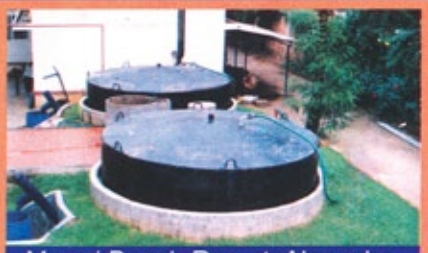
# BIOTECH – Bio-Energy Plants for Clean Environment

## Domestic Waste Management

The Research and Development wing of BIOTECH developed Nine different models of Domestic Waste Treatment Plants catering to the taste and demands of beneficiaries. All the bio degradable waste and organic waste water generated in every house can be hygienically treated at source for producing cooking gas – an alternate source of conventional fuel.

## Institutional Waste Management

Waste of food materials and other bio degradable waste produced in Convents, Hostels, Hospitals, Hotels and other industrial organizations can be treated in an eco-friendly way by hygienic Waste disposal method and production of cooking gas in a very large scale.



Marari Beech Resort, Alapuzha

Jayasekharan Hospital, Nagercoil, TN

## Night Soil Biogas Programme

Night Soil from public institutions like Hostels, convents, Hospitals etc. can be treated for the production of biogas as a sustainable source of energy. This plants are capable for treating food waste also. This technology is highly cost-effective and the construction of Septic Tank can be totally avoided.

## Eco-friendly Toilets

Bio Waste and Night Soil produced in every household can be subjected to hygienic treatment for production of cooking gas. This eco-friendly Toilets are most convenient waste disposal system for people living in coastal area, marshy land and high water table areas.

Sreekariyam Market, Trivandrum

## Electricity from Bio Waste

Easily degradable bio waste, waste water and blood generated in public markets, slaughter houses and such other public institutions can be treated hygienically using bio-methanisation technology at source for production of electricity. BIOTECH launched Kerala's first ever bio waste treatment electricity generation project in the year 2003 at Pathanapuram Public Market, Kollam District.

## Integrated Waste Management (BIOTECH Model)

With the intention of containing the menace of bio waste and the problem of health and hygienic it brings, BIOTECH developed an Integrated Waste Management System combining five different technologies in a project. The specialty of the project is that it will help to treat wastes of various types like fast decomposing, slow decomposing, non-degradable, blood and waste water.

Kadakkal Market, Kollam District

"Clean Environment Green Environment"

# Waste Treatment Bio Energy Programme


**BIOTECH**

CENTRE FOR DEVELOPMENT OF BIO GAS TECHNOLOGY AND OTHER - NON CONVENTIONAL ENERGY SOURCES

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*Day to day increase in population increases the generation of waste in the universe. Dumping of waste without proper treatment creates a dangerous situation including that of ecological imbalance. The immediate aftereffect will be the outbreak of epidemic diseases. Accumulation of waste also creates severe long term environmental problems like climatic change and global warming. Now it is high time that we open our eyes to ensure scientific treatment and disposal of waste without causing any harm to the atmosphere. Otherwise the lives of the people of the next generation on the planet earth, would be affected very adversely.*

*What should be our attitude in handling waste? The problems caused by waste can be reduced considerably through early and speedy treatment. A better solution for that, is to treat the waste at source itself. Different types of waste have to be collected in different bins for treatment. This helps in sorting out the waste for identifying each type for proper treatment and disposal. A civic sense has to be evolved to collect waste and to dispose it off. Biomethanisation technology is the most suitable one to treat bio degradable waste and to generate bio energy with out creating environmental problems.*

*BIOTECH plants have been installed in the houses of different classes of people including the official residence of the Chief-Minister of Kerala. This type of de-centralized waste management system helps to prevent the outbreak of epidemic diseases, avoid environmental degradation and helps to generate cooking gas and electricity in a de-centralized manner with the minimum investment of money. The active co-operation and support of the Government and Non-Government organizations are solicited to achieve this Goal.*

*A. Sajidas*
*Director*

## Biotech at a Glance

BIOTECH was started in 1994 though the idea was conceived much earlier during the eighties. BIOTECH focuses attention on research, development, production of Renewable Energy, especially Bio Energy Programmes with the active co-operation of other government and non-governmental organizations, especially local bodies.

BIOTECH has received several awards. More than 15 inventions have been added to the credit of BIOTECH related with waste to energy programmes.

BIOTECH has developed different models of waste treatment plants suitable for use under different geographical conditions.

BIOTECH do implement projects suitable to treat bio waste at the domestic level and public institutions like Hospitals, Hostels, Convents, Slaughter Houses etc. BIOTECH also provides eligible subsidy for waste to energy projects.

BIOTECH implements programmes through out the State in association with Local Bodies.

BIOTECH renders consultancy services for the preparation of projects, feasibility study, site visit, project implementation, awareness programme, exhibitions, seminars and symposium and for demonstrations related with waste treatment.

There are opportunities for the unemployed especially youths for getting training and jobs under the programme of BIOTECH.


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