

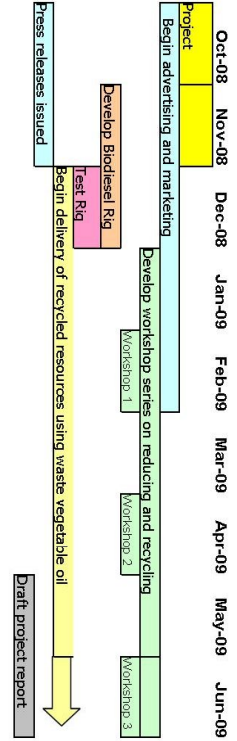


# The Gurseva Project

This project was made possible thanks to BAA Heathrow and Groundwork



**BAA Heathrow**



## Sarbatt da Bhalla

Universal peace and prosperity for all

Gursevadar@yahoo.com  
www.gurseva.khalsahost.com  
Tel: 07940431925  
Gurseva PO BOX 56622, London, W13 0UY



## The Gurseva Project & BAA Heathrow Community and Environment Awards 2008

Our work entails organising and assisting volunteers in distributing food, clothing and essentials etc to the needy. We are an organisation that has a long history of recycling resources and taking surplus food supplies to those that need it most. Since 1998 Gurseva has been involved with delivering to those effected by the Bosnian crisis, refugees (most predominantly at Brixton One Stop Service, and to the homeless on the streets of our capital. As well as this we deliver information on recycling resources. The project we sought funding for is to reuse vegetable oil and convert this into biodiesel to run the transport we have. This process requires the purchase of certain essential equipment and chemicals for the trans esterification of the vegetable oil. Once the conversion equipment is in place we will be able to extend the project and recycle waste vegetable oil, converting this to biodiesel, thus our project will have a zero fossil fuel usage. By advertising this project via the press and our existing community network we will be able to encourage more people to reuse and recycle as well as strengthen the number of volunteers we have.

### Project Timeline

October 2008	Anticipated Project start date Begin advertising and marketing material on project Press release
November 2008	Develop Biodiesel manufacture rig
December 2008	Complete Biodiesel rig; test materials and product Begin delivery of recycled resources using waste vegetable oil
January 2008	Develop workshop series using Biodiesel rig as example of reducing and reusing
March 2008	First in series of three workshops for the youth and local community
April 2008	Draft final report for project

As part of this project we will run three workshops for youth on reducing, recycling and reusing based on this process and how the biodiesel process has effectively reduced the carbon footprint we leave behind. By having a practical example of running our transport on biodiesel we can tangibly show to others the benefits of biodiesel over fossil fuels and how we as a community can positively impact on climate change and energy usage.

Because this idea has come directly from feedback from the community we are ensured to bring communities together under one banner of enhancing our environment. Participants in the workshops will be able to develop skills in making biodiesel as well as the three principles of reduce, reuse and recycle.

## The Biodiesel Process



Using a simple batch style processor vegetable oil can be easily converted to biodiesel to run on any diesel engine vehicle. A catalyst is added to the heated oil and after approximately one hour the biodiesel fuel can be separated. The benefits of using biodiesel are numerous and include lower vehicle emissions, more efficient burning of fuel, zero fossil fuel usage as well as reduction in the amount of vegetable oil going into landfill or being poured down drains.

The process requires vegetable oil, methanol and a catalyst. The catalyst is used to increase the rate of the chemical reaction between the methanol and vegetable oil. The catalyst used in the creation of biodiesel is an alkaline one, either Sodium Hydroxide or Potassium Hydroxide.



When the process is complete the catalyst can be recovered unaffected by the chemical reaction that it accelerated, along with the glycerol separated from the vegetable oil.



This is a particularly innovative project and we are uniquely situated to access supplies of vegetable oil, use existing facilities and develop an existing transport system to use biodiesel sustainably.



