Welcome to IIASA Side Event

Co-benefits from transformational change toward decarbonization and sustainable development pathways

IIASA

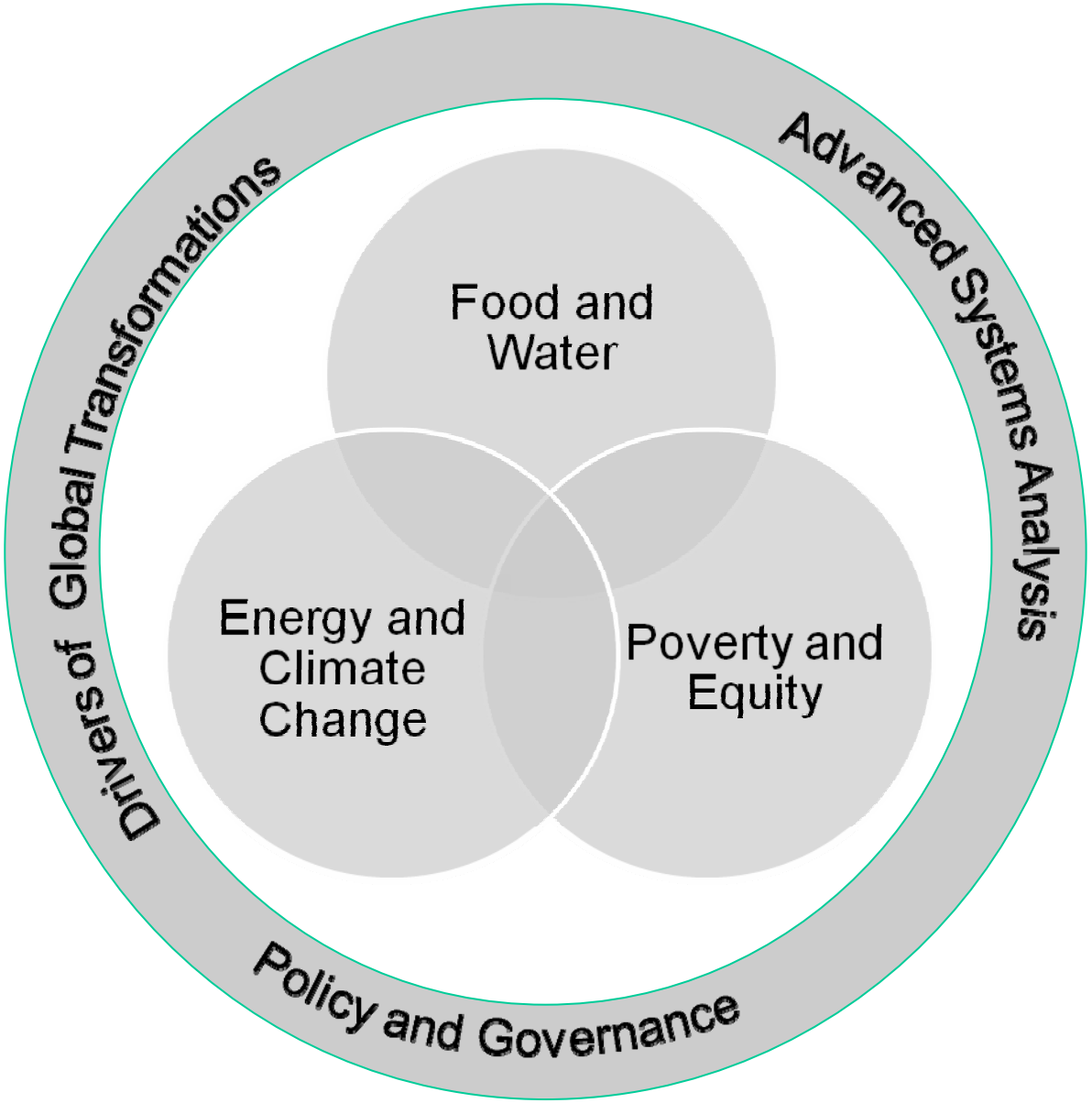
International Institute for Applied Systems Analysis

www.iiasa.ac.at

A Global Research Institute

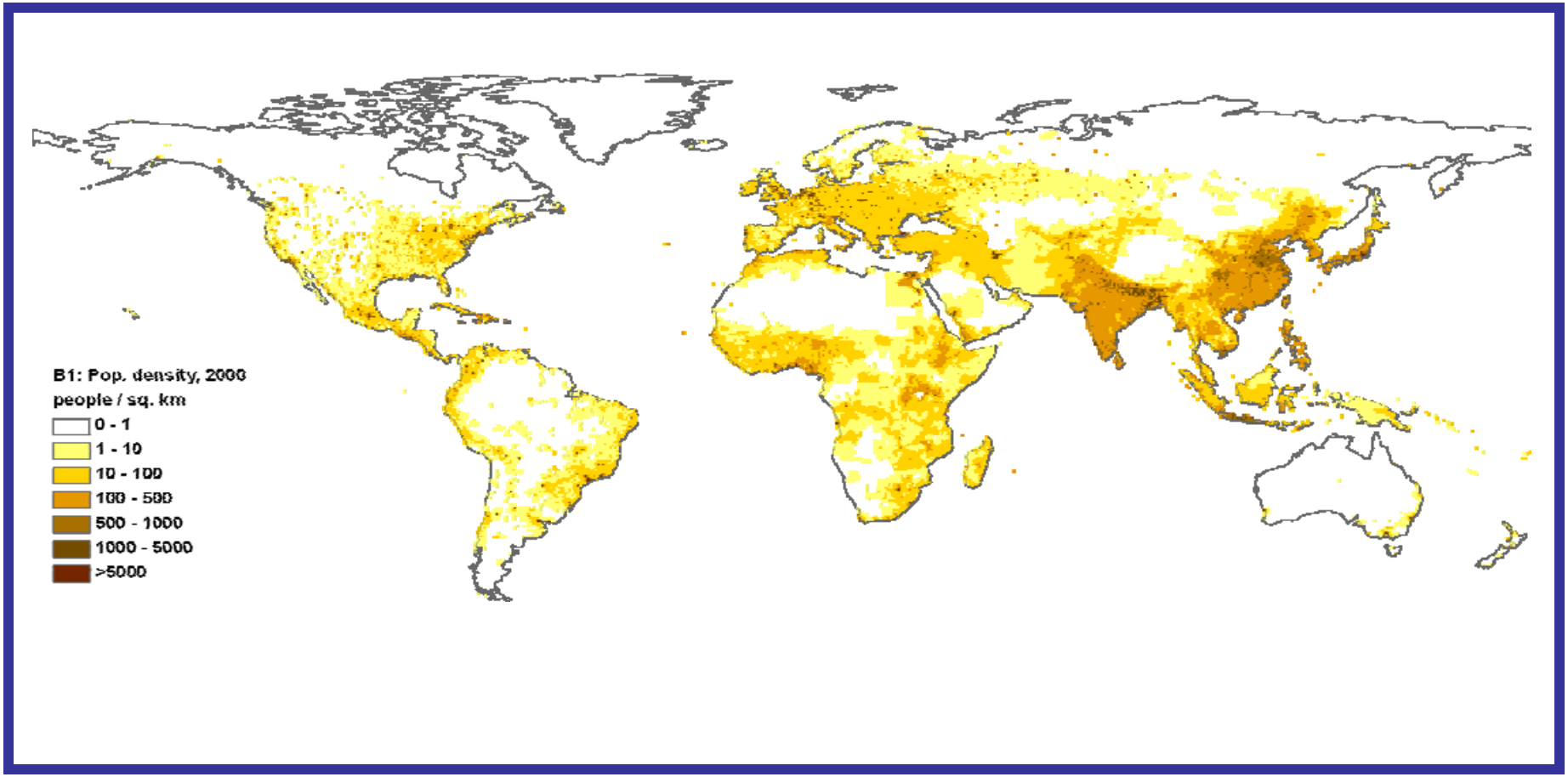
- established in 1972 as a scientific bridge between East and West
- now embarking on the new research strategy for the next decade with
  - Emphasis on policy relevance
  - Innovation in systems analysis
  - Focus on a few global problems

Research for a Changing World

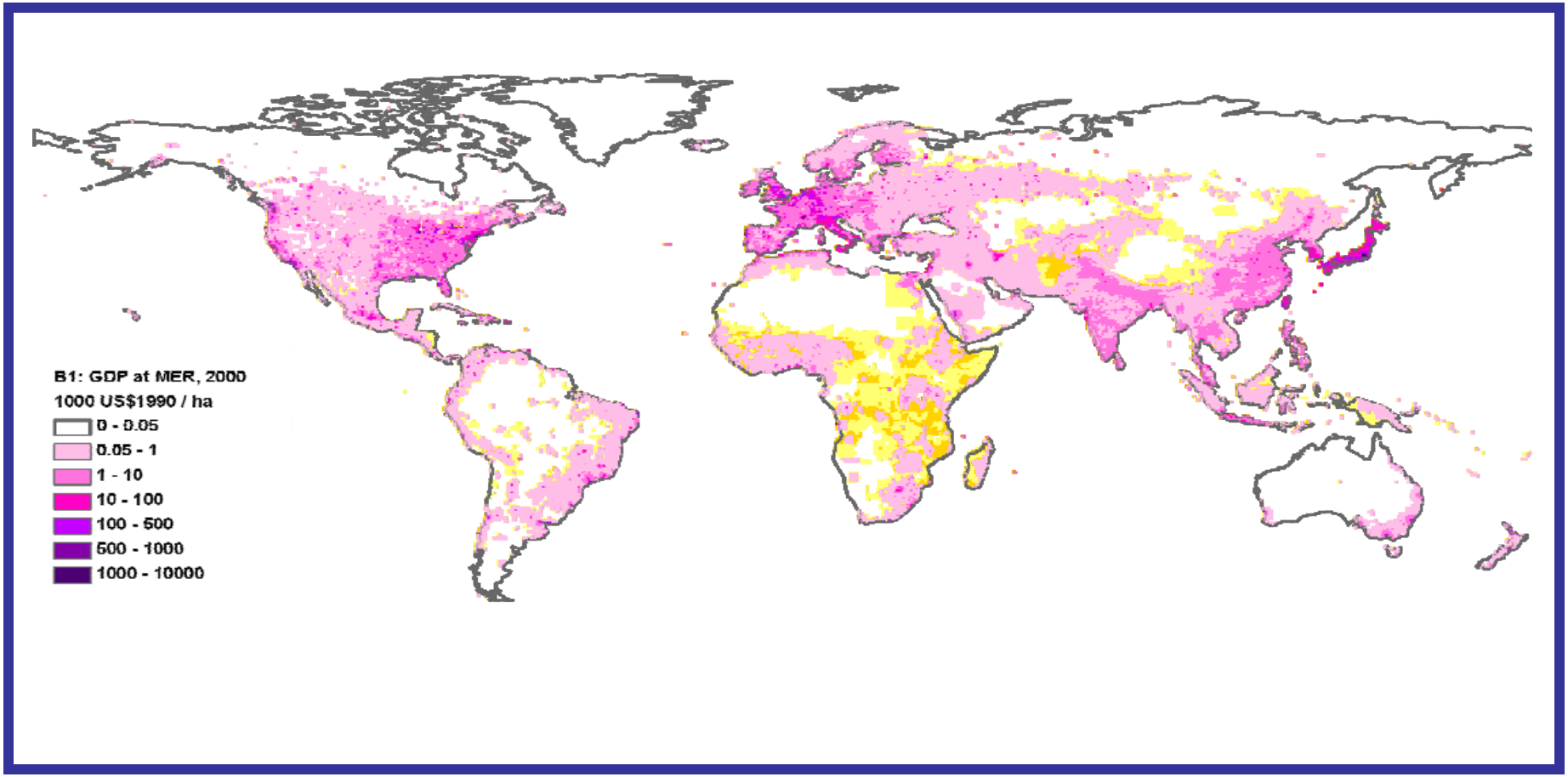


Source: IIASA

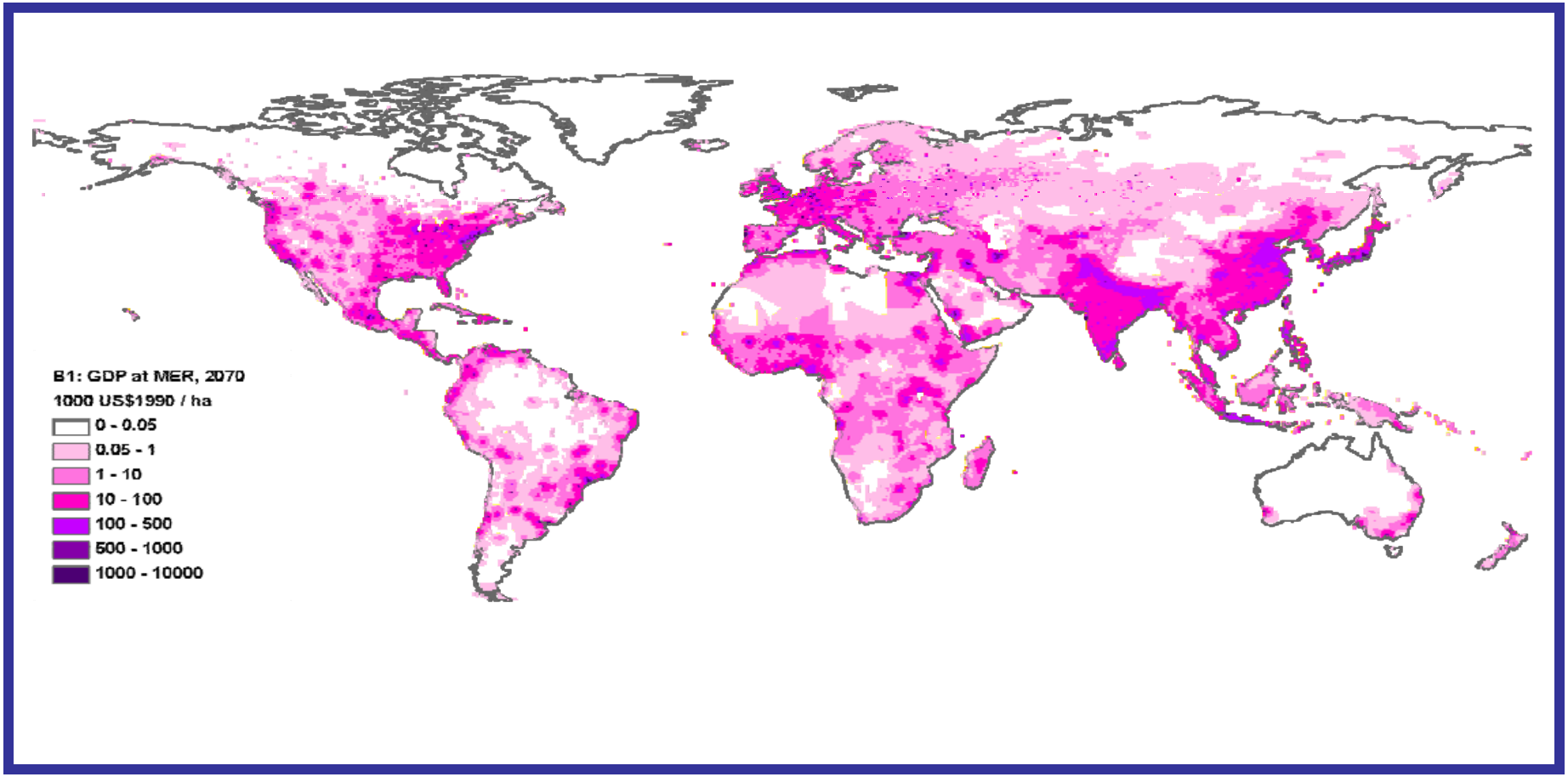
Global Population Density



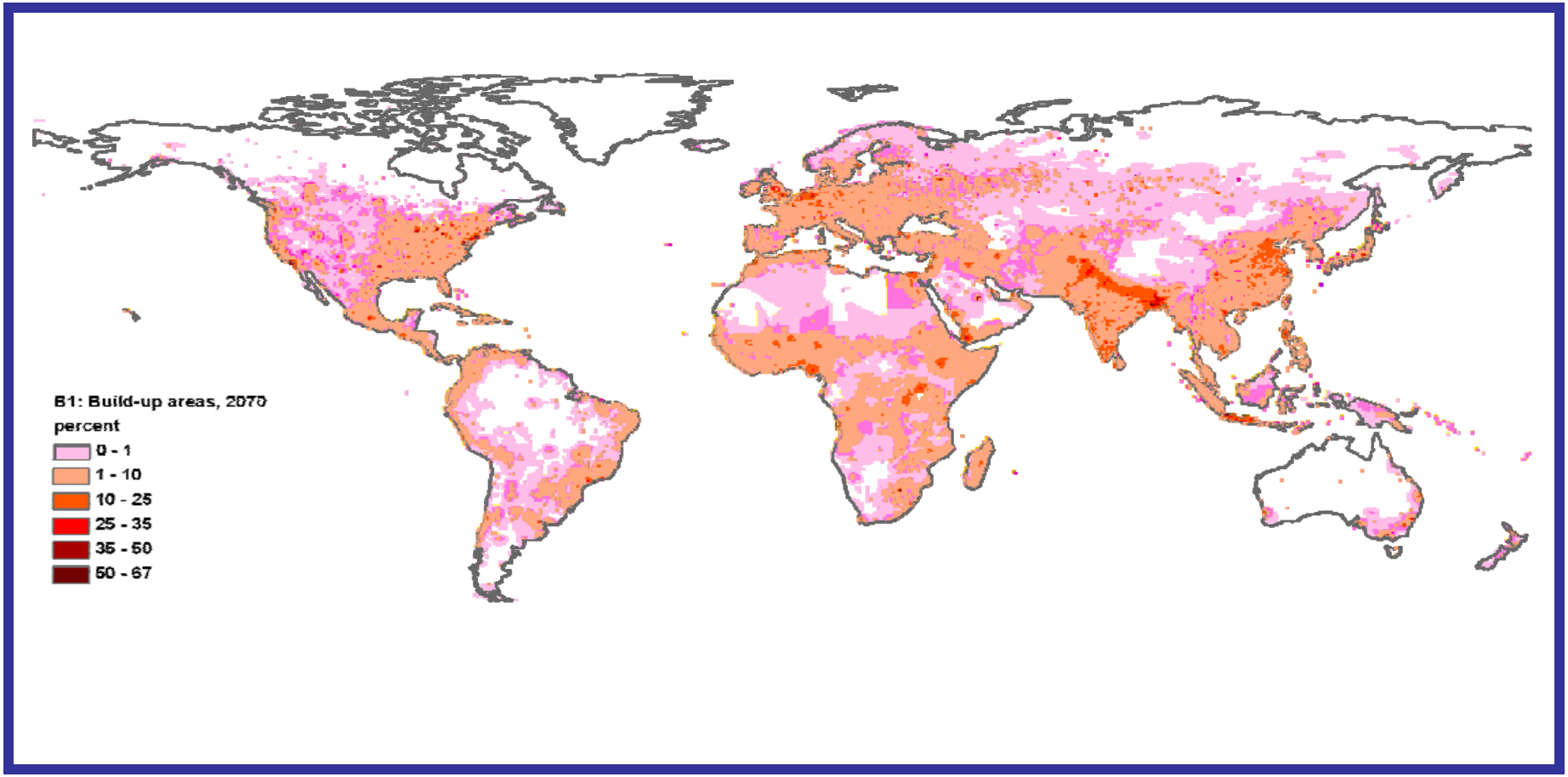
Global GDP Density



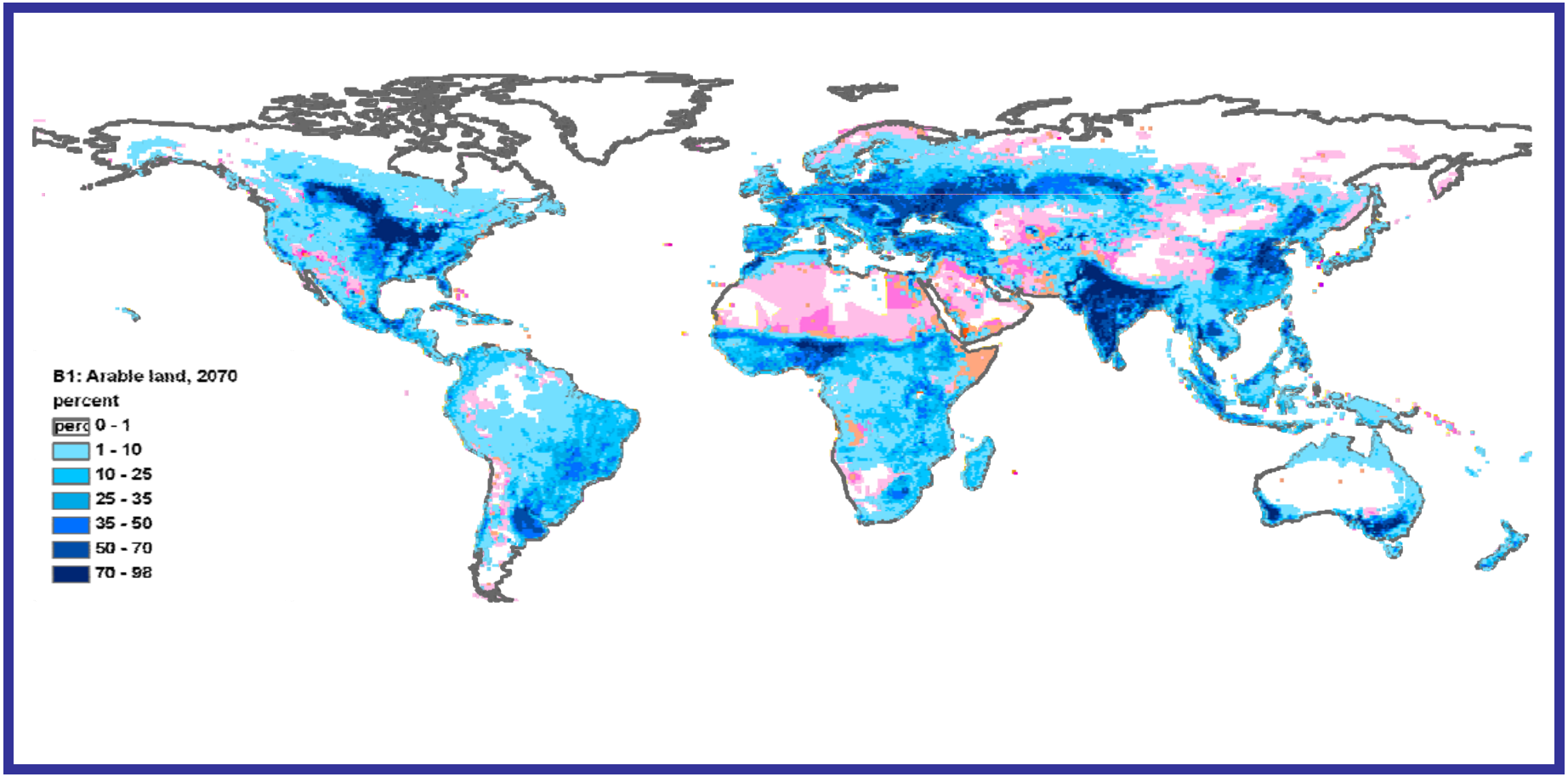
Global GDP Density



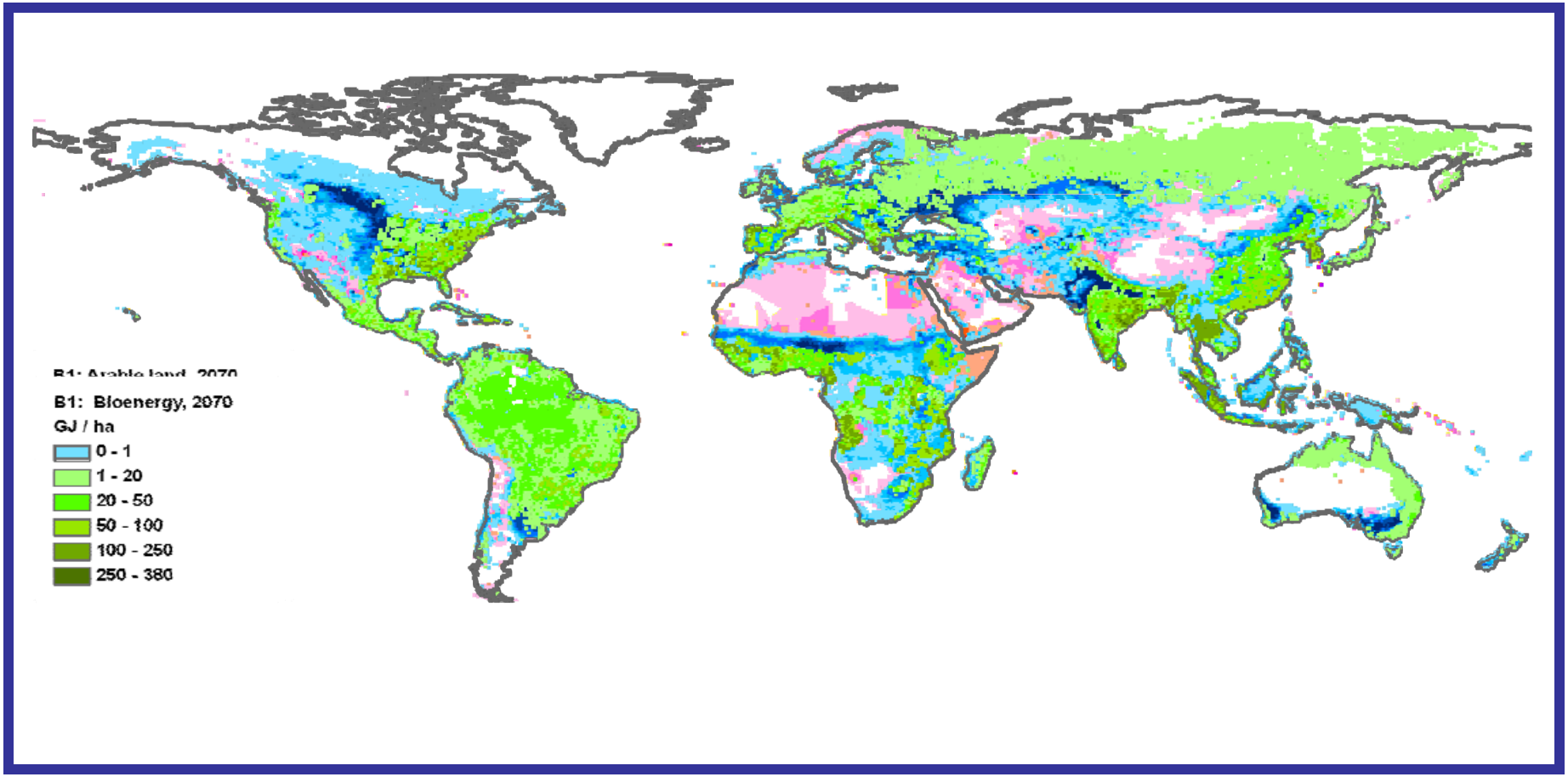
Global Build-Up Area



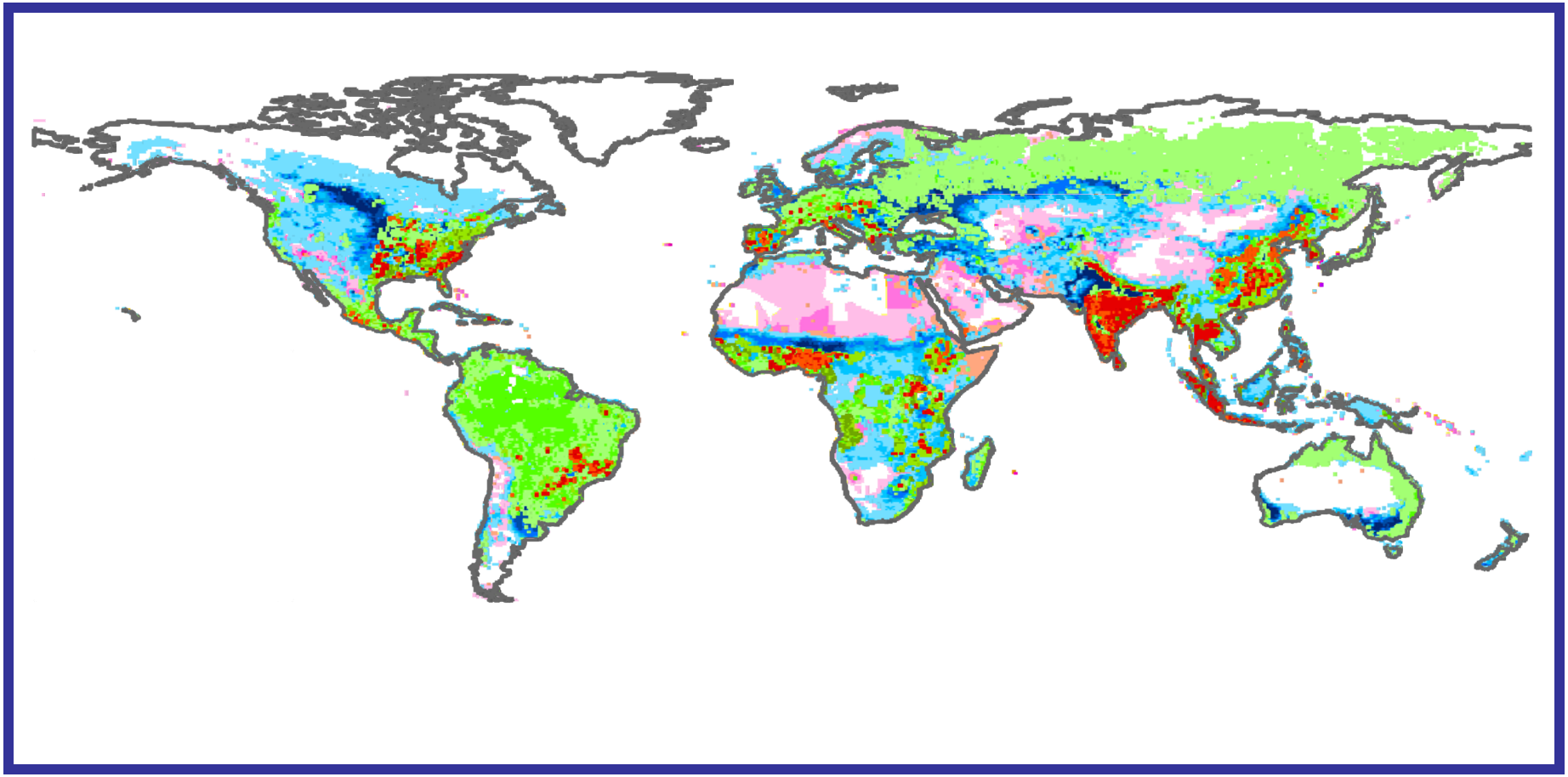
Global Arable Land



Global Bioenergy Land



Energy and Food Land Conflicts



The Global Energy Assessment

IIASA

International Institute for Applied Systems Analysis
and its international partners present the

www.GlobalEnergyAssessment.org

Towards a more Sustainable Future

- Initiated in 2006 and involves >300 CLAs and LAs and >200 anonymous reviewers
- Peer-review coordinated by Review Editors is complete - ongoing responses and revisions.
- Final report (Cambridge Univ. Press) in May 2011 followed by vigorous dissemination

Sponsoring Organizations

International Organizations

GEF
IIASA
UNDESA
UNDP
UNEP
UNIDO
ESMAP (World Bank)

Industry groups

First Solar
Petrobras
WBCSD
WEC

Governments/Agencies

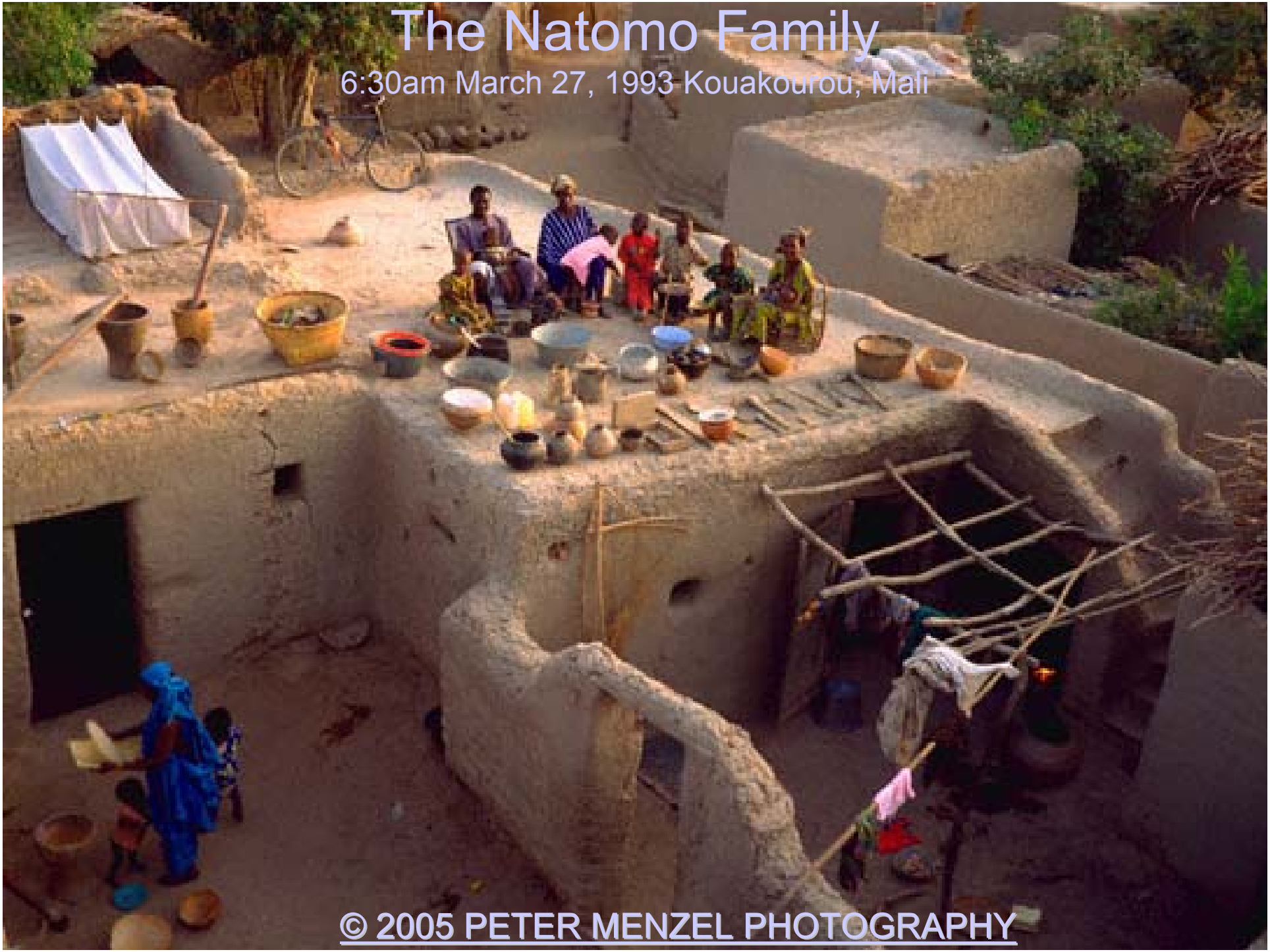
Austria - multi-year
European Union
Germany
Italy
Norway
Sweden - multi-year
USA (EPA, DoE)

Foundations

UN Foundation
Climate Works Foundation
Global Environment & Technology Foundation

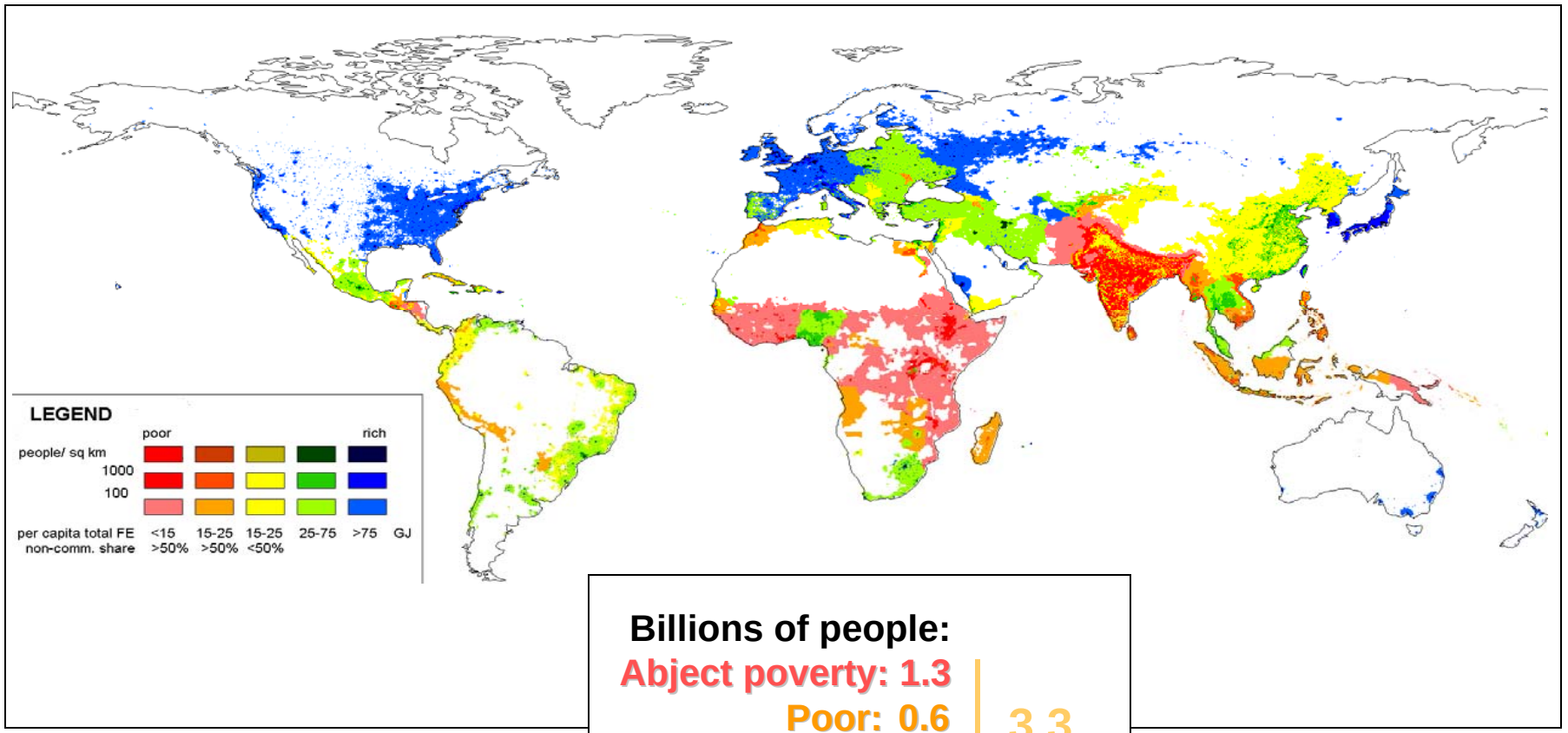
Global Energy Transformations

- Access to energy and ecosystem services (a prerequisite for MDGs & wellbeing)
- Transformation of toward decarbonization and climate change mitigation
- Sustained energy investments are needed and would result in multiple co-benefits


The Natomo Family
6:30am March 27, 1993 Kouakourou, Mali
© 2005 PETER MENZEL PHOTOGRAPHY

Mapping Energy Access

Final energy access (non-commercial share) in relation to population density

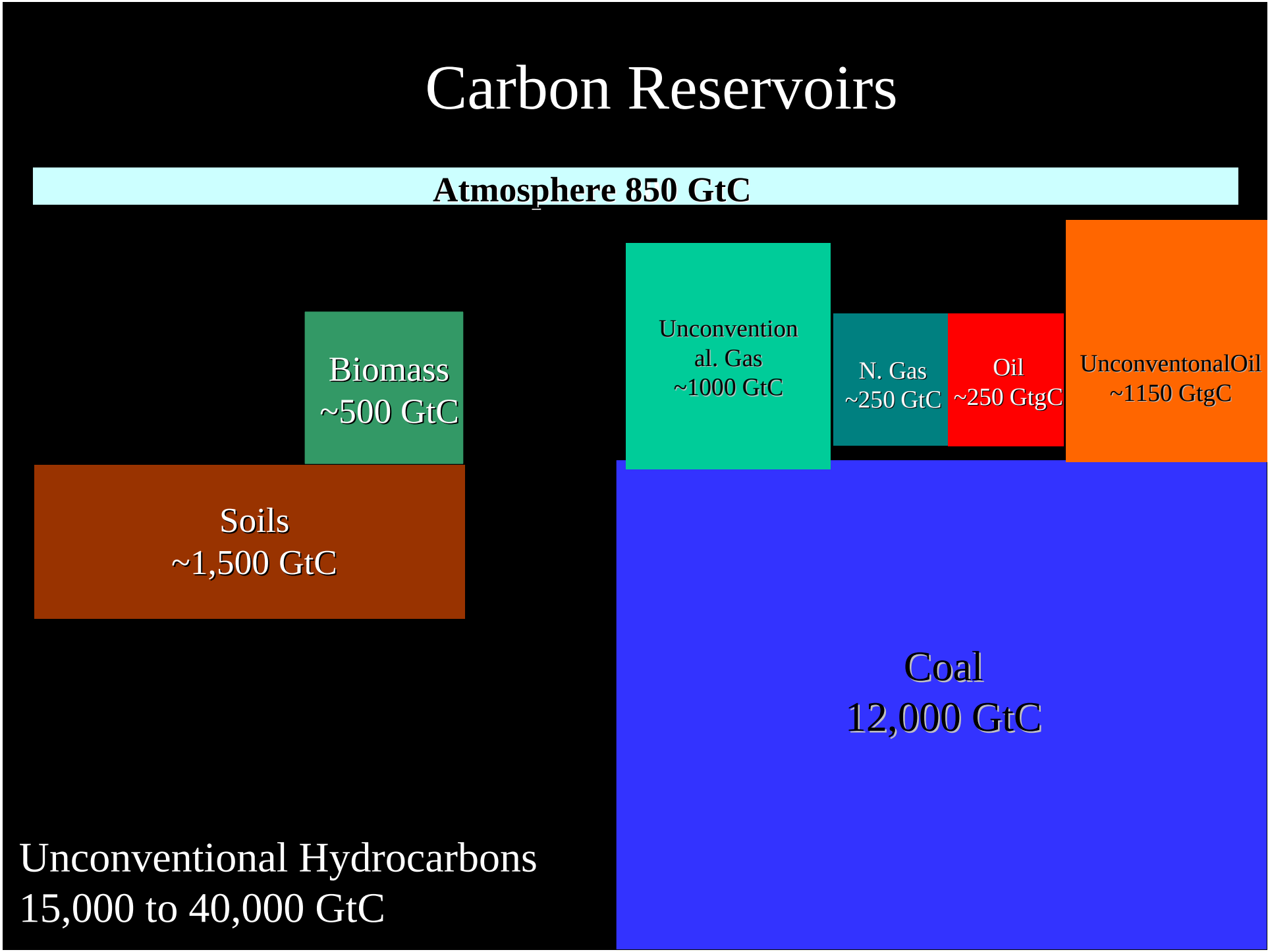


Billions of people:

Abject poverty: 1.3	3.3
Poor: 0.6	
Less poor: 1.4	
Middle class: 1.4	2.8
Rich: 1.2	

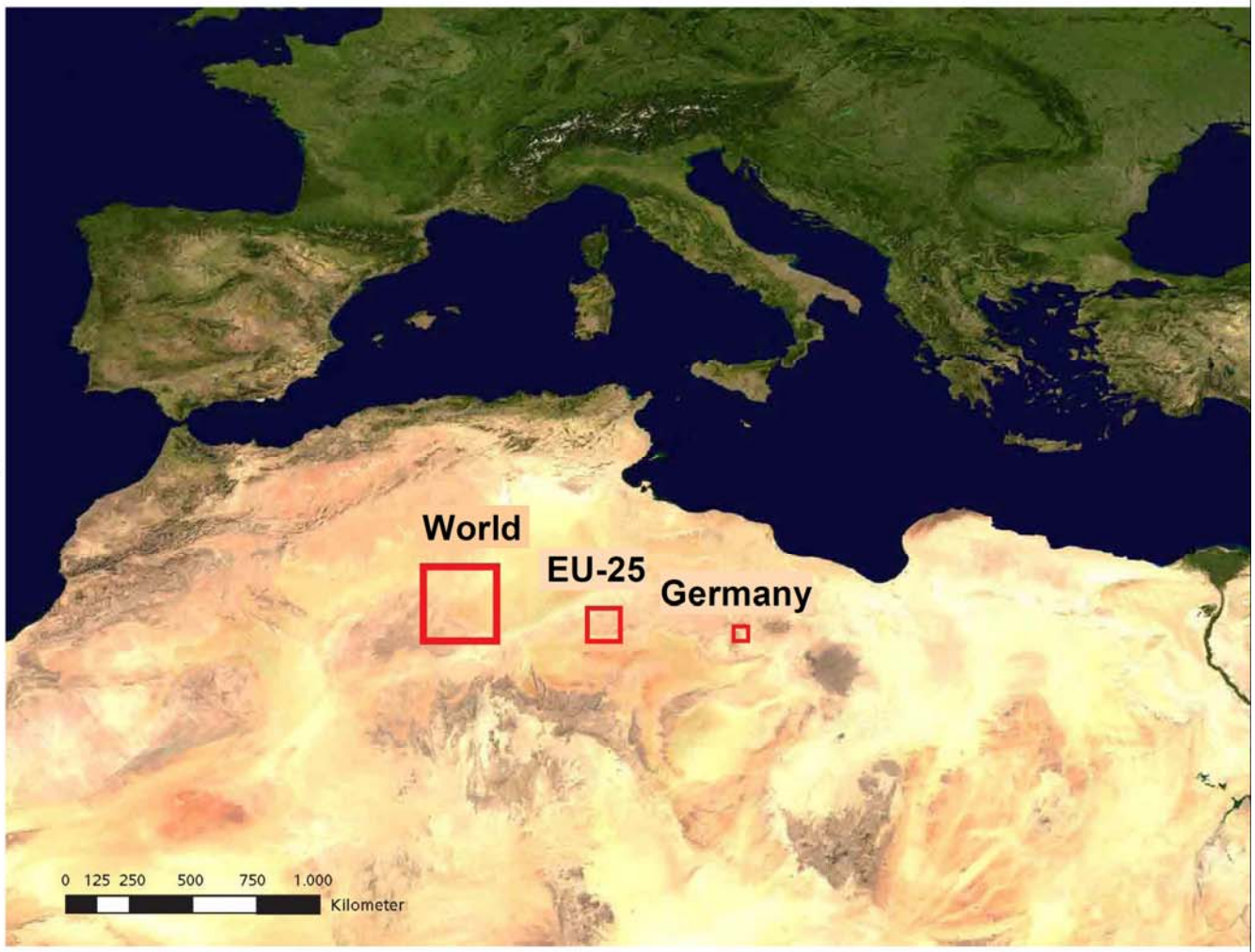
Source: Gruebler et al, 2009

Carbon Reservoirs



Required desert area for the sustainable supply of electricity

World 300 x 300 km^2
EU-25 150 x 150 km^2
Germany 50 x 50 km^2



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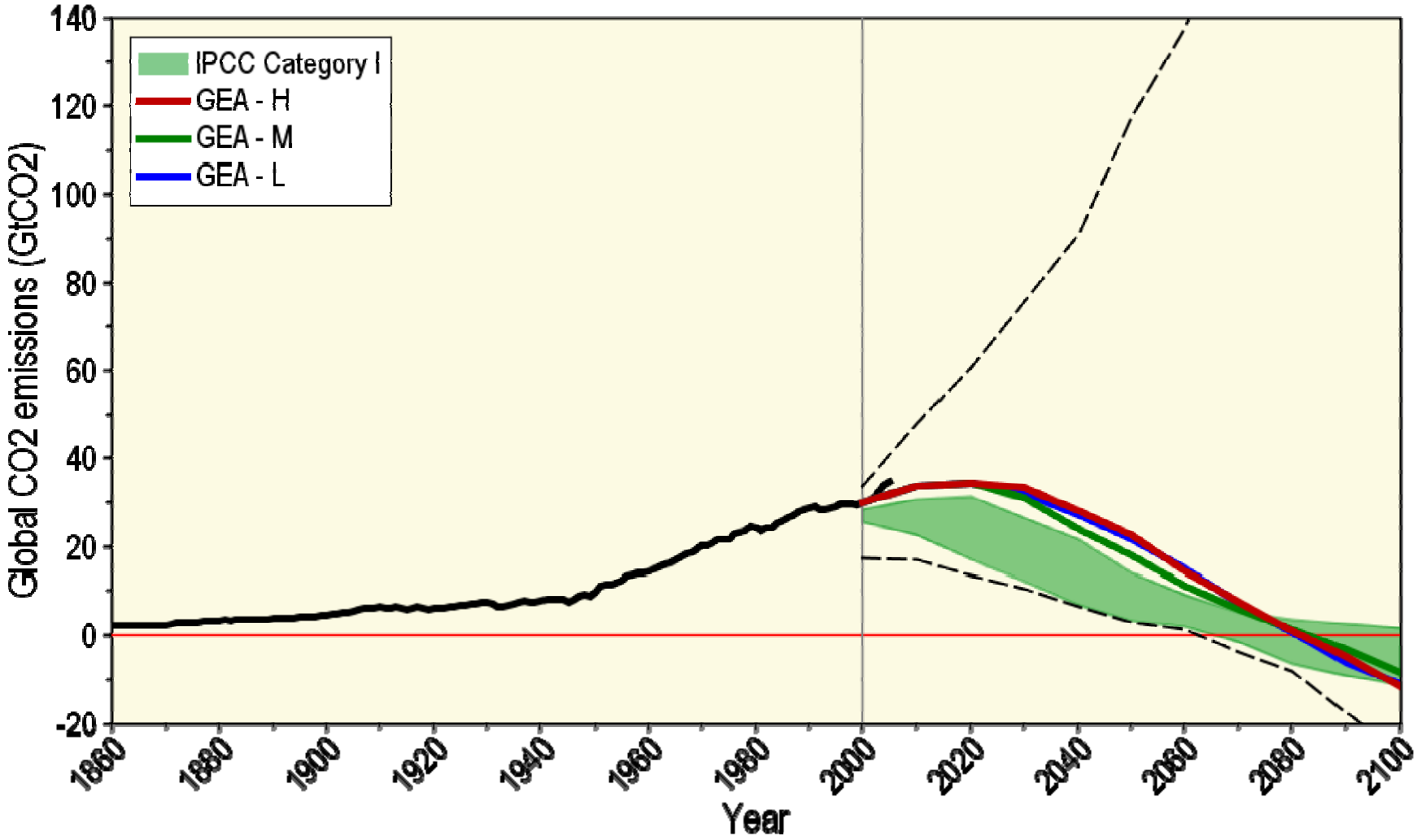
Global Carbon Emissions



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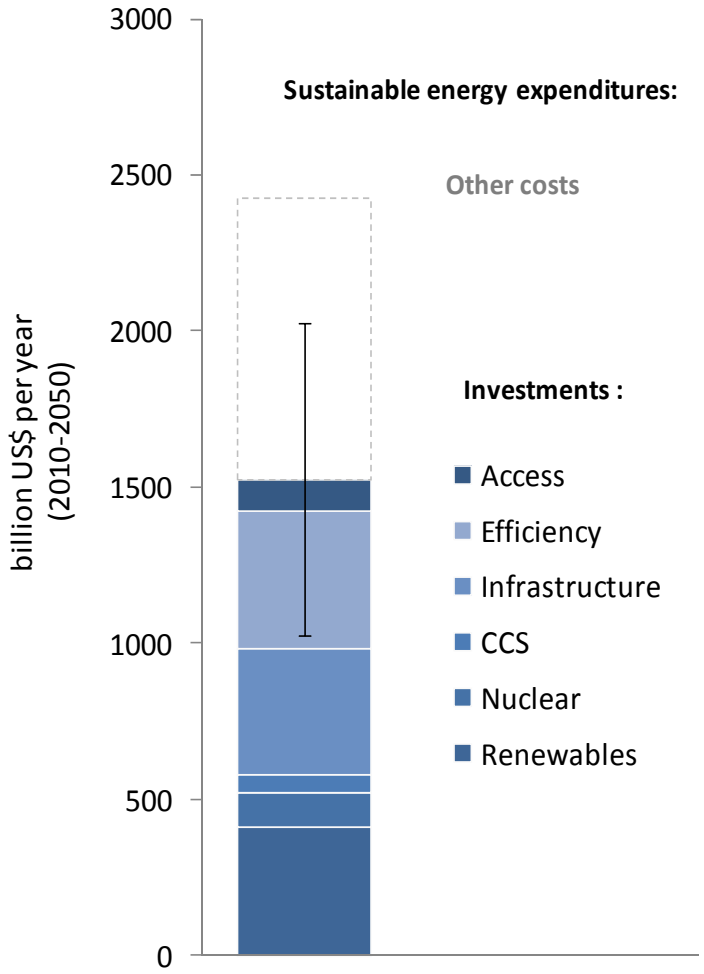
Co-Benefits of Energy Investments

Based on IIASA-GEA: Riahi et al, 2010



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