



## The Environmental and Economic Impacts of Renewable Forest Biomass

In order to better understand the impacts of utilizing renewable forest biomass for energy production, the National Alliance of Forest Owners asked Forest2Market, a leading, independent, forest markets research firm, to analyze the environmental and economic concerns that some stakeholders have raised. Below are findings of the Forest2Market research.

Renewable forest biomass is a net benefit for forest health, the environment, the industry and local economies.

- The impact of biomass harvesting on soil quality and wildlife habitat are minimal, with no significant impacts on deadwood or soil compaction when it is harvested with responsible management practices – a mandate in most areas.
- Case studies show that biomass removals reduce wildfire hazard and severity, in addition to providing smoke management and carbon benefits.
- New markets for logging debris and poor quality trees can underwrite important projects to improve forest health and wildlife habitat – improving our environment.
- Emerging markets will help working forests remain as working forests because of the additional income potential. For instance, wood-based cellulosic ethanol production is expected to grow from nearly zero to 4 billion gallons per year by 2022.

The use of forest biomass for energy won't cause significant land use changes.

- Land use changes resulting from growing bioenergy demand, if any, will be minimal and localized. In fact, strong markets for forest products increase the amount of forest land.
- According to the Oak Ridge National Laboratory, forests won't be converted to short-rotation energy crops.
- Most forestland isn't capable of producing fast growing trees or switchgrass.
- Most forest owners are interested in a low-intensity investment and won't be interested in conversion to a high-intensity crop.

Overall, the market price of biomass will rise gradually and moderately with some local disruptions.

- Over the long term, prices and supplies will stabilize as new technologies are adopted by the energy companies, forest owners, loggers and other forest product companies. Overall, price increases in the long term will be moderate at worst.
- Bioenergy facilities won't add significant demand to existing markets for 10-15 years, giving other consumers of wood fiber years to adjust to changes in the supply chain.
- By 2018-2020, the market will land at a level that is approximately 14% higher than 2007 prices.

The source for this document is [Wood Biomass Energy, A Forest2Market Report](#) (PDF). The original sources and additional supporting documents are available in the report, which is posted at [http://nafoalliance.org/wp-content/uploads/f2m\\_biomass.pdf](http://nafoalliance.org/wp-content/uploads/f2m_biomass.pdf).