

Renewable Energies for Agricultural and Rural Development

Salah Arafa*

Professor, Department of Physics, American University in Cairo, Egypt

***Corresponding Author:** Salah Arafa, Professor, Department of Physics, American University in Cairo, Egypt.

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Agriculture economies contribute significantly to employment and economic growth in most counties, however, facing many challenges. Field experiences in some countries indicate that there is a great need of understanding the Water - Food - Energy - Environment Nexus and of the use of an Integrated Approach to rural development.

The current challenges of Climate Change and fluctuation of oil prices makes it imperative to consider cheaper, locally available and environmentally friendly alternative sources of energy for agricultural and rural development of the world.

The integrated approach to rural development is to increase the overall resilience of rural communities through the efficient use of renewable energies with appropriate accesses to knowledge, finance, and local organizations.

Field research findings recommend

- (i) Strengthening of Agricultural Cooperatives;
- (ii) Supporting Water User and Farmers' Marketing Associations;
- (iii) Improving Water, Energy, Information and Communication infrastructures;
- (iv) Reaching out to isolated and poor communities for increasing public awareness and insuring quality education and better access to knowledge.

There exist today many successful uses of solar energy, wind energy, biogas energy and energy from agriculture residues and solid wastes in agriculture processes and in rural areas such as

pumping of water for irrigation, crop drying and processing, power supply for electricity, water heating and cooking stoves and many more.

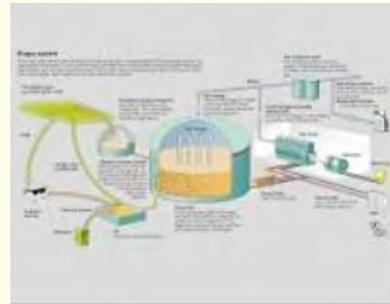


Figure 1: Biogas Energy Use.

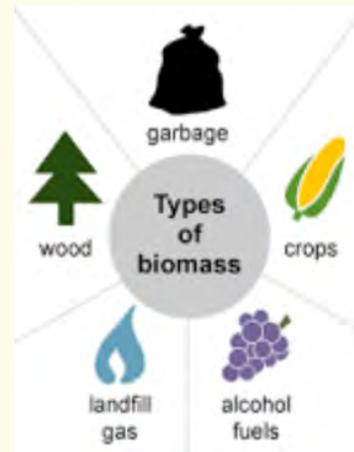


Figure 2: Biomass Energy Use.



Figure 3: Solar Energy Uses.



Figure 4: Wind Energy Use.

Such renewable energies and its uses in agriculture and rural communities will surely accelerate our National and International efforts to achieve the Sustainable Development Goals.

In future issues, we are going to highlight on each of the uses and different technologies and successful approaches in utilizing renewables to power the development of Agriculture and Rural Communities.

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