

ISSUES RELATED TO LAND USE

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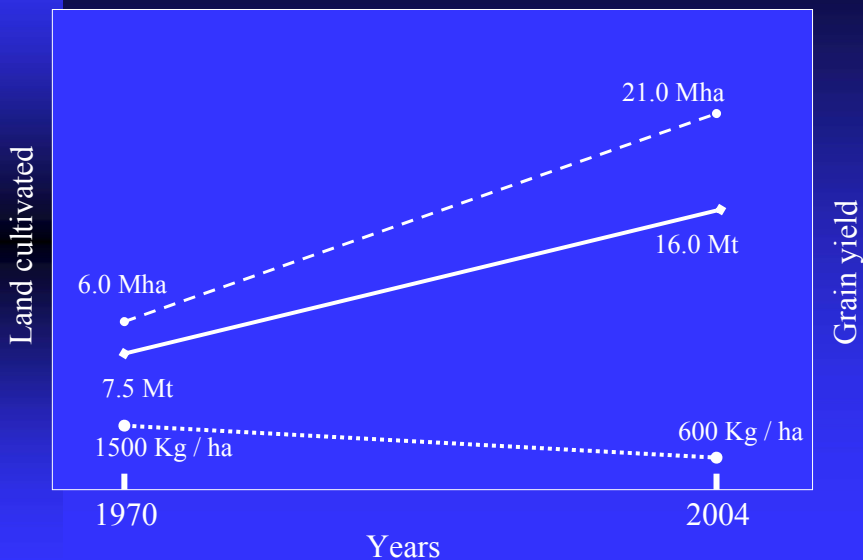
Forest area change / Central Sudan

- Total area of Sudan 250 Mha
- Total area of forest 100 Mha (40%)
- Up to 1970 50% of the area is desert + semidesert
- From 1970 → 2003 forest area reduced to 65 Mha (26%)

Issues related to LU / Central Sudan

- Land allocation system until 1970 was participatory (tribal leaders & Government)
- By 1970 The Government issued the *Unregistered Land act 1970*
- Since 1970 forest land is declining:
Rate of deforestation $0.3 - 0.5\% = 0.35-0.45$ Mha
- Agricultural land is increasing at the same rate
- Grain yield increased although productivity/unit area declined.

Cultivated Land and Land Unit productivity



Forest Area detection using Remote Sensing

Year	Forest cover (ha)	% of study area
1897	32 000 28000 loss / 4000 remain	22.4
1999	26 000 4000 / + 22000	18.1
Net loss	6000	4.3

Total area of study 141 000 ha
Total area of Sudan 250 000 000 ha

Lessons learned

- There is a possibility to increase reforestation by understanding the dynamic changes

To conclude:

- Policy change, and land allocation system
- Integrated land use
- Co-ordination between sectors
- Considering Community role
- Vertical increase in crop production is necessary to reduce deforestation

- The study on dynamic changes (using remote sensing) provide good opportunities for more studies on carbon stock issues, if high resolution technology is used.