Mitigation options and land use

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Climate change & development

- Economic
  - Linking to markets
- Environmental
  - GHG emissions
  - Vulnerability to climate change
- Society
  - Acceptable development pathways/equity

Role of land use in development

- Food, feed & fibre
- Jobs & income
- Services & goods

Production and processing

Agriculture and land use

- Trends in production oriented agriculture
  - Specialization
  - Intensification
  - Concentration
  - Innovation & efficiency
- Trends in services & goods oriented agriculture
  - Income diversification
  - Combination of functions (recreation, care, landscape, nature, water, carbon,…)

Global Agenda

- Millennium Development Goals and PRSPs
- Greening of development finance
- Poverty eradication and adaptation to climate change (multi-donor initiative)
- OECD export crediting
- Development lending (WB, Reg Dev Banks, IMF) and bilateral development assistance
- WTO/Doha round
- Agricultural subsidy removal and implications for biofuel production and exports
- Forest products issue on Doha agenda
- Public Private Partnerships (post WSSD):
- EU Renewable Energy Initiative, Global Village Energy Partnership, Global Network on Energy for Sustainable Development

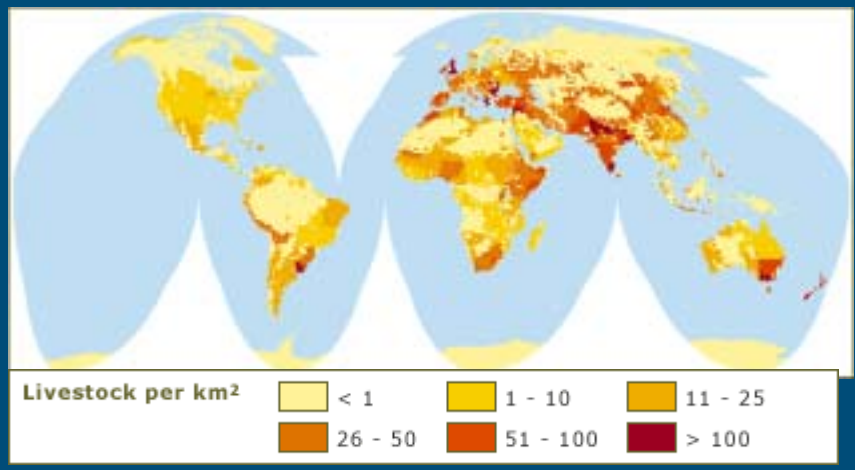
Need to resolve

- Inventory of stocks
  - Focus on concentrated large stocks: Forest, permafrost, organic soils?
- Assessment of risks
  - Inventory of threats: climatic, pressure on the land, rate of loss/accumulation rate, …
- Options for intervention/management
  - Is management possible & effective (environmental, economic), need for a multi gas-approach
- Mainstream climate objectives (mitigation & adaptation) into development objectives
  - Search for co-benefits i.e. poverty alleviation, economic growth

Inventory of stocks & sources

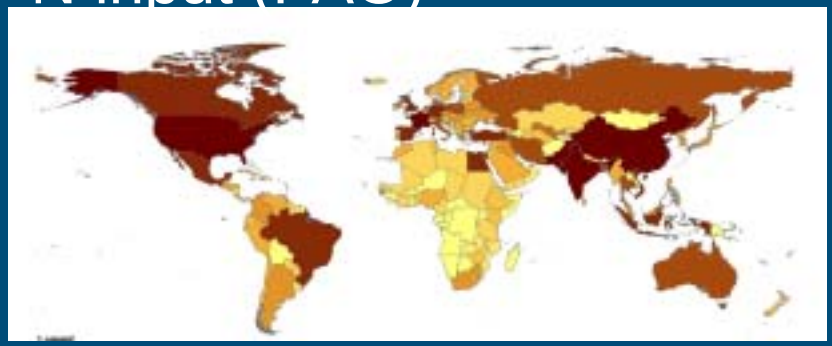
Above ground: land cover

Livestock densities (Lerner, J. and E. Matthe



Soil (FAO)

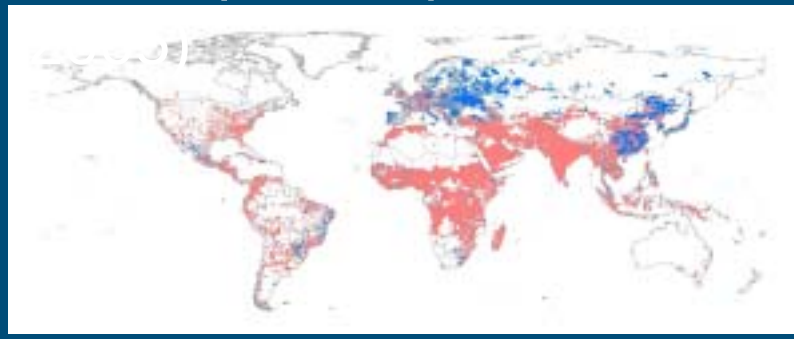
N input (FAO)



Assessment of risk

and use change
eforestation (e.g: Trees series)

Demographic
development (2000 -



Climate Change

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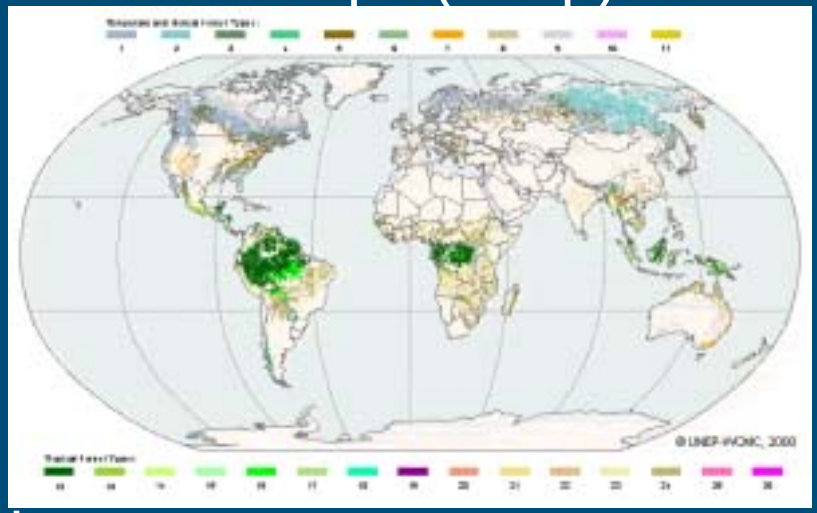
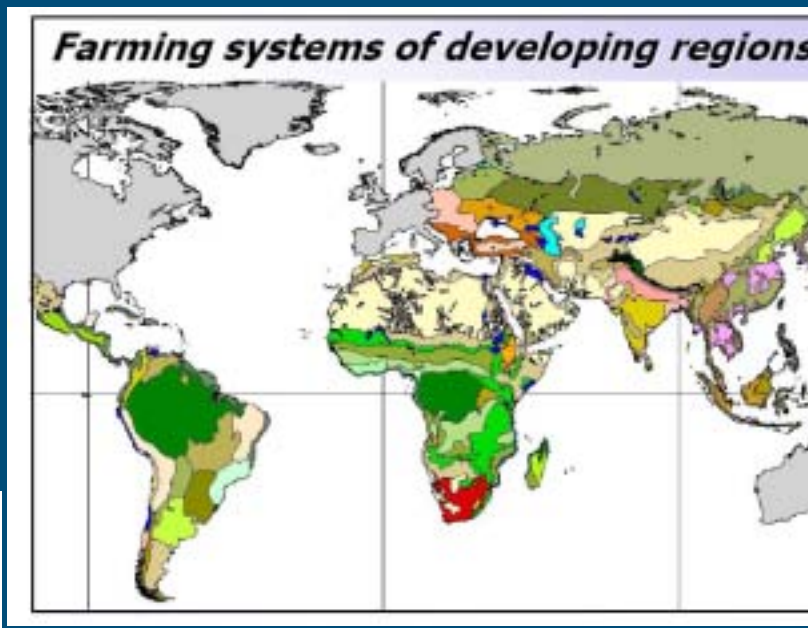
Options for intervention/management

Forest maps (unep)



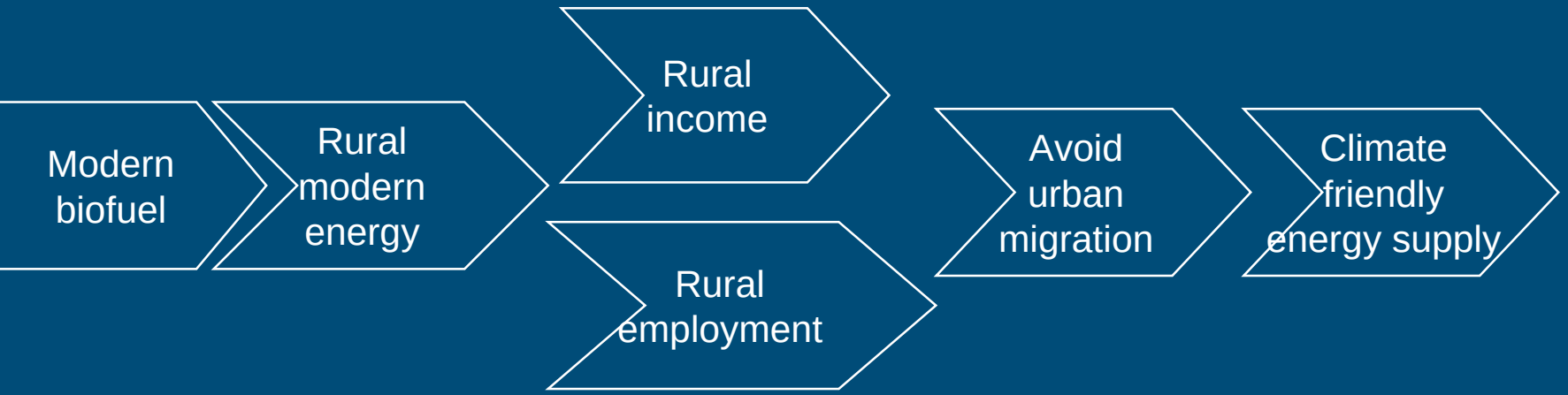
FAO



Fires (e.g. JRC, 2005)

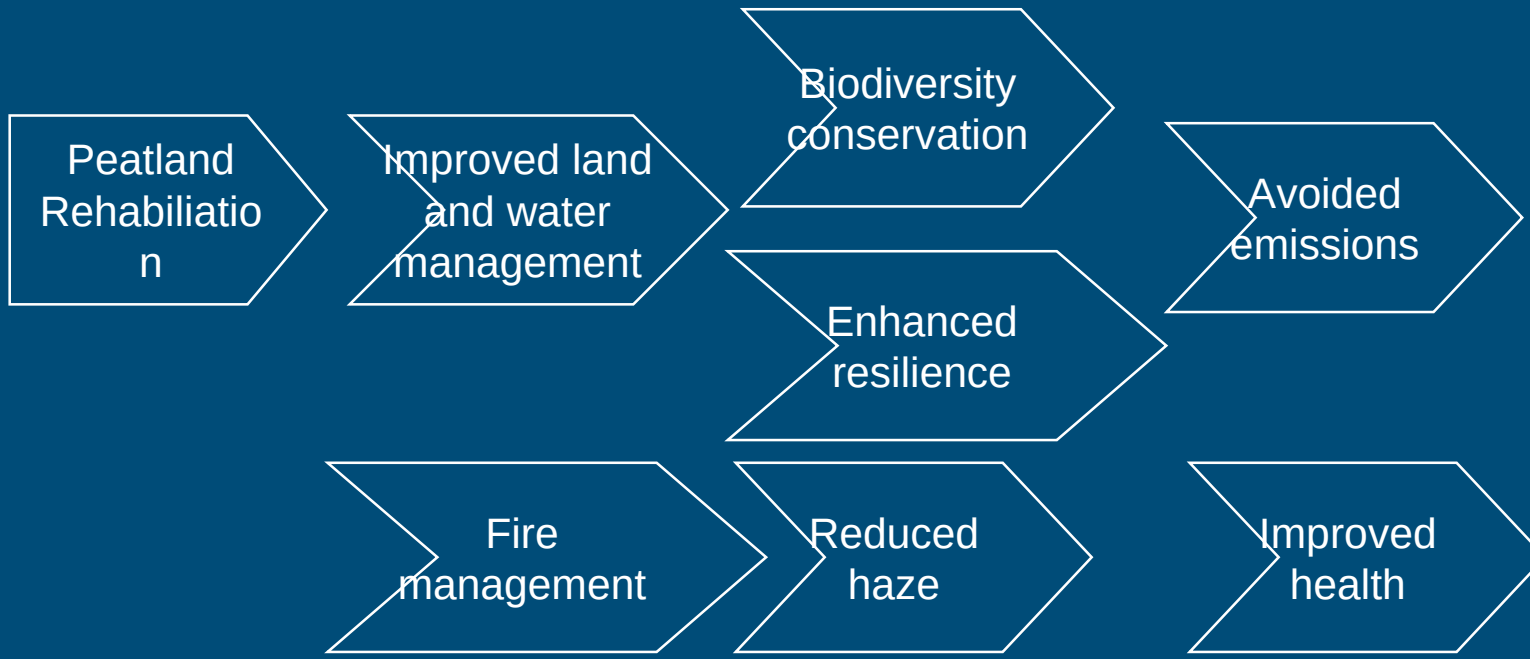
Biomass production

Very large mitigation potential.



Peatland rehabilitation and conservation

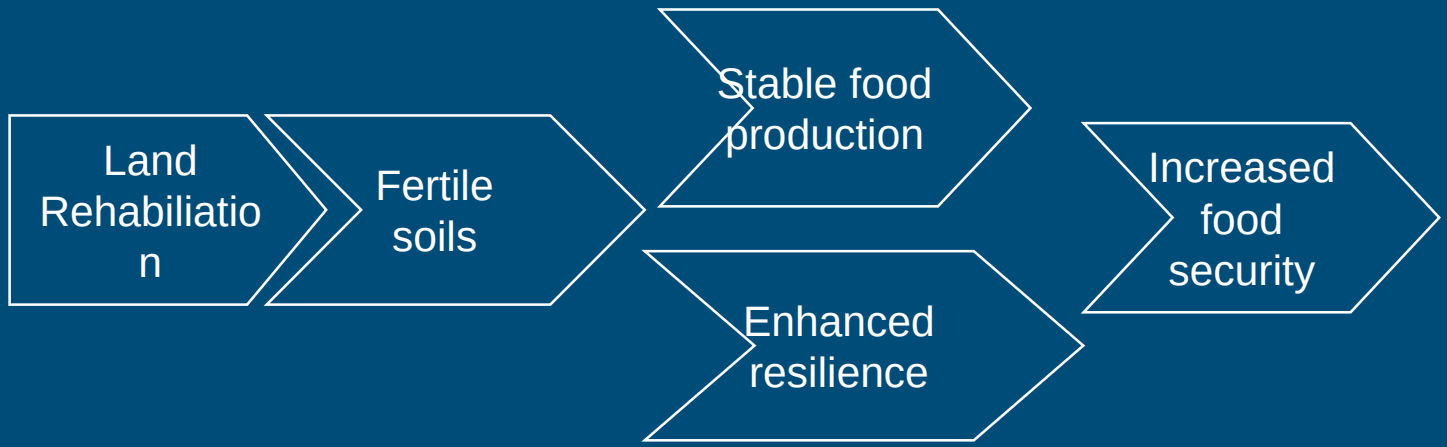
<5% of total land area
Estimated of size of carbon stock is 20 to 35% of total terrestrial carbon stock



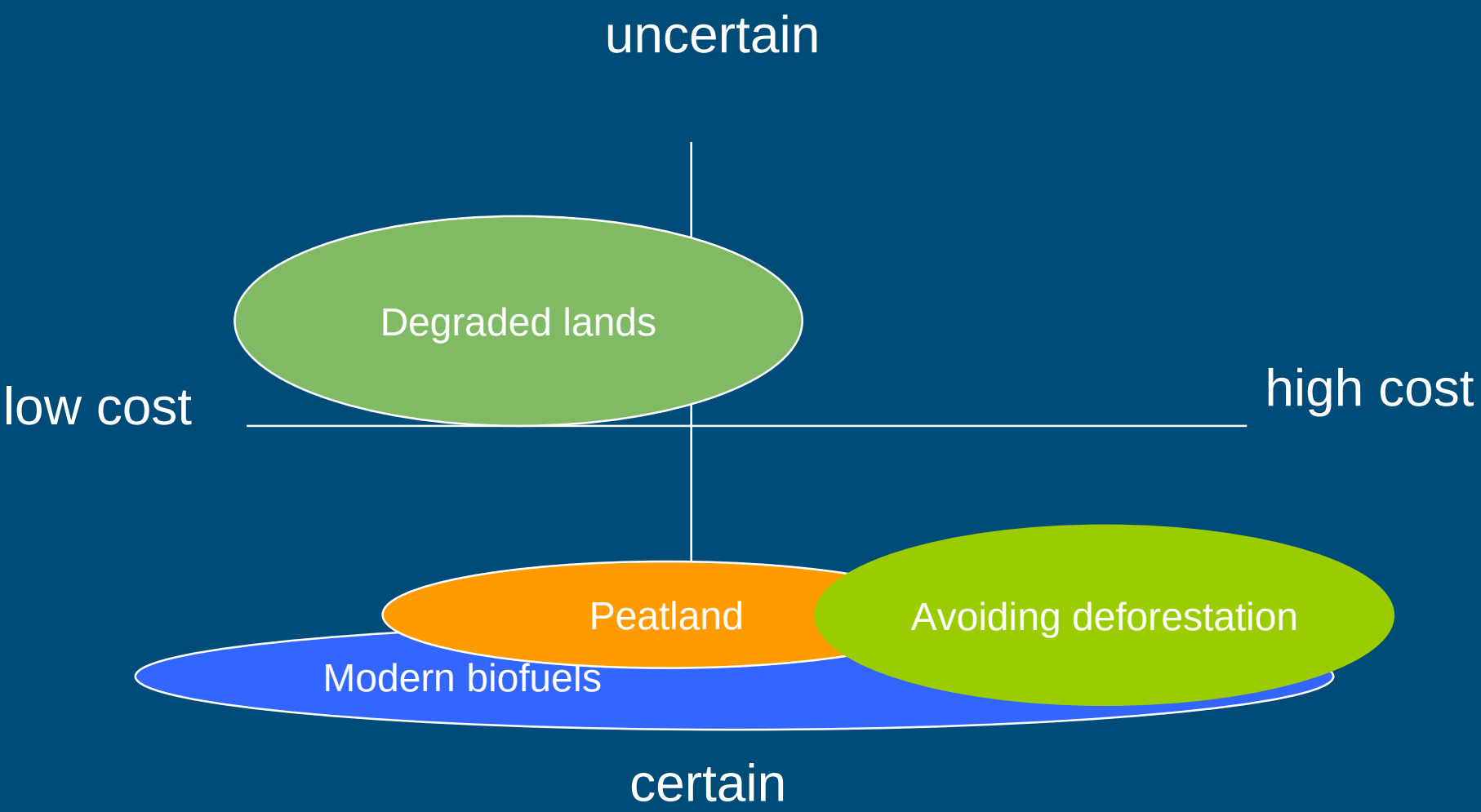
Rehabilitation of degraded land

>80% of the farmland in Sub-Saharan Africa is plagued by severe degradation.

More than 60% of Africa's population is directly engaged in agriculture; but crop productivity has remained stagnant, while cereal yields in Asia have risen three-fold over the past four decades.



Mitigation



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Co - benefits

	Biodiversity	Poverty alleviation
Modern biofuels	-/+	++
Degraded land	+	+++
Peatland	++	+
Avoid deforestation	+++	-/+

Concluding remarks

- Conserving large stocks: environmentally effective
  - focus on managed lands: e.g. tropical peats (fires, drainage), deforestation
- Biomass production: opening new opportunities
- Combining adaptation and mitigation as part of development makes sense for land use systems
- Linking to development: address issues outside UNFCCC climate agenda linked to the MDGs (e.g. via degraded lands).

Thanks

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