

Biomass resources available in Mexico

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Abstract

Statement of the Problem: In Mexico there is a problem related to the management of energy resources. Therefore, it's important to identify local biomass resources to evaluate a biomass power installation. According to the EPA, specific information is needed like typical moisture content (including the effects of storage options), typical yield, seasonality of the resource, proximity to the power generation site, issues that could affect future availability, fuel quality, and weather are all factors to consider when selecting a biomass fuel and determining the feasibility of a project. **Methodology & Theoretical Orientation:** A complete review of the local biomass resources available in the country was carried out to evaluate a biomass energy installation. For background and availability of biomass feedstocks in a biomass power project, this article provides an overview of typical characteristics of the most common biomass fuels available in Mexico. **Findings:** In this article, feedstocks are classified into two general categories: rural resources and urban resources where a description of these biomass feedstocks available in Mexico is shown, including information about the resource base and current employment. **Conclusion & Significance:** Forest residues and wood wastes represent a large potential resource for energy production and include forest residues, forest thinnings, and primary mill residues. In Mexico forestry residues include timber forest production by main species of 5 million and 998,436 m³ in roll, pine species stood out with 75% of the whole production and the oak tree with 10% and the rest are preserved by oyamel species, other conifers, others broad-leaved, precious and common tropical. According to the most recent INEGI Census (2015), the most frequently agricultural crops (in terms of average total acres planted) are cotton, rice, safflower, barley, beans, maize, sorghum, soybeans, wheat and others. A segment of these residues could potentially be collected and combusted to produce energy. Only slightly more than one-fifth of the more than 100 million tons of agricultural waste generated in the Mexico is currently used each year.

Image

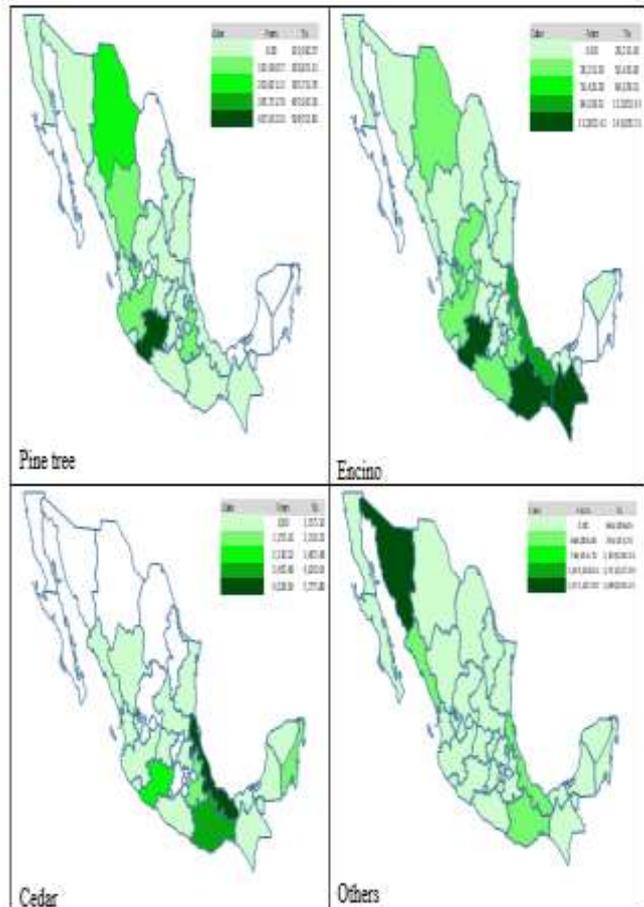


Figure 1.1 Forests available for wood supply in Mexico.

Data: INEGI. Estados Unidos Mexicanos. Censo Agropecuario 2007, VIII Agrícola, Ganadero y Forestal. Aguascalientes, Agri| 2009.

Biography

Ernestina Moreno has her expertise in biomass process, optimization and chemical process monitoring. She has participated in projects in the Mexican Petroleum Institute related to systems electrochemical corrosion and separation equipment. Furthermore, she is researching about the pretreatment of lignocellulosic wastes to improve biogas production. She has many years of experience in research and teaching in educational institutions. Nowadays she serves as full professor in the Department of Environmental Chemical Engineering, Food in the University of the Americas Puebla in Mexico.