# Biomass and Biofuels

Recently, biomass and biofuels have garnered much attention throughout the world as potential sources of energy to wean us from fossil fuels (oil and coal) and reduce carbon dioxide emissions. During our contemplation of restoration activities on the Cherokee National Forest we tried to ascertain the impact that biomass and biofuel markets might have on any potential activities we recommend.

For the purposes of this discussion we will define biomass as plant materials derived from whole trees including stems, bark, leaves and roots. Biofuels are fuels which are derived in some way from biomass – solid biomass, liquid fuels and biogases.

Most of the development of biomass and biofuels has been driven by government (all levels) policies to date as they cannot compete with conventional energy sources in delivered price on a large scale. However, as oil and coal prices continue to rise, government policies change, and new developments in biofuel production become commercially viable, biofuels may be able to better compete in the not-to-distant-future.

Biomass markets in the Southeastern region are not strong at the present time and are impossible to predict with any certainty. We feel like the markets will be determined in the near future by developments in the electric utility sector. Over the past couple of years, some public electric utilities in the Southeast, driven by government policy, have announced plans to convert some coal-fired electricity generating plants to biomass or a combination of biomass and coal mixture. There are other companies, working in cooperation with established public utilities, that have announced plans to develop biomass electricity generating facilities in the region as well. However, some of these plans have been delayed or abandoned primarily because of a constantly changing government policy environment. This uncertainty makes it impossible to project what effect these developments will have on biomass markets in the region.

On the Cherokee National Forest government policies will have the most significant impact as potential sources for biomass and biofuel production. Most recent government policies pertaining to energy development are centered around “renewable sources” to replace the nonrenewable oil, coal and nuclear sources of energy. As the debates over what is “renewable sources” have developed, there are some that have argued that trees should not be considered a “renewable source” in policies directing energy development. There are other arguments that utilizing biomass as an energy source will not produce a net reduction in carbon dioxide. Public lands, including National Forests, have also become a side issue in the biomass debate. Language in some energy/biomass legislation and policy direction has excluded biomass derived from public lands as qualifying as credible “renewable sources.” The CNFLRI Steering Committee did not review these arguments against utilizing biomass as a renewable sources as these decisions are above the committee’s charge and will be left to future government decisions on these issues.

There is no question that some of the biomass sourced on the Cherokee National Forest has been utilized in energy production, such as wood boiler fuel, home fireplace and woodstoves, etc., but on a small scale and as by-products of wood sourced for primary lumber and pulpwood markets . Presently, there is no specific consideration of new biomass markets in planning integrated natural resource activities on the Cherokee National Forest, other than firewood utilization by local residents in the vicinity of the forest. The Steering Committee would like to make the following recommendation:

If it becomes financially feasible, we encourage the Forest Service to use the biomass and biofuels markets to use otherwise unmerchantable wood products to help accomplish ecologically beneficial restoration.