



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

science for global insight

# Engaging Citizens in Environmental Monitoring

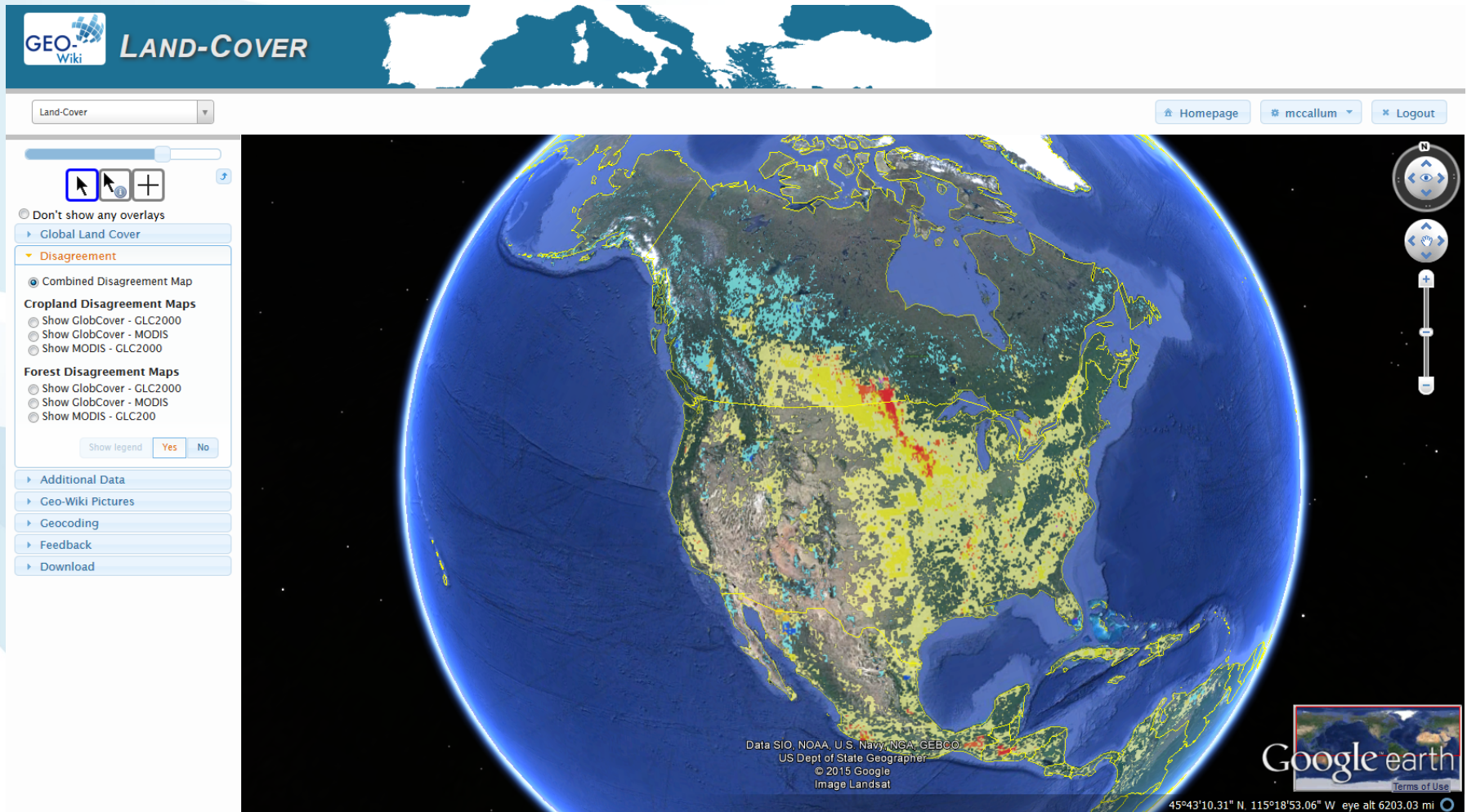
Ian McCallum

Ecosystem Services & Management



IIASA, International Institute for Applied Systems Analysis

# Motivation for Citizen Science



Estimates of Global Cropland Extent Vary between  
1.2 and 1.7 billion hectares



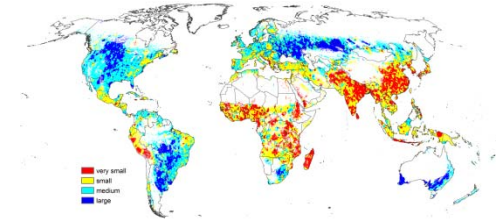
Visualization

Comparison/Validation of Spatial Information

# Geo-Wiki.org



Crowdsourcing to Generate New Products



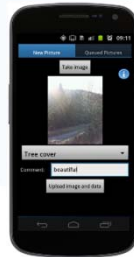
Creation of Hybrid Datasets



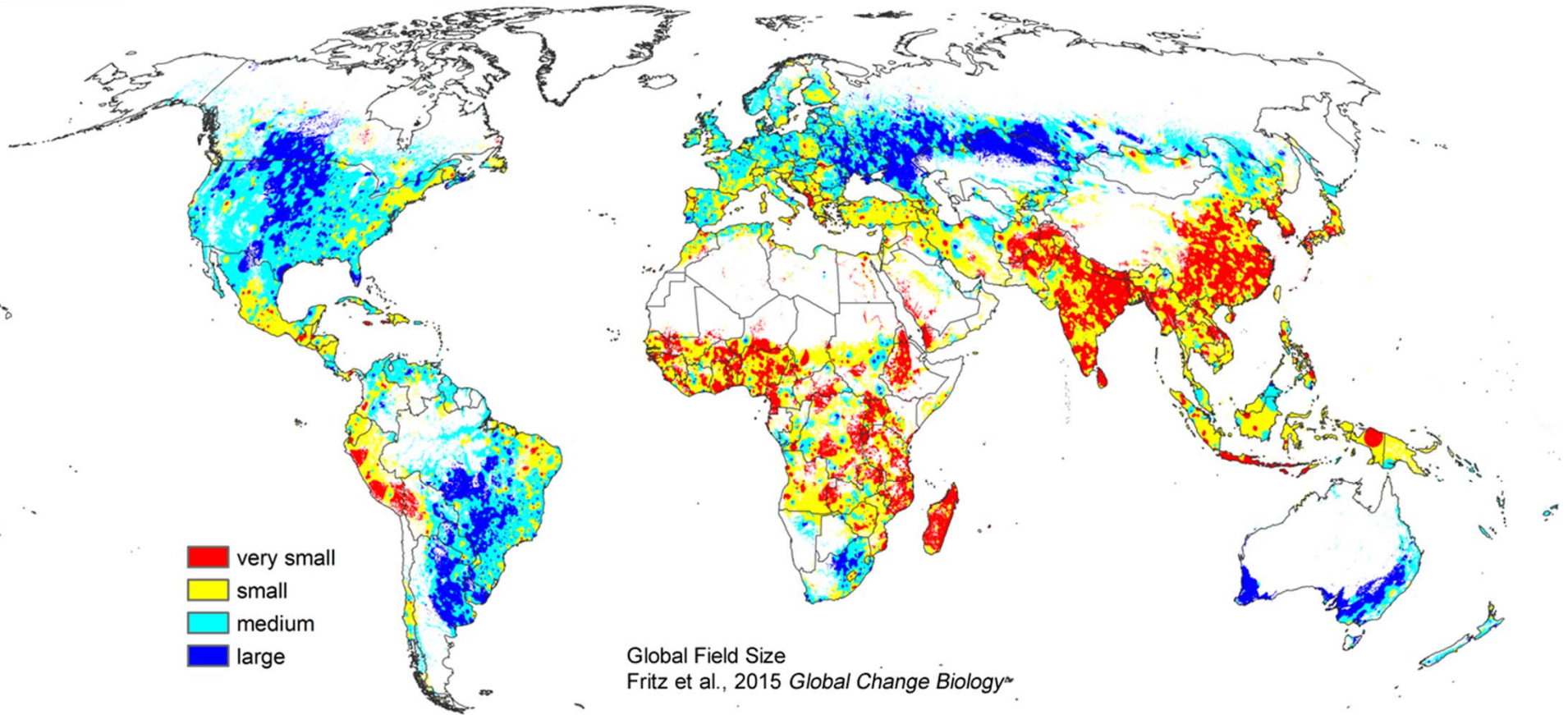
Data Quality



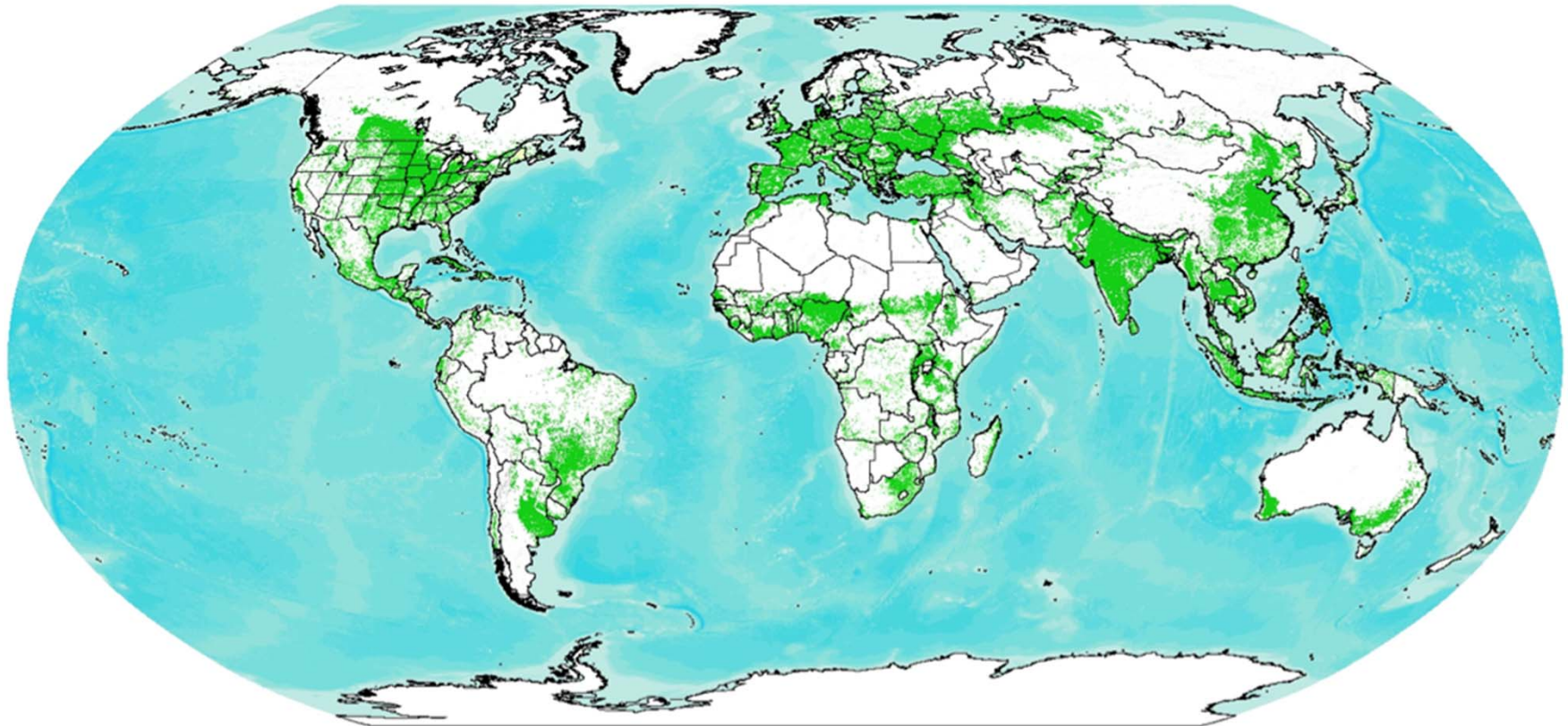
In-situ Data Competitions Games



# Global Field Size

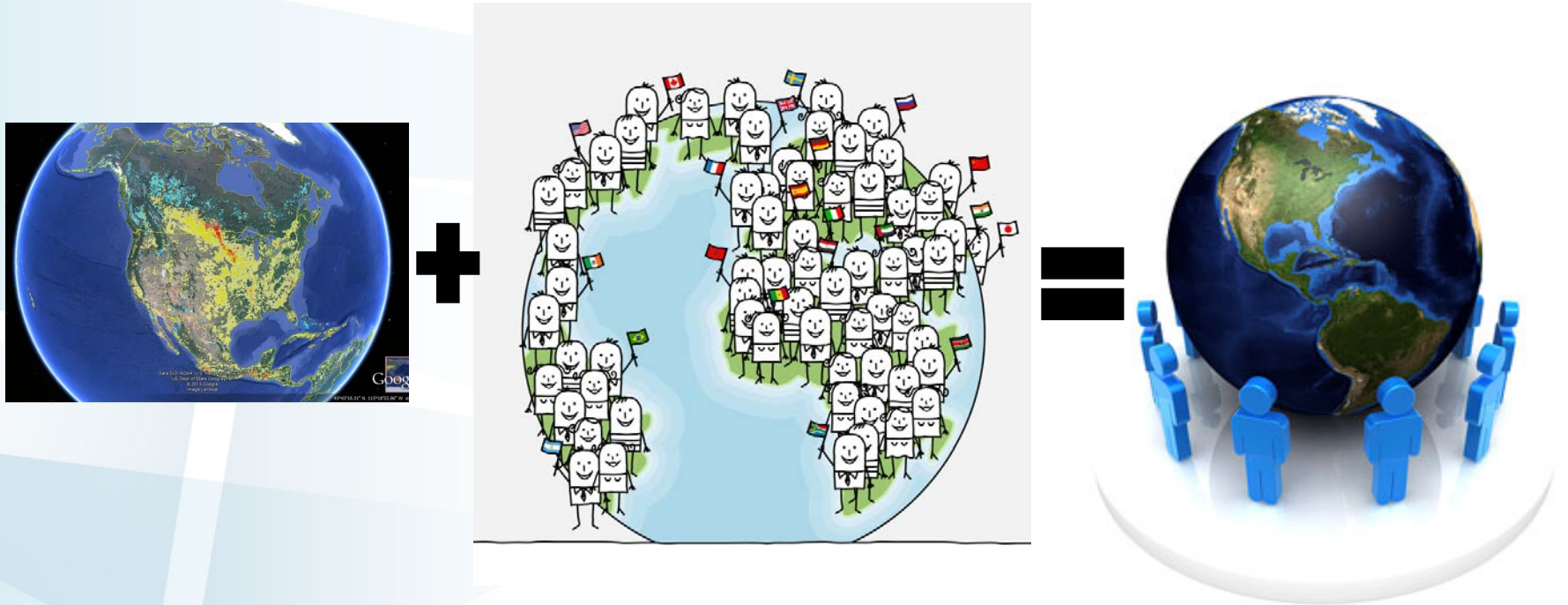


## Current Cropland Distribution: best available from existing satellite-derived sources



Fritz et al., 2015 *Global Change Biology*

# Future Earth...



*Pioneered approaches to co-design and co-produce solutions-oriented science...*