

Forest LandCare and Forest Sustainability

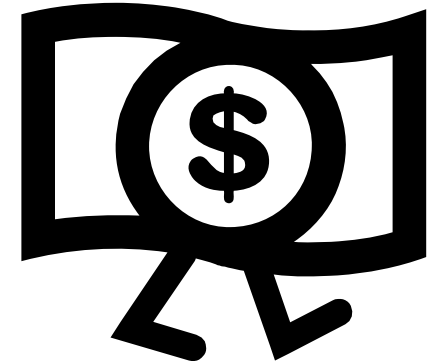


Forest LandCare and Forest Sustainability

- Bruce Hull
 - Professor, College Natural Resources, Virginia Tech; hullrb@vt.edu
 - Social Ecologist
- Outline
 - Trends shaping forest sustainability
 - Landcare as a response (**US context**)

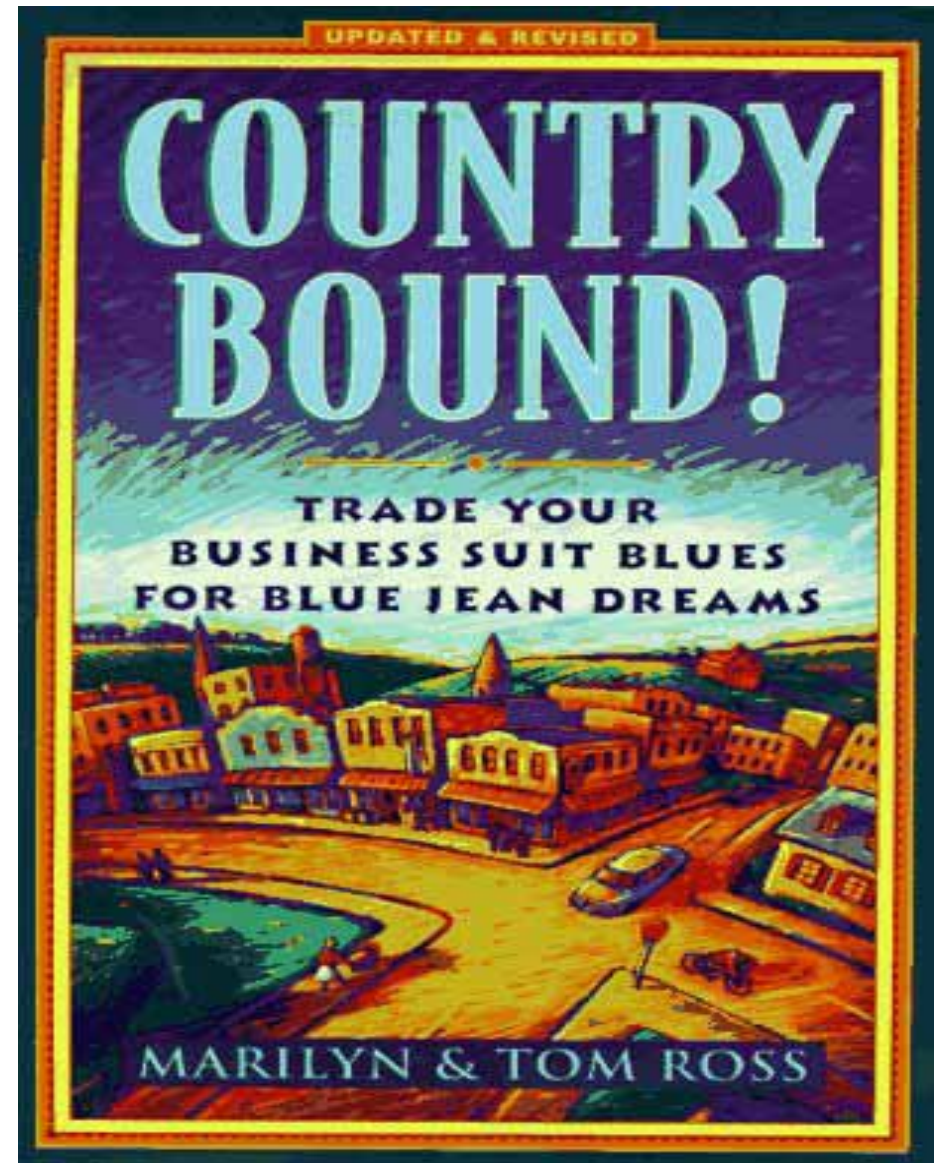
Globalization & Innovation

- Industry Relocation
 - Land to TIMOs & TNC
 - Fewer US mills...
- Ample Timber Supply
 - Efficient fiber farms
- Competitive commodity pricing
 - Prices flat or declining
- Declining professional capacity

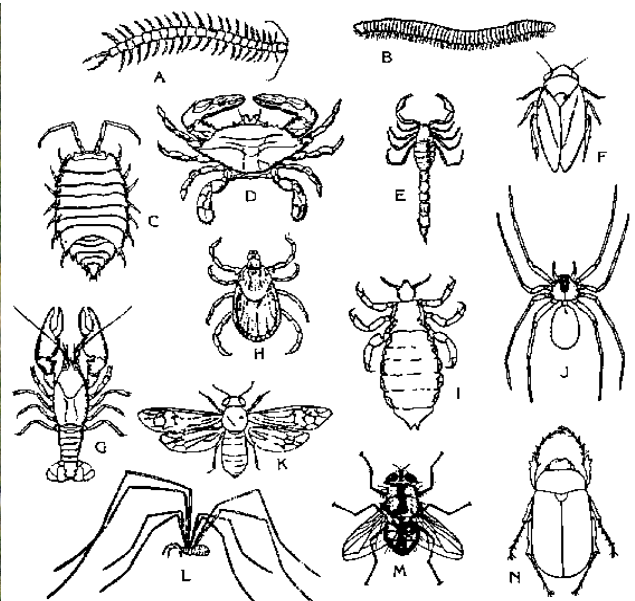


Urbanization and Fragmentation

- Residential forest more profitable than timber
 - Timber \$ barely pays taxes
- Magnitude of change
 - 27% of private lands (US) had at least 1 house every 40 acres (from 5% in 1950)
 - Short Tenure (7 year?)
- New owners:
 - Amenity oriented but footloose
 - Unable to find professional mgt
- Mounting Environ Impact
 - Ecosystem services, pests, fire,...



Implications



- Smaller Parcels reduce Economies of Scale
- Real estate more valuable than forest
- Ecosystem processes cross property boundaries
 - Water quantity and quality, drought, flood
 - Fire, exotics, pests, biodiversity
- Too many of owners for traditional outreach
- Less capacity to manage forest health

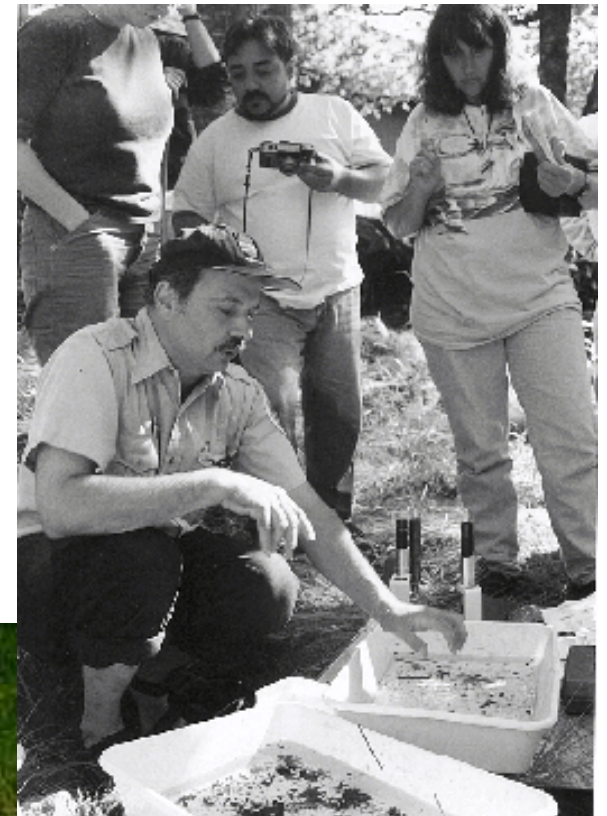
LandCare

- Growing Interest
 - Australia, South Africa, Philippines.....
 - USDA, EPA, ...
- Landowner-led, location-based, and state supported
- Triple bottom line
- Facilitators Networked & Coached
- Vertical and Horizontal networks



Whole Land Planning

- Biodiversity
- Forest
- Cattle
- Crops
- Water
- Tourism
- Scenery
- Herbs
- Energy
- Etc.



Teachers



Blue Ridge Forest Cooperative

- Harry: local entrepreneur & community leader
- *Partnering* with local businesses, university, NGOs & landowners
- \$ from investors, foundations and USDA to start a self-replicating business
- Find forest owners interested in triple bottom line
- Hires local professionals to develop forest plan, harvest and process timber



- Pay landowner and logger premium to implement plan
 - Restorative forestry
 - Premium paid with profits from value added processing
- Processes low value logs into flooring, etc
- Sells unfinished high-value logs
- Aggressive marketing attracts forest owners and product buyers



Desired Outcomes

- Landowner Benefits
 - *Trusted* knowledge
 - Affordable management
 - Increased property value
 - Available labor, equipment
 - Profit, economies of scale
- Environmental benefits
 - Coordinated forest health
 - Water, habitat, sustain
 - Keep forests forested
- Community Benefits
 - Value added economy
 - Political clout
 - Community capacity



LandCare as Sustainability

- Rural and urban dimensions
- Builds local capacity for collaborative conservation
 - Horizontal networks within community sustain capacity
 - Vertical networks to experts, funding, examples,
- A Land Ethic as well as Land Practice
- National Summit at Va Tech Oct 2007

Fine

- End
- Detailed case studies available

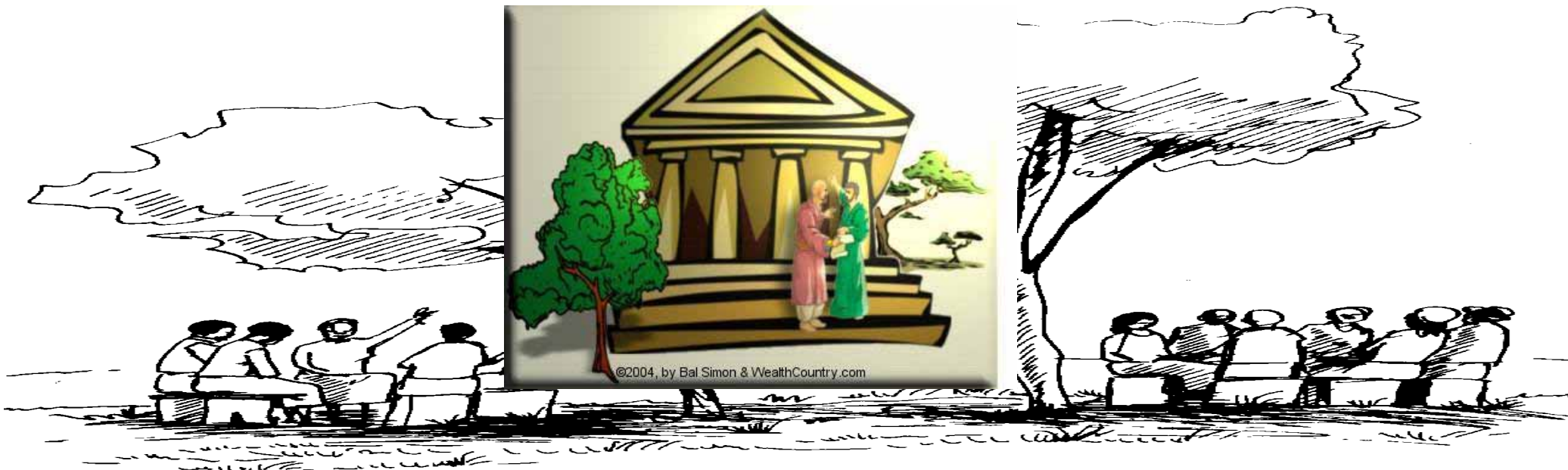
Globalization: Implications

- Less incentive to actively manage
 - Little money for landowner
- Local forests lose
 - Equipment
 - Experts
 - \$ to fund forest management
 - Tax base

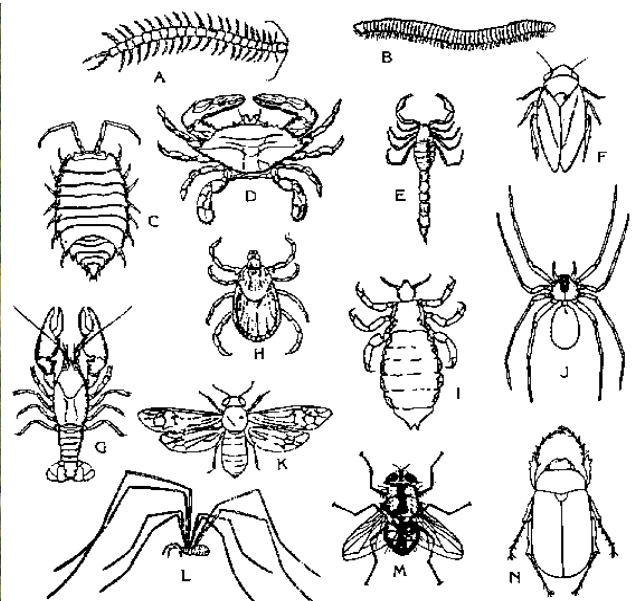


Collaboration: Implications

- Forest expert has less and less power
 - One voice among many
 - Do what *can* be done, not what *should* be done
- Local and market based solutions



Urbanization: Implications



- Smaller Parcels reduce Economies of Scale
- Amenity harvesting costs more
- New class of environmental “problems” require mgt.
 - Water quantity and quality, drought, flood
 - Fire restoration and control, exotics, pests
- Too many of owners for traditional outreach
 - # forest owners increasing faster than population

Other Co-op Strategies

- Address Greed/Need
 - Loans to landowners to address cash flow, invest in forest plan and TSI, etc.
 - Forest Bank: Annuity paid for timber
- Address Distrust of Foresters:
 - Trusted, qualified expertise, demonstration
- Certify, label and market products
 - Group certification and sales
- Make Management Affordable
 - Value added, vertical integration
 - Integrate management, harvesting, processing, sales
 - Afford restorative silviculture (worst first)

MACED

- Loans
- Plans
- Repay with profits from harvest

CFP

- Easement on timber
 - Sell timber rights
- Annual annuity in perpetuity
- FSC certified forest plan
- Silviculture and operations

Blue Ridge Forest Co-op

- Membership, FSC, stock
- Small scale, low impact harvest
- Transport, saw, dry, mill, store
- FSC sales to Europe, boutique sales locally

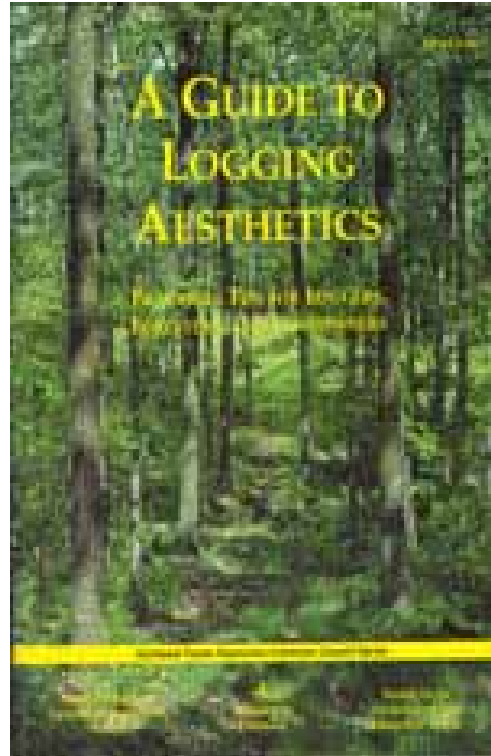
Challenge: New Owner Motivations

- Live simply, away from urban bustle, grow some healthy food
- Naturalism, protect the environment, wildlife habitat, spirituality
- Family, raise children, safe community
- Recreation, hiking, riding, scenery
- Income from timber, real estate, other



Strategy: New Techniques

- Aesthetic timber harvests
- Hike/bike trail design and location
- Trail erosion prevention
- Parking lots
- Wildlife
 - Attract & repel



Challenge: Image

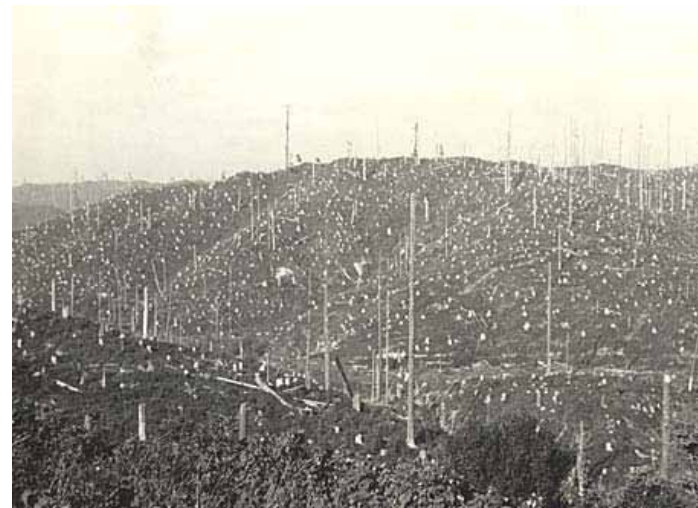


Are foresters trusted?
Are foresters
professional?
Is forestry held in high
regard?



Foresters are *more* interested in **cutting timber** than sustaining forest health.

Foresters are *more* interested in **making money** than sustaining forest health.



Strategy:

Professionalism and Cues-to-Care

- Interface landowners don't know how to evaluate the quality of forestry advice
 - Use indirect measures: Cues-to-care
- Language and communication style
- Staff appearances
- Equipment appearances
- On-site practices
- Project planning & logistics



Challenge: Too Many of Them, Not Enough of Us

- Forest Fragmentation
- # forest owners increasing faster than population
- Average owner sells every 7 years
- 5% of forest owners have forest plan





Strategy: Make Forest Management Profitable



- Create Markets
 - Hunt, recreate, bioenergy
 - Ecosystem services
 - Value added processing
 - Non-timber products
- Nurture Service Providers
 - Business planning assistance,
 - Design equipment for interface services,
 - Small business loans,
 - Trial programs
 - Lawn and garden
 - Cooperatives
- New Fee structure
 - Hourly not by volume

Strategy: New Partners

- NGOs and Land Trusts
- Master Naturalists, Gardeners, Foresters
- LandCare Groups
- Forest Activists
- Fire Department
- Watershed Councils



New Dawn Rising: Relevancy of Forests and Forestry

- Globalization, collaboration, ecologism, urbanization
- Common ground among forest industry, environmentalists, community development
- Public agencies and private consultants are responding



Fine

- end

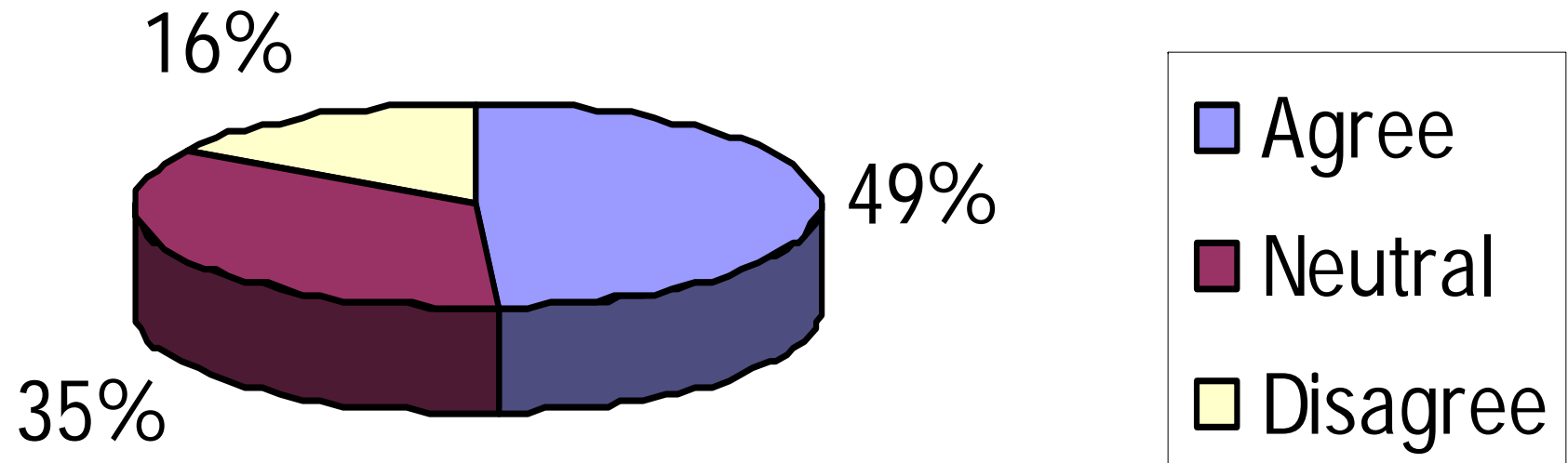
Strategy: New Management Techniques



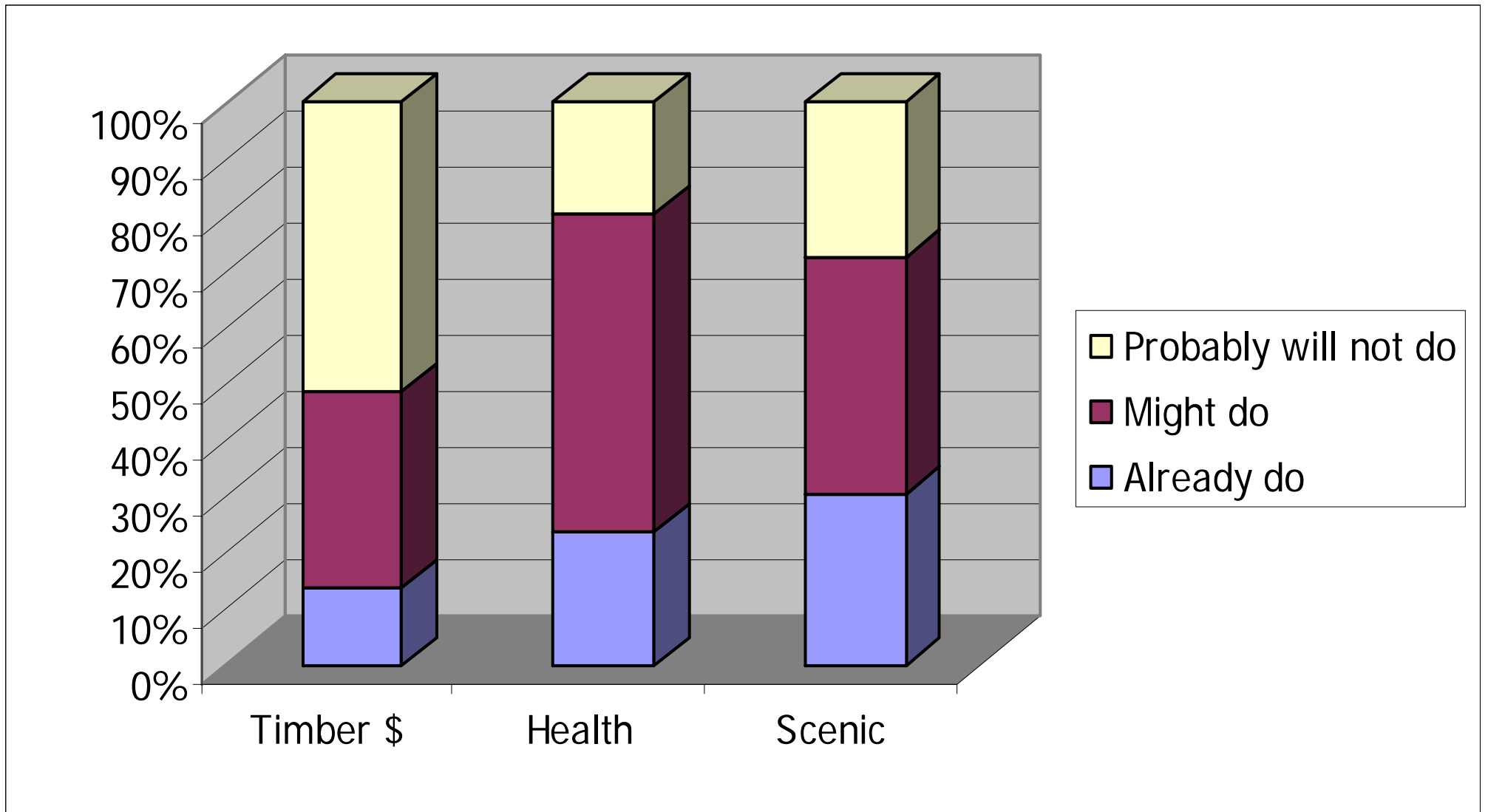
- New owners are inclined towards management, but
- More concerned about protecting amenities and ecological qualities than maximizing profit.



" I would be willing to accept **less money** from a timber sale if the logging actions protected other forest qualities."

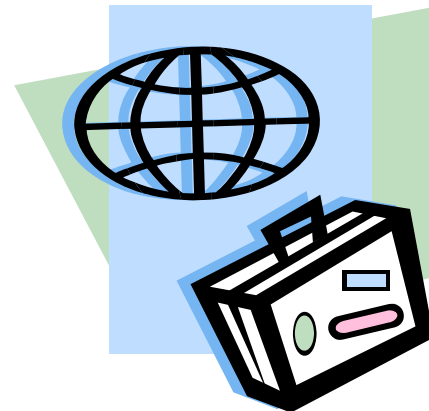


Willingness to cut trees for...



Trend 1: Globalizing Forest Industry

- Selling industry land: TIMOs, REITs, states, feds, TNC, ...
 - Timber rights sold and managed separately from mineral, water, hunting, recreation, biodiversity
- Rate of return rather than source of return
 - Value added from processing
 - Transportation and raw materials small % of profit
 - Economies of scale
- Ample Timber Supply
 - Agriculture: fiber farms
 - Hunt and gather: Cheap, unmanaged, wild forests



Strategy # 2

Provide Relevant Services

- New Skills
 - Small landholdings
 - Fire, scenery, wildlife, privacy
 - Multiple parties
- New Public Programs
 - Community groups
 - Outreach
- New Marketing
- New Delivery



Other Strategies

- Address Greed/Need
 - Loans to landowners to address cash flow, invest in forest plan and TSI, etc.
 - Forest Bank: Annuity paid for timber
- Address Image:
 - Trusted, qualified expertise, demonstration
- Certify, label and market products (i.e., HFHC)
- Value added, vertical integration
 - Integrate management, harvesting, processing, sales
 - Afford restorative silviculture (worst first)
 - Promote local economy, environ sustainability

MACED

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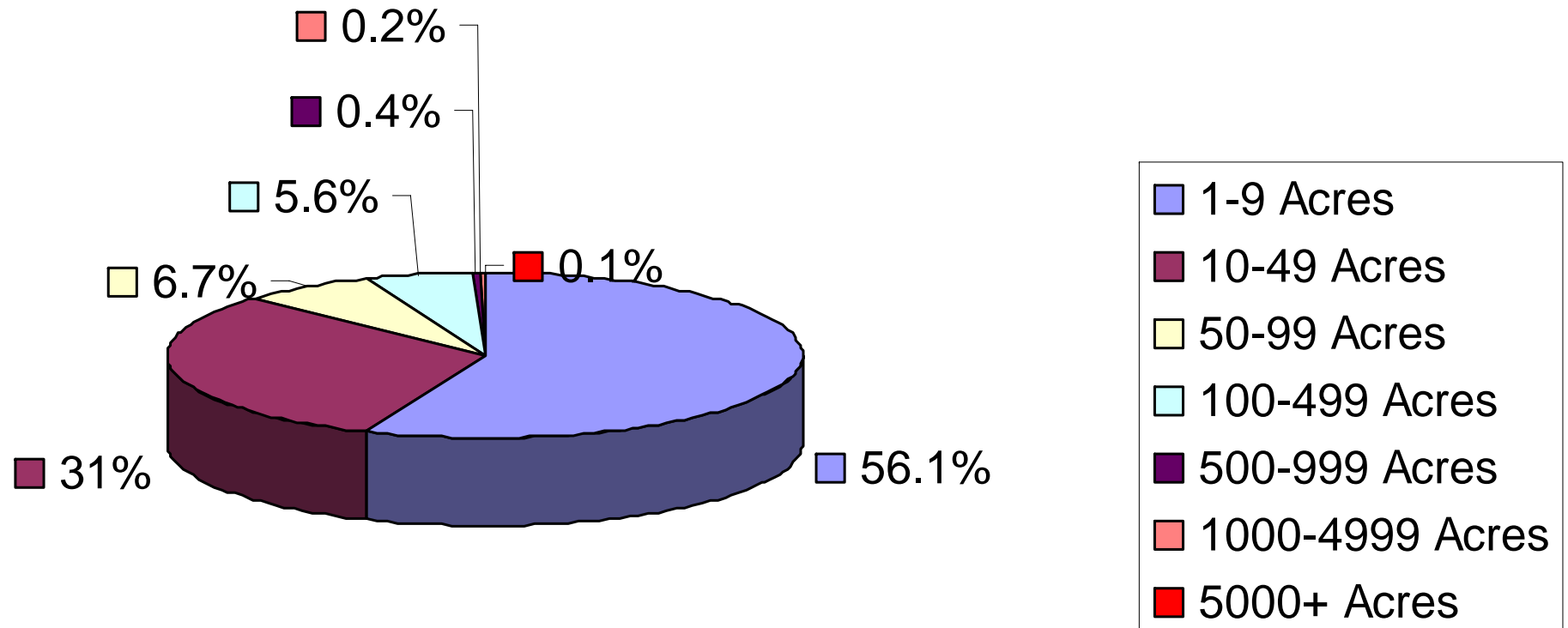
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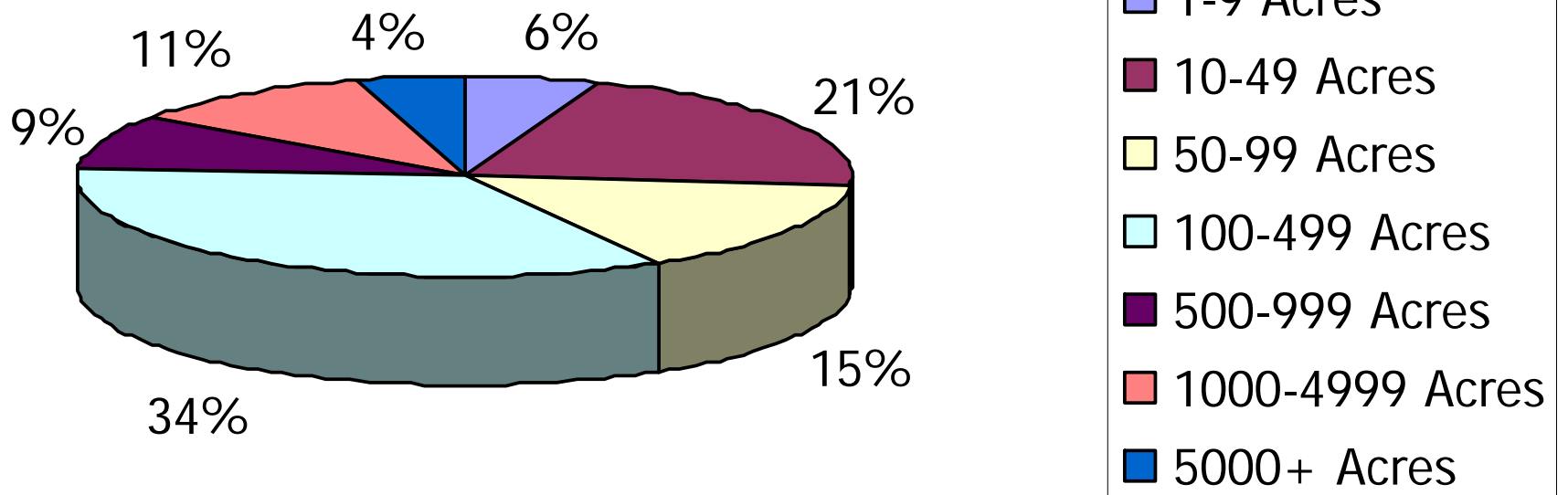
Blue Ridge Forest Co-op

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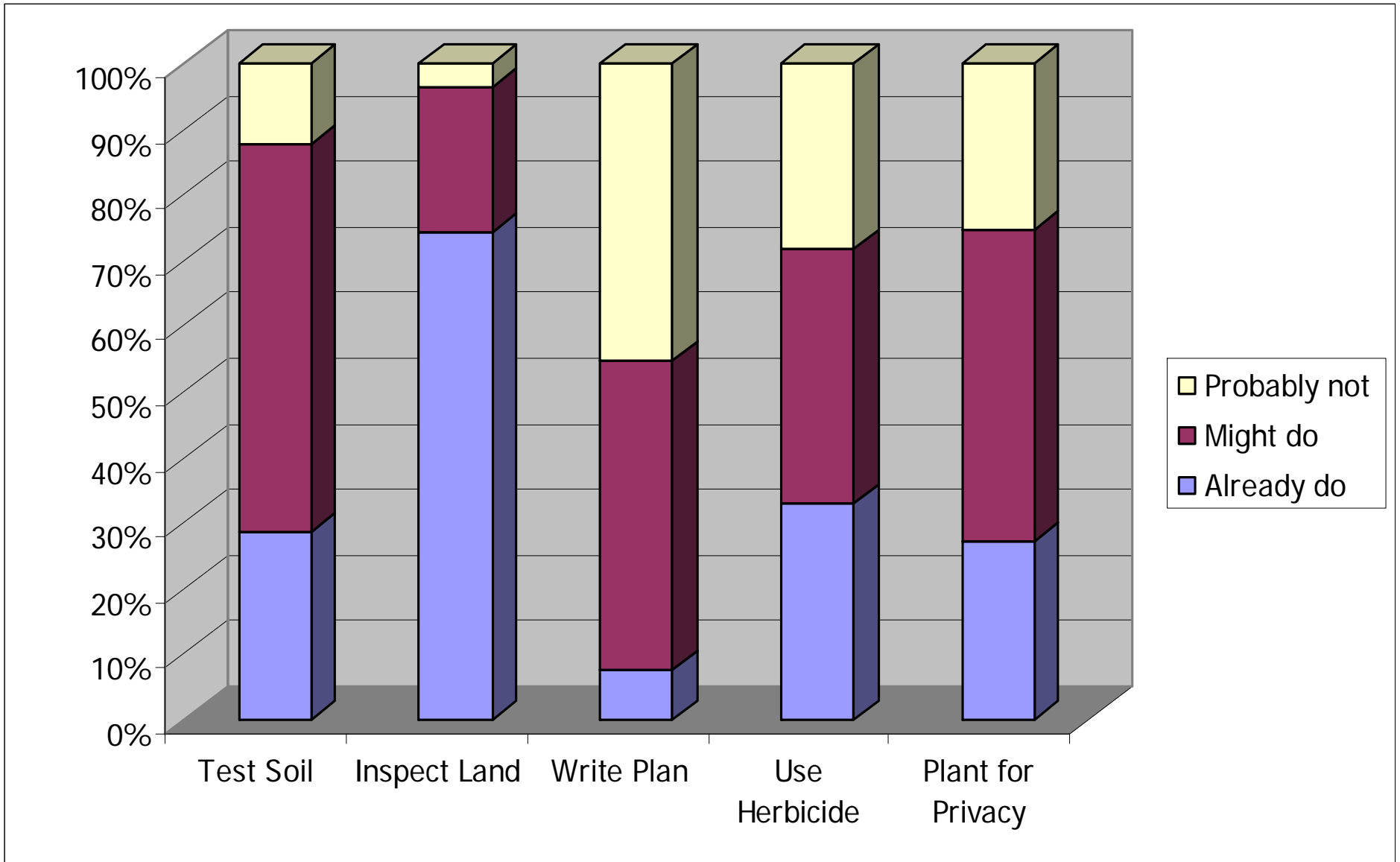
4,320,00 Owners of Family Forest (NIPFs) in the South



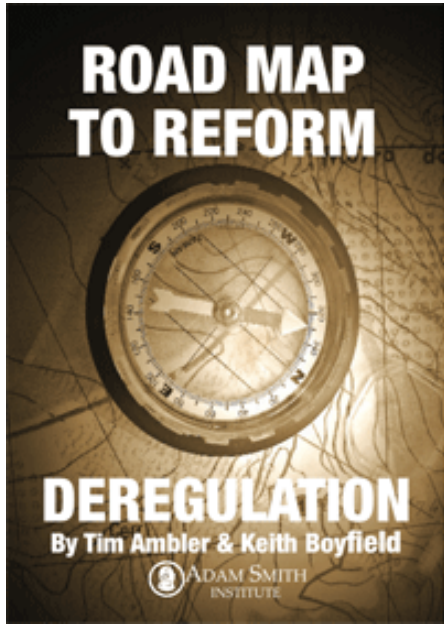
127,559,000 Acres in Family Forest



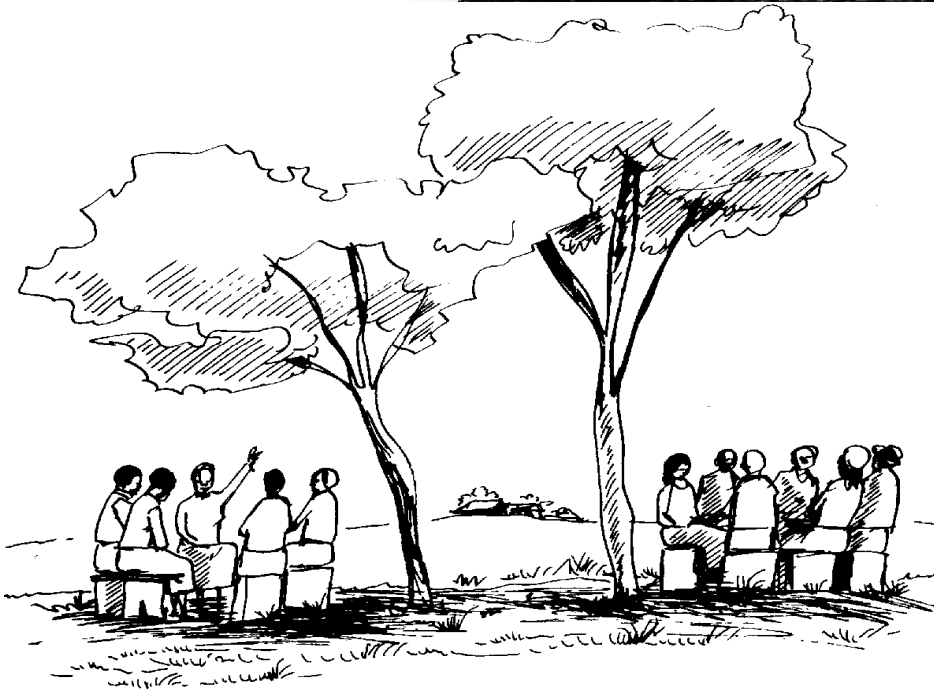
Willingness to...



Trend 2: Collaboration



- Deregulation
 - Decentralizing
 - Collaborative Conservation
 - Post-NEPA
- End of enlightenment
 - Failed rational planning (optimization)
 - Science wars (dueling experts).



Forest Conservation Strategies

- Conservation Easements, PDRs, TDRs, and other sandcastles on the beach
- Land use taxation
- Ecosystem service incentives
- Smart growth, zoning, regulation
- Make Forest Ownership Profitable
 - Forest Cooperatives
- Manage the Green Infrastructure
 - Forestry Cooperatives

“Cooperatives” Defined

- Local, grassroots, **voluntary**
- Leads to land **management**
- Adds **value** to products, moving it up supply chain to owner, circulating it through local economy
- Benefits **triple bottom line**
 - Economy, ecology, community
- ***Few successful forestry examples in US***

Types of Cooperative Ventures



- Landowner associations on steroids
- Partnerships with NGOs, business, landowners...
- “Virtual” web based marketing and management
- Land Trusts and Forest Banks
- Formal membership co-ops with fees & votes & by-laws

Appalachian Hardwood Examples

- **Appalachian Sustainable Development**
- *Blue Ridge Forest Co-op*
- Mountain Association for Community Economic Development
- TNC's Conservation Forest Program
- LandCare
- Massachusetts Woodland Coop

