Perspectives on biodiesel as a sustainable fuel

Abstract

The present global economy downturn affects every corner of the world including the vehicular fuel industry. This paper highlights some of the perspectives for the biodiesel industry to thrive as an alternative fuel, while discussing benefits and limitations of biodiesel. This includes the improvement of the conversion technology to achieve a sustainable process at cheaper cost, environmentally benign and cleaner emissions, diversification of products derived from glycerol, and policy and government incentives. More specifically, an overview is given on making the production process more economical by developing high conversion and low cost catalysts from renewable sources, and utilizing waste oil as feedstock. Further emphasis is given on the need for public education and awareness for the use and benefits of biodiesel, while promoting policies that will not only endorse the industry, but also promote effective land management. © 2009 Elsevier Ltd. All rights reserved.