Kyoto, Japan

Biodiesel involves citizens and fosters international cooperation

STORY IN SHORT: In an effort to prevent global warming and to create awareness of recycling, Kyoto City is collecting used cooking oil, which is normally discarded from households, and refining it to produce environmentally friendly biodiesel fuel. The program educates the public about environmental problems and involves them in a concrete solution. All waste-collecting vehicles and some municipal buses in Kyoto run on biodiesel fuel, reducing carbon dioxide emissions by about 4,000 tons per year.

Transforming waste oil into biodiesel

The raw material for the creation of biodiesel fuel is used cooking oil discharged from households as well as restaurants and cafeterias in Kyoto City. The waste oil is collected monthly from households by placing polyethylene tanks at collection points with the cooperation of the Regional Waste Reduction Promotion Committees. The Committees are established in each district or through volunteer partnerships with citizens.

The city aims to enhance linkages between citizens, companies, and municipalities to increase the number of collection points. At the end of 2008 there were 1,352 collection points. The city aims to have more than 2,000 collection points by 2015.

Benefits of recycling biodiesel fuel

1. Reduction of fossil fuel consumption: Using biodiesel fuel reduces the need for other fossil fuels, lowering carbon dioxide emissions caused by fossil fuel combustion which helps prevent global warming.
2. Low hazard fuel: Biodiesel fuel is less of a public hazard than fossil fuels, since it reduces black smoke contained in automobile exhaust and produces little sulfur oxides which may generate acid rain.
3. Promotion and creation of a recycling society: To expand the cycle of used cooking oil recovery, partnerships with citizens, companies, and the municipalities are necessary to promote human exchange and enhance local activities essential for creating a recycling-minded society.
International biodiesel cooperation

After Kyoto city introduced the Biodiesel Project at an international conference held in Kyoto in 2007, the city received a request of technical assistance from the city of Bogor, Indonesia. Bogor wants to use biodiesel to solve health problems caused by consumption of overused waste cooking oil, pollution of water by the oil and the air pollution problems caused by fossil fuel combustion.

Kyoto gave technical support by sending engineers and inviting the Bogor officials to be trained at a biodiesel plant and waste recovery system. Bogor is now trying to increase the collection of waste cooking oil by establishing a collection system in the community. With continued guidance from Kyoto, this project will come true in the near future.

Kyoto's success and way forward

Mayor of Kyoto City, Daisaku Kadokawa, states: “Through the cooperation of citizens, businesses, civic organisations and tourists, the city of Kyoto leads the world in implementing advanced approaches to mitigate global warming. In January 2009, the Japanese government designated Kyoto as an Eco-Model City for the Low Carbon Society, for its progressive approaches to achieving ambitious targets for realizing a low-carbon society. As the city where the Kyoto Protocol was born and as a city that honors the traditions of Japan which evolved in harmony with nature, Kyoto will continue to work towards an environmentally friendly future.”

Involvement in international climate initiatives

Kyoto was the host city of the 3rd Conference of the United Nations Framework Convention on Climate Change in 1997 and is also a member of ICLEI. The city participates in ICLEI’s Cities for Climate Protection Campaign, and the Mayor of Kyoto City, Daisaku Kadokawa, is also a member of the World Mayors’ Council on Climate Change. The Japanese government selected Kyoto as an “Eco-Model City”, which is a city that has an ambitious target of GHG emissions reductions.

City profile & contacts

Kyoto is the former imperial capital of Japan and is now the capital of the Kyoto Prefecture. It has a population of close to 1.5 million people, and is located in a valley in the mountainous Kyoto Basin. It has an area of 828 km² (74% forest and mountain, 18% housing). The city is ancient with an over 1,200 year history although many transformations have taken place over the years.

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