From noble global goals to confused local strategies - Solutions to a wicked development problem

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Managing Planetary Boundaries

Rockstroem, 2009
GLOal BIOsphere Management Model

**DEMAND**
- Exogenous drivers
  - Population growth, economic growth
- Wood products
- Food
- Bioenergy

**PROCESS**
- Primary wood products
- Crops

**SUPPLY**
- Homogenous Response Units (HRU)

**Biophysical models**
- EPIC
- G4M

**Simulation Unit**
- 28 regions

40 years IIASA
2050 - Planetary Goals and Land Use

Million hectares

NO PLANETARY GOAL
LAND USE / FOREST
CLIMATE
Biodiversity
ALL & DIET

Shrubland
Grassland
SRP
Forest
Cropland
Conclusion

• Co-benefits from policy co-ordination
• Policy is not enough
• Need for transformative new technologies
Land cover uncertainty
Land Acquisition Area (from Land Matrix Database)

Clear Evidence of Settlements (from Geo-Wiki Hackathon)

= Areas of Conflict
IIASA conference competition
Launch: Friday, 26th Oct. 8:30

http://hackathon.geo-wiki.org
Economic value of land cover information?
Expected Value of Information

Little land available

More land available

10%

> 2 bill. $