KATHOLIEKE UNIVERSITEIT LEUVEN

Debating Development

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Insertion into Global Food Value Chains: Boon or Bane for Developing Countries?

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Overview

1. **Actual trends in global food supply chains**

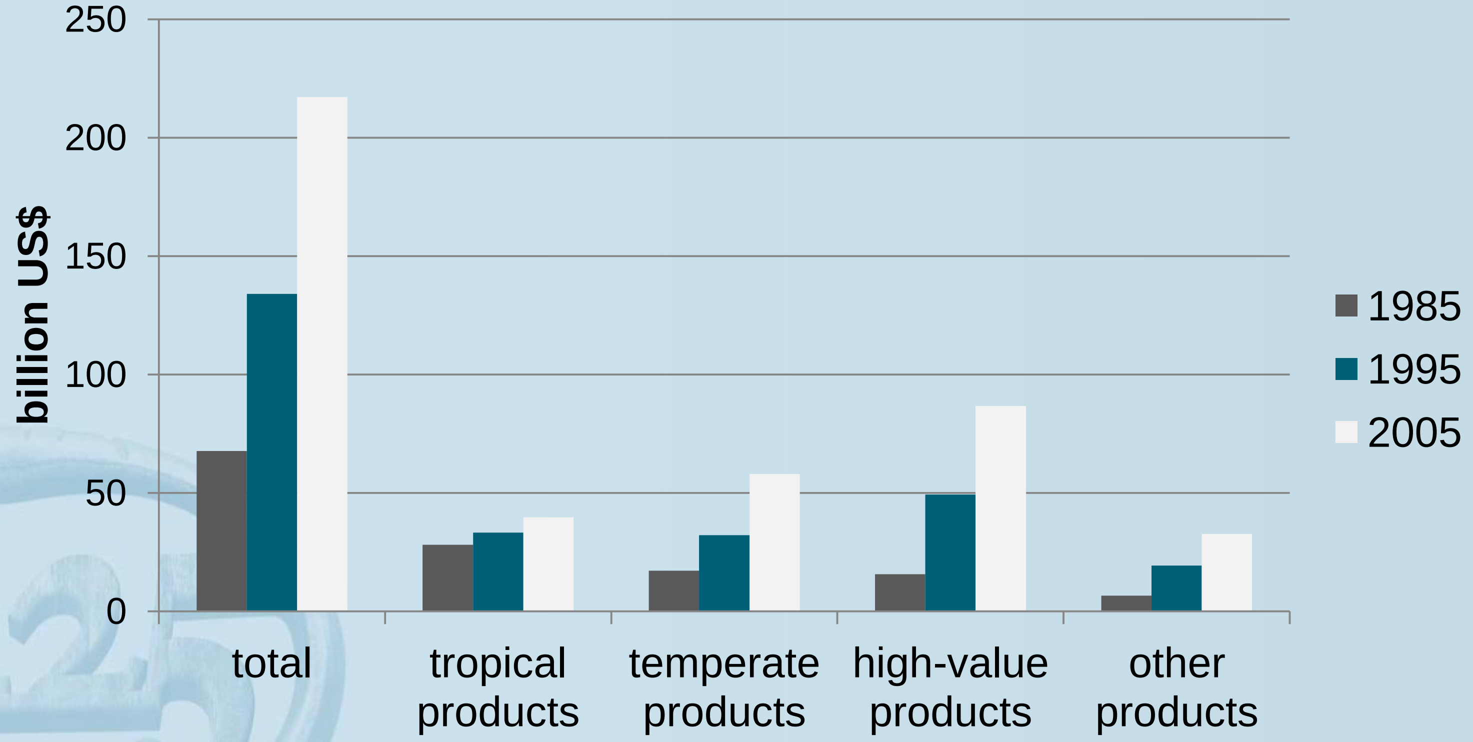
2. **Development implications of insertion in global food chains**

Overview

1. **Actual trends in global food supply chains**
   - Changing pattern of agri-food exports

Changing pattern of agri-food trade

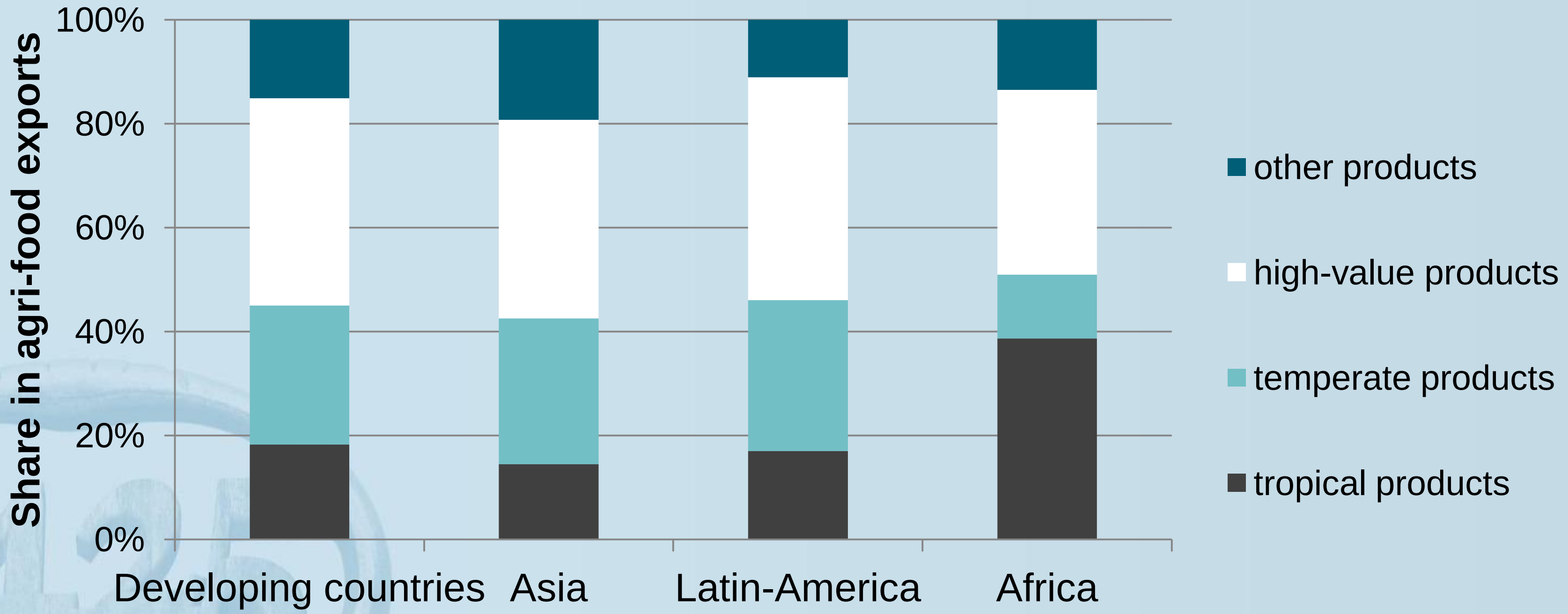
Developing country agri-food exports, 1985-2005



Source: based on FAO statistics

Changing pattern of agri-food trade

The structure of agri-food exports in different developing regions, 2005

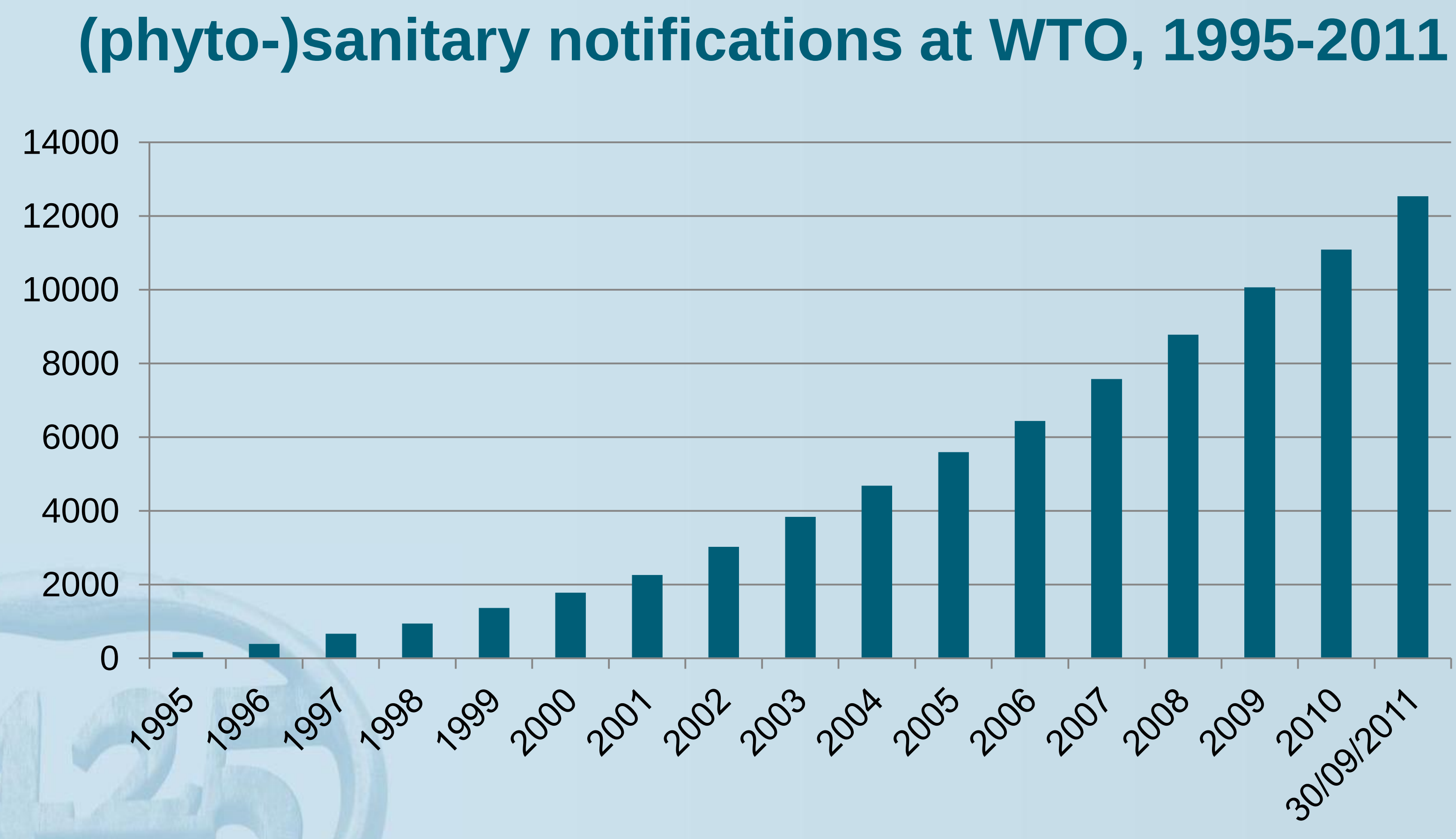


Source: based on FAO statistics

Introduction / Content

1. **Actual trends in global food supply chains**
   - Changing pattern of food exports
   - Increasing food standards

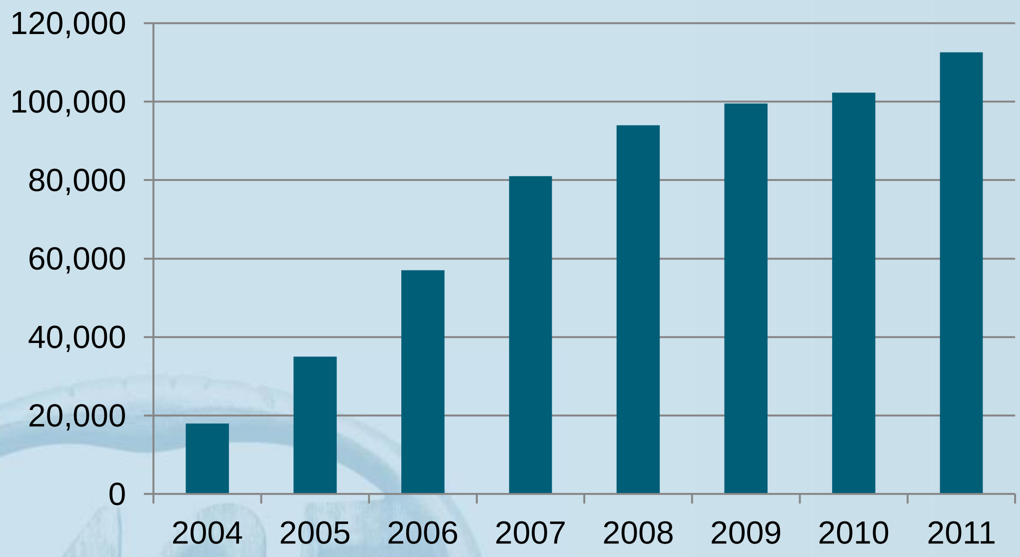
Increasing standards



Source: WTO, 2012

Increasing standards

Number of GlobalGAP certified producers



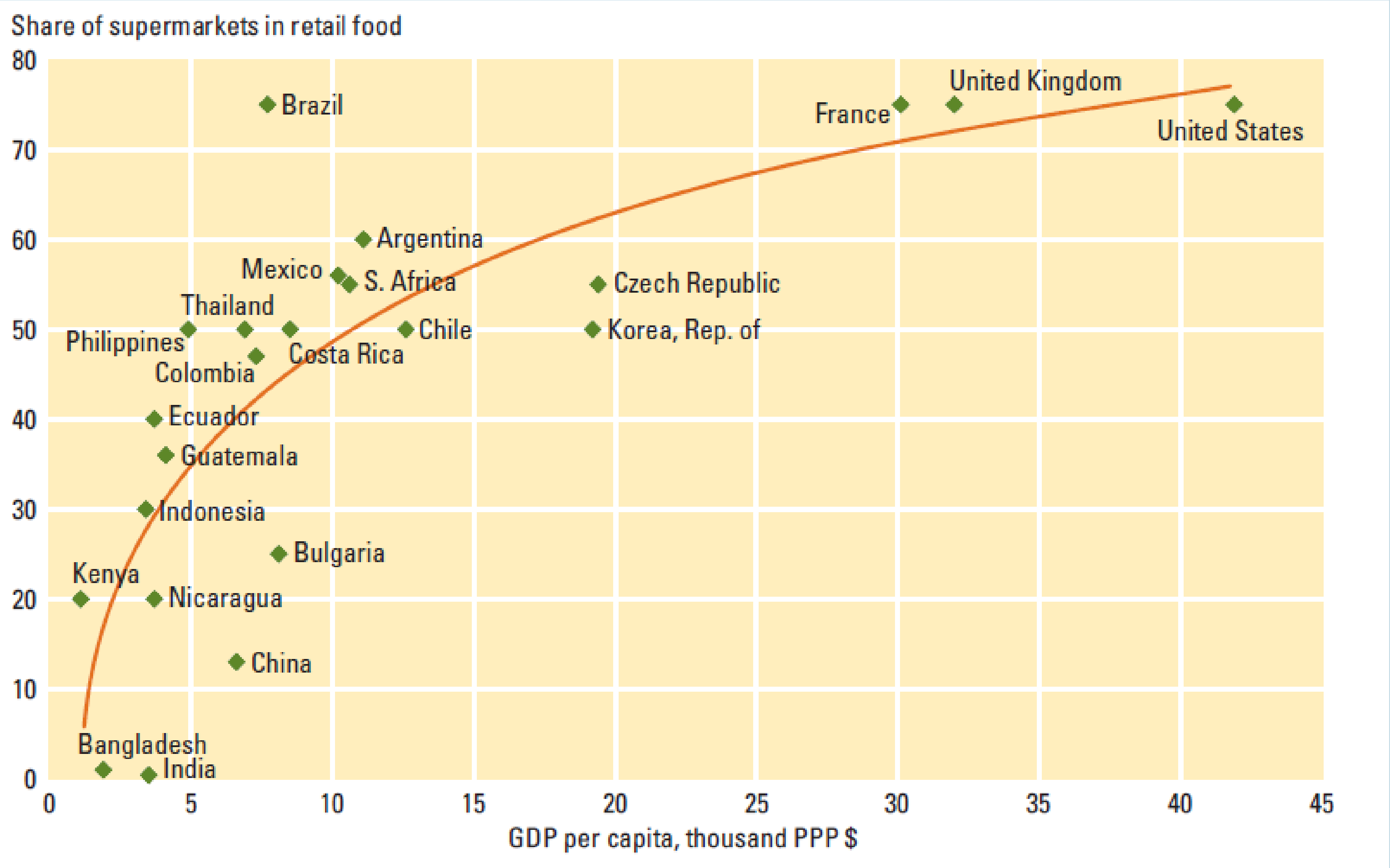
Source: GlobalGAP(2011)

Overview

1. **Actual trends in global food supply chains**
   - Changing structure of food exports
   - Increasing food standards
   - Increasing consolidation

Increasing consolidation

Consolidation in food retail



Overview

1. **Actual trends in global food supply chains**
   - ➢Changing structure of food exports
   - ➢Increasing food standards
   - ➢Increasing consolidation
   - ➢Increasing vertical coordination / integration

Increased vertical coordination

Sourcing of produce from smallholder farmers in selected fruit and vegetable export sectors

Country	Commodity (group)	Year of survey	Share of exports sourced from smallholders	Number of smallholder producers
Ghana	Pineapples	2006	45%	300 - 400
	Papaya	2006	10-15%	
	Vegetables	2002	95%	
Cote d'Ivoire	Mango	2002	< 30%	
	Banana	2002	100%	
Senegal	French beans	2005	52%	600 - 900
	Tomatoes	2006	0%	0
Kenya	Fresh fruit and vegetables	2002	± 50%	12,000 - 80,000
Madagascar	Fresh vegetables	2004	90-100%	9,000

Source: Maertens et al, 2011

Overview

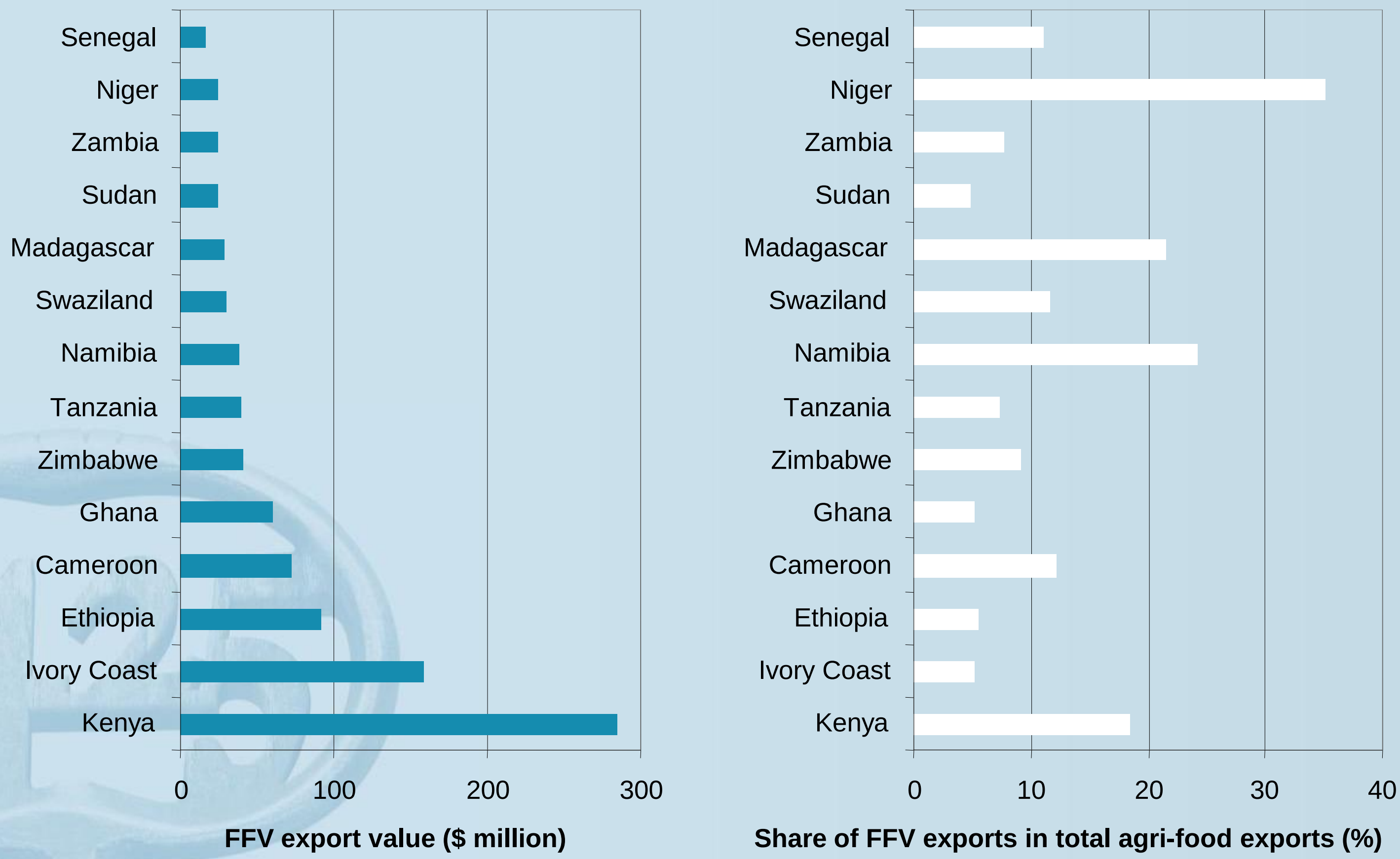
2. **Development implications of insertion in global food chains**
   - Opportunities and challenges

Opportunities and challenges

- High-value food exports by many developing countries seen as **pro-poor growth strategy**

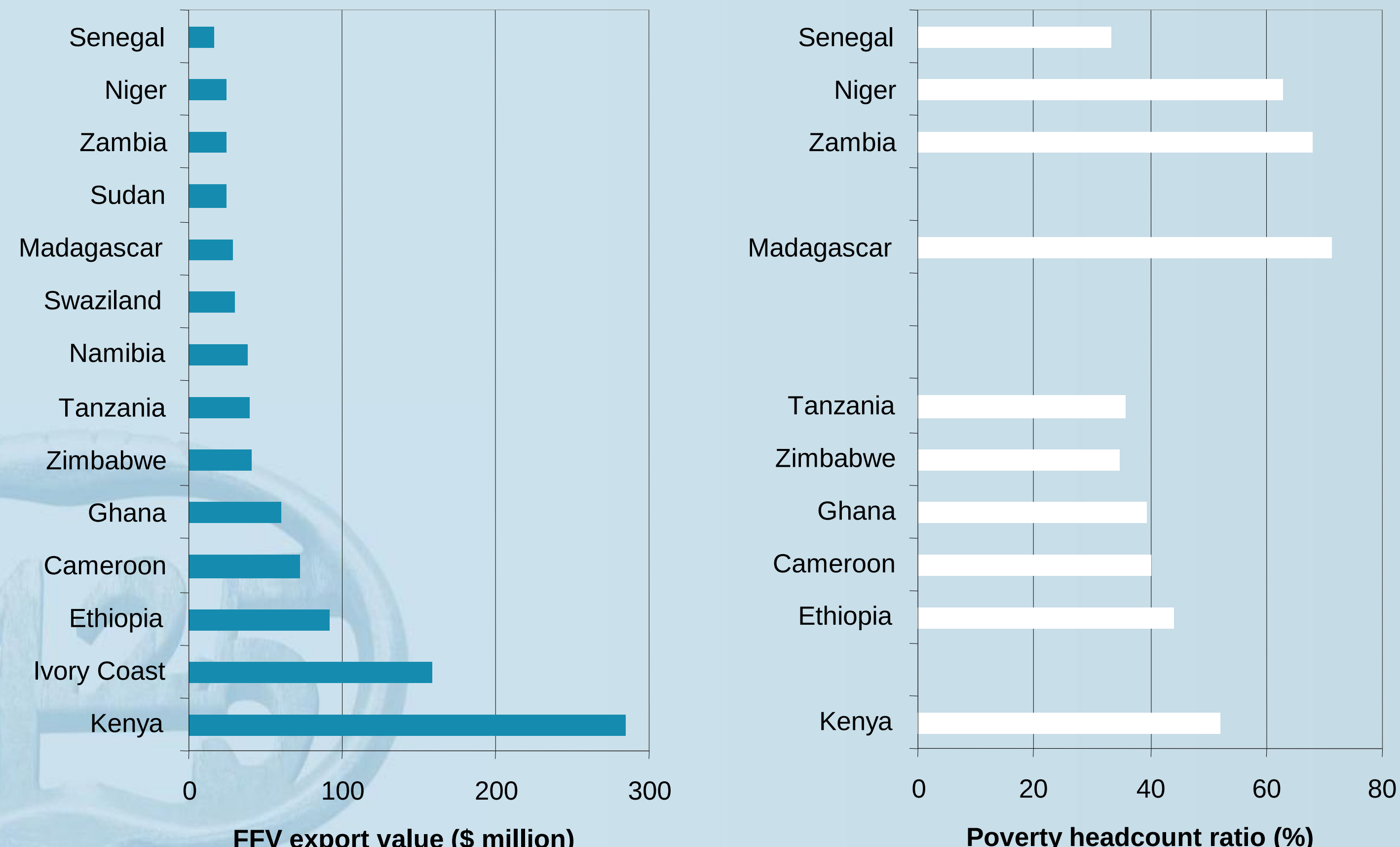
Opportunities and challenges

Top 15 FFV exporting countries in SSA (excluding South-Africa)



Opportunities and challenges

Top 15 FFV exporting countries in SSA (excluding South-Africa)



Opportunities and challenges

- High-value food exports by many developing countries seen as **pro-poor growth strategy**

- Two main concerns
  - ✓ Small business and smallholder producers are **excluded from high-value supply chains** because of their inability to comply with high standards, inability to access contracts, ..
  - ✓ Smallholder producers are because rents in the chain are **exploited in high-value supply chains** unequally distributed in favor of large international food companies

Overview

2. **Development implications of insertion in global food chains**
   - Opportunities and challenges
   - Case-study evidence

Case-study evidence

- Case-studies on the development impact of horticulture exports from Africa to the EU
  - Madagascar: vegetable exports
  - Senegal: bean & mango exports
  - Senegal: tomato exports

➢ Evidence from farm, firm and household survey data

- Exclusion of smallholder farmers from export sectors?
- Benefits for rural households from export sectors?
  - Direct economic benefits
  - Indirect and non-monetary benefits

Case-study evidence

- **Exclusion of smallholder farmers?**

  1. Madagascar case-study

  – Vegetable exports dominated by one exporting company

  – Production realized completely by smallholder farmers on a contract-farming basis with the exporting company
    - Almost 10,000 smallholders included
    - Very small farms of less than 1 ha

  – Extensive contract-farming systems
    - Input provision by the company, chemical application by the company, management assistance, technology assistance …
    - Elaborate system of on-farm monitoring with 300 company extension agents

Case-study evidence

- **Exclusion of smallholder farmers?**

  2. Senegal bean exports

  – Mixture of smaller and larger exporting companies, and of local and foreign companies

  – Mainly smaller exporting companies leave the market

  – Sourcing from smallholders is decreasing
    - 1999: 95% of exported produce sourced from smallholders
    - Largest exporters shift to vertically integrated estate farming as a strategy for GlobalGAP certification
    - 2005: 52% of exported product sourced from smallholders

Case-study evidence

- **Exclusion of smallholder farmers?**

  3. Senegal tomato exports

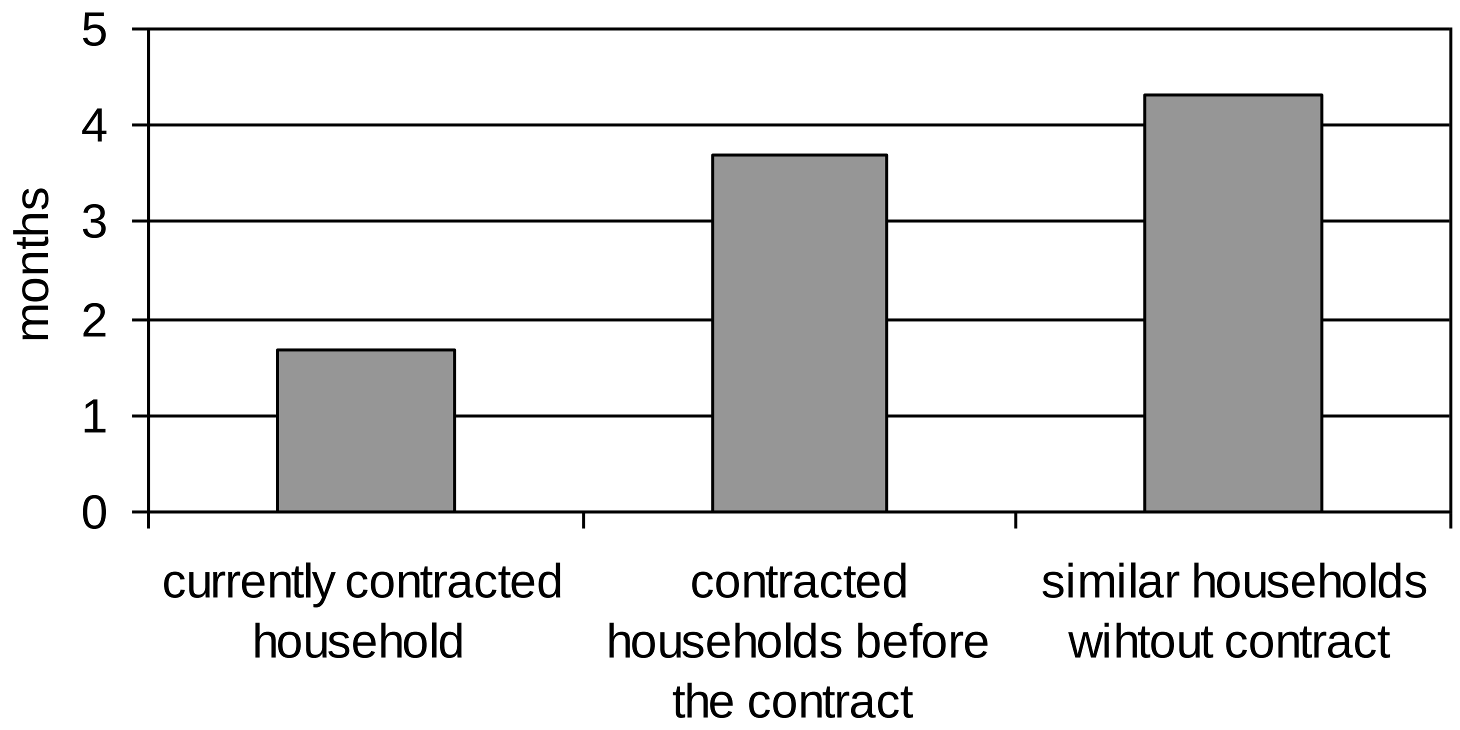
  - Dominated by 1 large multinational food company since 2003
  - No smallholders involved; only agro-industrial production
  - Production, processing, trade & distribution: vertical integration within subsidiaries of multinational company

Case-study evidence

- **Benefits for rural households?**
  1. **Madagascar**
     - Benefits for producers involved in high-value contract-farming for export :
       - Improved access to inputs
       - Higher and more stable incomes
         - Vegetable contract-farming contributes for 47% to household income
         - The length of the “hungry” period significantly reduced due to contract-farming
       - Technology and productivity spillovers on other crops
         - 90% of contract-farmers changed their methods of cultivation., e.g. by using compost
         - Rice productivity is 64% higher on contracted plots

Case-study evidence

Impact of vegetable contract-farming for export on the length of the hungry season



Source: Minten et al., 2009

Case-study evidence

- **Benefits for rural households?**

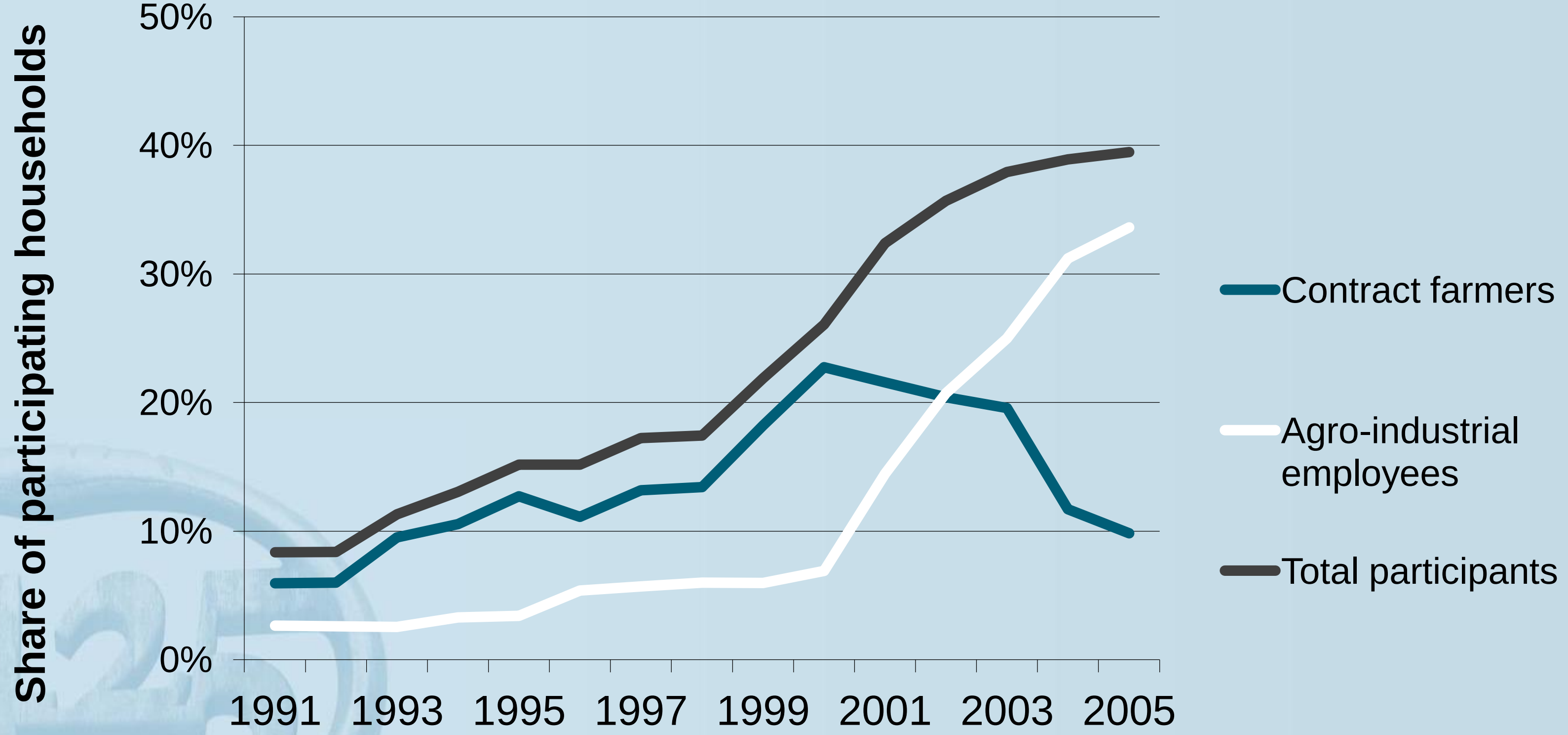
  2. Senegal bean exports

  – Producers involved in contract-farming for export
    - Relatively better-off households with more land and non-land assets
    - Higher incomes: 110% of average income

  – Households involved in employment in the agro-industrial companies:
    - Relatively poorer households with less land, less capital & lower education
    - Higher incomes
      – Income effect: 60% of average income
      – Investment spillover effects on own farm

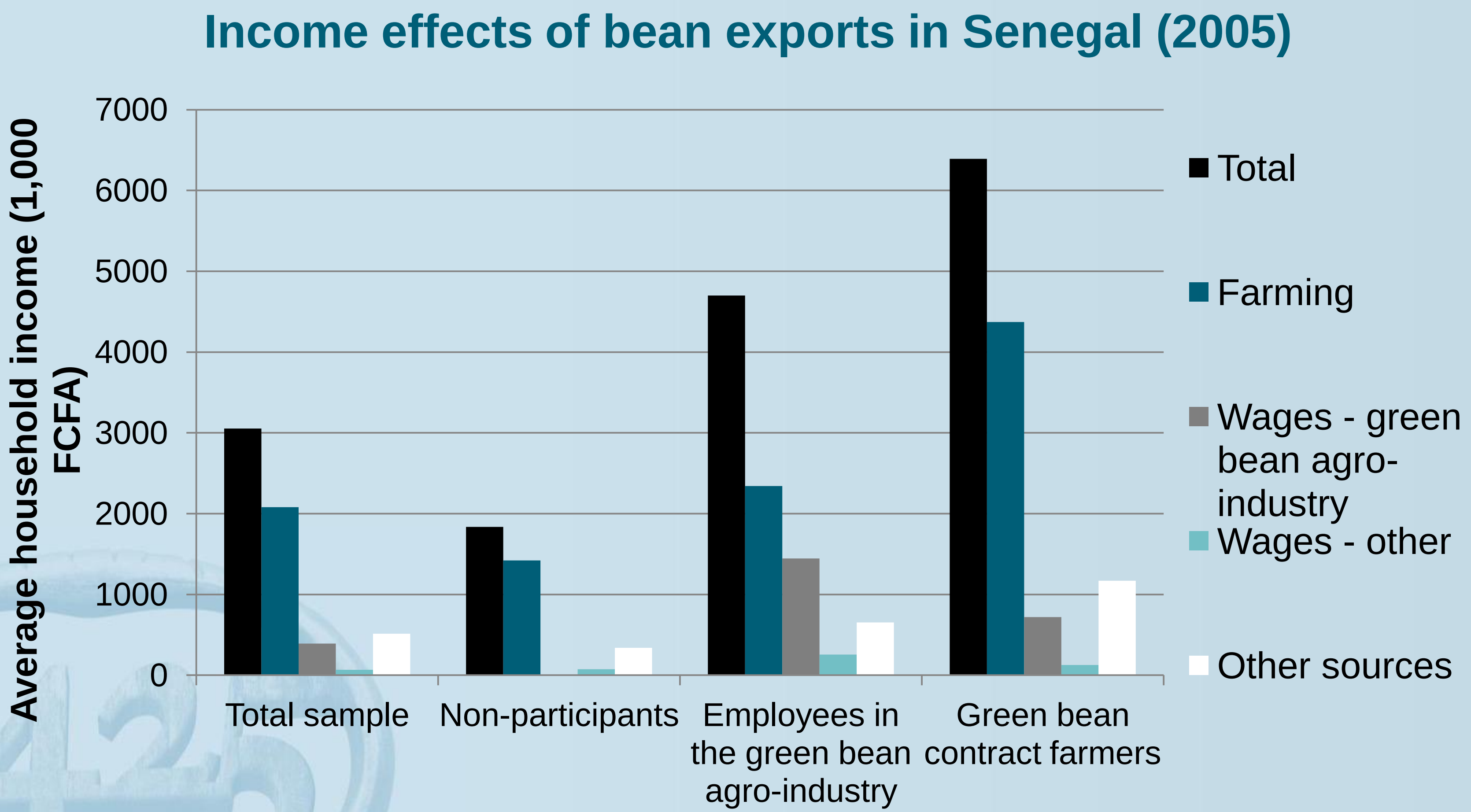
Development implications

Household participation in bean export production in Senegal



Source: Maertens and Swinnen, 2009

Development implications



Source: Maertens and Swinnen, 2009

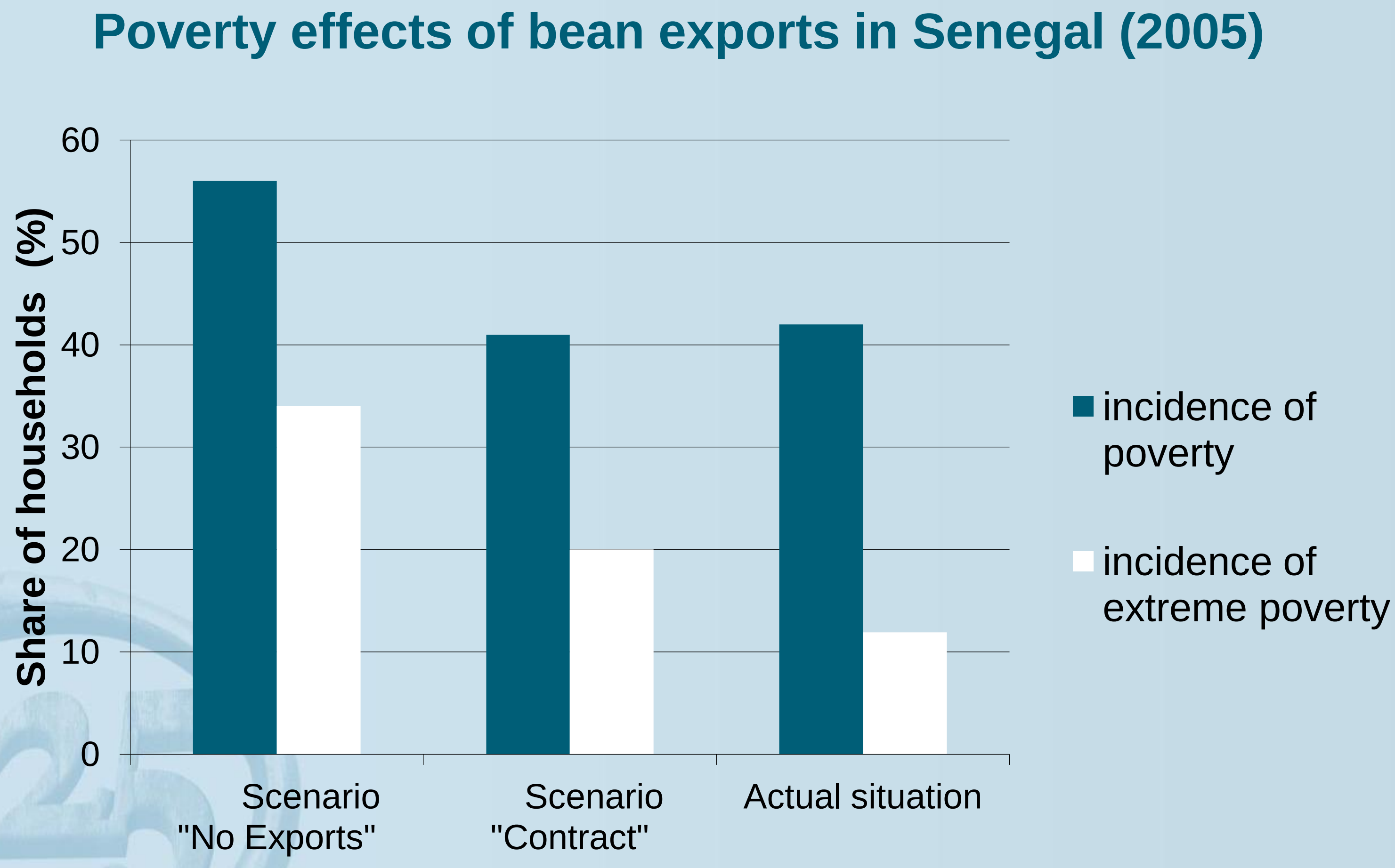
Case-study evidence

- **Benefits for rural households?**

  2. **Senegal bean exports**

  - Decreasing number of households – relatively richer households – benefit through contract-farming and product market effects
  - Increasing number of households - poorer households - benefit through employment /labour market effects
  - Important poverty reducing effects

Development implications



Source: Maertens and Swinnen, 2009

Case-study evidence

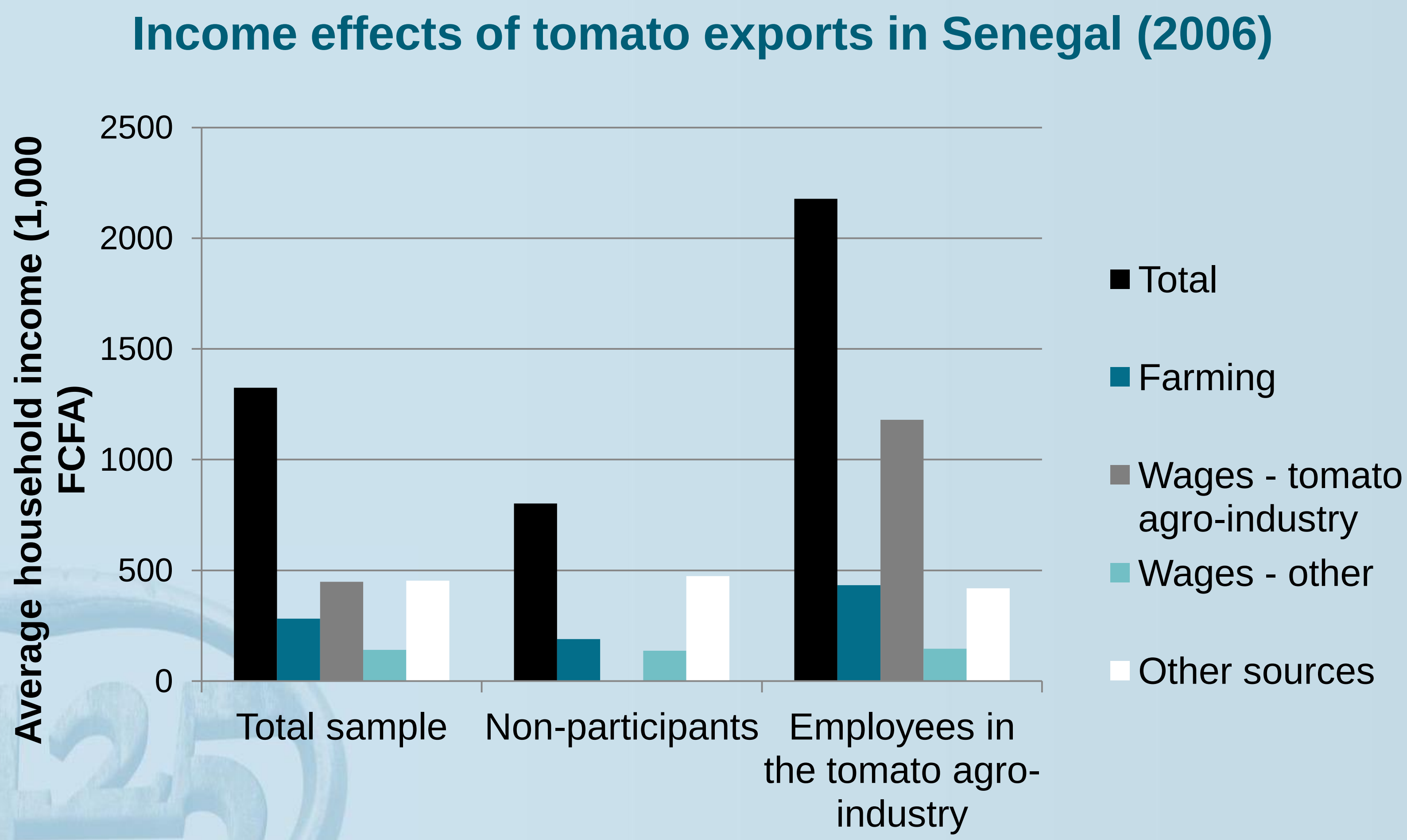
- **Benefits for rural households?**

  3. Senegal tomato exports

  – Households only benefit through employment

- Relatively poorer households with less land, less capital & lower education
- Many women involved in agro-industrial employment
- Higher incomes: 50% of average income
  – Larger share of household income attributed to women

Development implications



Source: Maertens, Colen and Swinnen, 2009

Opportunities and challenges

- High-value food exports by many developing countries seen as **pro-poor growth strategy**
- Challenge of exclusion and exploitation?
  - Positive income effects through product markets as well as labour markets
  - Labour markets: employment more inclusive
  - Product markets: contract-farming more exclusive
  - Labour market effects important for poverty reduction and female empowerment

Development implications

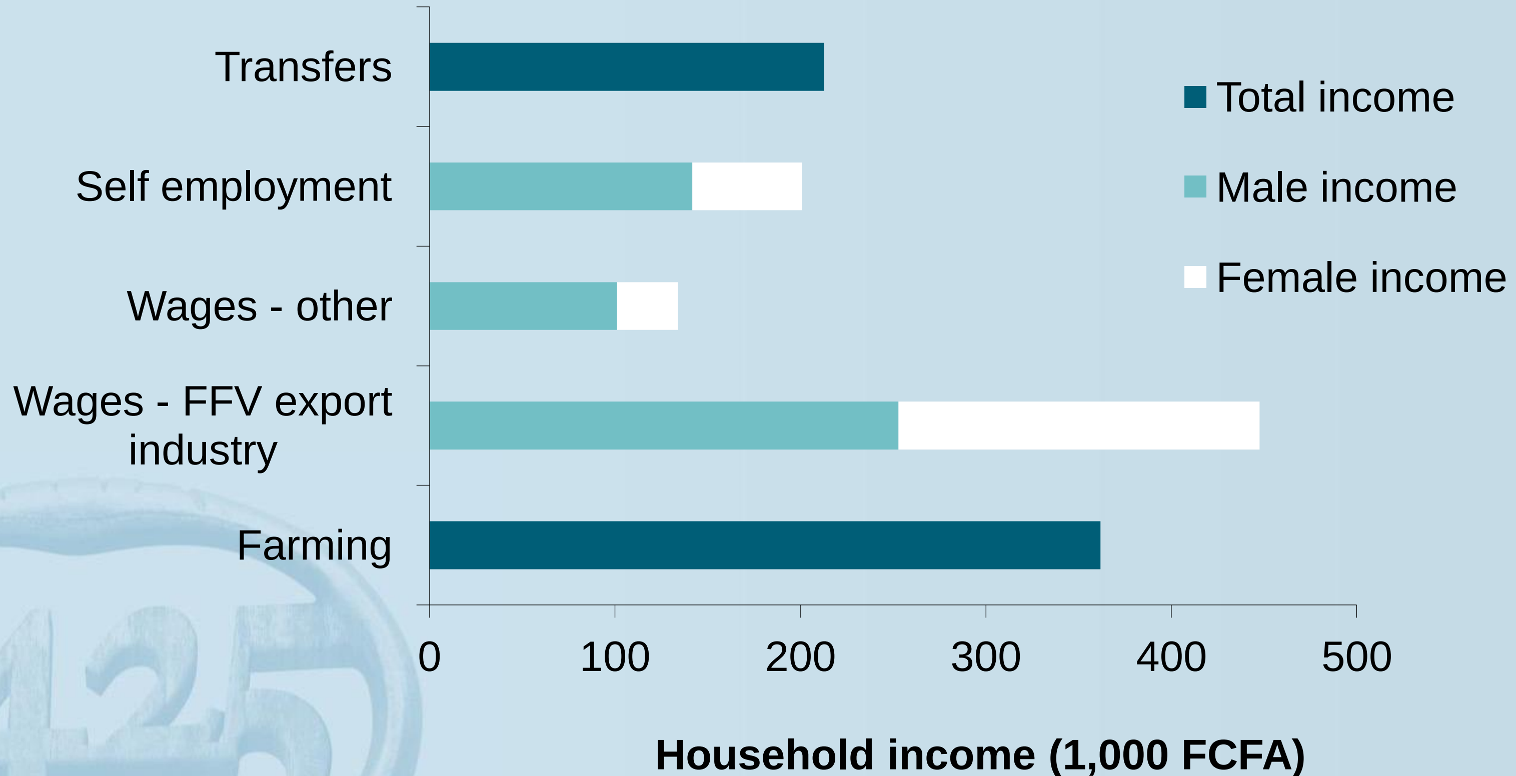
Employment in horticulture export sectors in selected African countries

Country	Commodity	Year of survey	Number of employees in the FFV agro-industry
Cote d'Ivoire	Banana and pineapple	2002	35,000
Senegal	French beans	2005	12,000
	Cherry tomatoes	2006	3,000
Cameroon	Banana	2003	10,000
Kenya	Flowers	2002	40,000 - 70,000
	Fresh fruits & vegetables	2002	40,000 - 50,000
	Fruits & vegetables		2,000,000
Zambia	Vegetables	2002/03	7,500
	Flowers	2002/03	2,500
South Africa	Decicuous fruit	1994	283,000

Source: Maertens et al, 2009

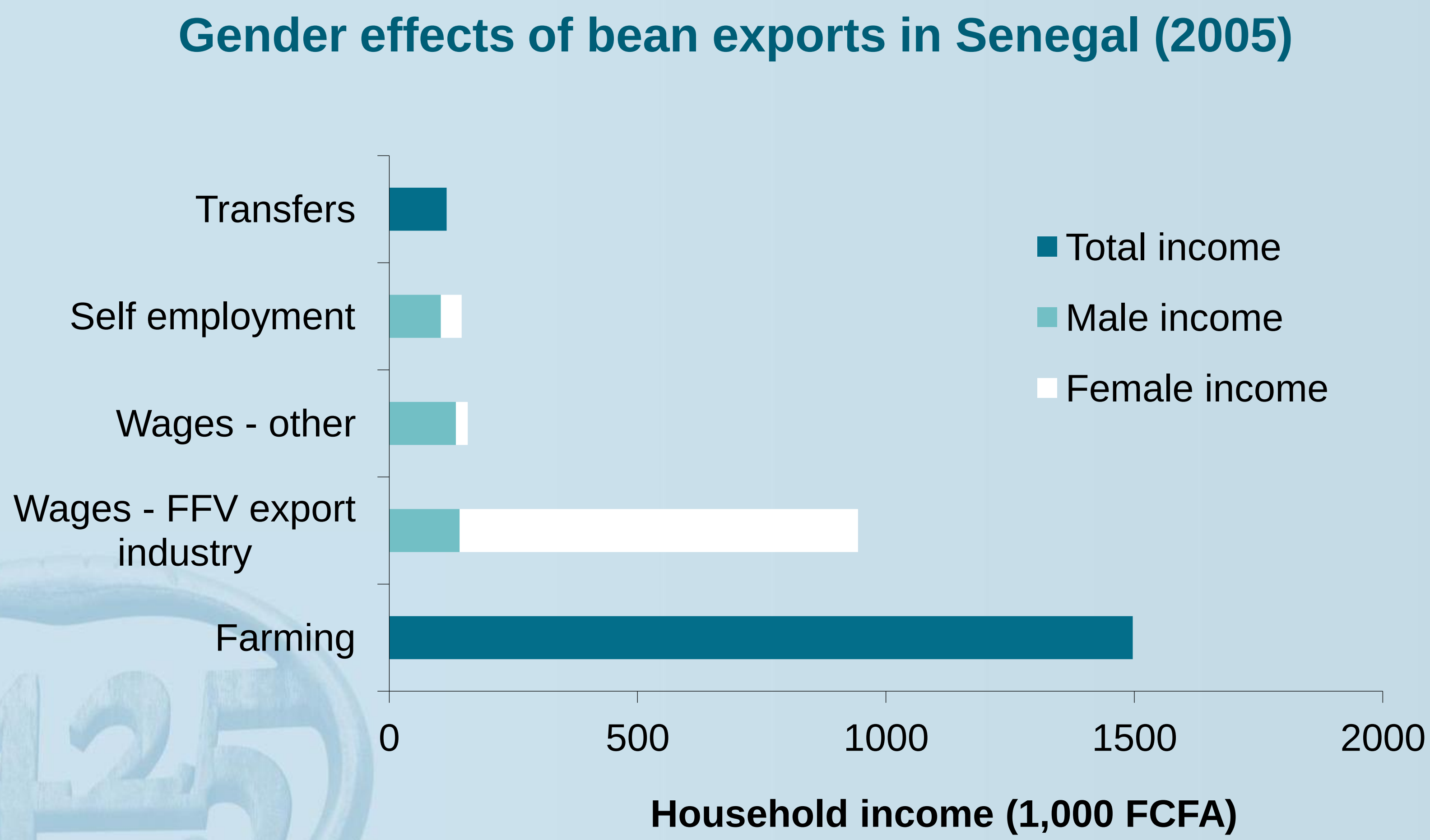
Development implications

Gender effects of tomato exports in Senegal (2006)



Source: Maertens, Colen and Swinnen, 2009

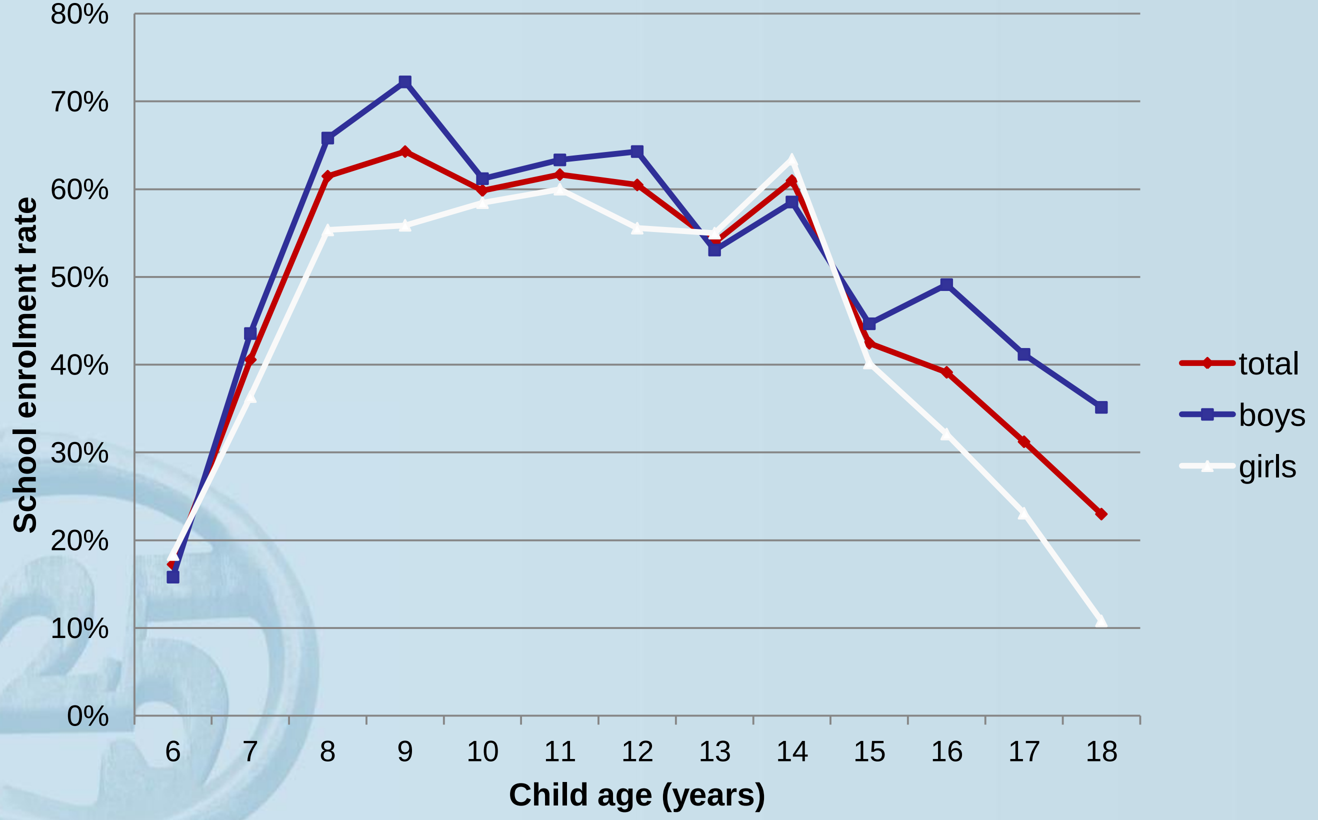
Development implications



Source: Maertens and Swinnen, 2009

Development implications

School enrolment rates for boys and girls age cohort 6-18 (2007)



Development implications

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School enrolment and expenditures across households with and without female wage employment

		Total sample	hh with female wage employment	hh without female wage employment
Primary school enrolment (age cohort 6-12)	total	57%	65%	53%
	boys	60%	76%	53%
	girls	52%	54%	48%
Secondary school enrolment (age cohort 13-15)	total	44%	50%	41%
	boys	48%	64%	41%
	girls	38%	35%	40%
Secondary school enrolment (age cohort 16-18)	total	29.39	32.99	26.06
	boys	40.85	45.88	36.47
	girls	24.40	27.36	21.28
expenditures for schooling	(1000 CFA)	32.88	46.09	27.55
expenditures for schooling per child		10.24	13.67	8.87

Conclusions / implications

- Insertion in high-value global food chains
  - Benefits for local rural households do exist
  - Product market as well as labour market effects are important
    - Need for policy and research attention to labour market effects!
  - Direct and indirect effects are important in understanding impact on development
  - Complementarities between export production and food production for local markets & consumption
  - Complementarities between agro-industrial sector and smallholder sector