



SUPPORTING FOREST TENURE, POLICY AND MARKET

# **Keeping Forestlands in Forests:** Realizing Value in Ecosystem Services

Sally Collins, RRI Fellow Joint Annual Meeting, OR/WA Societies of **American Foresters** May 11, 2011

























Rights and Resources is a global coalition to advance forest tenure, policy and market reforms.

The mission is to promote greater global action on pro-poor forest policy and market reforms to increase household and community ownership, control, and benefits from forests and trees.



# RIGHTS + RESOURCES INITIATIVE

"When considering any new forest policy, we have to remember that under all of those trees are lots of people."

are lots of people..."

Grace T Balewag
Deputy Coordinator of Climate Change,
Tebtebba, Philippines
Tenure Workshop, Beijing, China
November 2010



# RIGHTS + RESOURCES INITIATIVE



# Ecosystem Services....

Is a framework that places people in the center of the ecosystem:

"The benefits people obtain from nature, such as pollination, water purification, flood control, carbon sequestration"



# Trends: Land Tenure

# Tenure is shifting from government ownership to community and household ownership

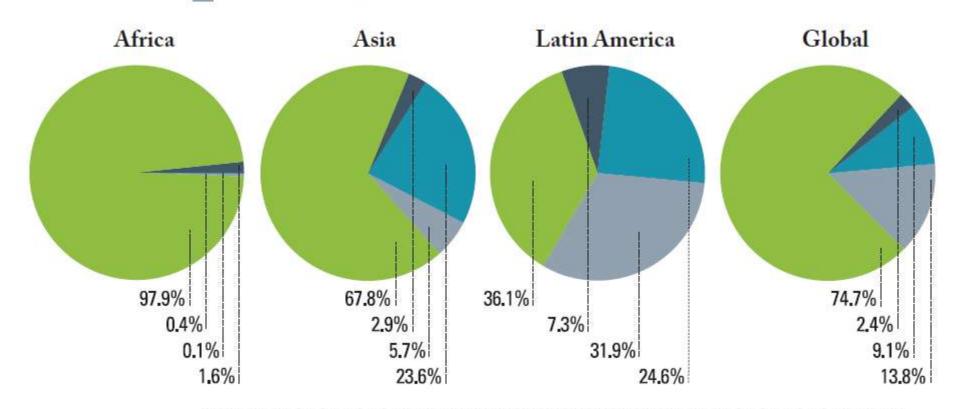
This is "sorting out the public domain"

- Europe underwent these changes in 16<sup>th</sup> 18<sup>th</sup> century
- US West underwent a major shift in  $18^{th} 19^{th}$  century
- The developing world undergoing these shifts today



# Trends: Forest Tenure Distribution, 2008

- Administered by Government
- Owned by communities & indigenous peoples
- Designated for use by communities & indigenous peoples
- Owned by individuals & firms



SOURCES: Sunderlin et al. 2008; ITTO/RRI 2009. Data includes 36 of the world's most forested countries, representing 85% of world forests.<sup>4</sup>



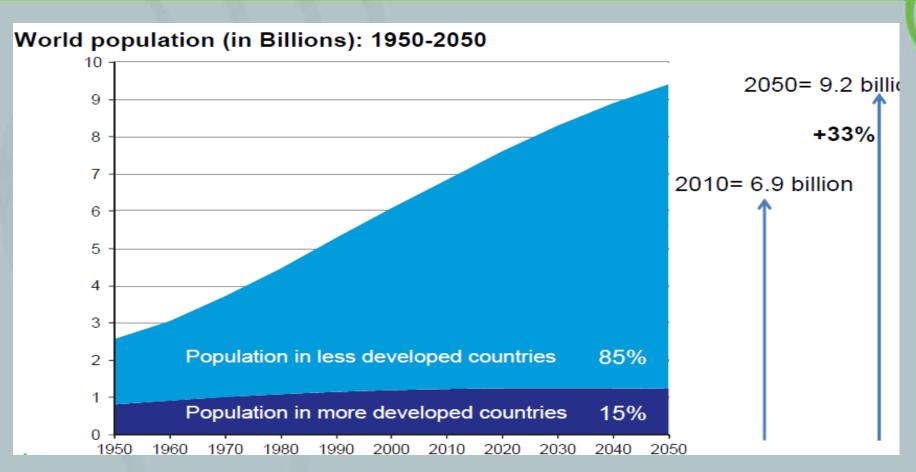
### Trends: The Global Land Grab

- Land sales in past two years=100m ac/yr
- Expansion of agricultural land seems unlikely to slow
- Weak tenured/governed areas the prime target (Africa)





# Trends: Population Increasing in the Developing World



Source: United Nations Population Division, World Population Prospects: The 2006 Revision (from Nilsson, 2010)



# Trends: Decrease in Available Land

# Our Shrinking Earth



YEAR
Hectares of Land Per Capita

Sten Nilsson, IIASA



### Trends: Demand for Food to Increase

- Demand for food will rise by 50% by 2030; meat by 85%
- But yields are showing diminishing returns (2% growth 1970-90; 1.1% 1990-2007)
- Source of land? Forests are the most productive lands...



# Trends: Demand for Energy to Increase

- Energy demand: 3-time increase by 2050
- Biofuels will require land too: Biofuels demand expected to lead to conversion of between 45-100m acres of land by 2030





# Finding Value in ecosystem services...

"The degradation of ecosystem services represents loss of a capital asset."

Millennium Ecosystem Assessment

Place economic value on natural assets currently "outside the market"

Compensate producers of environmental public goods and services





# Types of markets

#### **Payments for Ecosystem Services (PES)**

Most prominent world-wide; traditional or new outcome-based incentives

e.g. NYC watershed payments to upstream landowners; Denver Water Board; Santa Fe; Viet Nam; Mexico; China...

#### **Voluntary, Over the Counter (OTC) exchanges**

Usually in the absence of regulation e.g. OTC retail carbon, project-based

#### **Compliance Markets**

Regulatory standards or pollution caps; driven primarily by lower cost e.g. carbon cap-and-trade; wetland mitigation banks



# Compliance Markets: How they Work

Adam Davis, Solano Partners

Environmental Harm	$\rightarrow$	Regulation Market Structure	
air pollution	>	Clean Air Act	
species endangerment	$\geq$	<b>Endangered Species Act</b>	
overfishing	<u> </u>	NOAA	
wetland loss		Clean Water Act	
sprawl, imp. surface loss	<u>&gt;</u>	local land use regulation	
nitrogen runoff	<u>&gt;</u>	Clean Water Act	
Ntl. Resource Damages	<u>&gt;</u>	CERCLA	
climate change	>	AB32, RGGI, voluntary	



# The government innovation of incentives

Adam Davis, Solano Partners

<b>Environmental Harm</b>		Market Structure	
air pollution	>	SO <sub>2</sub> trading	
species endangerment	<u>&gt;</u>	conservation banking	
overfishing	<u>&gt;</u>	total allowable catch & ITQ	
wetland loss	<u>&gt;</u>	wetland mitigation banking	
sprawl, imp. surface loss	$\geq$	TDR's	
nitrogen runoff	<u>&gt;</u>	TMDL's	
Ntl. Resource Damages	<u>&gt;</u>	DSAY's	
climate change	<u>&gt;</u>	CO <sub>2</sub> trading	



# E-Sector market activity is robust & growing

Adam Davis, Solano Partners





# A pattern emerges from early innovations

Adam Davis, Solano Partners

# LIMIT

- "no net loss"
- "cap and trade"
- "individual tradable quota"
- "total maximum daily load"

#### UNIT

- functional acres
- tons CO<sub>2</sub>e
- · Ibs of fish landed
- Ibs of N reduction



#### **GEOGRAPHY**

- service area
- historical range of species
- fishery
- watershed

### **TRANSFER**

- mitigation bank
- conservation bambitigation
- catch shares

bank

water quality trading



# A portfolio approach to forest management



traditional products: food and fiber





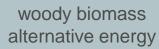


+





green products: eco-labeling





#### **Ecosystem Markets:**



species habitat



standing carbon



water quality/wetlands



# Institutionalizing Ecosystem Service Values

- Project Planning/Trade-Off Analysis
- Appraisals
- Court Settlements
- Public Land Management
- Public Conservation Payment Programs, a bit redesigned
- Corporate Decision-making



Corporate/Business Decisions—Weyerhaeuser, Forest Capital Partners, ForestSystems, DOW Chemical, Coca Cola...Public Utilities, Energy Production, Agriculture...

World Business Council's announcement May 3, 2011 a Framework on Corporate Ecosystem Services Valuation

•To Strengthen business performance by saving money, finding new revenue streams from underutilized resources, reducing tax burdens, reducing environmental risks...



# Final Thoughts on Ecosystem Services What I like about it

- 1. It offers a new way to incorporate all forest values...beyond real estate and timber
- 2. Markets send a price signal, placing these values squarely in the marketplace and signaling a value useful in decision-making (appraisals, trade-off analysis...)
- 3. It forces cross-sectoral work. Forest Loss is being driven by sectors other than forestry, so solutions to protecting forest ecosystem services require policy work across sectors: agriculture, energy, community development...
- 4. Ecosystem Services markets introduce a new vocabulary thus a new mind-set for forestry and conservation that is powerful and inclusive of people and their needs...
- 5. Recognizes the role of people in the ecosystem



# Final Thoughts on Ecosystem Services: Next Steps

- 1. Be the leader you want to see
- 2. Experiment and learn where you are
- 3. Read and write about it, share it
- 4. Connect with others who are doing the same
- 5. Know that this is a emerging field—it takes time and investment

I plead for public encouragement, economic and moral, for the landowner that conserves the public values of which he is the custodian. The search for practicable vehicles to carry that encouragement is a soluble one...Those charged with the search for such a vehicle must first seek to intellectually encompass the whole situation. It may mean something far more profound that I have foreseen.

Aldo Leopold Land Pathology, 1935



### RIGHTS + RESOURCES INITIATIVE

www.rightsandresources.org

#### Finally... for the market skeptics...

The truth is that the virtues that all of us here admire most and the virtues that make society flourish — hard work, taking responsibility, being honest, being enterprising, being fair — these are not the values that spring **from** the market. These are the values we bring **to** the market. They don't come from market forces. They come from our hearts.

Prime Minister Gordon Brown St. Paul's Cathedral April 2009



# RIGHTS + RESOURCES INITIATIVE

www.rightsandresources.org

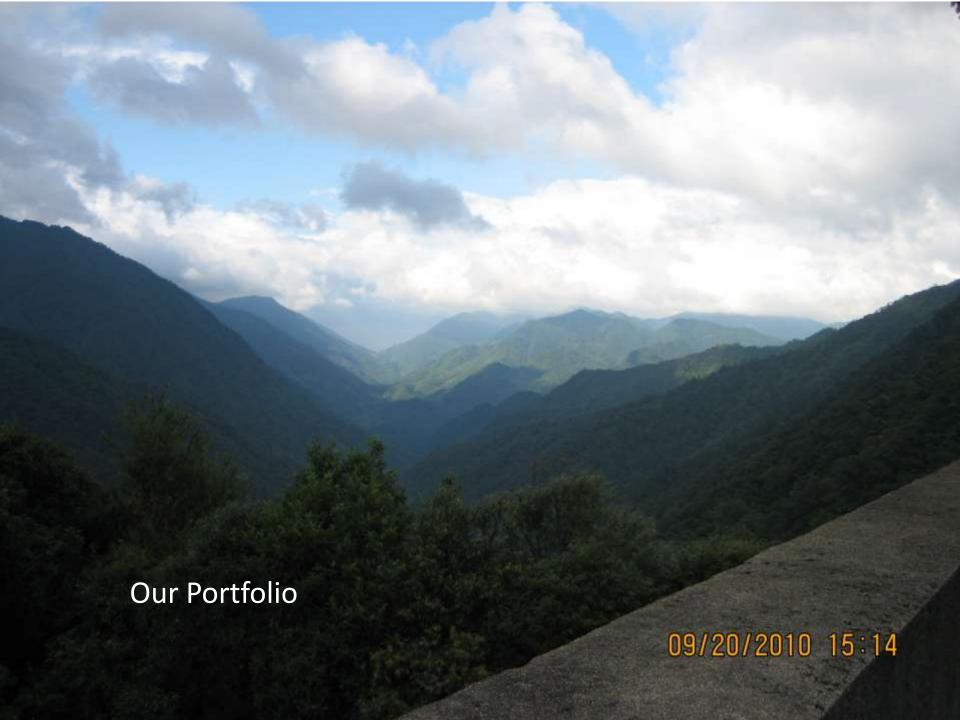


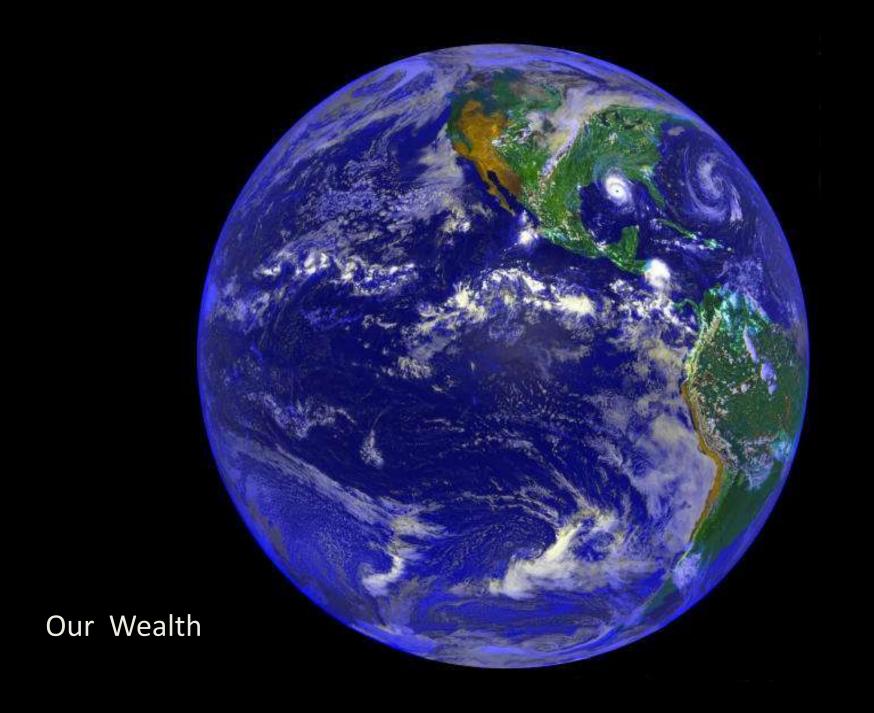












Rights and Resources is a global coalition to advance forest tenure, policy and market reforms.

The mission is to promote greater global action on pro-poor forest policy and market reforms to increase household and community ownership, control, and benefits from forests and trees.

Sally Collins, RRI Fellow scollins@rightsandresources.org



# RIGHTS + RESOURCES INITIATIVE