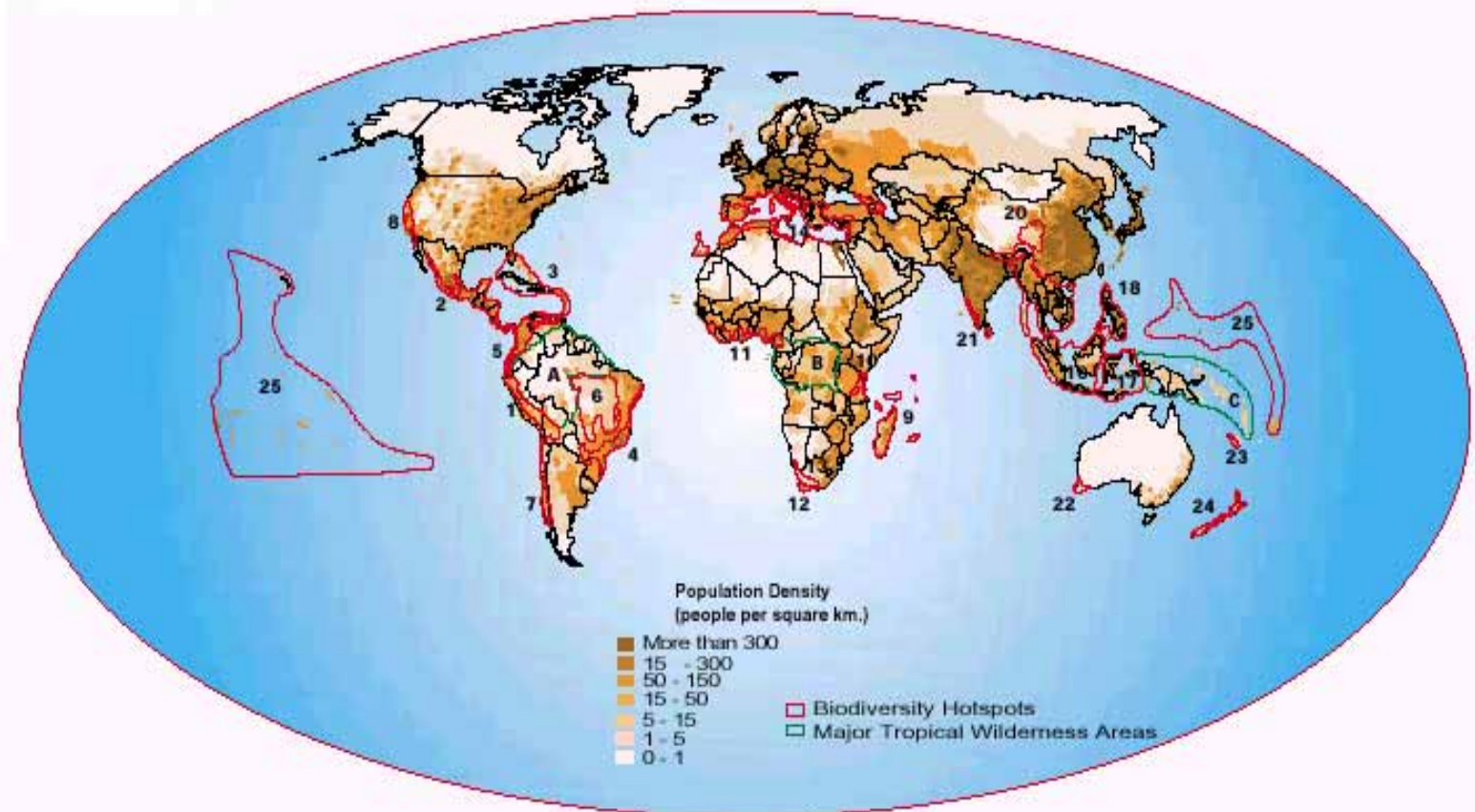


Agriculture and Ecosystems: An Overview of Challenges & Opportunities

Sara J. Scherr, Forest Trends

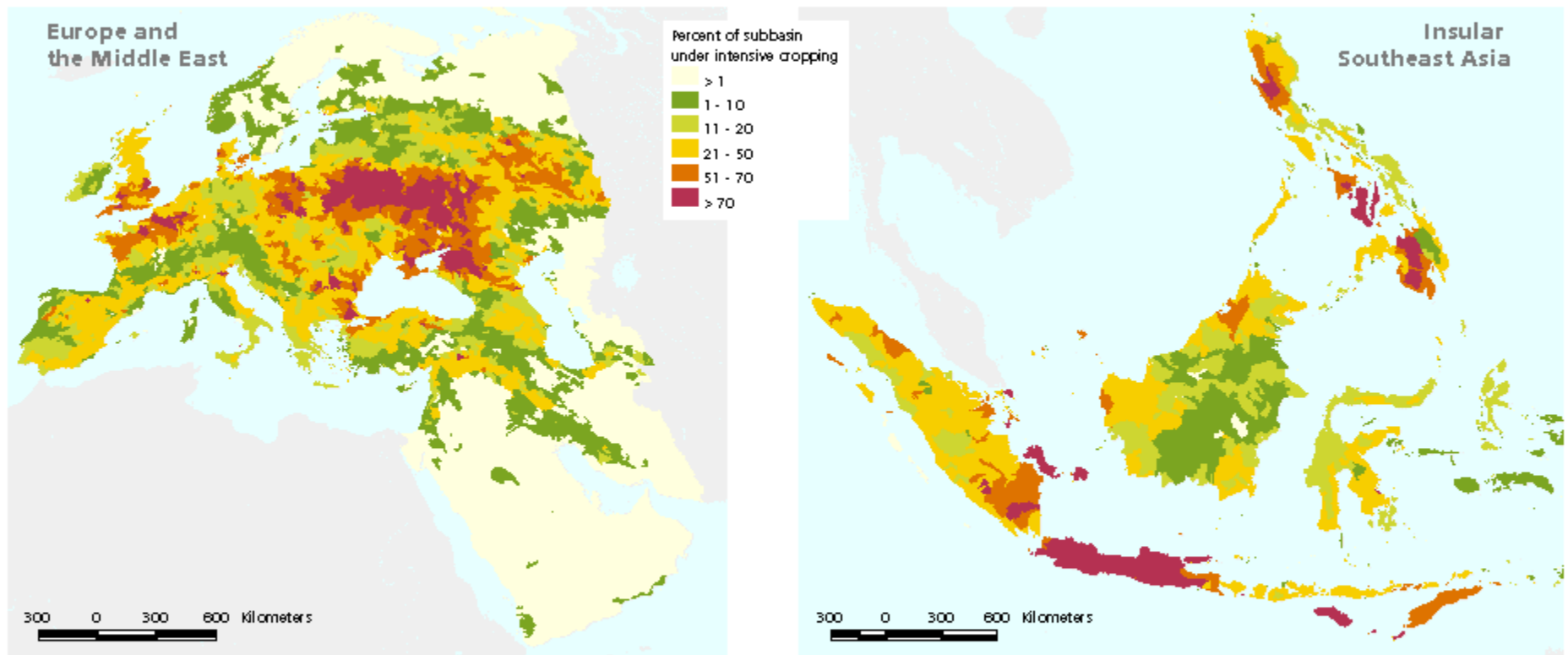
Swiss Re – Katoomba Group
“Beyond Carbon” Conference
Rüschlikon, Switzerland
October 29, 2003

Population in Global Biodiversity Hotspots



Maps 8a and 8b

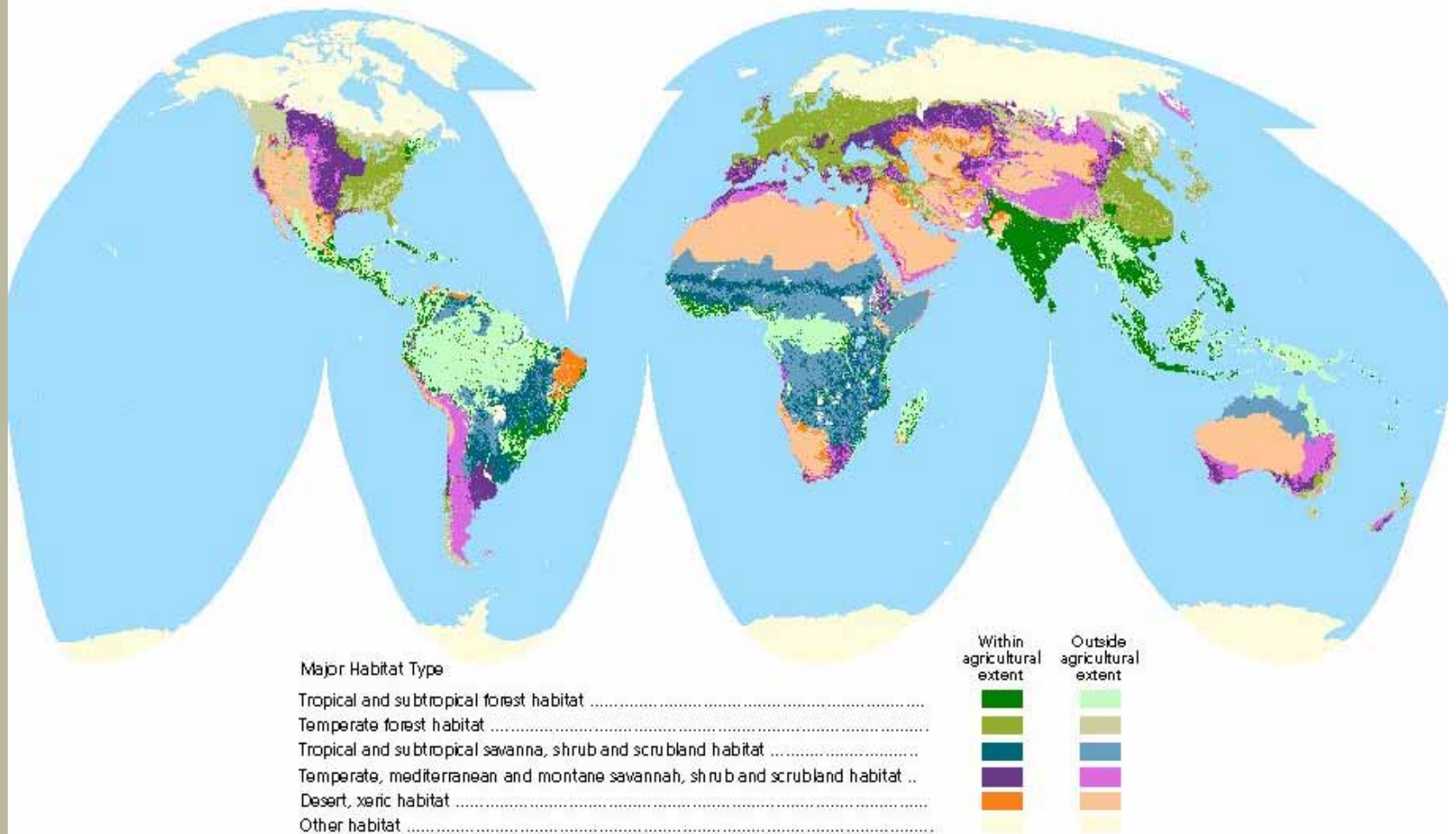
Intensive Agricultural Land Use by Subbasin



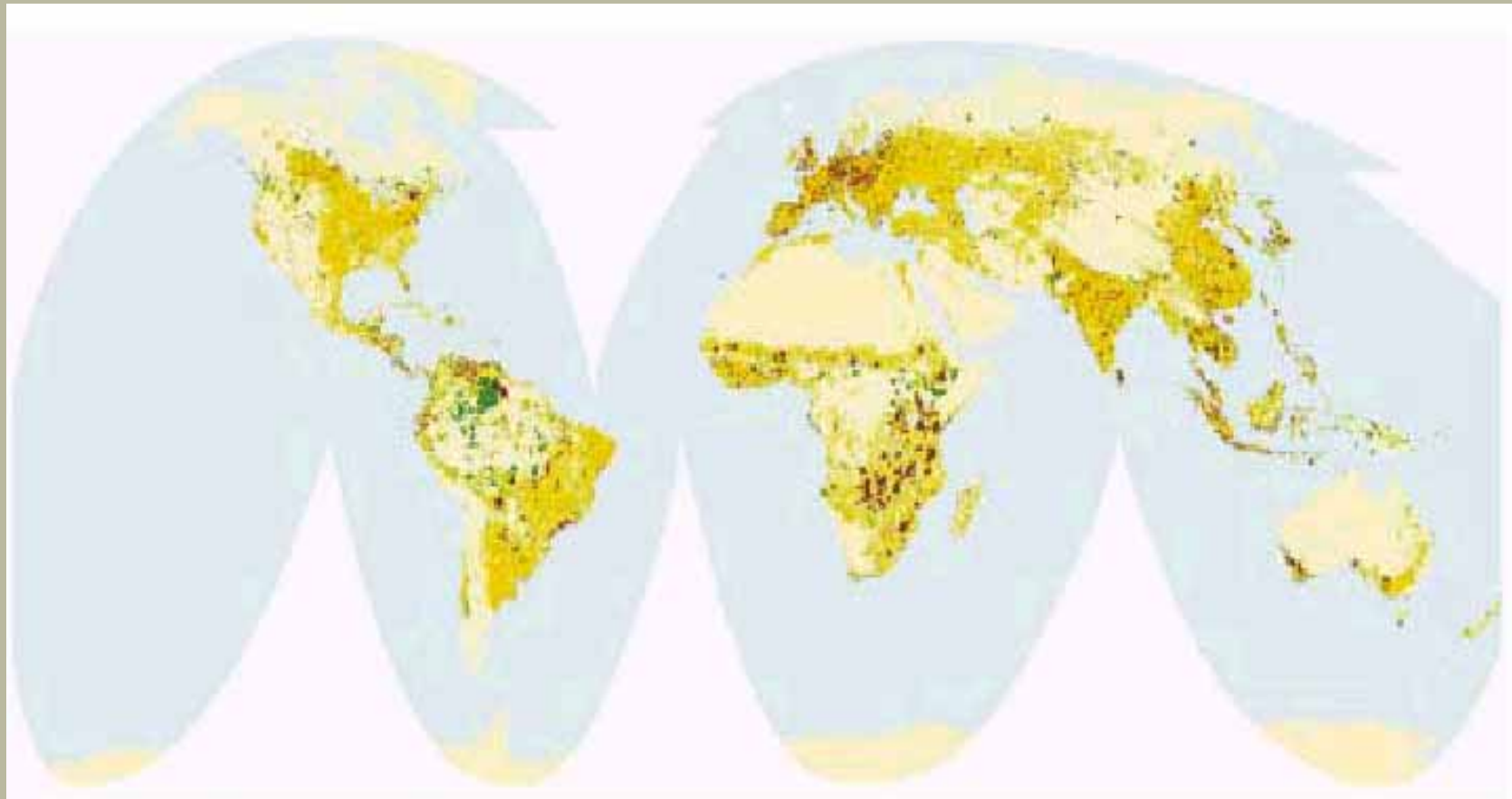
Source: GLCCD, 1996. Watershed boundaries are from EDC 1999.

Projection: Interrupted Goode's Homolosine

Overlay of Agricultural Land and Major Habitats



Overlay of Agricultural Lands and Protected Areas



Agricultural share of protected area (percent)



1-5



5-30



30-100

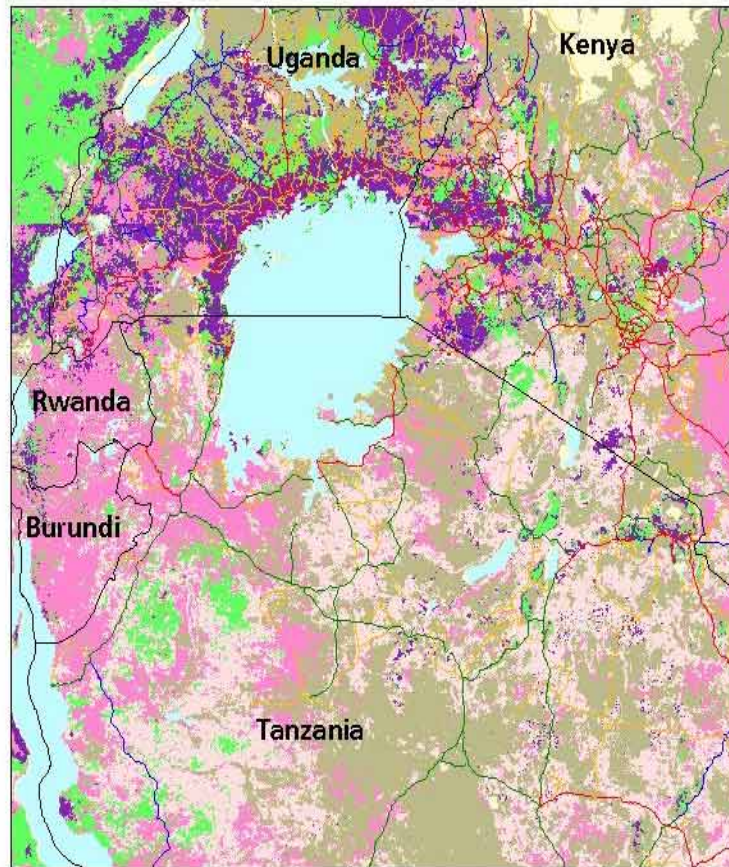


Within the extent of agriculture

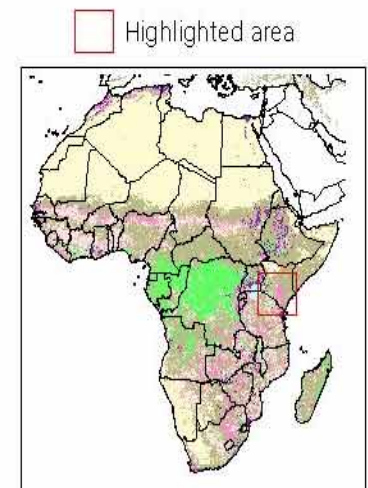


Outside the extent of agriculture

Land Use Fragmentation around Lake Victoria, East Africa



Scale 1: 10,000,000



Source: Sebastian 2001.

Projection: Interrupted Goode's Homolosine

Notes: The percent agricultural land cover includes areas with greater than 30 percent agriculture, based on a reinterpretation of GLCCD 1998 (Wood et al. 2000). The road network data was digitized by World Resources Institute (see Wood et al. 1999).

“Ecoagriculture”

Landscapes managed for production of both agricultural products and ecosystem services

Putting food and livelihood security at the center of environmental conservation

www.ecoagriculturepartners.org

1) Make space for wild species in ag'l landscapes

- Create biodiversity reserves that also benefit local farming communities
- Develop habitat networks in “in-between” spaces, compatible with farming
- Prevent (or reverse) conversion of wild lands to agriculture by raising the productivity of land already being farmed

2) Enhance habitat quality of productive farmlands

- Reduce agricultural pollution by new methods of nutrient and pest mgmt, and farm and waterway filters
- Modify management of soil, water and natural vegetation to enhance habitat quality
- Modify the mix of agricultural species (esp. perennials) to mimic the structure and function of natural ecosystems

Issues for Discussion

- What risks do agriculture-related businesses face in managing ecosystem services throughout the value chain?
- What opportunities does improved ecosystem management present for agriculture-related businesses?