Potentials of biomass energy generation agricultural residues in Pir-Bazar region of Rasht

Rasoul Ghorbani-Nedjad pirbazari*,

The depletion of fossil fuels' resources, mitigating the greenhouse gas emissions, and the use of wastes accompanying with the serious health and environmental problems, are the most important reasons for the increasing trend towards the production of biofuels. In this regard, a survey was conducted with the aim of determining the potential of bioenergy production agricultural and animal wastes in the Pirpazar region of Rasht, Capital of Guilan Province, Iran. The results of the study showed that regardless of the nutrition value of the rice straw, the highest bioenergy production capacity belongs to this agricultural biomass. After this biodegradation, the cattle manure, Chicken slaughter waste, and rice husk with bioenergy potentials of 33,000, 24,000, 16,000 and 15,000 GW year-1, have the highest potentials for bioenergy production in the Pirpazar region of Rasht. Finally, some approaches were proposed to use the electricity and heat energy extractable all types of agricultural and livestock's biomasses, especially for poultry farms, chicken slaughterhouses, rice mills, and large fish markets.

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