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Power from waste: Vivekananda Kendra shows the way



Effective management: The bio-gas unit installed by VK-Nardep

Mamallapuram in Tamil Nadu is an internationally renowned tourist destination.

Though the town itself houses a modest population of just 12,345 in about 400 households, it generates a huge volume of waste – mainly kitchen waste from various hotels and restaurants.

An NGO from Kanyakumari called Vivekananda Kendra (Vk- nardep) built a solid waste management shed at the town panchayat for collecting and processing the entire waste for feeding into a bio-gas plant.

“The Kendra constructed the biogas plant (of 100 cubic metre volume) — a floating drum like device attached to a designed biogas engines that are in turn connected to specially designed control panels.

Effective disposing

“The solid waste management shed of the Panchayat is today powered by the

biogas-generated electricity.

“Once the plant started functioning, the panchayat disposed a lot of waste in a constructive way using this plant. The hygiene of the surroundings also improved,” says the Kendra secretary G. Vasudeo.

Scientists from the Tamil Nadu Agricultural University (TNAU), Coimbatore and officials from Tamil Nadu Energy Development Agency (TEDA) visited the project and recommended it for subsidy from the Government.

“Every kilowatt of energy produced through such renewable energy sources is eligible for subsidy. This village panchayat generates about 10 Kilowatts of electricity from its organic kitchen waste thereby becoming eligible for subsidy worth Rs 4 lakh,” says Mr. Vasudeo.

Once a small town or village becomes a popular tourist place, almost the entire livelihood of that place starts depending on its tourism industry.

“Increased waste generation and absence of effective solutions to tackle it affect the health of the people and also hits tourist flow. Sadly, today urban tourist centers as well as cities are becoming a hub of food waste being dumped in the kitchen backyards,” he adds.

Waste generation

A typical major tourist or pilgrimage centre generates 10-35 tonnes of waste per day, higher than the per capita in urban areas.

Such a problem needs to be tackled innovatively both technologically and socially, that too on a war footing.

“Disposing of waste, particularly kitchen waste, poses a big problem everywhere. Often the sight of accumulated garbage heaps at road corners and in open grounds and fields becomes a nuisance for the residents.

“These rubbish heaps become a breeding ground for many infections and are frequented by stray dogs,” he says.

Vicious cycle

Effectively tackling this problem becomes imperative as it remains a vicious cycle. The challenge of converting the waste into wealth at Mamallapuram is a joint effort of a Chennai based NGO, 'Hand in Hand', which, along with Vivekananda Kendra set up a large Bio-methanation plant from their Natural resources development project.

The Kendra has been doing research and field work in this area for the last 10 years and is credited for developing low volume bio-methanation plants that are suitable for both urban and rural households.

In addition to this the Kendra also developed a bio-gas slurry based agro-inputs package and made the dissemination of this technology more efficient.

Collection

“We started collecting kitchen and vegetable wastes from the town Panchayat and collected more than 550 kg to 600 kg of kitchen wastes for feeding the plant,” adds Mr. Vasudeo.

Thus a unique combination of governmental agencies, voluntary organisations, and sustainable energy technologists made a tourist centre in the present globalised environment more ecologically healthy and economically vibrant.

For more details and visit readers can contact Mr. G.Vasudeo, Secretary, Vivekananda Kendra - NARDEP, Kanyakumari - 629 702, Tamil Nadu, e.mail : vk nardep@gmail.com, website: vk nardep.org, phone 04652- 246296 (office).

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