



Social Impacts of Bioenergy Development in Africa

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Overview

- Rural-urban
- Social issues
- Sustainable livelihoods
- Forms of production
- Certification and standards
- Conclusion

- Population growth
- Rapid urbanisation
- Rural areas un-serviced

Region	Total world population (millions) and % share		1996		2030	
			Rural population (millions)	% total world	Rural population (millions)	% total world
	1996	2030				
World	5768	8372	3132	54%	3255	39%
Developed	20%	14%	292	5%	197	2%
Developing	80%	86%	2 840	49%	3057	37%
Least Developed	10%	15%	456	8%	710	8%
Asia	60%	59%	2259	39%	2221	27%
Africa	13%	19%	476	8%	725	9%
LAC	8%	9%	127	2%	121	1%
Oceania	0.10%	0.20%	5	0.09%	7	0.09%

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Urban and rural electrification levels by Region , 2000

	Urban (%)	Rural (%)	National (%)
Developing Countries	85.6	51.1	64.2
Middle East	98.5	76.6	91.1
East Asia/China	98.5	81.0	86.9
Latin America	98.0	52.4	86.6
World	91.2	56.9	72.8
South Asia	68.2	30.1	40.8
Africa	63.1	16.9	34.3

Source: IEA, 2002; GNESD, 2003a; World Bank, 2003; EDF Group, 2002.

Socio-economic issues of biofuel

	Biomass production (farm)	Biomass / Fuel transport (Road / sea)	Biomass pre-treatment and conversion (Factory)	Residues disposal
Potential adverse social/ socio-economic impact	<ul style="list-style-type: none"> • Health and safety (H&S) – e.g. pesticide application, use of harvesting machinery • Freedom of Association and collective bargaining • Working hours and remuneration / benefits • Migrant labour • Child / forced labour → • Land ownership / access to land • Food security – quantity and price • Access to water resources → • Land / water contamination & associated health implications • Impact on landscape • Foreign control and imbalance of economic benefit → • Community and cultural dilution 	<ul style="list-style-type: none"> • Frequency / intensity of access • Conflict over land tenure – road building • Health impacts from local air emissions from transport • Potential for marine spills – impacts on local industry and landscape 	<ul style="list-style-type: none"> • H&S – machinery risk, fire safety, contamination and hazardous substances • Working hours and remuneration / benefits • Discrimination / abuse • Child / forced labour • Foreign control and imbalance of economic benefit 	<ul style="list-style-type: none"> • Land / water contamination & associated health implications

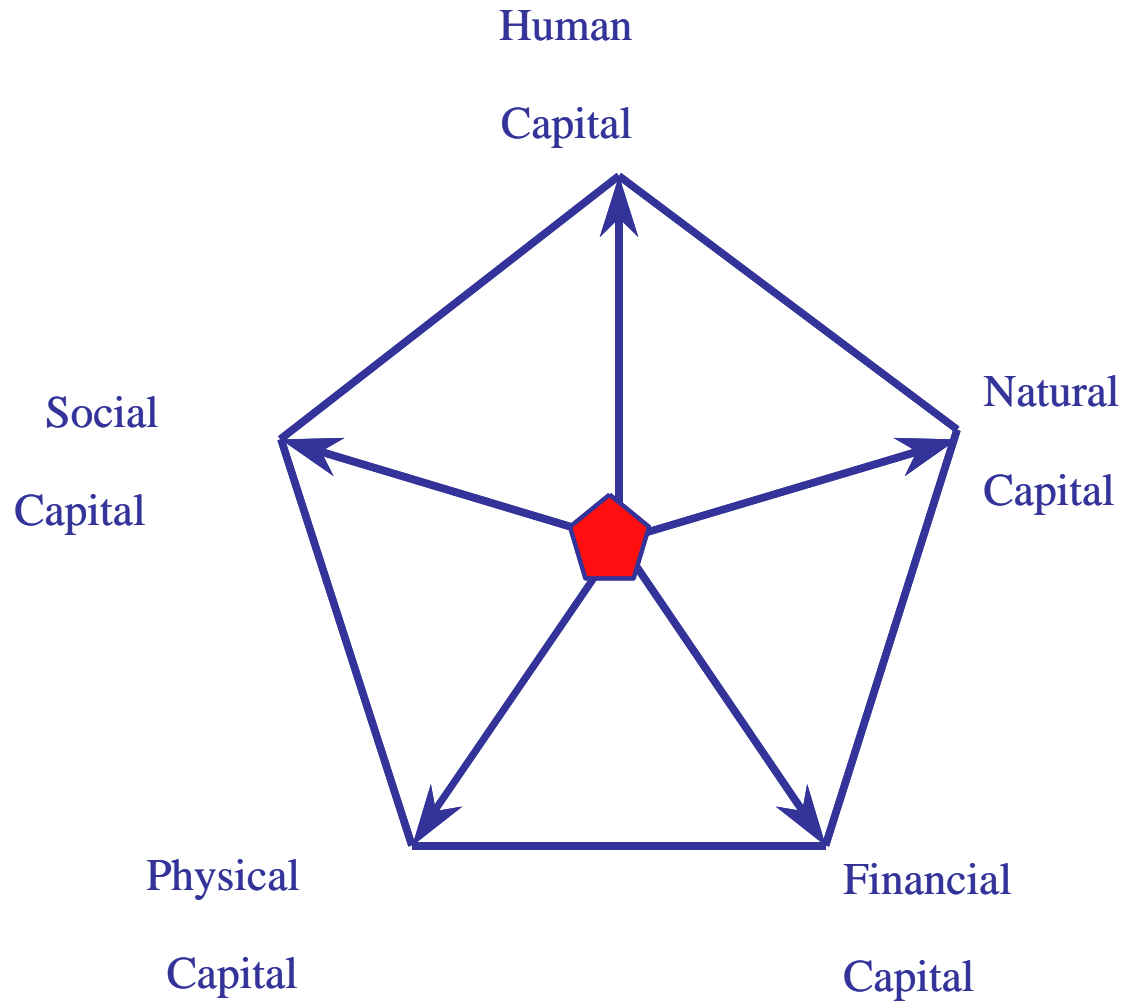
Cont.

	Biomass production (farm)	Biomass / Fuel transport (Road / sea)	Biomass pre- treatment and conversion (Factory)	Residues disposal
Potential social/ socio- economic benefit	<ul style="list-style-type: none">• Rural employment and income generation• Infrastructure development• Economic leakage		<ul style="list-style-type: none">• Rural employment and income generation• Infrastructure development• Economic leakage	

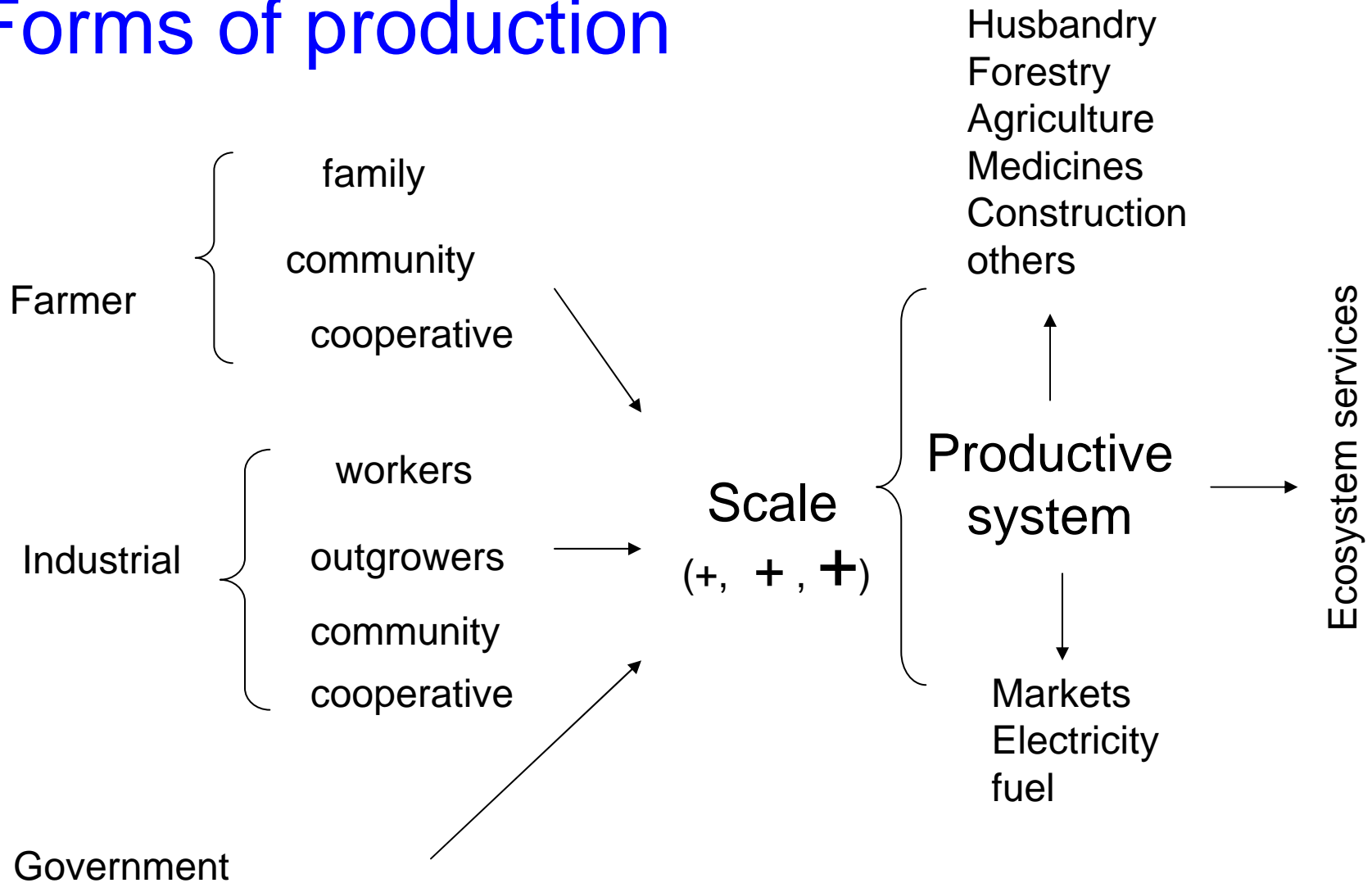
Links

- Rural development
- Peri-urban areas
- Agriculture, forestry and production systems
- Business
- Industry
- Infrastructure

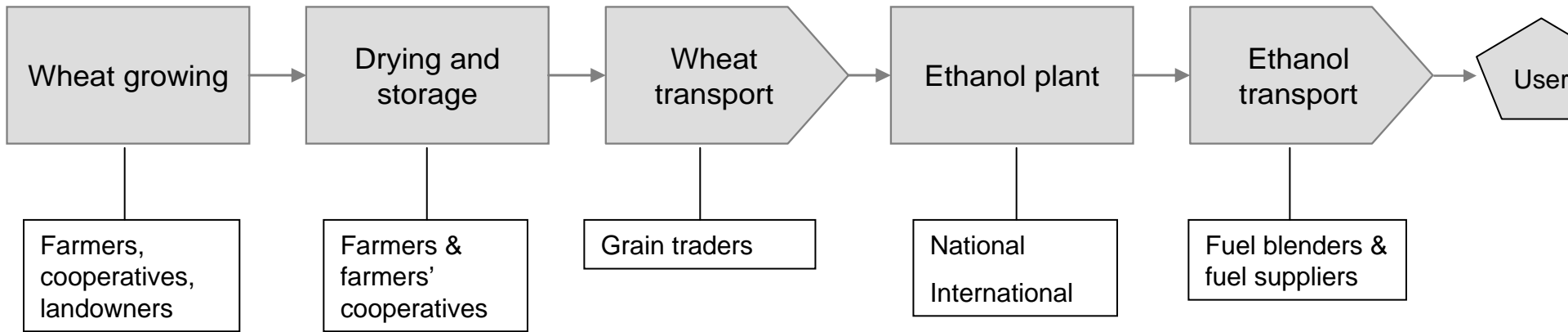
Sustainable livelihoods



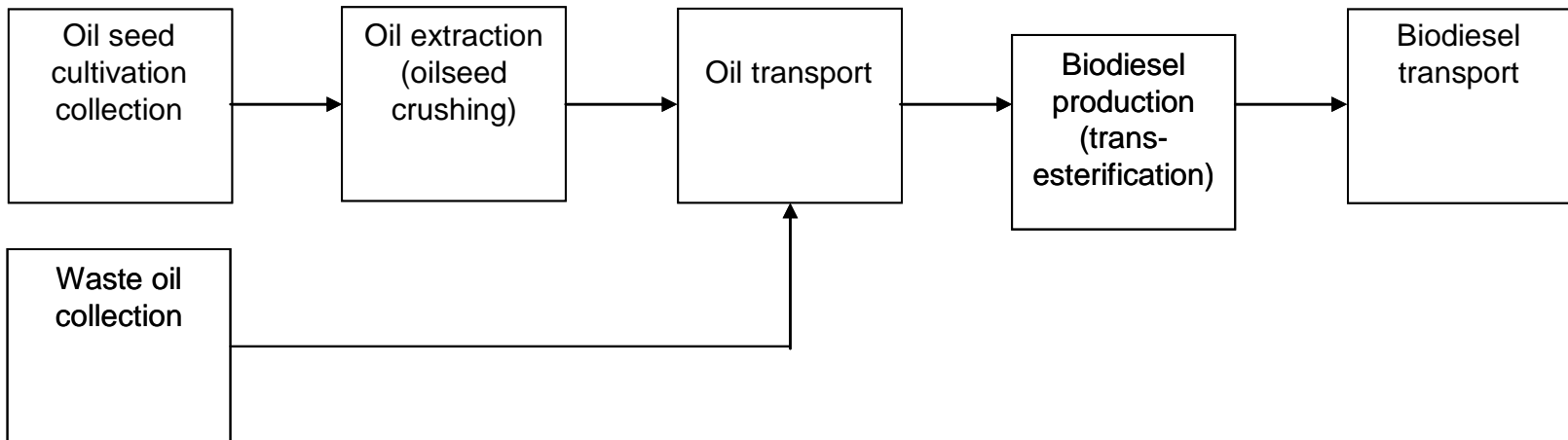
Forms of production



Production chain Wheat to ethanol



Biodiesel



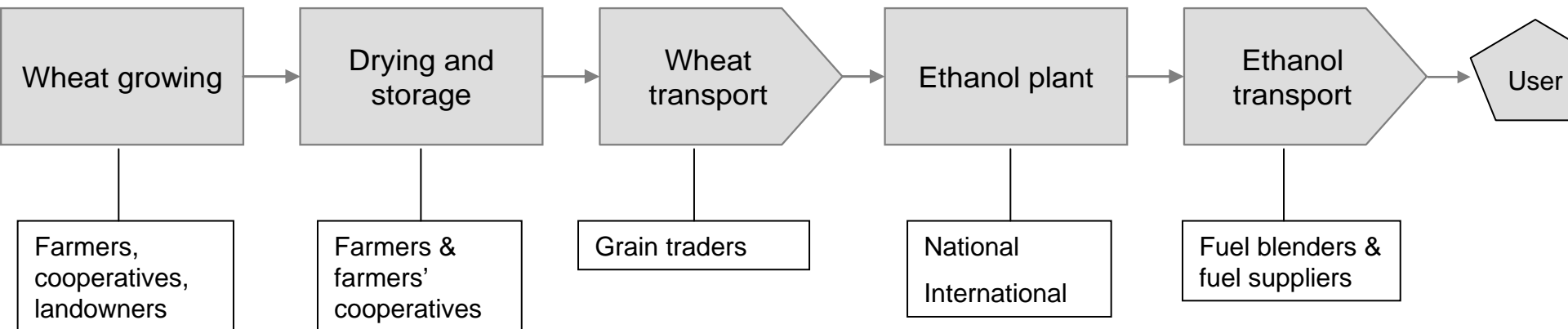
Jobs creation

Opportunities

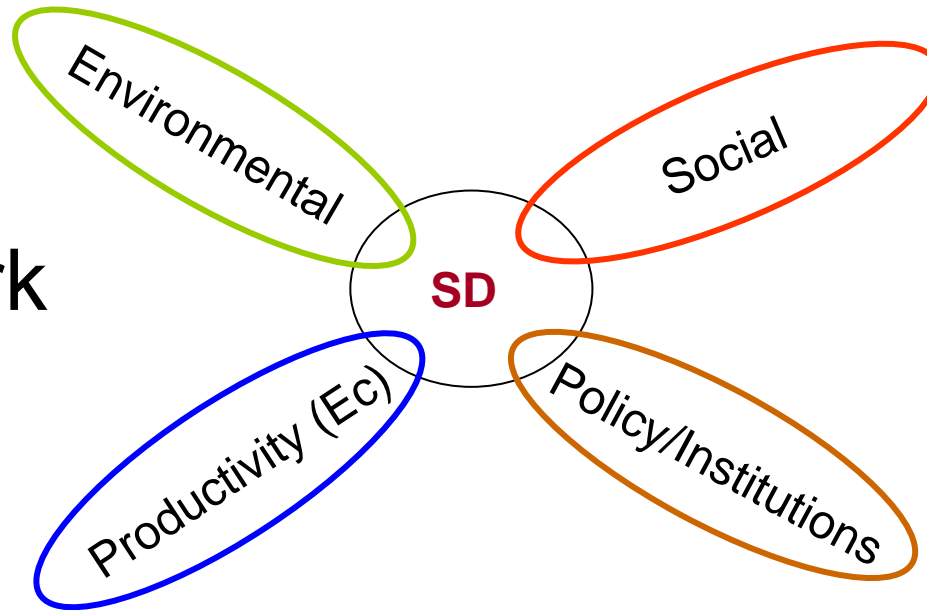
- Job creation at different stages of the supply chain
- rural development
- New/existing markets

Concerns

- Social issues (rights, children, women)
- displacement
- cultural



SD Framework



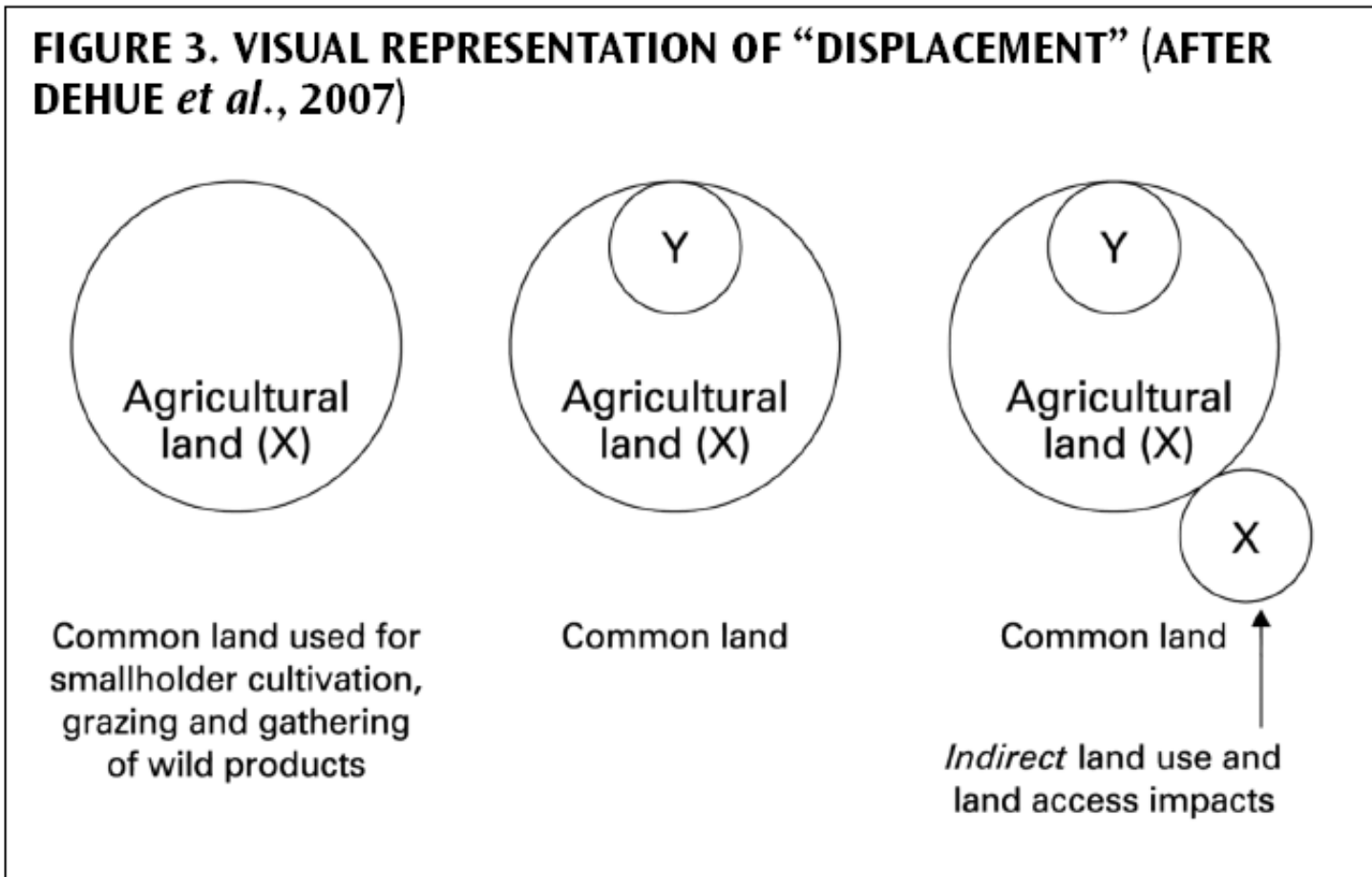
- Labourers rights & Working conditions
- Child labour
- Gender (women participation)
- Land use rights
- Livelihoods
- Use of resources (FvF)
- Health & Quality of life
- Education and skills
- Technology acquisition & transfer
- Climate change risks, vulnerability and adaptation

Possibilities:

- Smallholders consolidate their land access through: biofuel feedstock cultivation, (for income generation or for local energy self-sufficiency)
- Large-scale and small-scale biofuels production can co-exist and benefit rural development
- secure land rights for smallholders an asset in their negotiations with larger players

- These possibilities depend on:
- security of **land tenure**
 - **No competing resources**
 - **Government support**
- **If not:**
 - **Negative effects**
 - **Food competition**
 - **Economic, social and cultural issues of land use**
- Africa (e.g. Tanzania, Mozambique), Latin America (e.g. Colombia, Brazil), and Asia (e.g. India, Indonesia, Papua New Guinea)

- Need to consider direct and indirect impacts



(Cotula et al, 2008)

Other social issues

- Small Scale
 - Large scale
- } advantages/disadvantages
- Land concentration
 - Land rights
 - Land property
 - Other possibilities: contract farming, joint ventures, purchase agreements
 - Sustainability and certification (good practices)

Cont.

- Pastoralism
- Available resources
- Skills
- Property on resources
- Use or not of waste
- Water
- Access to financing sources
- Modernisation of energy access/use
- MDGs (?)

Certification and standards

- Competition with food, local energy supply, medicines and building
- Economic prosperity
- Well-being
 - working conditions
 - Human rights
 - Property rights and rights of use
 - local conditions
 - integrity (business)

(Cramer report)

Renewable Transport Fuels Obligation (RTFO) (RFA, 2008)

P1. Conserve Carbon

P2. Conserve Biodiversity

P3. Soil conservation

P4. Sustainable Water Use

P5. Air quality

P6. Compliance with applicable law (social issues)

P7. Contracts and subcontractors

P8. Freedom of association and right to collective bargaining

P9. Working hours

P10. Child labour

P11. Health and safety

P12. Wages/compensation

P13. Discrimination

P14. Forced labour

P15. Land right issues

**GHG
accountability**

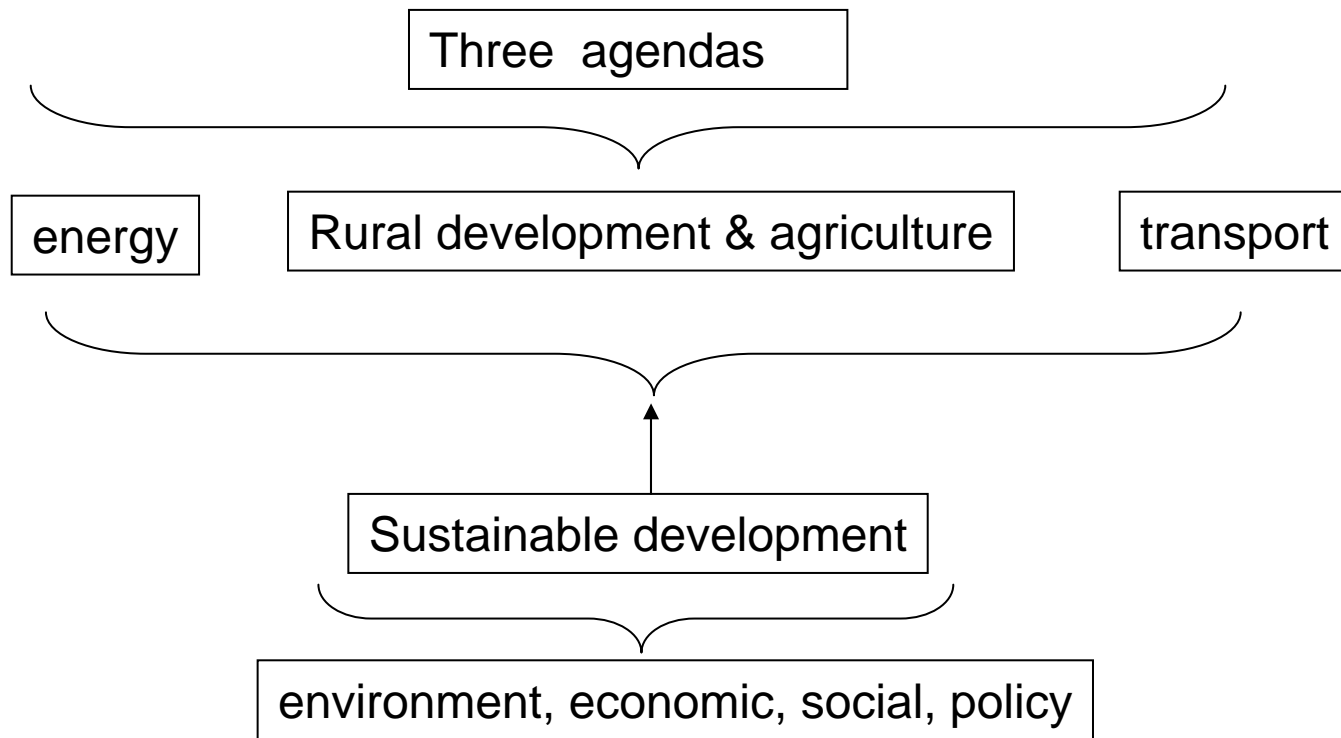
Considerations

- A growing body of evidence documents the **negative impacts** of large-scale and **promising** approaches **also exist** but they have so far received **less attention**
- Government participation for safeguards of land
- Different types of biofuels feedstock production
- Clearer concepts on different types of land
- Policies on land access
- “biofuels” is a catch-all term for a set of very different issues (fuel, policies, land use, ..)

How to

- Policy, Planning, Programmes (PPP)
- Strategic Environmental Assessment (SEA)
- EIA, SIA, HIA (Sustainable livelihoods)
- CSR
- Accountability (stakeholders)
- Implementation, regulation
- “Good examples”
- Social organisation (financing)

SEA PPPs and projects



Conclusions

- Social and economic issues must be considered in the production and use of ethanol
- A standard assurance or certification system must be implanted, currently under design at different levels in the EU
- Biofuels production and use must be sustainable (economic, environmental and social issues)

Cont.

- Biofuels production may be seen as an additional form to help reduce poverty in developing countries
- Problems with certification or standard assurance lay within implementation, additional costs, audit and compliance.

Thank you



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