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## Seeking for Sustainable Development: The Problem and a Suggested Solution

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### Abstract

Public and private gardens and the way to get rid of their residues could be stated as a painful headache that disturbs the newly plotted cities in Egypt.

The estimated residues resulting from only one compound consisting of 800 villas is about three tons of grass per month (divided by three times a month), the same amount of trimmed tree hedges every one month and a half, as well as a huge amount of dry leaves and branches, not even mentioning the residues resulting from the fully cultivated squares, sidewalks.....etc.

Using Biogas technology can be considered a suitable solution to eliminate these residues and generate an alternative energy resource even applied with a small scale in order to preserve the overall shape of these communities as well as the health of their residents.

#### Research Goal:

- A) Maintaining the environmental capabilities and the overall shape of these cities as well as the health of their residents.
- B) Providing an alternative and clean energy resource even with a small scale that reduces the growing demand for electricity and gas cylinders.

#### Conclusion:

Using the resulting residues as an alternative energy resource has led to:

- A) The elimination of agricultural wastes causing pollution and investment of them as an alternative energy resource.
- B) Motivating of residents to cultivate the rest of both public and private areas that can be cultivated and even rooftops.
- C) Helping the reduction of carbon emissions in air caused by the enormous rise in car exhausts and...etc.

#### Recommendations:

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Defining the way to support the development of the Bio fuel industry through public policies specially in the USA, China and some European countries, in particular in order to plot a set of comprehensive policies that support Bio fuel and fits the nature of Egypt.

*Keywords:* sustainable development; bio-gas; bio-fuel; agricultural wastes; sewage and fermentation unit.

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## 1. Introduction

The world is witnessing now an enormously growing interest in the environmental issues and sustainable development, an increasingly aware has grown through the past three decades that the current development model (modernity) model is no longer sustainable, after being associated with lifestyle consumer resulting a serious environmental crisis. Scientists have confirmed that the humanity is facing at present two main problems, firstly is the near vanish of many of the resources that we consider its presence now (MIT) Massachusetts Institute of Technology, while the other, is suffering from the great and accelerated increasing rate of pollution rate all over our environment. [4]

As a result of that new laws took place in order to protect the environment by adopting of specifications and technologies that achieve a higher degree of operational efficiency, as well as applying economic incentives to intensify the use of natural materials, also encouraging the use of materials that maintain ecological balance.

During the past few years many concepts and innovative technologies and their applications have appeared, specially that deals with the concept of green architecture, as well as sustainable development.

Green architecture could be defined according to US Environmental Protection Agency as the "total buildings that use environmentally compatible technology, and includes the idea of maintaining the available resources beginning from the design and creation of the building till operation and maintenance processes, and even the restoration of the building taking consideration the provision of health and comfort factors to the building goers."

While it is intended by the sustainable development to find a kind of balance between the three development components (Environmental - Economic - Social) in order to achieve the requirements of society and harmonize with the environment to gain the maximum use of the natural potential possibilities while reducing the cost of materials using healthy recycling processes.

Sustainable design can be defined from the physical point of view as, "the necessity of use of the renewable natural resources in a manner that does not lead to its extinction or degradation, or diminishing their usefulness for future the generations, while maintaining a constant balance in an effective manner of natural resources such as the environment, groundwater and of bio. mass. etc.

While it can be defined from the economic point of view as "the optimal management of natural resources that focuses on getting the maximum benefits from the economic development, provided that the natural resources, quality of services should be conserved, and today's use of resources should not reduce the real income in the future. [6]

The concept of sustainability was firstly introduced by the beginning of the seventies of the last century, while the International Union for the Protection of the natural environment created a first strategy for the global preservation of the environment in 1980. In 1983 the United Nations formed a Global Commission for the Environment, having the task of studying the environment problems and the way to develop our planet as a first priority, its first conference took place in 1992 in Rio de Janeiro, which had focused on the future of the coming generations, as well as its right to obtain the energy suited to their needs in the future.

Victor Joseph Papanek an architect and designer has reported that industrial design does not exist anymore, due the innovation of new types of permanent wastes, materials, industrial processes and methods of production that contribute to air pollution.

Richard Buckminster "Bucky" Fuller has stated how the design can play a key role in determining the greatest problems in the world, and through the following: [7]

- Reviewing and analyzing of energy resources in the world.

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