International Institute for Applied Systems Analysis
IIASA www.iiasa.ac.at

science for global insight

WELCOME

Steffen Fritz

Ecosystem Services and Management

Group Leader:

Earth Observation Systems

HOME OF IIASA SINCE 1972

MAJOR GLOBAL CHALLENGES

MAJOR GLOBAL CHALLENGES

MAJOR GLOBAL CHALLENGES

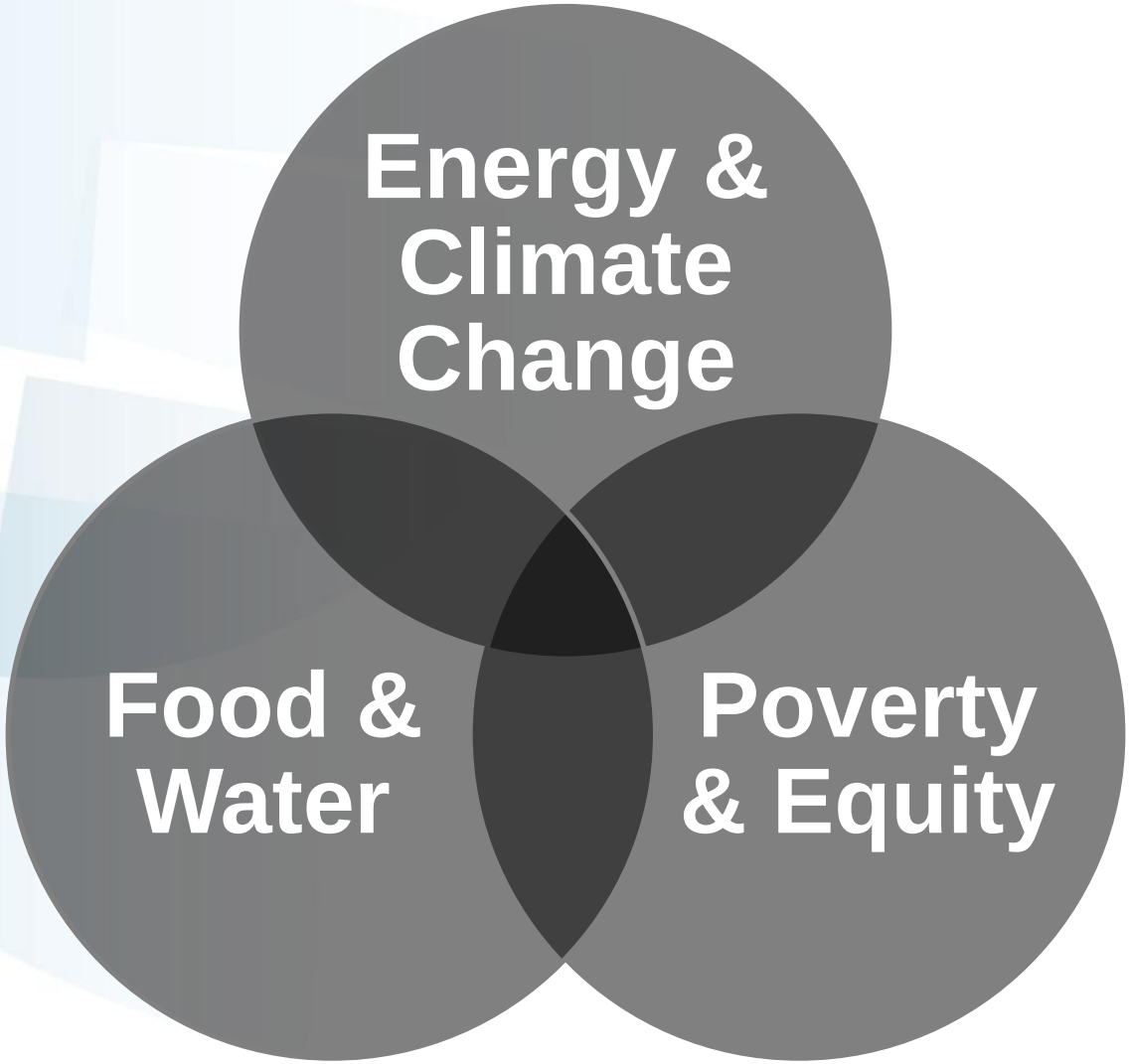
MAJOR GLOBAL CHALLENGES

ENERGY

MAJOR GLOBAL CHALLENGES

MAJOR GLOBAL CHALLENGES

INEXTRICABLY LINKED



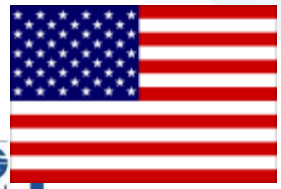
RESEARCHING GLOBAL CHALLENGES

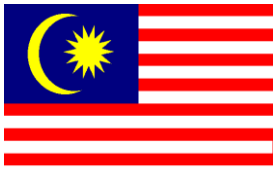
- Integrated
- Interdisciplinary
- International
- Independent
- Solution-oriented
- Long term
- Trade offs

} = Systems Analysis

YOUNG SCIENTISTS SUMMER PROGRAM

ORDEM E PROGRESSO



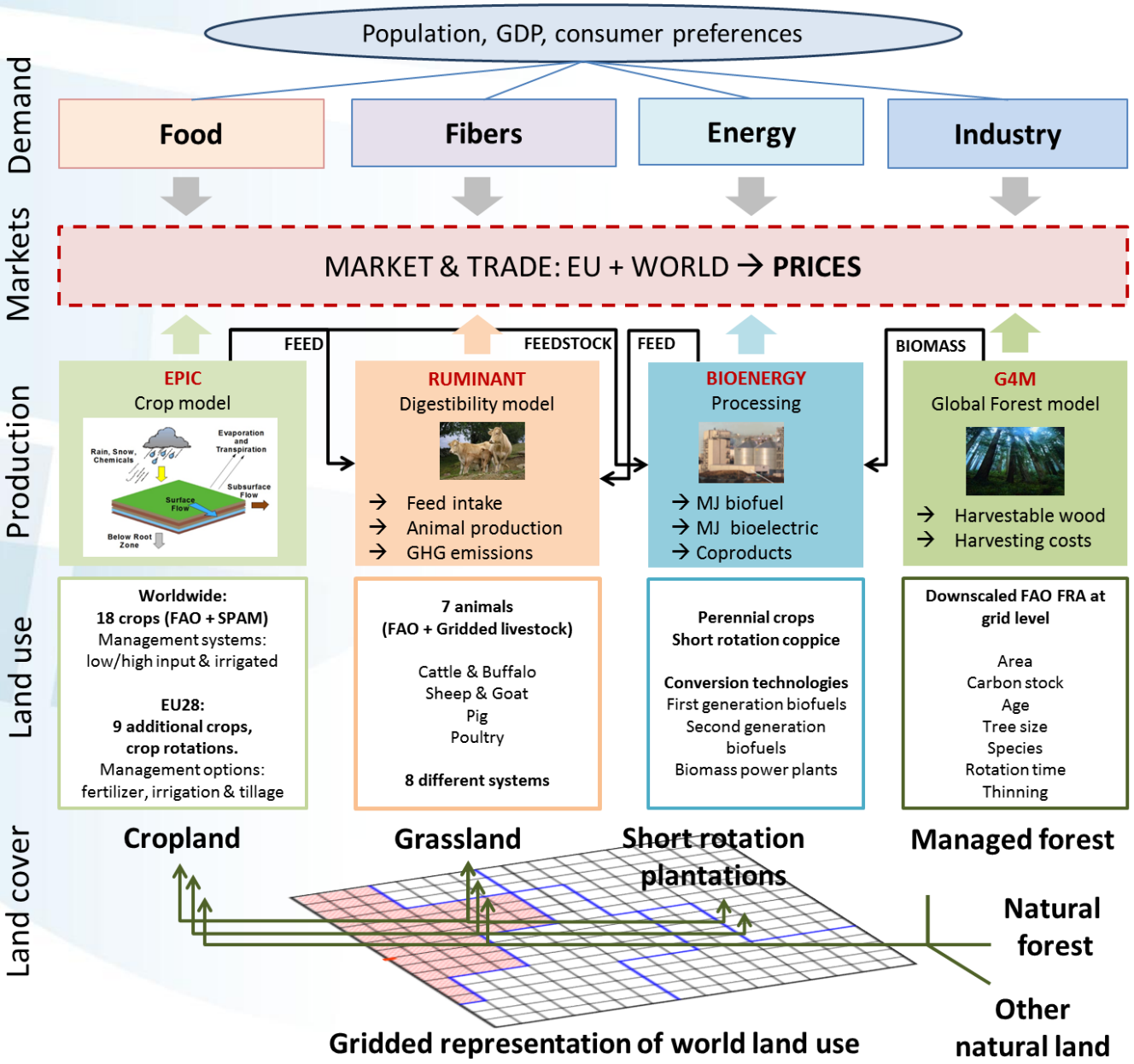


Biggest Program at IIASA

ECOSYSTEM SERVICES AND MANAGEMENT

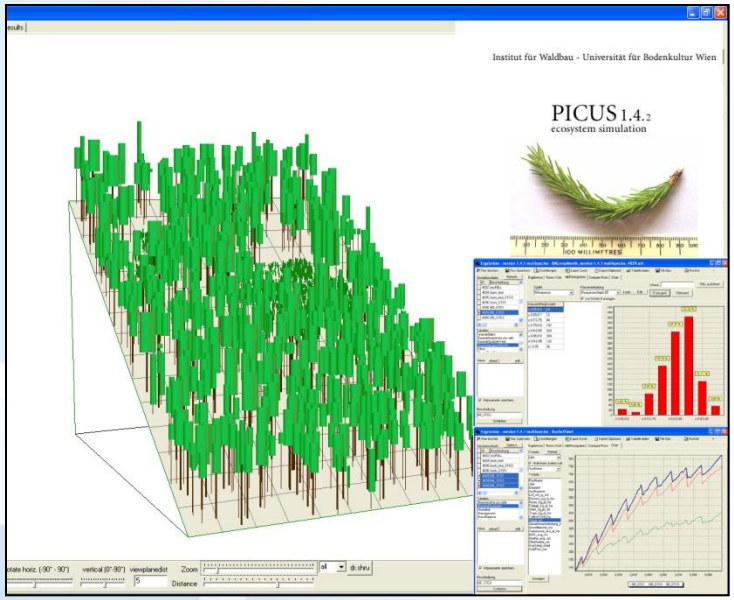
ECONOMIC MODELLING

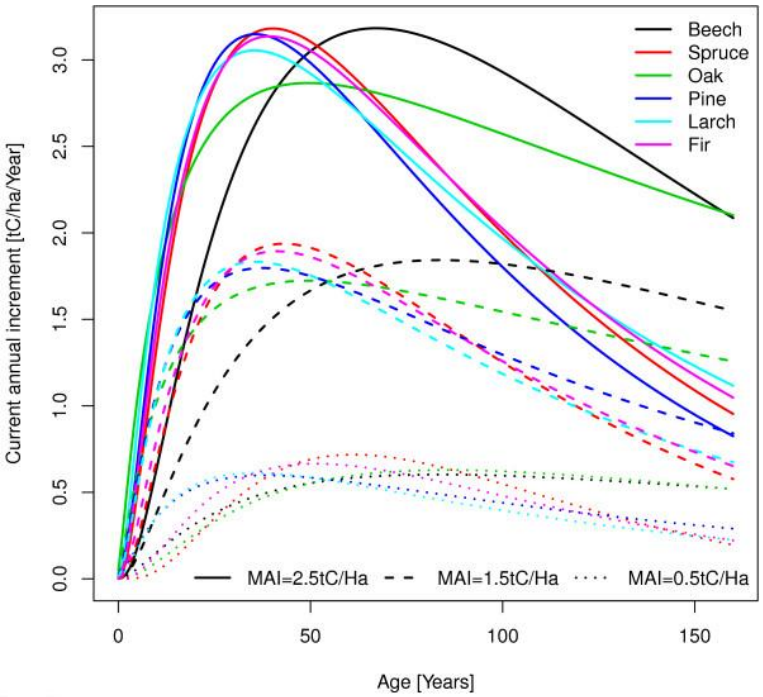
Modelling with GLOBIOM

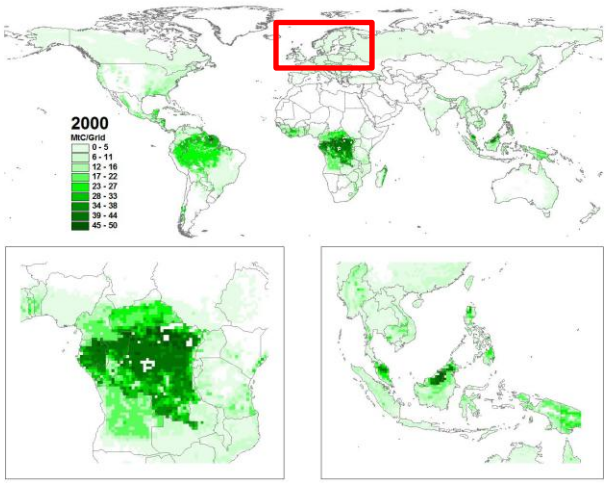


BIOPHYSICAL MODELLING

Forest Modelling (G4M)





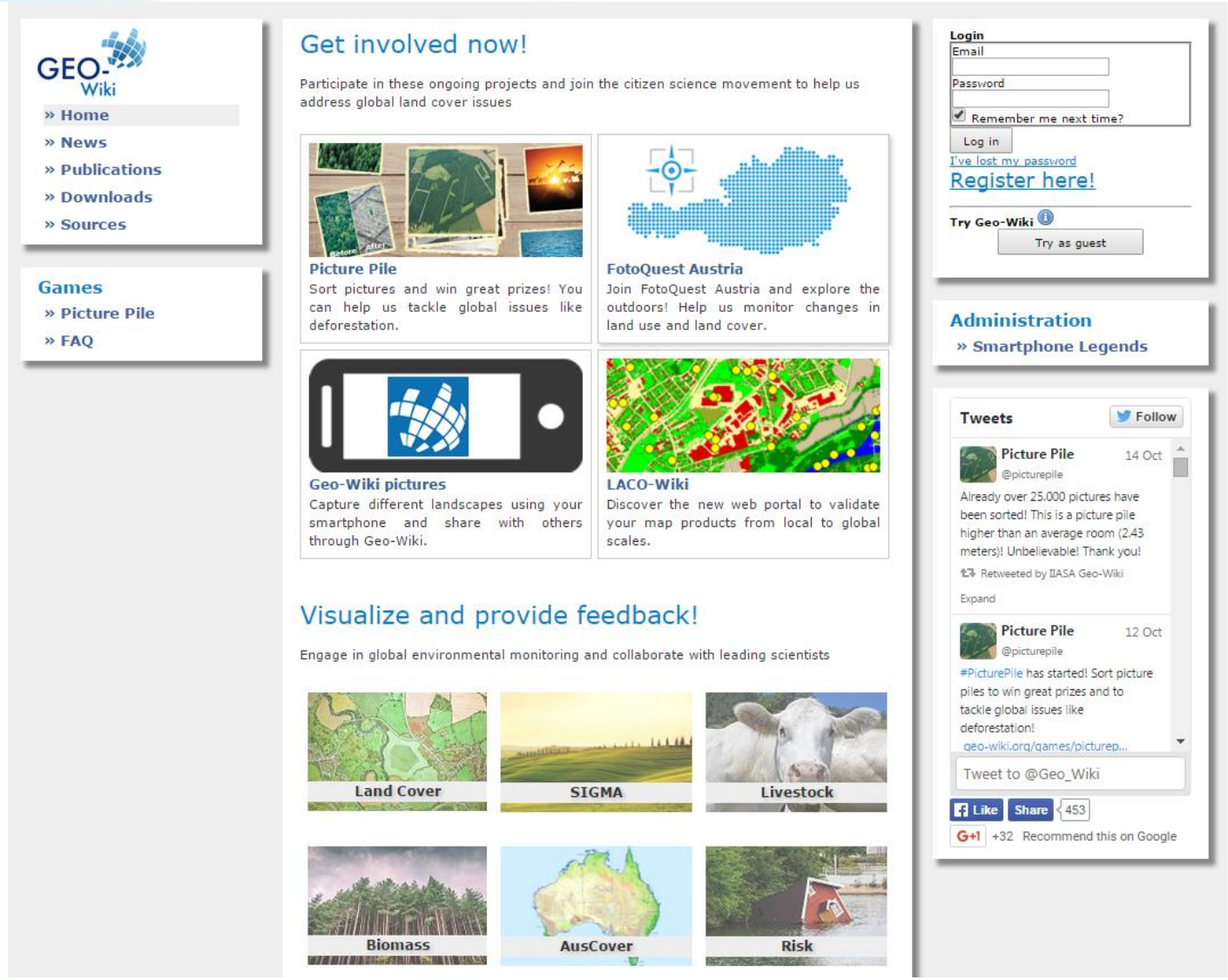


Kindermann (2013), CBM

DATA: EARTH OBSERVATION SYSTEMS

Geo-Wiki Engagement Platform

http://www.geo-wiki.org/

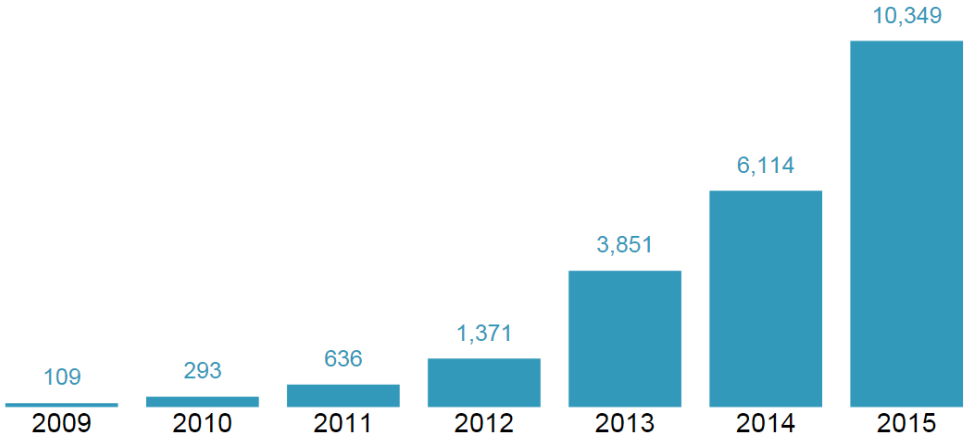


Geo-Wiki Engagement Platform

Crowdsourcing campaigns

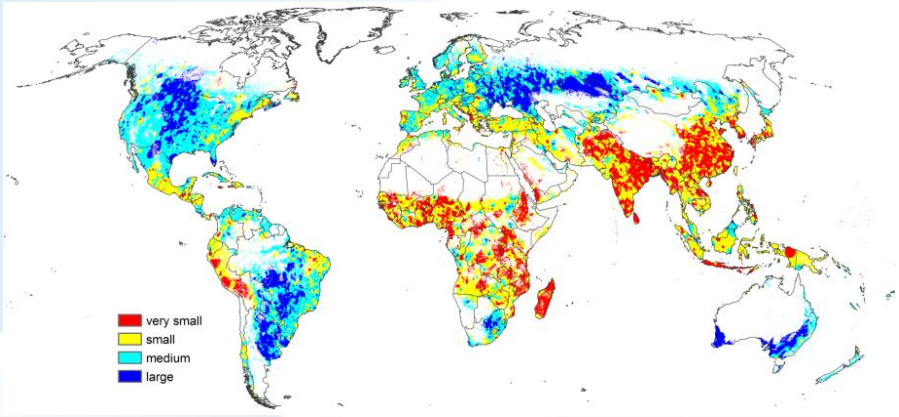
1. Human Impact → 53,000+ points
   - Validation of land availability for biofuel production, field size mapping
2. Wilderness → 32,000+ points
   - Collection of LC and human impact to assess global wilderness
3. Hotspots of Disagreement → 30,000+ points
   - Validation points in the areas of disagreement between GLC2000, MODIS, GlobCover
4. Global Validation Dataset → 35,000+ points
   - Collection of data at same location as GlobeLand30

10,000+
Registered users



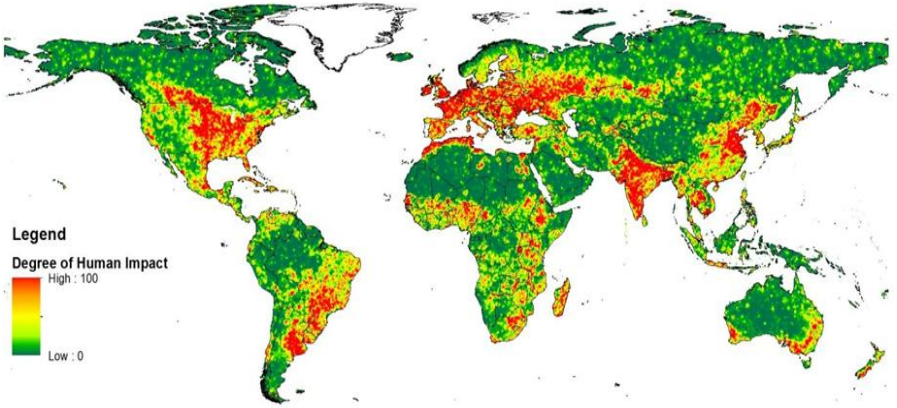
Geo-Wiki Engagement Platform

Field Size



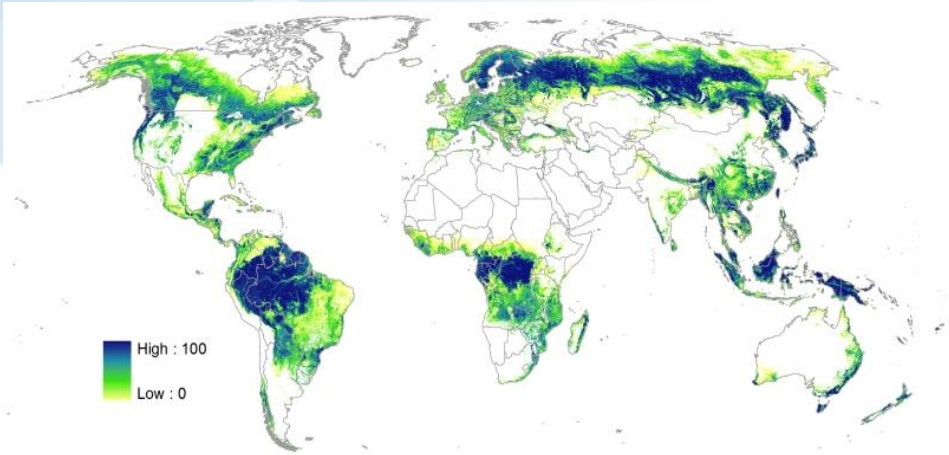
Fritz et al. (2015) in Global Change Biology

Wilderness



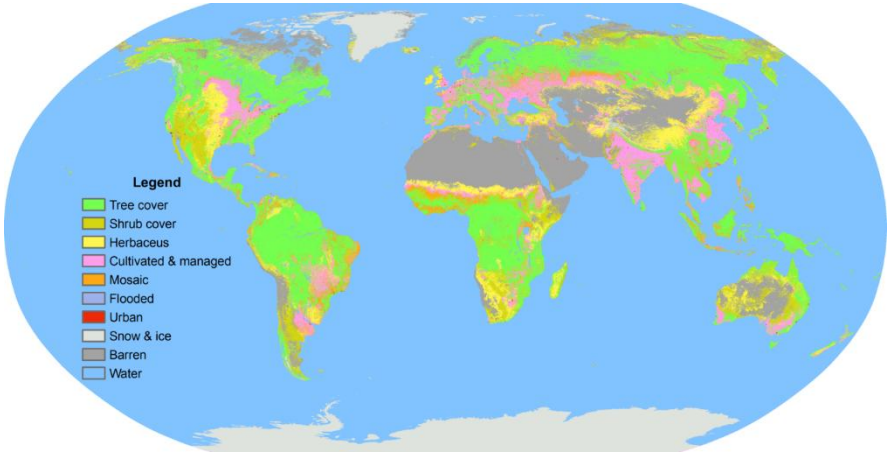
See et al. (2015) in Technological Forecasting and Social Change

Forest Cover



Schepaschenko et al. (2015) in Remote Sensing of Environment

Hybrid Land Cover

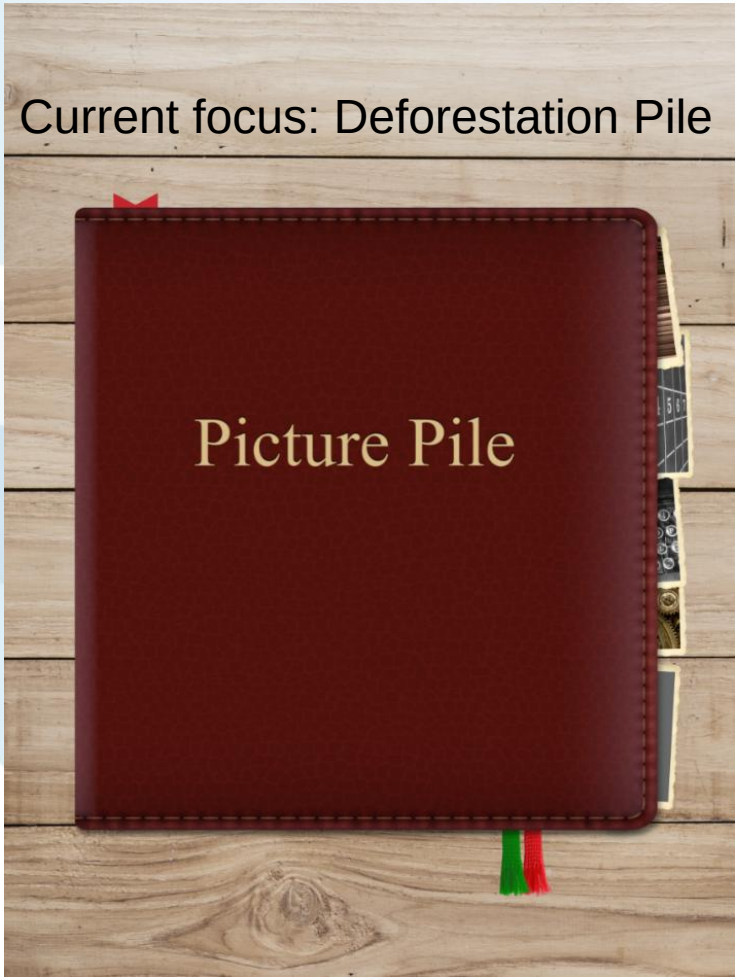


See et al. (2014) in ISPRS Photogrammetry and Remote Sensing

Geo-Wiki Pictures

Picture Pile

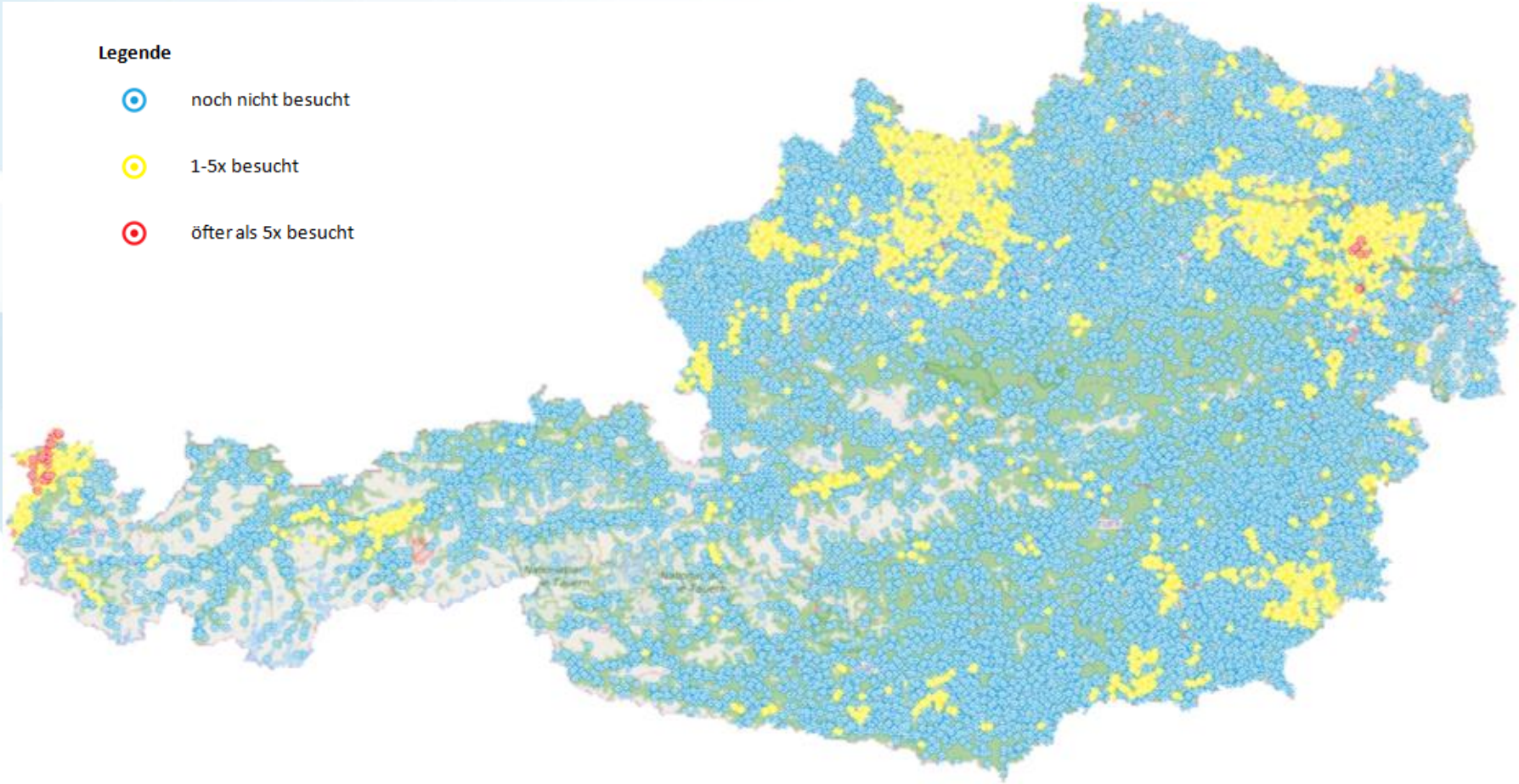
http://geo-wiki.org/games/picturepile



FotoQuest Austria

FotoQuest.at

FotoQuest
Austria



science for global insight

Enjoy the workshop!