

## 2.5 Biofuels Development - Biodiesel

Technology Action Title	Formulation of a conducive framework for biofuels development and implementation
Estimated budget	US\$ 500,000
Rationale	Zambia has a wide variety of crops suitable for bioenergy production due to its suitable climatic and soil conditions. The large areas of currently unutilised arable land places Zambia in a strategic position as a country with enormous potential for biofuels production. Of great importance is the need to address sustainability and cost effectiveness issues. Sustainability of feedstock production requires assessment of land availability and suitability which takes account of land requirement for food production and biodiversity. Another important issue is that of development of standards and regulations for the biofuels industry. In the last few years, good progress has been made in Zambia on the promotion of biofuels industry in the country. Biofuels industry has been added to a list of priority industry to benefit from incentives under Zambia Development Agency. At the regulatory level, Biofuels have been allowed to be traded, and ethanol and biodiesel standards are now available. However, there still remain issues that need to be addressed including financing, cost effectiveness, sustainability issues, and transportation and storage issues and, pricing in particular.
Brief technology description	Biodiesel fuel can be produced from oilseed plants such as sunflower, soy beans, and jatropha. Bio Diesel can be used alone or mixed in any ratio with mineral oil diesel fuel. Biofuels production chain is characterized by the cultivation, production, gathering and transport of feedstock, and its conversion to yield biofuels as an energy carrier, distribution and end-use. To arrive at sustainable biofuel production requires (i) assessing what bioenergy technology and feedstocks options are available, (ii) identifying suitable areas for production, (iii) assessing impacts to include environmental and natural resources impacts, socio-economic effects, and food security impacts, (iv) develop risk mitigation measures
Objectives and strategies	The main objective of the project is to formulate a conducive framework for biofuels development and implementation. The main strategies include; (i) benchmark pricing, awareness program to financial institutions and specific investment framework, (ii) undertake a study on cost effectiveness of feedstocks for biofuel-biodiesel productions and associated logistics for supply chain and (iii) formulate a comprehensive legal and regulatory framework.
Actors	DOE, ERB, BAZ, financial institutions, private sector and ZNFU
Timing	12 months
Keys for success	Involvement of all stakeholders.