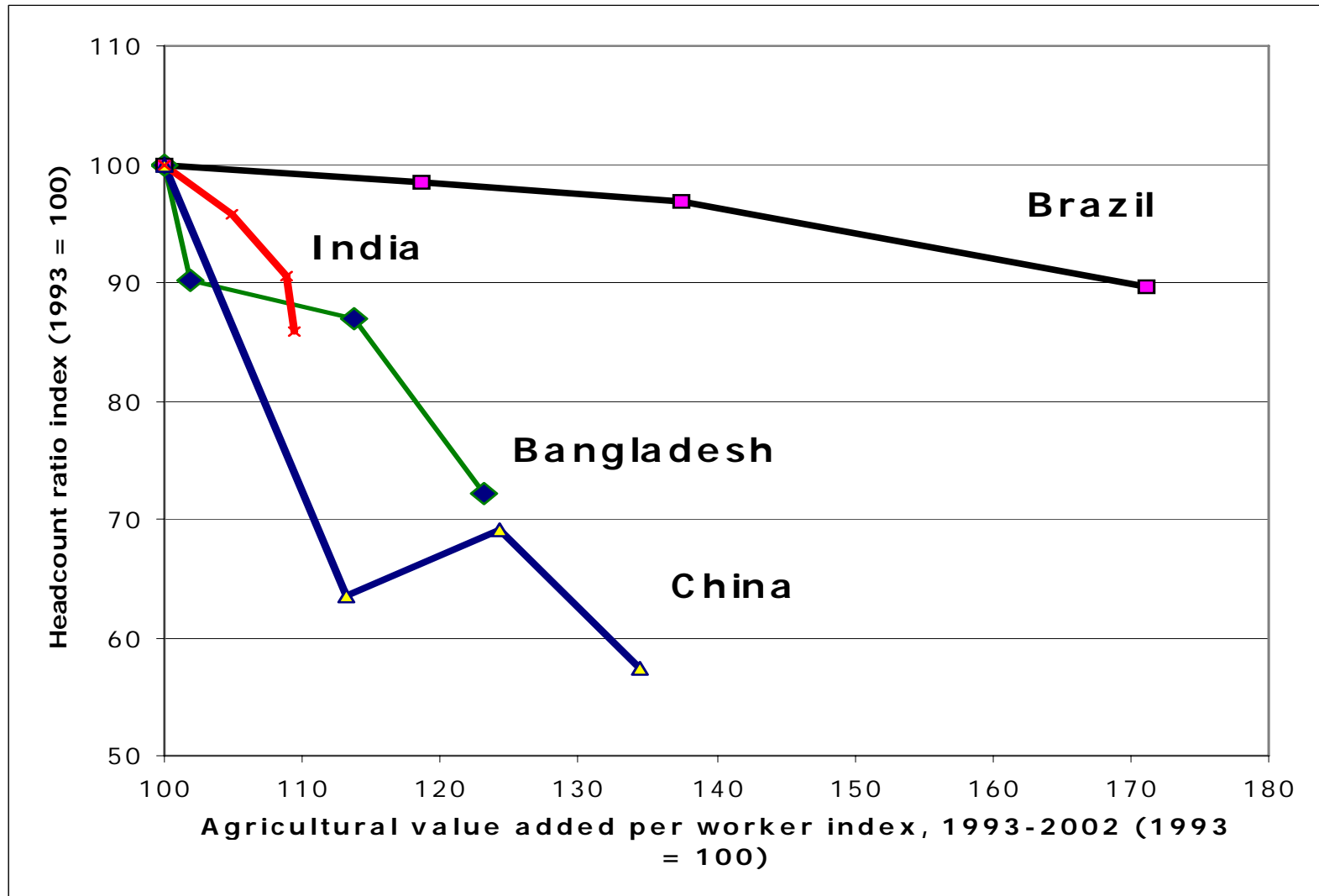
**Need invest more in extension**

# India: Low gains in VA per worker in agriculture



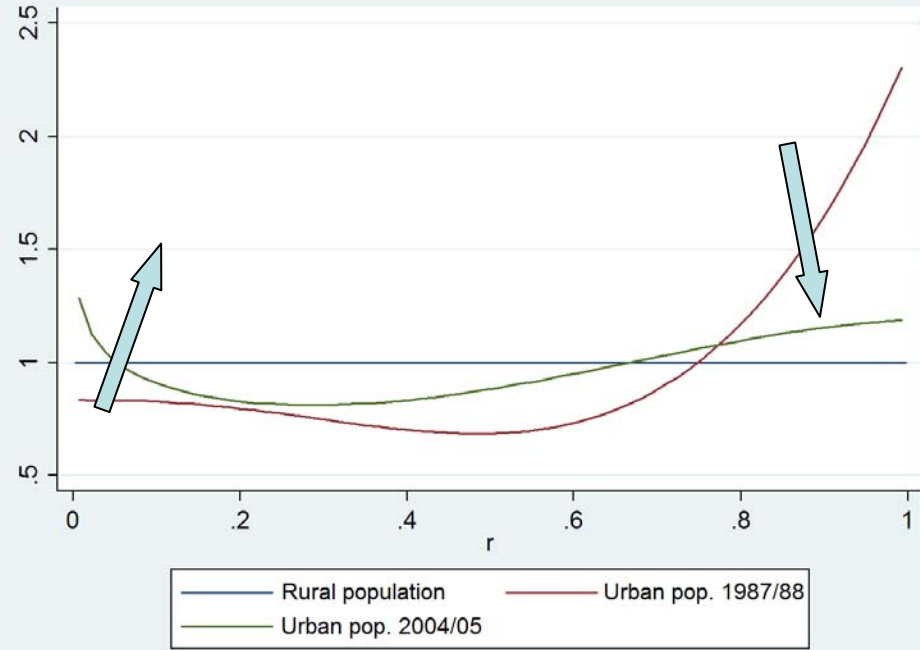
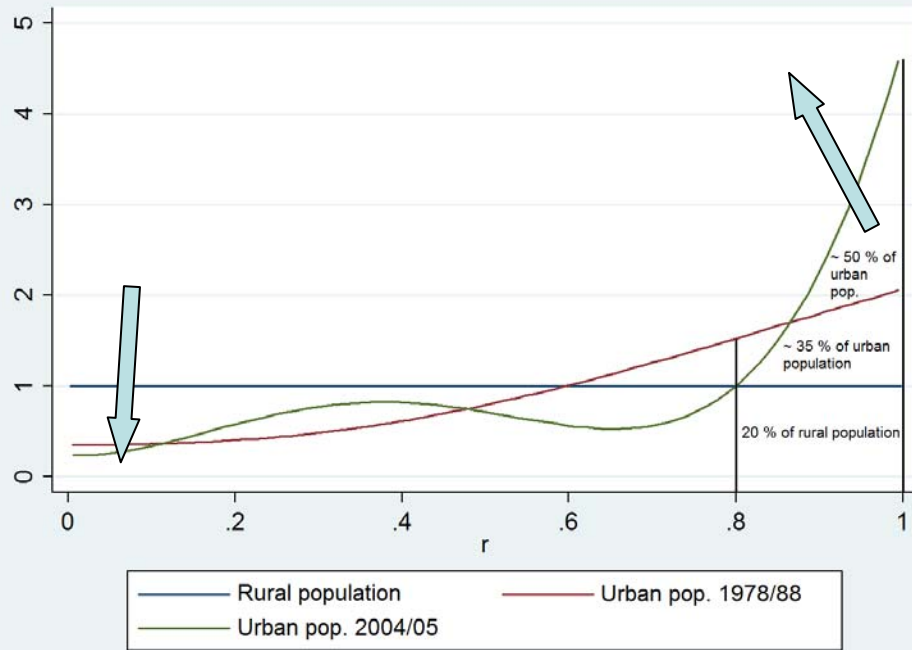
**Production performance has been insufficient to create gains per worker**

# India: Under-used potential of agriculture to reduce poverty



**High poverty elasticity, but insufficient growth and too much labor**

# India: Rising urban-rural disparity in Tamil Nadu, but declining in Kerala, 1987-04



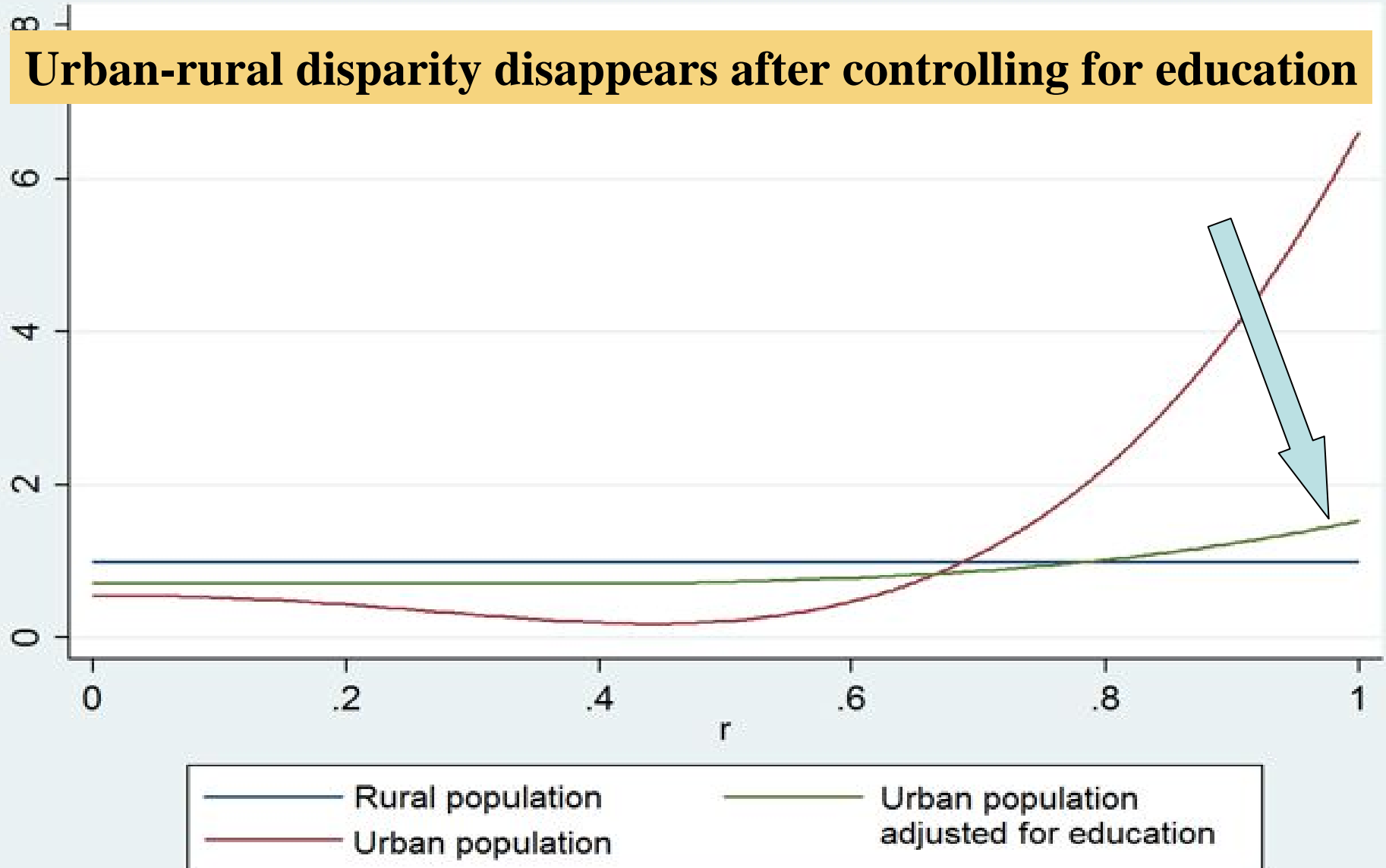
**% of urban population with income in the same range as the rural population:**

**Tamil Nadu: Increased among rich (35% in 1987 → 50% in 2004), fell among poor**

**Kerala: Fell among the rich, increased among the poor**

# India: Urban-rural income disparity was mainly due to education in 2004

**Urban-rural disparity disappears after controlling for education**



# 3. Significant new opportunities exist to better use of agriculture for development

## Opportunities for a return to agriculture for development

### □ A “new agriculture” with dynamic demand

- High value crops, non-traditional exports, livestock, fish

### □ Incentives favorable to investment in agriculture

- Reduced taxation of agriculture
- High international food prices

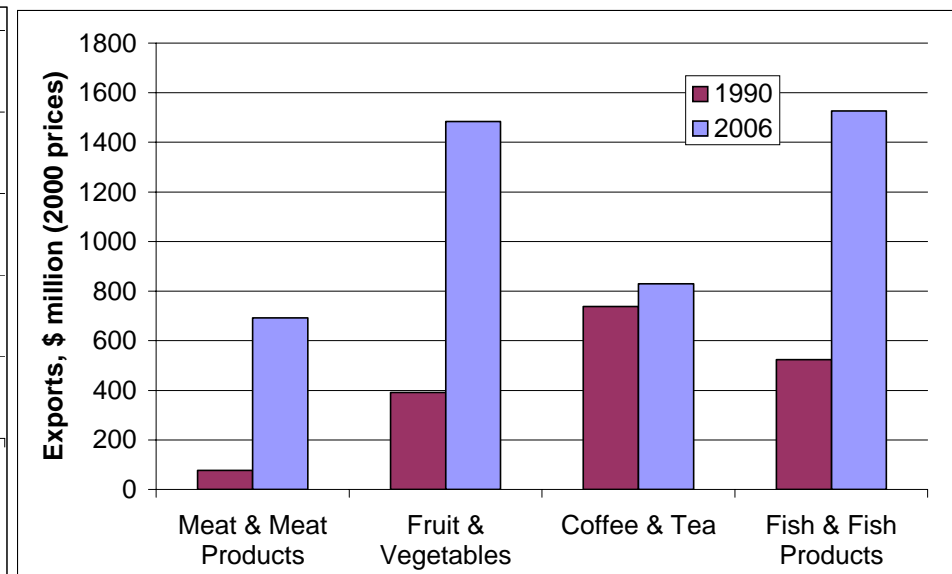
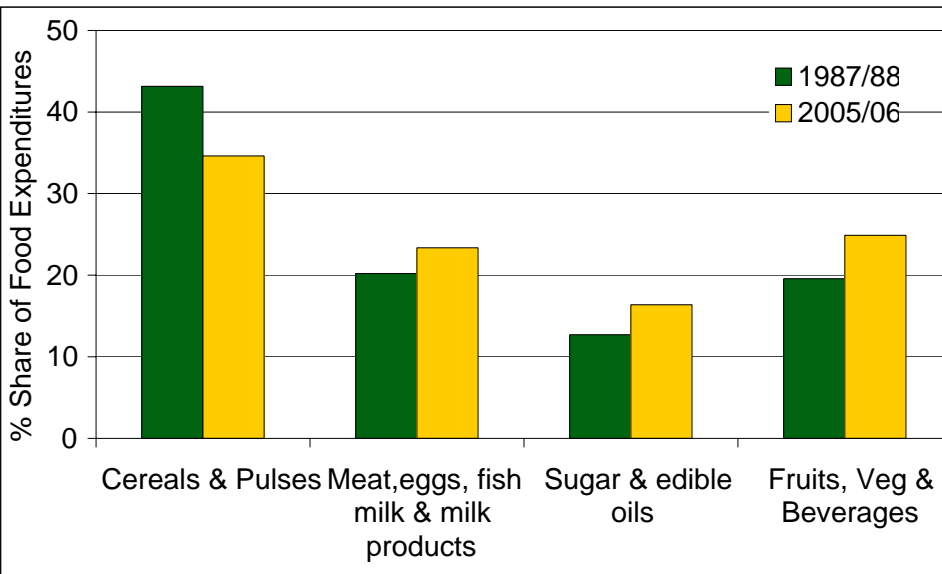
### □ Multiple institutional and technological innovations

- IT for financial services and extension, genomics for new seeds

### □ New actors and new ways of doing business

- Private sector, producer organizations, public-private partnerships

# New opportunities for India: A "new agriculture" with dynamic demand

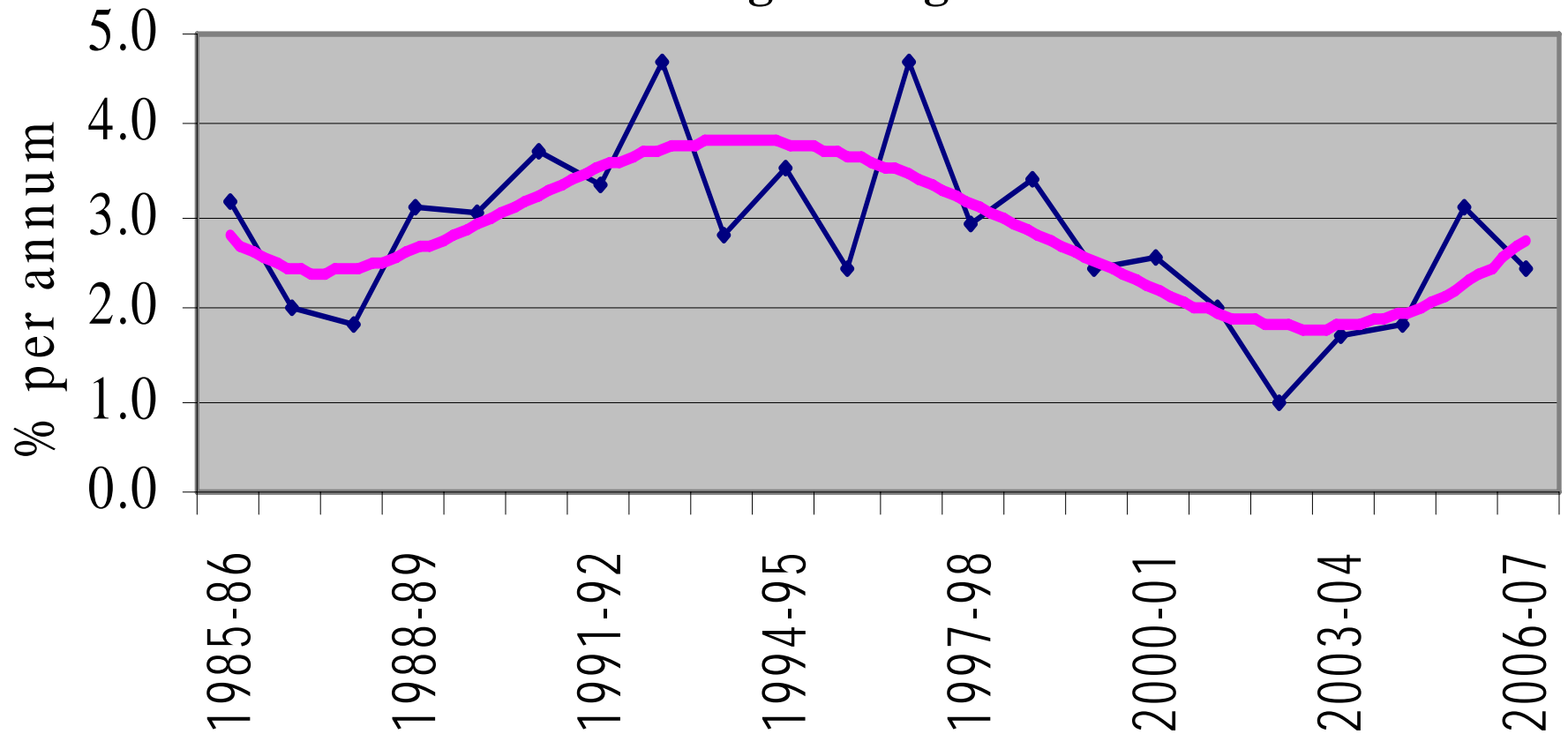


**Rising consumer demand for high value crops and animal products**

**Rising share of high value crops and animal products in exports**

# New opportunities for India: A turnabout in agricultural growth

**Annual growth of Agricultural GDP based on 5 year moving averages**



## 4. With also new challenges to be met

- ❑ **Address the political economy of public spending in agriculture**
  - Fertilizer, electricity, water, credit subsidies: high fiscal cost
- ❑ **State-market in-definitions constraining private sector entry**
  - Over-regulation in agriculture: public grain procurement, land markets
- ❑ **Make agricultural growth pro-poor**
  - Smallholders: Supporting diversification into high value activities
  - Commercialization of subsistence farming: reducing risks (suicides)
  - Employment challenge: expanding rural labor markets in farm and nonfarm, and migration
  - Managing high food prices for poor consumers
- ❑ **Achieve sustainability**
  - Water scarcity, land degradation, climate change

## 4. And also major broader challenges

- ❑ **Doha must progress** – but with attention to transitional issues and supply response in developing countries
- ❑ **Subsidies can be used** – but with attention to market development, equity, and exit strategy
- ❑ **GMOs have unrealized potential for the poor** – but with attention to bio-safety
- ❑ **Biofuels will be important** – but need more productive and sustainable technologies (for both biofuels and food)
- ❑ **Climate change** requires urgent attention – for both adaptation and mitigation (25% of GHG emissions from agriculture)

## 5. Agriculture for development: What options for India?



# Agriculture for development: Options for India in the WDR framework

- ❑ **India in the “worlds of agriculture”: A transforming country**
  - Agriculture to reduce rural-urban disparities and poverty: growth and labor out of agriculture
  - Agriculture essential for environmental conservation
- ❑ **Policies in an era of high food prices and private sector interest**
  - Protection of agriculture less needed
  - Agriculture for food security: return to concern with food production
  - Reduce subsidies and redirect toward productive investments and protection of poor net-food consumers
  - Trade policies to help reduce price instability
- ❑ **Market access and value chains**
  - Improve efficiency of value chains and increase value added in agribusiness

# Agriculture for development: Options for India in the WDR framework

## ❑ **Smallholder competitiveness**

- Access to productive assets: land (land reform, rentals), human skills
- Key role of high value revolution: entrepreneurship, technology, water, infrastructure, producer organizations, public-private partnerships

## ❑ **Subsistence farming**

- Address constraints for productivity and resilience of farming systems
- Social assistance for well-being and risk-taking

## ❑ **Agricultural labor market**

- Huge employment problem: Labor intensity of agriculture
- Quality of employment and regulation

## ❑ **Rural nonfarm economy**

- Rural investment climate, public-private partnerships, territorial approach
- Address skills for employment and migration

## ❑ **Labor out of agriculture: massive investment in human capital**