

Positioning Forest Business to Capture Benefits of the Bio-Economy: A Role for Reforestation and Afforestation in Sustainable Forest Management

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The past 150 years of human experience on this planet has brought to light some disturbing facts about our ability to manage the global system, environmentally, socially, and economically. That experience has also demonstrated that human ingenuity and innovation have enabled us to transcend adversity and capitalize on opportunities to grow.....so far. An overview of economic, social and environmental trends threatening the forest resource and industry will be explored in setting the stage to discuss how new technologies and processes can help achieve more effective and efficient use of forest resources for stimulating economic development while addressing uncertainty inherent within the global business and environmental climate. The focus will be

on the use of forest biomass as bio-product alternatives for fossil fuels in production of bio-based fuels, energy, chemicals and polymers. Sustainable forest management strategies that employ intensive silviculture (reforestation and afforestation) and utilization practices will play a key role in optimizing the use and utility of forest biomass as a value-added resource. The attributes of forest biomass that make it useful, and the technologies and processes associated with biomass conversion and utility will be discussed in light of forest bio-refineries designed to optimize social, economic and environmental benefits. Linkages to carbon management and policy reform will be conveyed.