Public Service Commission

Input to Renewable Portfolio Standard

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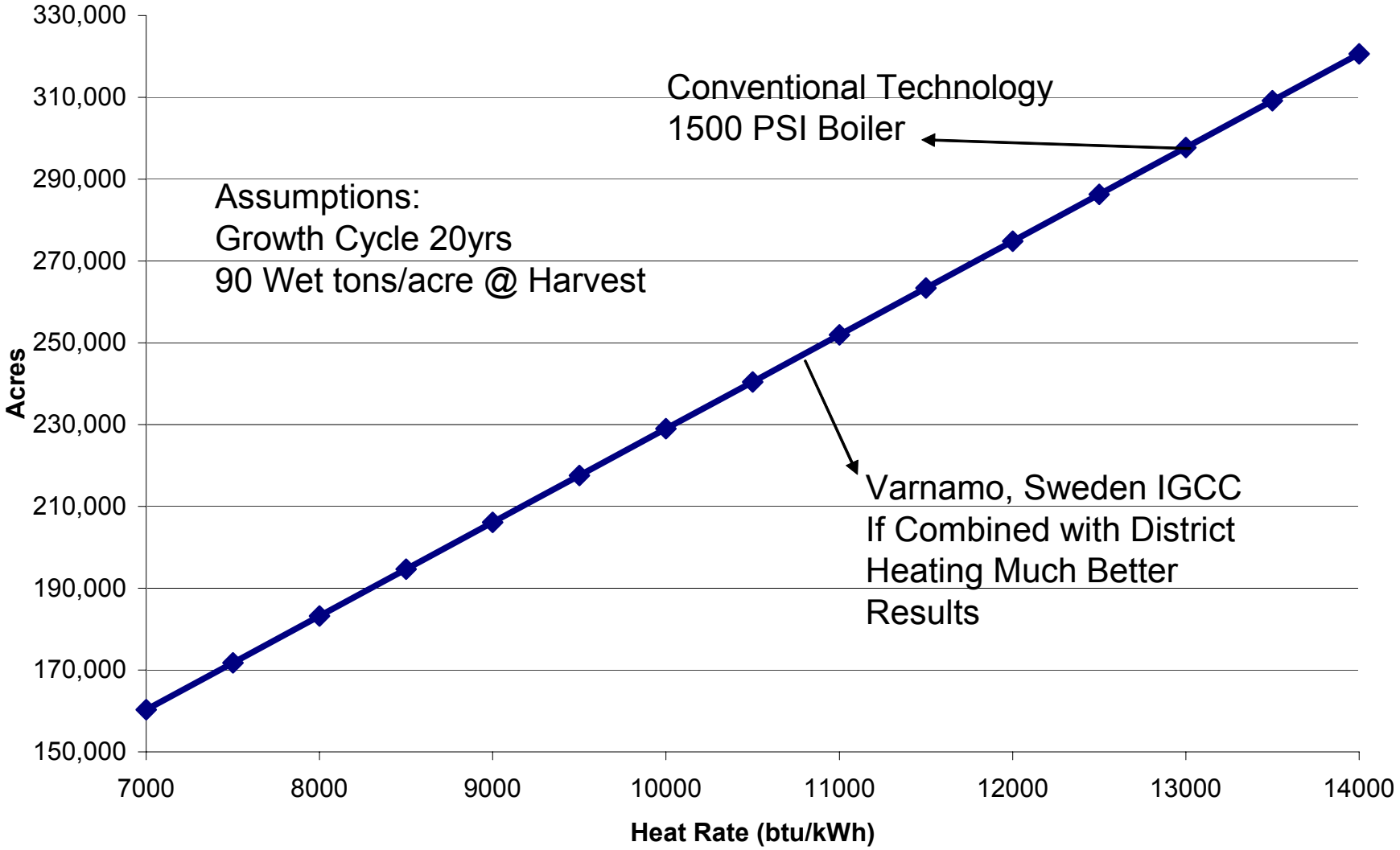
Support of Florida's Energy Vision

- Diversify Florida's electrical generation fuels to reduce greenhouse gas emissions.
- Increase the amount of electricity generated from renewable sources.
- Use more efficient technologies that require less biomass per Megawatt-hour generated.
- Utilize and manage Florida's natural resources in a sustainable manner.

Agenda

- Importance of Efficient Technologies
- Florida's Forest Resources
- Conclusions & Recommendations

Total Land for 100 MW Facility



Importance of Efficient Technologies

- Energy Assets have 20-30 Year Life
- Integration to Utilize all the Energy Will be Very Important for Future Generations
- If All the Cellulose is Used for Electrical Production, What about Cellulose Ethanol?

Florida's Forest Resources

Interim Data for Florida, 2005

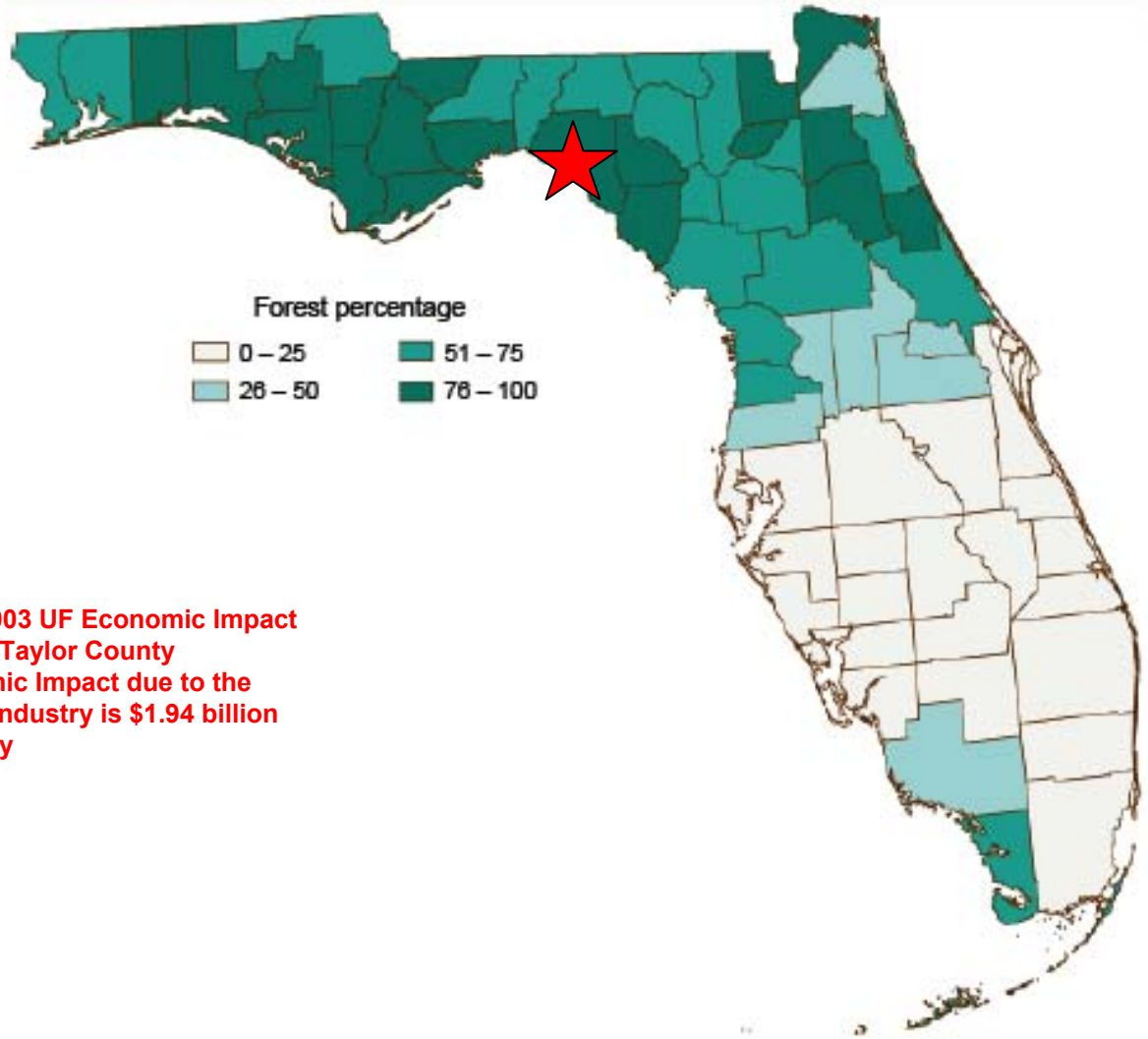
Data from US Forest Service Bulletins

“Florida’s Forests-2005 Update”
Published in July 2007

And

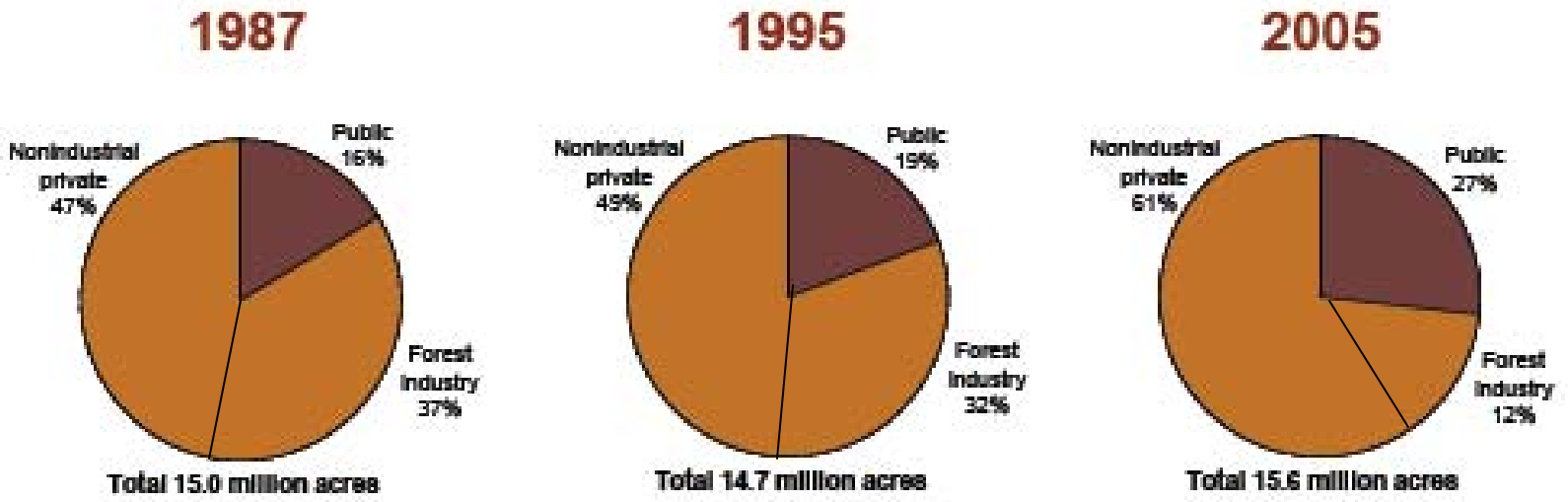
“Florida’s Timber Industry-An Assessment
Of Timber Product Output and Use, 2005”
Published in March of 2008

Forest Cover by County



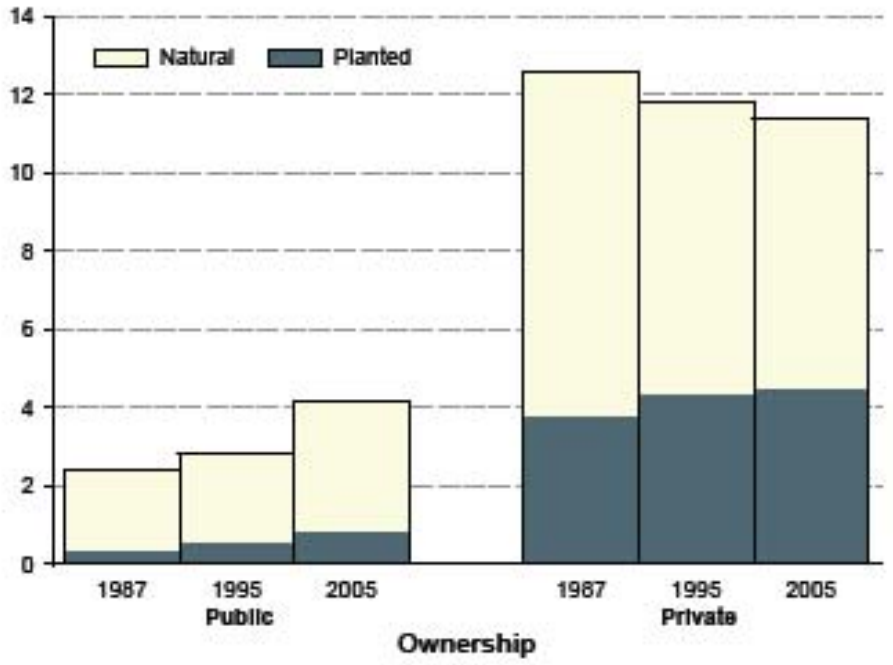
Per a 2003 UF Economic Impact Study - Taylor County Economic Impact due to the Forest Industry is $1.94 billion Annually

Timberland Area by Year and Ownership



27% of Florida's timberland area is owned by the state or federal governments and will NOT be used to support renewable energy production.

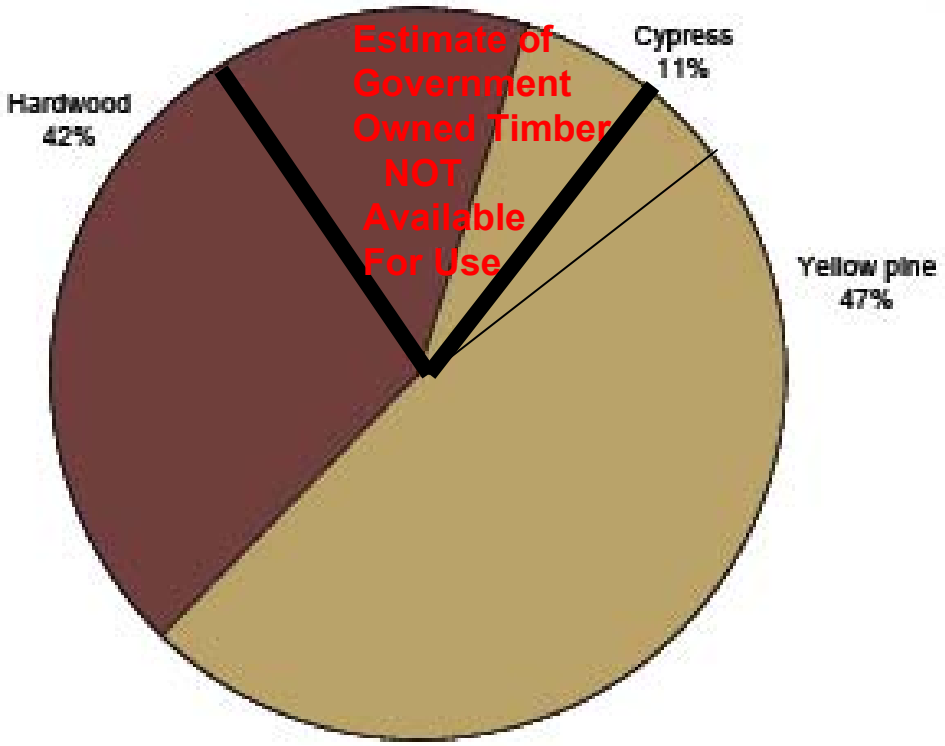
Area by Ownership and Stand Origin



Most of the Public Lands are Natural Timber (Primarily Hardwood and Cypress).

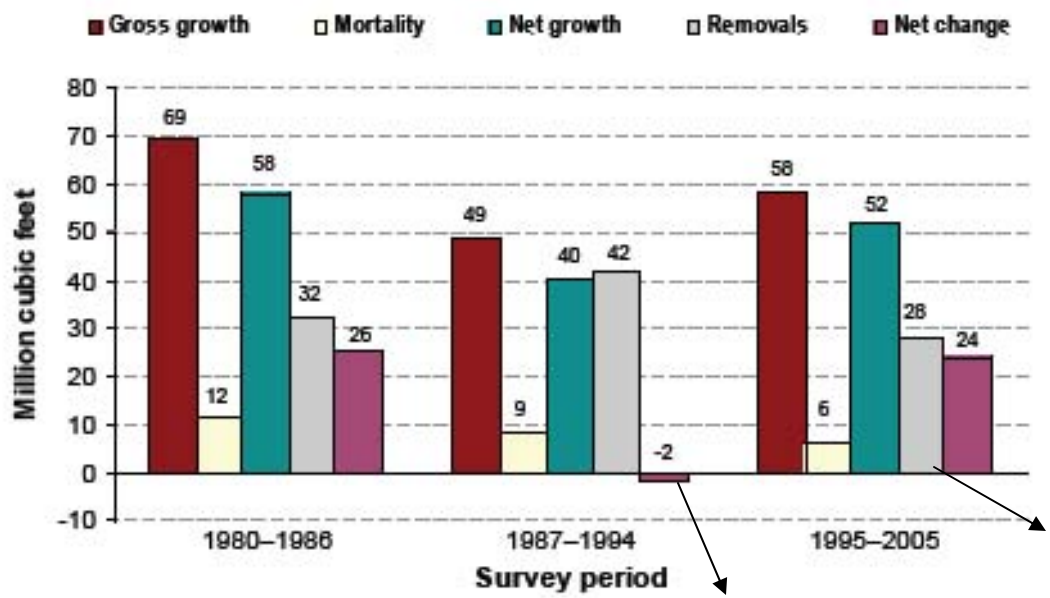
Public Lands Natural Timber is Approximately 35% of All Natural Timber in Florida

All Live Volume by Species Group, 2005



Total 18.7 billion cubic feet

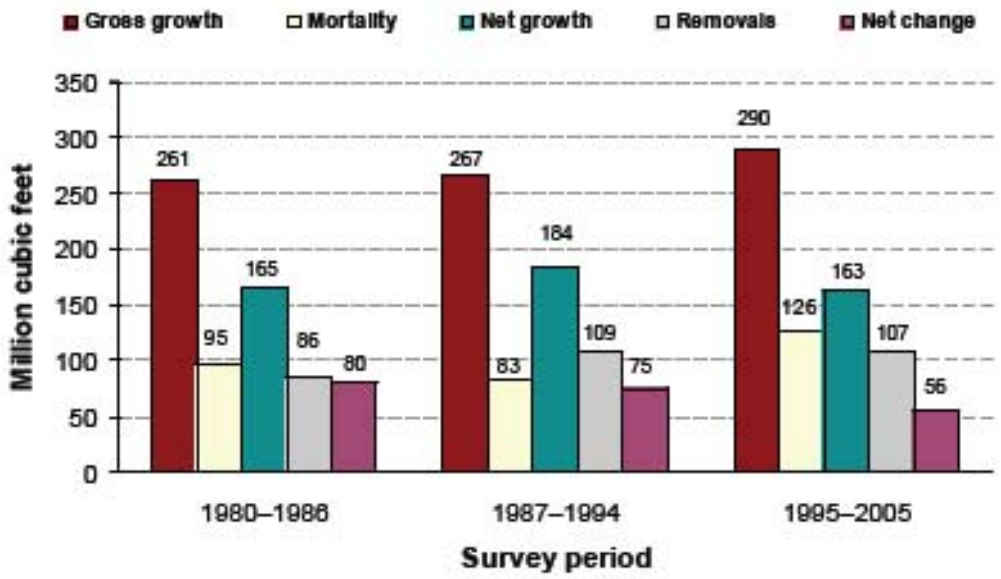
Average Annual Components of Change for Cypress



Less Cypress Being Grown in Florida in 2005 vs. 1980

NOT Likely that Cypress Will be Used for Renewable Energy Production Although it is Rebounding Since 1994 Due to 33% Lower Harvest Levels vs. Previous Period

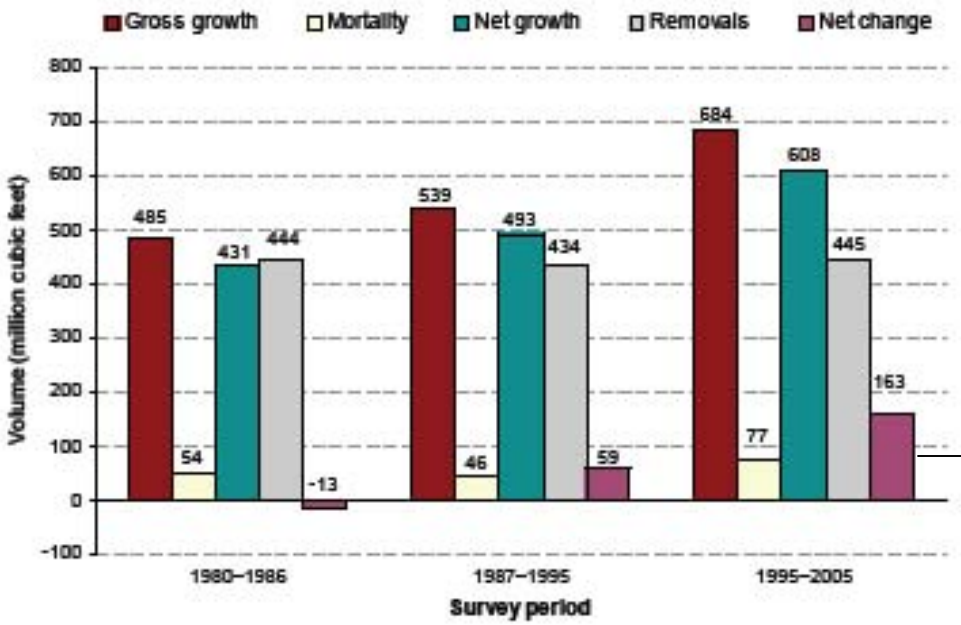
Average Annual Components of Change for Hardwood



Approximately 35% of Florida's Hardwood and Cypress is owned by the government and Will NOT be Used for Renewable Energy Production.

The Net Growth of Hardwood Continues to Decline.
This Trend Does NOT Support Sustainability of the Resource

Average Annual Components of Change for Yellow Pine

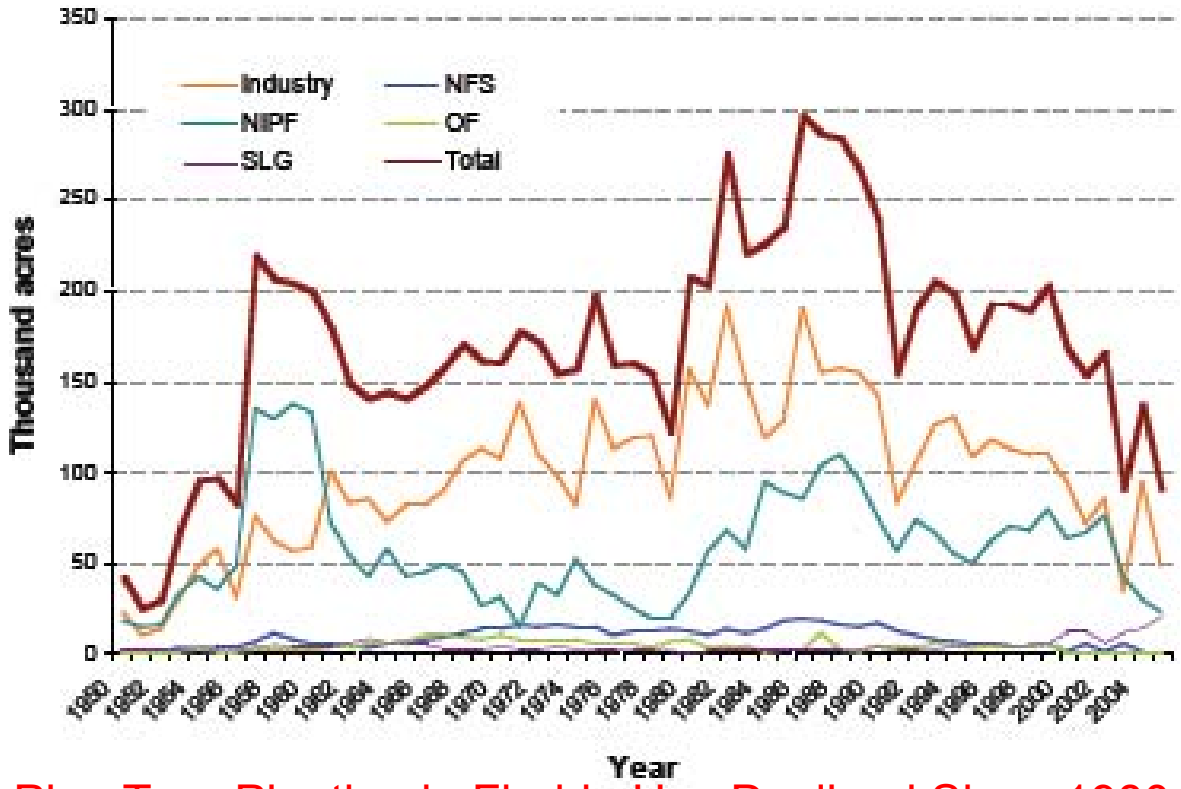


5.9 Million Tons of Volume Above Harvest in 2005

Florida is Growing More Pine than is Being Harvested as of 2005.

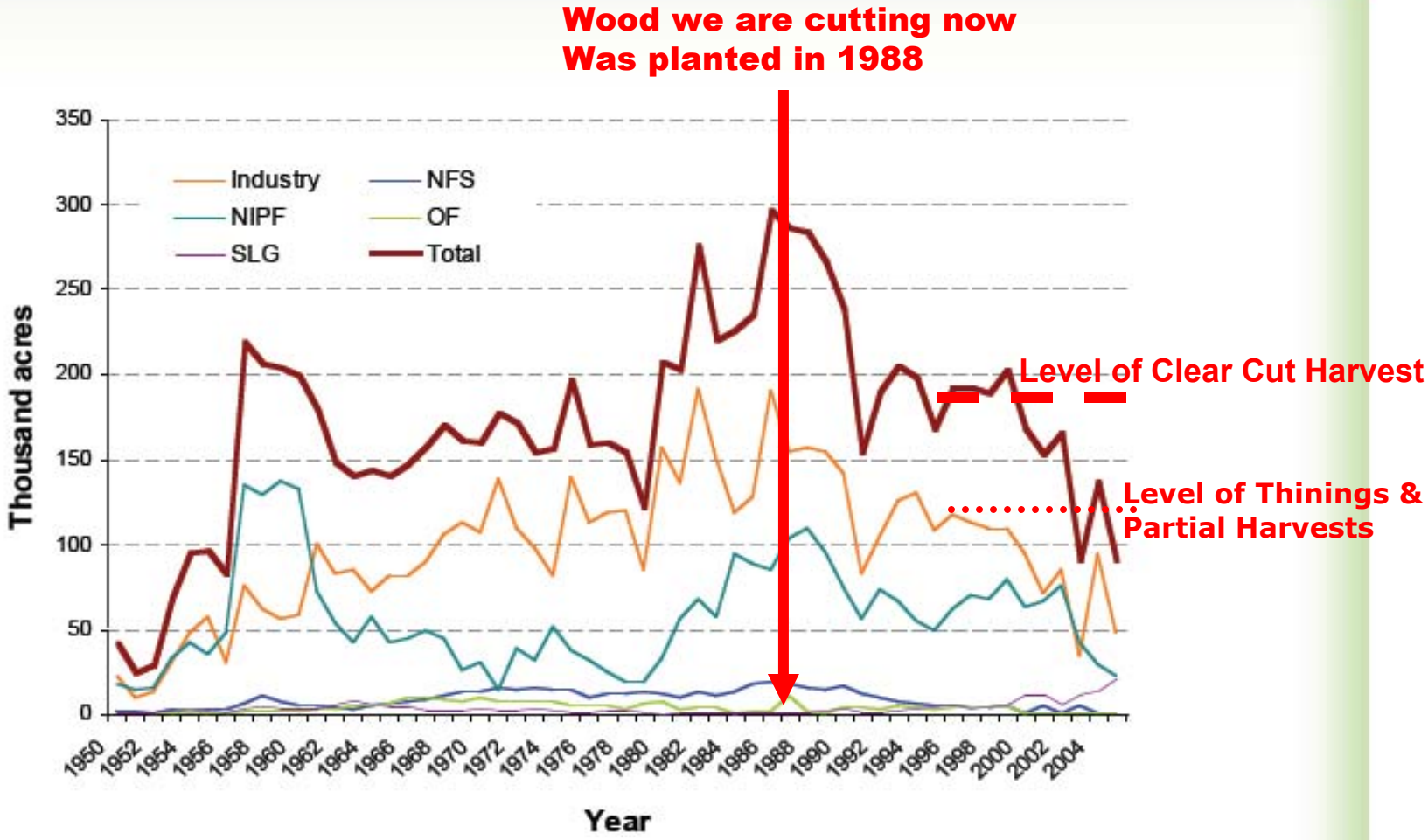
New Pine Using and Exporting Businesses Have Been Established Since 2005 and More Are Being Explored. *Florida Needs to Ensure Sustainability of Its Forests Every Time New Biomass Using Businesses Are Established.*

Tree Planting in Florida, 1950–2005



Pine Tree Planting in Florida Has Declined Since 1980

Tree Planting in Florida, 1950–2005



Planting Less Than The Number of Clear Cut Acres
Sustainability at Risk

Conclusions & Recommendations

- **Efficient Technologies Need to be Employed as Bioenergy Plants are Established.**
- **Concern That Demand for Wood and Woody Biomass May Exceed the Growth, Thus Depleting the Forest Resources.**
- **Florida Should Develop A State-Wide Plan to Ensure Forest Sustainability.**
  - **Florida Needs to Ensure There is a Reliable, Sustainable Supply of Wood and Woody Biomass for the Current and Proposed Demand Prior to Siting New Plants.**
  - **Continuous Monitoring To Ensure Total Wood and Woody Biomass Harvest for Domestic and Export Markets Do Not Exceed Growth.**
  - **Additional Biomass Plantations/Crops Should be Encouraged to Support Florida's Need for Renewable Energy.**