

ESMAP Concept Note Form
(Max. 2 pages)

1. Project Title: Analysis of the Economic and Social Impacts of Biodiesel Production in Brazil		
2. Region or Country: Brazil		
3. Task Manager: Todd Johnson		
4. Implementation Partners: Ministry of Mines and Energy (MME), Ministry of Agriculture (MOA), Ministry of Rural Development (MRD).		
5. ESMAP Strategic Areas:	Energy-Poverty	The project will contribute to the poverty alleviating strategies of the Government of Brazil (GoM) by assessing renewable energy solutions and the distributional benefits of the biodiesel program for low income families.
	Renewable Energy	The project will evaluate the possibilities for biodiesel in Brazil to diversify energy resources, to increase the availability of energy services for the poor, and to accelerate the shift to a low carbon global economy.
6. Implementation Period: March 2006 – April 2007		
<p>8. Project rationale and objectives: Brazil is in the process of developing biodiesel as a substitute to petroleum diesel to support domestic agricultural development, reduce dependence on petroleum, and objectives of energy security, environment, and economic development. There are a number of possible feedstocks for the production of biodiesel in Brazil, including both agricultural crops such as soy beans, and native plants such as mamona (castor). There is a lack of information on the development of biodiesel, both in Brazil and in other developing countries, specifically information on the economics of production and use. Given Brazil's successful development of bioethanol, and the efficiency of the agricultural sector, the country is likely to be one of the least-cost producers of biodiesel in the world. In addition, Brazil's biodiesel program, while still in its early stages, is further advanced than many other developing countries, making it a prime candidate for case study analysis.</p> <p>The project will build on the Bank's study of biofuels for transport (ESMAP, October 2005) by evaluating a country-specific study of biodiesel development in Brazil. Working with Brazilian agencies and researchers, the project will assess the economics of biodiesel production and use, providing useful information to policymakers in Brazil and other countries who are interested in developing biodiesel. As the program is expected by the Government of Brazil to require direct and indirect subsidies, at least in the initial years, the study will evaluate the distributional aspects of such government support.</p>		
9. Expected outcomes: The project will provide an assessment of biodiesel development in Brazil for different feedstocks, different geographical regions, and different production scales. The assessment will include information on the fiscal, distributive, and environmental impacts of the biodiesel program. The conclusions of the study will be provided to the Brazilian government to inform policy making. It is expected that the results of the study will also be extremely useful to other countries that are looking at biofuels programs.		
<p>10. Planned activities to achieve outcomes:</p> <p>Phase 1: Review existing work by Brazilian institutions on biodiesel and, among these, identify potential consultants who can carry out an assessment study. Once this phase is concluded, the detailed work program for the study will be finalized and the review meeting held. (completed June 2006)</p> <p>Phase 2: Case study analysis of biodiesel development in Brazil, focusing on all major biodiesel</p>		

feedstocks (soybeans, castor, oil palm, cottonseed, sunflower, peanut), taking into account the specific conditions of the region where grown. The methodology for the review should:

- Complete and/or deepen the information on “financial costs”
- Convert “financial costs” to “economic costs” in order to evaluate the overall economic cost/benefit of the program
- Evaluate the financial and fiscal flows (positive and negative) likely to be generated (or required) by the program
- Evaluate the tradeoff between economic efficiency and social inclusion (if any)
- Qualitatively address the environmental concerns associated with each feedstock, and
- Address and evaluate the effects of the production of various feedstocks and techniques on the incomes and social inclusion of the poor.

Phase 3: Dissemination. With the assistance of WBI, the results of the study are expected to be disseminated through both standard (final report, workshop) and non-standard means (distance learning, policy notes), given the interest by other developing countries in Brazil’s experiences and lessons.

11. Project linkage to national priorities, action plans, and programs: Brazil’s biodiesel program is an outgrowth of the country’s desire to develop domestic and renewable energy resources, and in the process contribute to energy security, technology and economic development, and local and global environmental benefits.

12. Stakeholders involved in project: Ministry of Agriculture, Ministry of Mines and Energy, Ministry of Rural Development, Petrobras, Electrobras, agricultural producers, commercial banks, research institutes, and universities.

13. Implementation arrangements: The implementation of the project will be coordinated by the World Bank and key Brazilian government agencies (MME, MOA, Ministry of Rural Development). The data compilation and analysis will be carried out by a senior consultant with expertise in the agricultural sector in Brazil. The methodology for the assessment will be designed by a senior project appraisal consultant. The team will keep in close contact with MOA, which has extensive knowledge of biodiesel development and the key players in Brazil.