

Fuelling a greener future

Biodiesel production offers sustainable livelihood for South African community

Most people would agree that living standards around the world have improved over recent decades. According to the World Bank, the proportion of the developing world's population living in extreme economic poverty has fallen from 28% in 1990 to 21% in 2001. However, there remain wide disparities. In sub-Saharan Africa, this figure rose from 41% in 1981 to 46% in 2001, and an additional 150 million people were living in extreme poverty. The United Nations' Millennium Development Goals include a target to halve the proportion of people existing on less than a dollar a day by 2015, a goal that can only be achieved by governments and businesses working together.

The Shell Group is committed to sustainable development, and its businesses have initiated projects around the world to help local communities achieve a better quality of life. Shell Global Solutions' innovation and research delivery group is working on a project in South Africa to enable local people to produce an affordable source of renewable energy.

The project focuses on the Lucingweni village in the Eastern Cape province of South Africa. The area has a population of around 4000 and extremely high levels of unemployment and poverty. The objective is to establish an eco-village based on the production of biodiesel from suitable non-edible oil seeds. The project is designed to provide the local community with a sustainable source of income and establish a model that can be replicated in other parts of the world.

Small-scale, easy-to-operate conversion units to make biodiesel from the harvested oil seeds will be developed, installed and commissioned. In addition, treated water will be made available for the village using the Shell Water Box purification system, which is already in operation in South Africa. We will provide the basis of design for the project and installation, start-up and training support for the biodiesel and water-purification units.

The land under consideration is currently fallow but is ideally suited for growing various edible and non-edible crops. And, because non-edible energy crops do not enter the human food chain, these products are not usually subject to price volatility in the same way as other crops and can, therefore, help to provide a stable and reliable source of income.

The affordable availability of power, biodiesel and water should help to improve the villagers' standard of living and enable the community to become economically active. With a design that can be replicated, the potential benefits of the project can be extended to other parts of Africa and elsewhere.



ECO-VILLAGE: The project, based on the production of biodiesel from suitable non-edible oil seeds, should help to improve the villagers' standard of living and enable the community to become economically active.

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