

**International Energy Journal, Volume 12, Issue 3, September  
2011**

[HOME](#) | [ABOUT](#) | [USER HOME](#) | [SEARCH](#) | [CURRENT](#) | [ARCHIVES](#)

[Home](#) > [Volume 12, Issue 3, September 2011](#) > **Diep**

## Potential of Bioethanol Production from Agricultural Residues in the Mekong Delta, Vietnam

*Nhu Quynh Diep, Kinya Sakanishi*

### Abstract

*The potential of bioethanol production from agriculture residues in the Mekong Delta, Vietnam, on the basis of the available quantity and distribution of residues was assessed. The results showed that rice straw (28.67MT year<sup>-1</sup>) accounted for 79% of the total agricultural residues generated in the Delta. Considering the collection efficiency and other uses of rice straw, we assumed that 50% of the rice straw generated annually could be used for sustainable ethanol production. Analysis of rice-straw distribution by season and sub-region in the Delta showed the great potential of this feedstock supply for bioethanol plants. The quantity of rice straw was abundant, provided mainly from the spring and autumn rice harvest seasons. The areas with a high density of rice straw supply were located along the upper and mid-banks of the Tien and Hau Rivers. The ethanol production potential from rice straw in the Mekong Delta could be 1837 ML year<sup>-1</sup> or up to 3645 ML year<sup>-1</sup> (without or with xylose fermentation) when using the existing rice-straw ethanol production technologies developed in Japan. These amounts of ethanol could substitute for 28.4% to 56.4% of the total gasoline consumption in Vietnam, as estimated on the basis of 2008 figures.*

Full Text: Subscribers Only