

Livelihoods and Land

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Learning Objectives

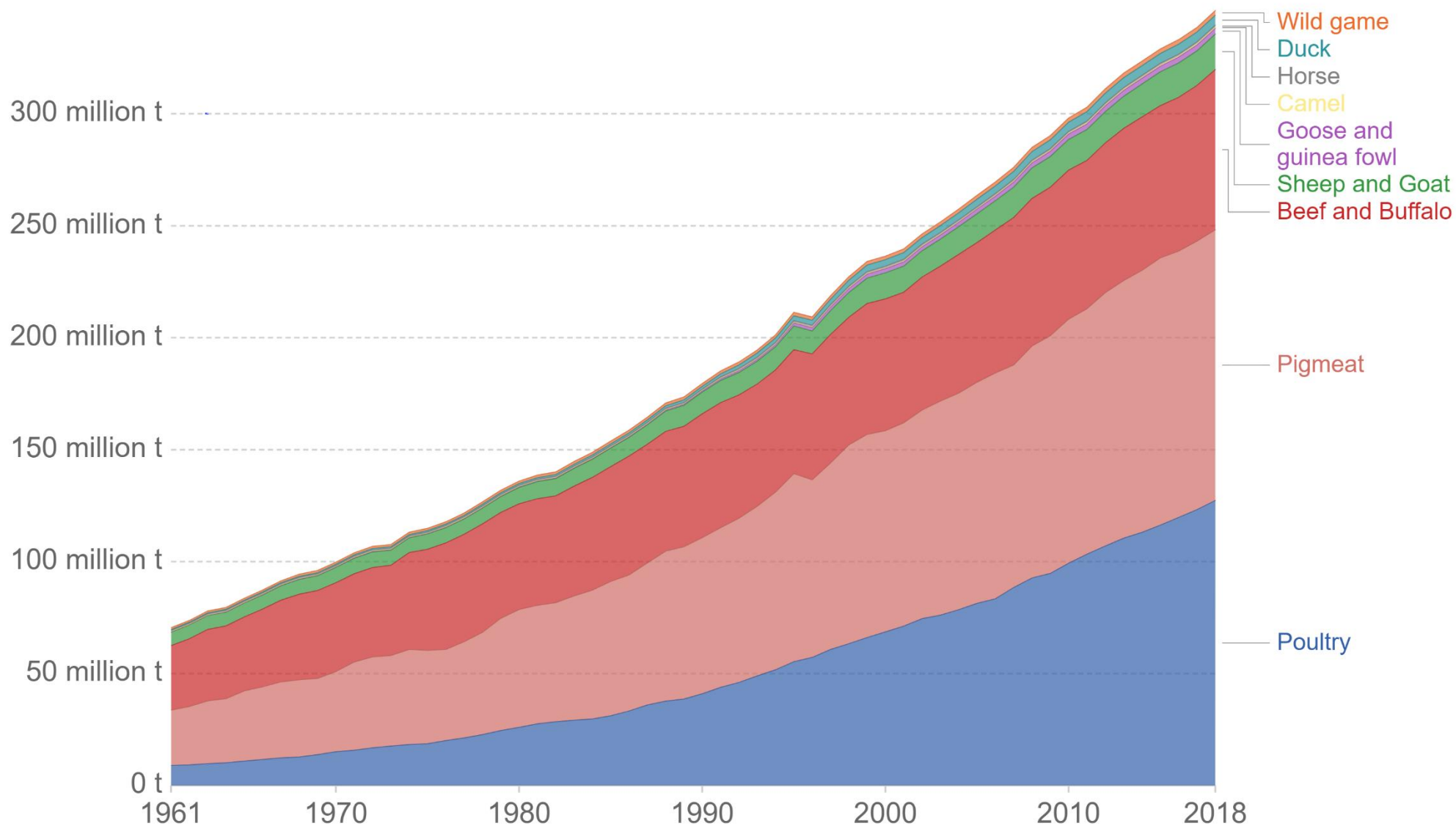
- By the end of this lecture, you should be able to...
 - Understand the impact of industrial livestock production on farmer livelihoods in LMICs
 - Recognise land tenure implications of globalised livestock production systems
 - Draw connections between global commodity chains and livelihoods of farmers

Poverty Links of Livestock Production

Meat production by livestock type, World, 1961 to 2018

Our World
in Data

380% increase in
volume of meat
produced since
1961 to 2018



Source: UN Food and Agricultural Organization (FAO)

Note: Total meat production includes both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats.

OurWorldInData.org/meat-production • CC BY

Sources:

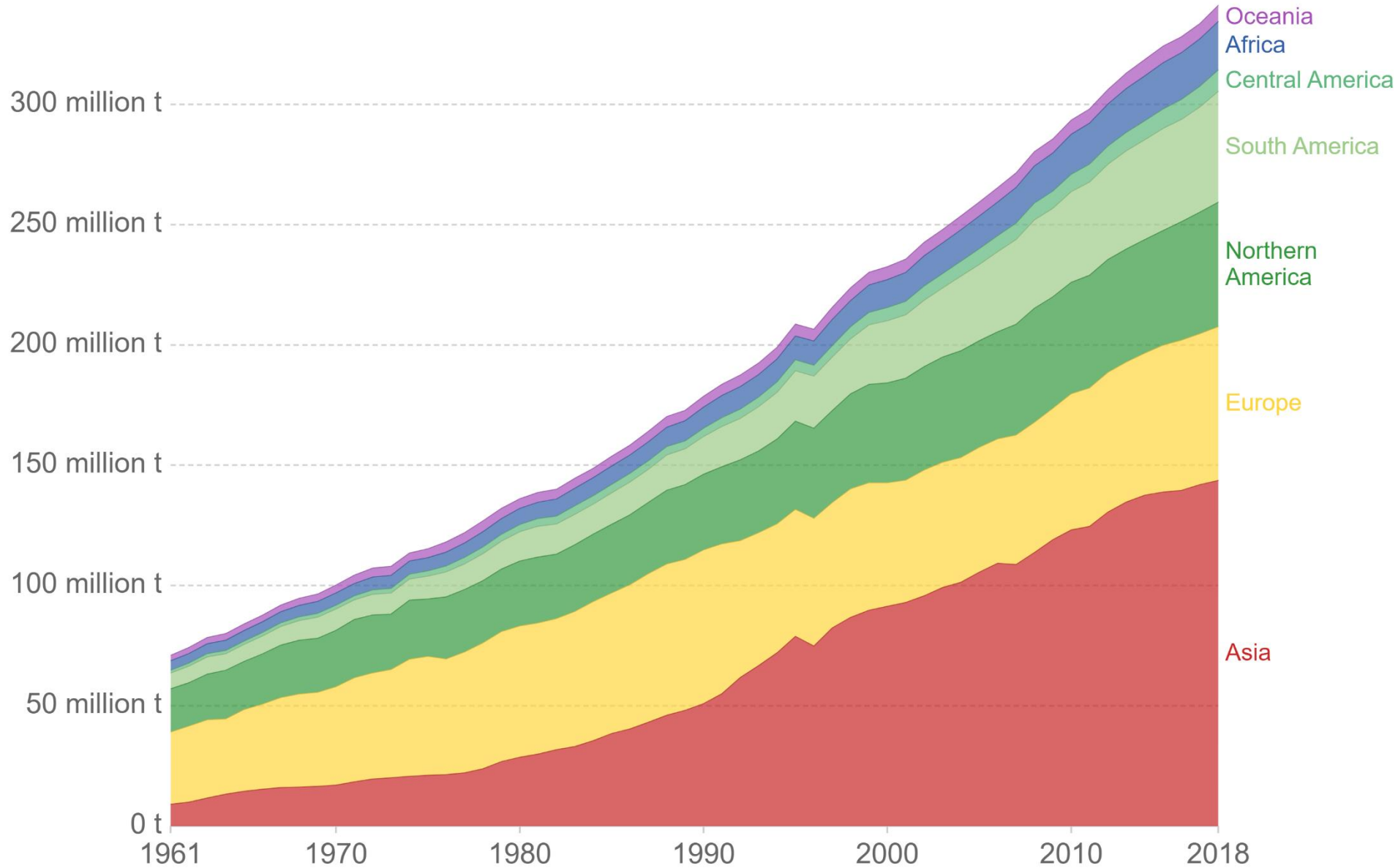
<https://ourworldindata.org/meat-production>

FAO Food Balance sheet
<http://www.fao.org/faostat/en/#data/FBS/report>

Global meat production, 1961 to 2018

Our World
in Data

Asia produces
42% of global
meat volume



Source: UN Food and Agriculture Organization (FAO)

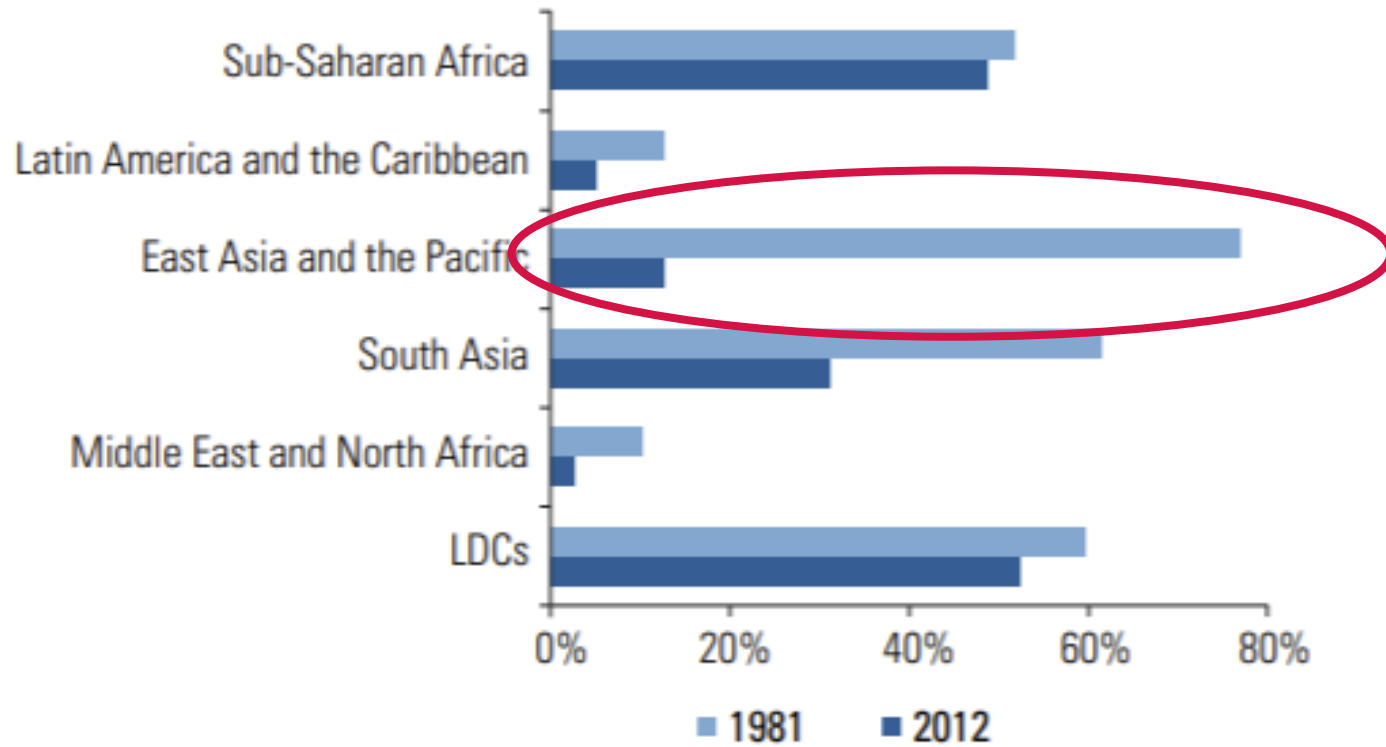
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Sources:
<https://ourworldindata.org/meat-production>
FAO Food Balance sheet
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Livestock Production and Poverty Links

- In 2012, a total of 2.6 billion people in LMICs were living on less than USD2 a day (Poverty line)
- Of these, 1.2 billion – nearly one-fifth of the world’s population – were living in extreme poverty (on less than USD1.25 a day)
- Most poor people live in rural areas
- There have been estimates that 700 million poor people have some direct dependence on livestock

Source: Pradère 2014



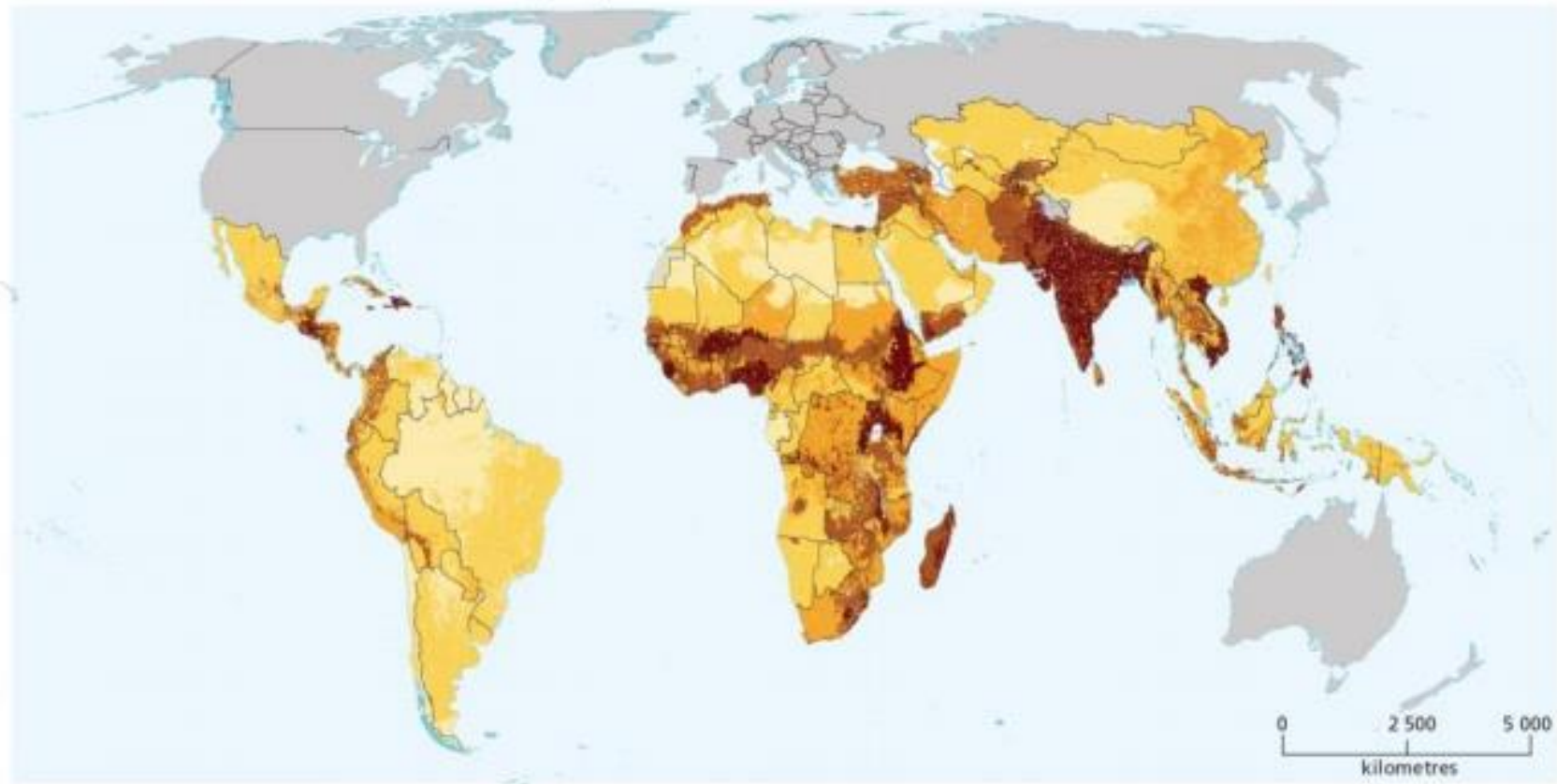
LDCs: least developed countries

Fig. 2
Percentage of people living in extreme poverty in developing countries in major world regions and in the least developed countries, in 1981 and in 2012

Source: World Bank (2014) (2)

Source: Pradère 2014

Figure 6. Densities of poor livestock keepers in rural areas



Poor livestock keepers per km²



Source: FAO & ILRI (2008).

Table 1
Direct and indirect benefits of livestock ownership for poor rural households

Product or function	Direct benefits	Indirect benefits
Animal products for human consumption (milk, meat, eggs)	Home consumption Source of income	Contribution to food security Improved nutrition (better cognitive function and health)*
Transportation, agricultural labour force	Draught power – Income Transportation (goods and people)	Contribution to improving agricultural productivity Better market access
Manure	Organic fertilisation	Improved soil fertility and agricultural productivity
Source materials for traditional crafts	Work with leather, wool and bristles, manufacturing of clothing and carpets, etc.	Additional income and jobs, often for the most vulnerable people (women, the elderly)
Wealth function	Monetary reserve Capital accumulation factor	Means of saving. Can be mobilised in the case of agricultural risk or a life event
Social function	Compliance with social and cultural obligations	Enhances integration into a community

* According to Neumann C.G. *et al.* (2003) (14)

Source: Pradère 2014

Sustainable Livelihood Approach (SLA)

- “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living.
- A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.” Ashley and Carney (1999)
- Agricultural income → Farm, wage, non-farm incomes
- Farmers as both producers and consumers of agricultural production

Table II

Off-take ratio and the contribution of intensive growth to overall growth in meat production from chickens, pigs and cattle, in major world regions and in the least developed countries, between 1981 and 2012

Region	Off-take ratio* (kilograms of meat per head)				Percentage of overall growth attributable to intensive growth**			
	Cattle	Pigs	Chickens	Sheep/goats	Cattle	Pigs	Chickens	Sheep/goats
Sub-Saharan Africa	18	36	2.7	4.4	17%	14%	39%	23%
Latin America and the Caribbean	44	86	8	3.8	53%	88%	66%	
East Asia and the Pacific	62	101	3.2	10	86%	80%	44%	83%
South Asia	5	89	2.3	4.3	60%	68%	23%	-7%
Middle East and North Africa	50		7.7	5	68%		55%	
Least developed countries	13	38	1.9	4.1	21%	34%	43%	16%
Developed countries	95	145	8.5	9.1	100%	100%	41%	100%

Off-take ratio and intensive growth rates calculated on the basis of data from the FAOSTAT in 2014 (1)

* The off-take ratio is calculated by dividing the amount of meat obtained from a species in a year (usually expressed in kilograms) by the average number of animals of that species for the same year

** The percentage of production gains due to intensive growth (with productivity gains) between year A (start of period) and year B (end of period) is determined by the formula:

$$\text{Intensive growth (\%)} = \frac{\text{Production year B} - [(\text{Production year A} / \text{Number of animals year A}) \times \text{Number of animals year B}]}{\text{Production year B} - \text{Production year A}}$$

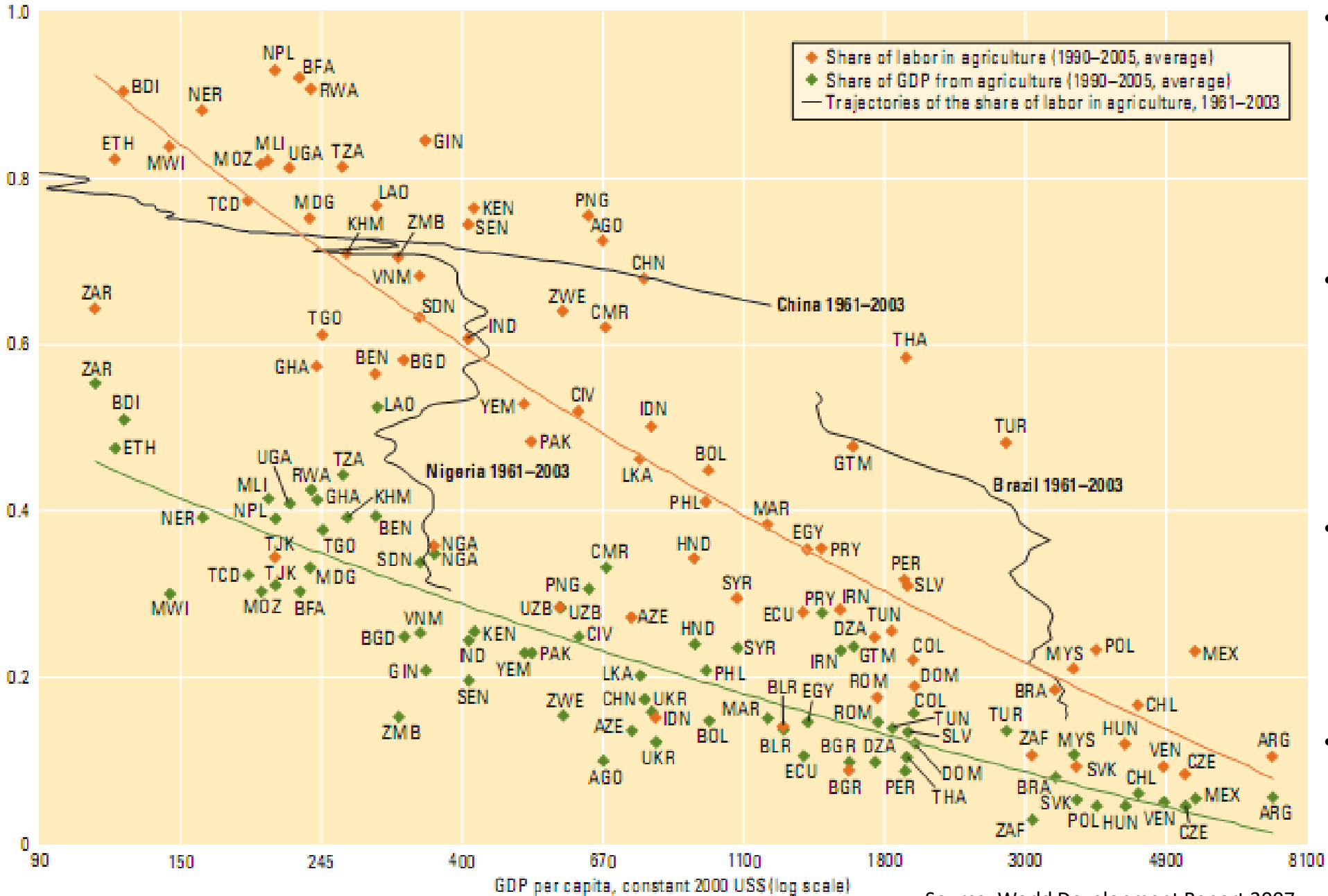
Source: Pradère 2014

What are the linkages between livestock production and livelihoods?

Go to www.menti.com and use the code 3734 7226

How does economics discipline view
the role of agriculture and livestock
sector in development and poverty
reduction?

Share of labor and GDP in agriculture



- Inverse relationship between per capita GDP and
 - Percentage of labour force employed in agriculture
 - Contribution of agriculture to GDP
- The large share of agri in poorer economies suggests that strong growth in agriculture is critical for fostering overall economic growth
- While agricultural output simultaneously increases in absolute value, because the non-agricultural sectors are growing faster
- Structural Change → shift away from agri to industrialisation

Source: World Development Report 2007

Reasons for Structural Shift

- Different approaches based on fundamental assumptions within Economics discipline
- Neoclassical economics →
 - ‘Maximising use of scarce resources’, total (marketed) production, productivity, yields, feed-conversion ratio
 - Market failure and transaction costs
- (Neo) Populism
 - Political populism → views peasants/farmers as
 - ‘Family farmers’/‘people of the land’
 - Unitary/idealised world-historical subject underpinning politics of peasant ‘resistance’ to capitalism and conservation of the environment
 - Neoclassical neopopulism → concerned with superior efficiency of small farmer to increase output and reduce poverty
- Agrarian Political Economy
 - Concerned with the social relations and dynamics of production and reproduction in agrarian formations
 - Who owns what? Who does what? Who gets what? What do they do with it?

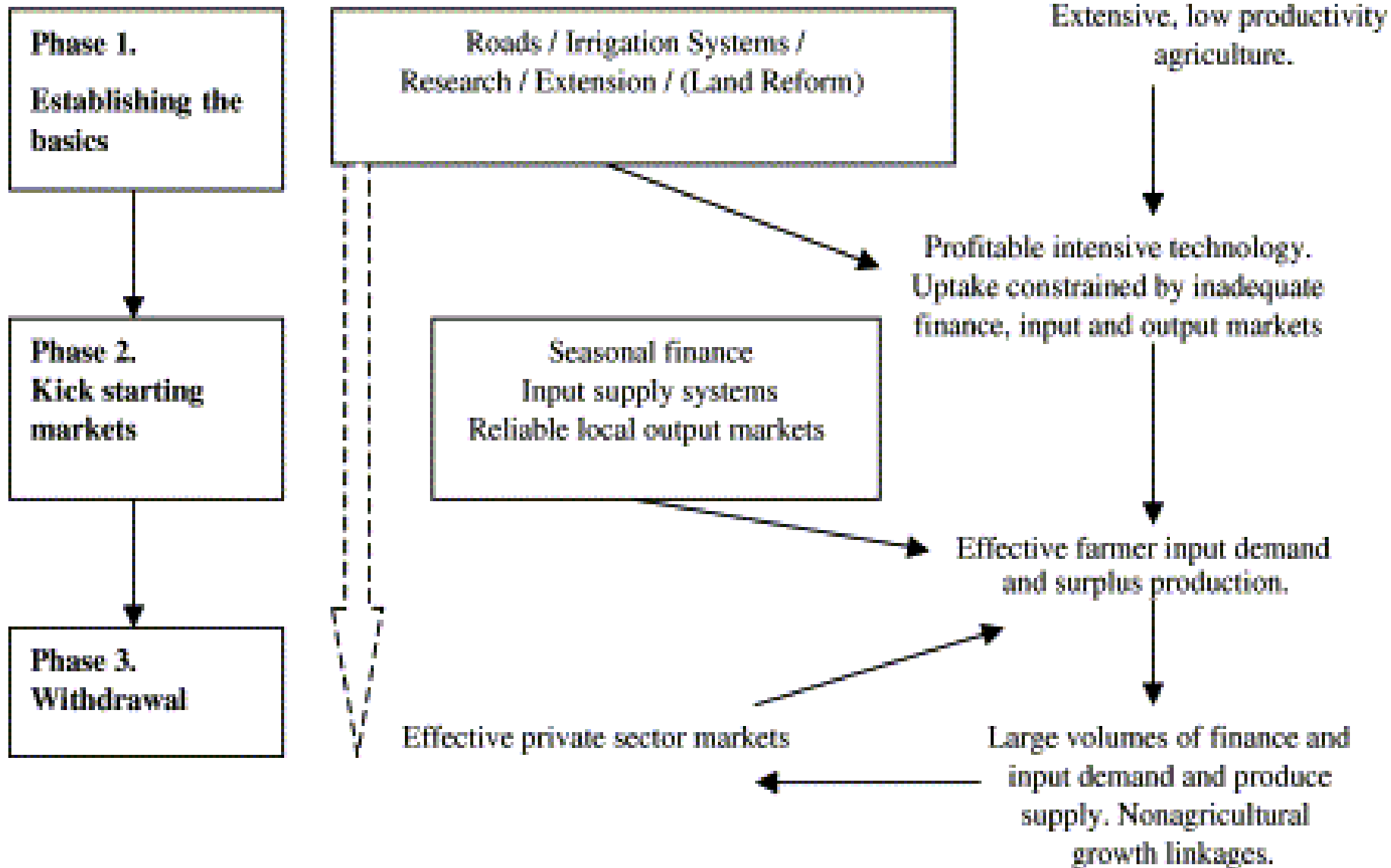
Washington Consensus Neoclassical Economics

- Farmers are rational, utility maximisers and responsive to price signals/incentives
- Farmers as 'representative agents' of a homogeneous group
- Theory of comparative advantage
 - Countries should specialise in those products for which they were most efficient
 - No reason to industrialise if CA lies in agriculture

New Neoclassical Economics and Post Washington Consensus

- Market failure and transaction costs
- Fragmented, incomplete or missing markets
- Information asymmetries
 - Farmers/producers are irrational due to lack of information
- Endogenous 'efficient' institutions
 - Get institutions and 'basics' right first
 - State intervention necessary for structural change at initial stages *only*

New Institutional Economics (NIE)



What is the critique?

- Rationality assumptions
- Politics and power – missing!
- Notions of ‘efficiency’ and ‘efficient’ institutions
- State – market dichotomy
- Social/historical dynamics of change – missing!

Agrarian Political Economy

➤ Key assumptions

- Not homogeneous peasantries → importance of stratification and differentiation
- Relationships of exploitation rather than mutuality (also within households – week 3)
- Asymmetry
- Power and Politics

➤ Policy Solutions

- Role of state is key but diverse (not deterministic) in supporting agriculture and spearheading agrarian transitions
- ‘One size fits all’ does NOT work

➤ Purposive action by the state – target policy interventions for differing needs

- Landed poor → integration within market structures?
- Landless poor → employment and wage generation policies
- Female farmers (not counted as farmers, property rights)
- Economic mobility from farm to non-farm activities and from rural to urbanised economies
- And so on

How do you view the role of livestock production sector in reducing poverty?

- Is there a role to reduce poverty?
 - Is the role to produce food?
 - To generate profits?

Industrialisation of Livestock Production

Contract Farming

- Livestock contract farmers receive inputs (such as day-old chicks or piglets, feed, veterinary services) from the company that buys the broilers or pigs for slaughter
- ‘Analogous to flexible outsourcing in manufacturing, contract farming is a form of vertical coordination between export firms and small- or large-scale growers’ (Dolan 2005)
- Diversity in contract types
 - Data and missing information due to legal arrangements between “farmer” and firm
- Economics view of contract farming
 - NIE approach → an institutional arrangement to overcome market failures through provision of credit/inputs
 - Political economy perspectives → power, power, power!
 - Unequal power relations between firm and “farmers”
 - Ownership of means of production as ‘illusory’
 - Farmers as disguised wage workers
 - Question - **Who benefits smallholders or firms?**

Contract Farming

Transaction Relation or Adverse Incorporation?

- Question - *Who benefits more from CF relations?*
 - Companies (buyer) or farmers (producer)?
 - Buyer: avoiding politically sensitive acquisition of land, reducing risks, indirectly controlling production, being able to extract more from labour and land
 - Producer: market access, access to technology, subsidized inputs, technical assistance, some predictable market outcomes (if contracts honoured), working on own land

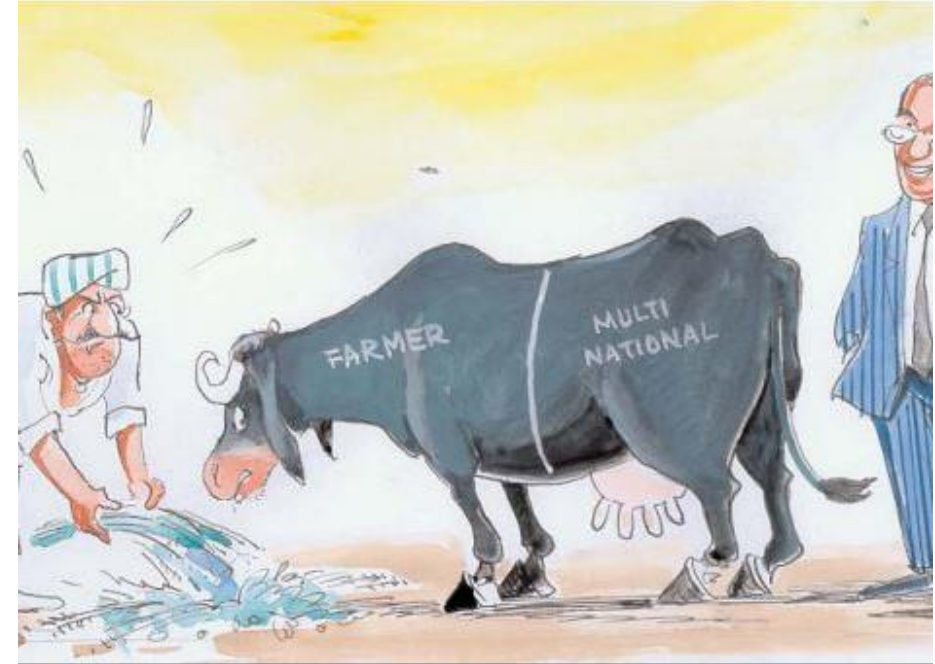
Contract Farming – Evidence?

- Income generation – Mixed!
 - On farm, Wages and Non-farm
- Shift away from traditional methods and engagement in industrial livestock complex
 - Case of Charoen Pokphand, large Asian food processing company in Thailand (Gura)
 - Tax exemptions for the company
- No contracts without technological upgrading → indebtedness?
- Risk → Transfer of risk from firms to farmers
- Space for smallholders?
 - Export-oriented production have negative impact on local smallholders – Brazil (Gura)
 - Pushed out?
- Quality standards → usually requires upgrading of supply chain → barriers to entry

Industrial Livestock Complex – Spillover Effects

➤ Genetic uniformity

- Number of firms globally (12 to 4 for poultry)
- Poultry breeding for fast growth
 - Alteration of thyroids so birds cannot recognise when they full
 - Broilers meet 400% of their weight in 6 weeks
- Replacements of hybrid lines for each production cycle, and this dependency – often contractually exclusive – has fostered an extreme concentration
- High densities of animals is a recipe for pests and diseases → thus the need for biosecurity



Industrial Livestock Complex – Spillover Effects

➤ Biosecurity

- Negative spillover of industrial livestock complex
- Externality turned as a service – requiring economic upgrading + barriers for entry (requires capital)
- Global capital accumulates as smallholder expense (Marion Dixon)

➤ Disease spread

- Blame on traditional breeds as breed varieties are more susceptible to disease
- Impact on smallholders?

Industrial Livestock Complex – Spillover Effects

➤ Land impact

- Barriers to entry create indebtedness
- Consolidation of farm landholding
- Smallholding related with low productivity → used as a case for land reforms
 - But reduction in poverty may not be guaranteed (Sender and Johnston)

➤ Livelihood impact

Discussion:

What are the trade-off for smallholders between integration and non-integration into global commodity chains of livestock industrial production?

Agrarian Question of Land

Agrarian Question of Land

- How market led agrarian reforms sought to commodify and privatise land rights?
- Akram-Lodhi, Kay and Borras (2009) → behind the neoliberal agenda of land reforms are the motives of
 - Multinational corporations to secure well-defined, stable and individual land rights to establish global production and supply networks
 - Rural elite to secure stable links with GCC

Agrarian Question of Land

- Neoliberal agrarian restructuring has resulted in ‘bifurcated’ agriculture
 - Export-oriented capital intensive sub-sector
 - Commoditised, profit-oriented and subjected to market imperatives
 - Circuits of capital
 - Labour intensive peasant sector
 - Heterogeneous
 - Differentiated in terms of technological utilisation, scale economies and possibility of a surplus above household consumption lead to differentiation among peasants.
 - Production → subsistence and/or for markets
 - Land access is crucial for farmers who are less integrated with the market

Land Grabs

➤ Defining land grabs by FAO

- Scale of land deals should be large, using a commonly-accepted baseline of a minimum of a thousand hectares for a single deal
- Direct involvement of foreign governments
- New land investments are seen to have a negative impact on the food security of the recipient country

Land Grabs- Political Economy View

- Control grabbing → Land grabbing does not always require the expulsion of peasants from their lands (Borras et al)
 - Power to control land and other associated resources such as water in order to derive benefit from such control
- Consolidation of scale of land acquisitions + scale of capital involved
 - Large acquisitions = exceed the 1,000 hectare and over
 - Forms of acquiring control: purchase, lease, contract farming, forest conservation etc
- Convergence of multiple crises
 - Role of flex crops
 - In a single crop sector there are multiple motives for land grabs: food, energy/fuel and climate change mitigation strategies

➤ Shift away from land grab to **land control**

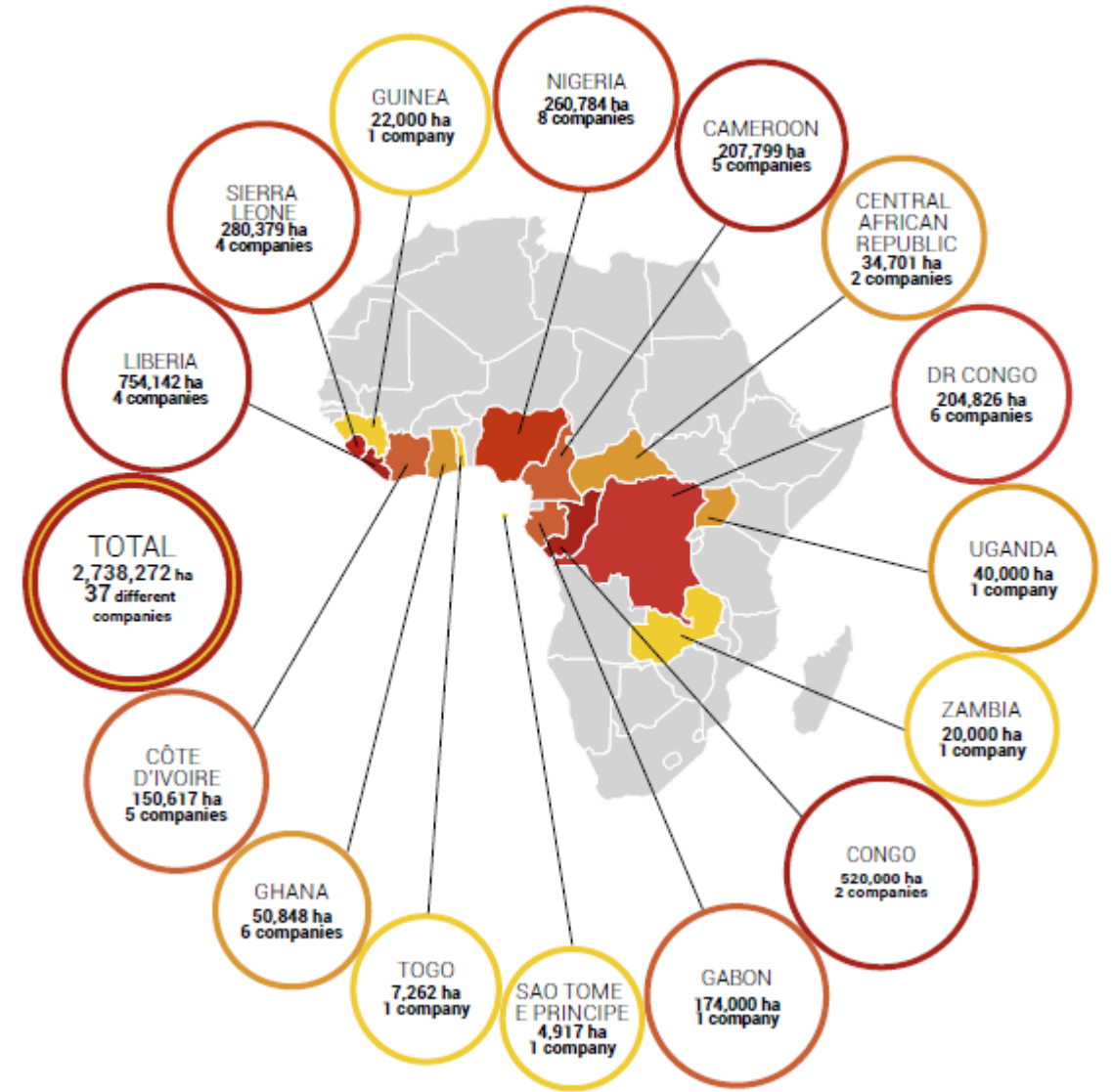
Land Grabs- Political Economy

➤ Modalities of land grab/control

- Buying
- Longterm leases
- NO formal change in land property rights
 - Contract farming schemes

➤ Global food crisis of 2007-08 as a motivation behind land grabs

- African governments have signed many deals with foreign companies for agribusiness projects covering over 10 million hectares of land (GRAIN and AFSA)



Agrarian Question of Food

➤ McMichael

- Historical role of peasant movements in challenging the 'corporate food regime' is ignored
- Classical agrarian question are engulfed in nation-state → ignore role of imperialism and international trade

➤ Question - What is the role of financialisation, neoliberalism and corporate food regime?

- Role of global peasant struggles over the terms and conditions of access and control over food
- La Via Campesina and the Landless Rural Workers' Movement in Brazil - transnational agrarian mobilisations

➤ Political analysis of global capitalist agriculture to highlight the role of food regimes in poverty and dispossession due to privatisation and commodification, environmental degradation, increased migration

Discussion:

For a choice of livestock commodity chain below discuss the land and livelihood implications of globalising industrial livestock systems.

- 1) Brazilian beef chain
- 2) Broiler poultry production in India
- 3) Pig production in China
- 4) Dairy production in EU

Bibliography example

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