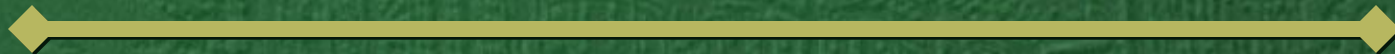


# *The Future of Forestry in the Pacific Northwest*



*B. Bruce Bare*

*Denman Forestry Issues Series*

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# *The Future of Forestry in the PNW*

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- Topics to discuss
  - Historic transition affecting natural resources and forest management
  - Forces that are impacting future change
  - Overview of Washington's forests
  - Major issues and opportunities



# *Changing Nature of Forestry in the PNW*

- 19<sup>th</sup> - 20<sup>th</sup> Centuries
- Agricultural Model
- Utilitarian
- Output oriented view
- Forest productivity
- Stand level
- Timber primacy  
(sustained yield)
- Multiple use & carrying capacity
- 21<sup>st</sup> Century
- Ecosystem Model
- Eco-centric
- State oriented view
- Forest resiliency
- Landscape level
- Multi-resource  
(sustainability)
- Integrated use

# Why a Paradigm Shift?

- Changing societal values of a growing, affluent, and urbanized population
- Growing awareness of the ecological and environmental implications of climate change and globalization of trade and business



# Why a Paradigm Shift?

- Recognition that we live on a human dominated planet, where
- Both natural and man-caused disturbances play significant roles in ecosystem health and resiliency

# Why a Paradigm Shift?



- Growing concern over loss of biodiversity in managed forests, fragmentation, invasive and endangered species, wildfire, clean water, recreation and forest health



# 21<sup>st</sup> Century Environment



- Combined, these influences have had a significant impact on the way we view our forests and how society expects them to be treated in the future
- Creates opportunities for the future

# College of Forest Resources: Mission

- Study and investigate the functionality and sustainability of natural resource systems
- Natural and managed environments
- Interdisciplinary approach across multiple spatial and temporal scales of urban, suburban and wildland landscapes



# Sustainability

- Sustainability is the common goal as it includes all natural resources
- Dynamic equilibrium that balances ecological functions and conditions with social and economic factors of the needs of future generations as well as those of the present

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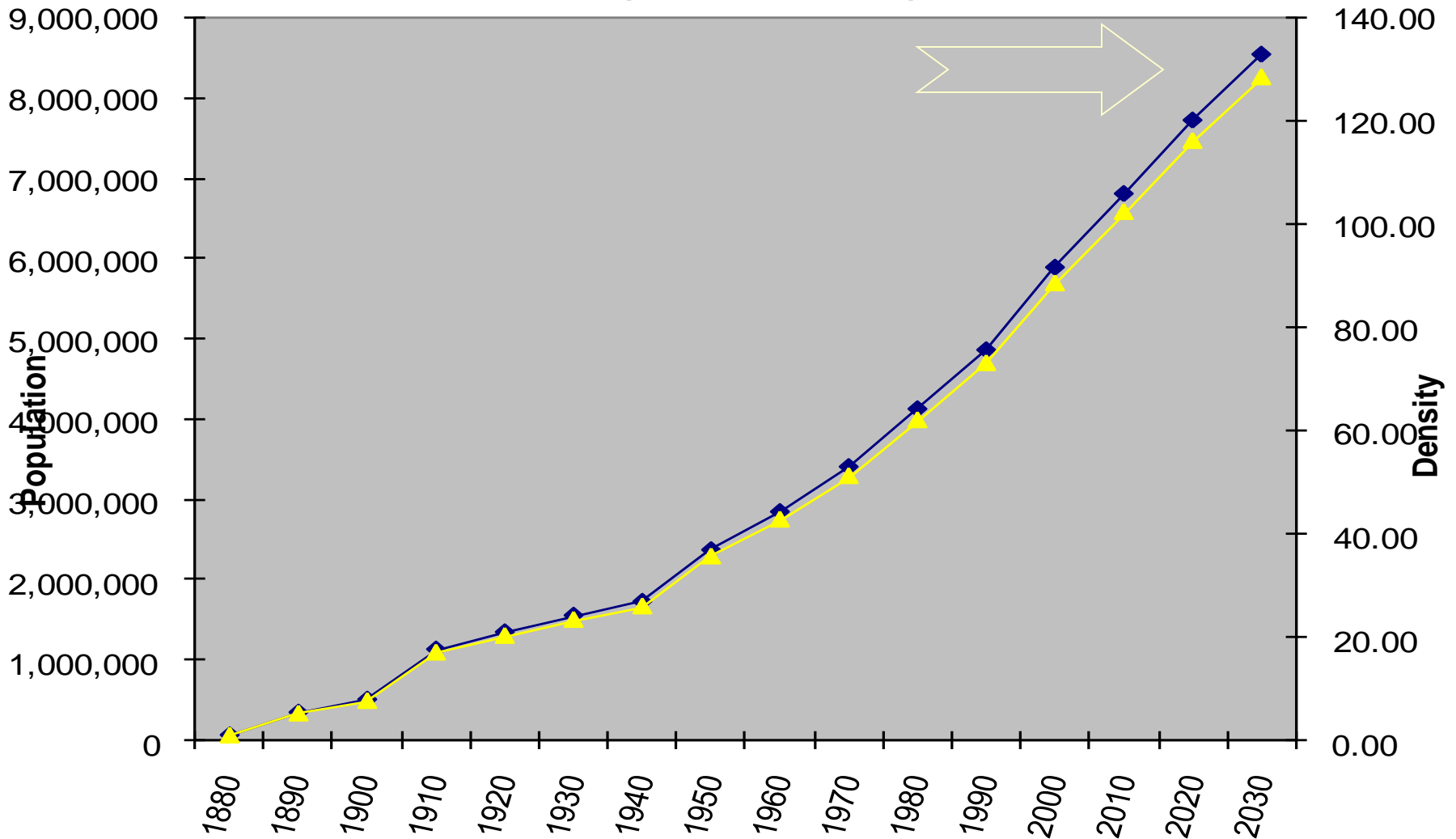
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# Forces Driving Change

- Affluent and growing population with more leisure time and disposable income
- Global climate change
- Global trade
- Renewable energy from woody biomass
- Forest health and restoration
- Desire to enhance biodiversity

## Washington State (OFM Estimate)





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# Washington's Forest Ownership

Public: 44%

Private: 56%

- Western Washington – 9.6 million acres (60%)
- Eastern Washington – 6.5 million acres (40%)
- Total -- 16 million acres (unreserved commercial timberland) and 22 million acres of total forest land



# Washington Timber Inventory Ownership

Public: 53%

Private: 47%

- 60 billion cu. ft. of inventory (250 billion bd. ft.)
- For comparison: USA consumed 21.3 BCF in 2005 (domestic and imported wood supply)
- 1.5 billion cu. ft. annual growth (~6.3 BBF)
- 1.4 billion cu. ft. annual removals

# Washington Timber Harvest (2003P)

Public: 19%\*

Private: 81%\*\*

\* WA DNR is 84% of the public harvest or 16% of the total

\*\* Includes all private owners with/without conversion facilities (TIMOs, REITs, MLPs) and Native American



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# *Issues and Opportunities*

- Build collaborative institutional arrangements and organizational networks
- Recognize risk and uncertainty in decision making
- Constant change – no steady state



# *Issues and Opportunities*

- Forests are being converted to non-forest uses – mostly private lands
- Excessive parcelization and fragmentation
- Lose of infrastructure of wood products industry
- Domestic and foreign competition are increasing and capturing market share

# *Issues and Opportunities*

- Forest health: overly dense forests; reduced tree vigor; prone to disease and insect attack; increased risk of wildfire; loss of biodiversity
- Biomass conversion for energy and transportation fuels



# *Issues and Opportunities*

- Land owner payments for ecosystem services -- carbon storage; biodiversity enhancements; water production; wildlife habitat; erosion control
- Direct development into rural villages or urban areas by using development rights
- Re-examine tax policy and regulations to reduce disincentives for working forests

# Summary

- Entering a new era that will require new thinking and models of forest stewardship
- Future will be very different from the past with many exciting opportunities and challenges
- Need a highly educated professional work force to deal with complexities and trade-offs measured across the three metrics of sustainability