Emerging Green Technologies

Mannem AB*
Department of Biotechnology, Vignan University, Guntur, India

ABSTRACT

In an era of drought, climate change and food shortages, environmental explorers have joined forces to handle some of the world's most typical issues through technological advancement. Some of the expanding technologies that have the capability to revolutionize our planet of commercialising. Some are currently in development and remaining are trying to get a greater hold in society, but all are auspicious solutions to some very real threats the world is facing. The word "Green Technology" is almost new which has been adopted over the last couple of decades, Green is the way to go today for healthy life.

INTRODUCTION

Green technology which is also known as clean technology refers to the use of technology that makes products and processes more eco-friendly, for example, by reducing CO₂ emissions or by making products more biodegradable [1-7]. Overall, green technology aims at contributing to renewable sustainability. Green technology is eco-friendly which is developed and used in such a way so that it doesn’t disturb our environment and conserves natural resources [9-16].

"Green technology" encompasses a rapid emerging materials and methods, from different techniques for achieving energy to non-toxic cleaning products [17-26]. The current expectation is that this will bring modernization and changes in daily life of similar to the "information technology" outbreak over the past two decades. In these primary stages, it is difficult to predict what "green technology" may finally encompass [27-35].

METHODOLOGY

Developments In Emerging Green Technologies Includes

a) Sustainability which can be clarified as addressing the requirements of society in ways that can continue indefinitely into the future without without harming or draining regular assets. In short, meeting present needs without compromising the ability of future generations to meet their own needs [36-42].

b) Source reduction by reducing waste and pollution [43-48].
c) By latest inventions like developing alternatives to technologies which may be either fossil fuels or chemicals in agriculture which will damage health and the environment [49-52].

d) Viability by creating economic activity around technologies and products that benefit the environment, speeding their implementation and creating new careers that truly protect the planet [54-60].

Green Technology is entirely materials science based, depends on the availability of alternative sources of energy. The purpose of this technology is to reduce global warming as well as the green house effect. The main objective is to create new technologies which will not damage the natural resources and should be less harm to the living beings [61-66]. Our environment needs immediate recoup from pollution hazards. With the help of green technology, one can reduce pollution and improve the cleanliness as well. Currently all countries are turning to green technology to secure the environment from negative impacts [67-71]. This technology gives us an idea about the messing up of the environment due to human intrusion and the important need to slow down and habituate healthier ways of life. By adopting green technology, the earth can be protected against environmental pollution. The main goals of green technology are many. To meet the needs of society without affecting the natural resources on earth and is the main objective of green technology. The idea is to meet present and future needs without compromises. Focus is being done on making products that can be recycled or re-used. By changing the production and consumption, many steps are being taken to reduce waste and pollution, and is one of the important goals of green technology [72-80]. It is essential to develop alternative technologies to prevent any further damage health and the environment. By implementation rapidly we can benefit our environment and can protect the planet. Explore the goals of green technology, introducing sustainable living, develop renewable energy and reduce waste [81-84].

Even though there are number of advantages of renewable energy, lot of its development and distribution till date has occurred mostly in developed countries instead of in developing countries where these innovations are most needed [85-91]. The factors responsible for this is so expensive of expanding renewable energy coupled with the usual low investment funds in developing countries for renewable energy financing, development and application. Absence of policy and governing framework for the encouragement of expenditure in renewable energy, poor capacity for the development and distribution of renewable energy as well as low awareness of the utilization and convenience by possible consumers, suppliers and investors are other reasons for the low level of application of renewable energy technologies in developing countries. Others are the patent structure in the energy sector for few developing countries which discourages competition, high subsidies on fossil fuel based energy sources, etc. These limits must be addressed if the operation of renewable energy in developing countries is quick extent [92-94].

List of Major Societies for Green Technologies

There are many associations for green technologies. Some of the important associations for green technologies are Green Building Council, US Green Technology for solar power, wind power, hydro power and United States Environmental Protection Agency(EPA) which represents largest green power users within the Green Power Partnership, Renewable Energy Society, The Solar Energy Society (UK-ISES), European Renewable Energy Council (EREC), Colorado Renewable Energy Society (CRES), etc which are doing great for the development of green technology.

Many journals in the world is trying to educate regarding the emerging green technologies through their articles like Trends in Green Chemistry, Journal of Ecosystem & Ecography, International Journal of Waste Resources, Journal of Pollution Effects & Control, Journal of Fundamentals of Renewable Energy and Applications, Advances in Recycling & Waste Management, etc and the Green Energy-2017 would serve as an informative source for integrative area that guides renewable Energy sources and systems, industrial applications, energy storage and network, Environmental impact, energy protection, law, better energy efficiency in latest trends and technologies for utilization of natural resources along with nanotechnology applications and energy solutions. Many great personalities like Hector M Guevara and many other great people are the organising committee members for this prestigious conference. In the 2nd International Conference on Green Energy and Expo (Green Energy-2016) excellent keynote speech by Dr. Yulin Deng on the Low temperature and high efficiency biomass fuel cell and bio-hydrogen production was so impressive. Michael Garvin gave his keynote on Transition to a global energy abundance and sustainability plan 2050.
OMICS organises many conferences every year and it organised and keep on organising many conferences on every subject all around the world. Some of the important conferences organised by OMICS relevant to green energy are 4th International Conference on Past and Present Research Systems of Green Chemistry with the Theme- Advances in Continuous Green Chemistry: Back to the Future, International Conference on Renewable Energy and Resources, etc.

Due to energy depletion and global warming, we need to pay closer attention for clean technologies by using green technology in industry. With potential profits of green technology development, in the past few years global green markets have been booming. Many countries around the world are in the process of encouraging green technologies. Lot of investment is done in new wind projects, and biomass plant. Public and private sectors are encouraged to develop the green technology industry [95-97].

Solar industry which is growing at a great speed, aims to achieve enough solar capacity and use green technology in industry. For example green computing which focus on shifting to designing, manufacturing, using, and disposing of computers and related devices in a manner with no impact on the environment. The main goal of the green technology in industry is to minimize the use of dangerous materials, while increasing energy efficiency during the product's lifetime. More attention is being given to the recyclable and biodegradable materials. Governmental agencies are promoting regulations that encourage green technology in industry. Using green technology in industry is on the upperhand. Consumers around the world as well as many automobile manufacturers are actively involved in the developing green technology that can be applied to their products. Green vehicles are going to be the compulsion for the future [98-104].

CONCLUSION

Green technology will be considered to be the most predictable in the future. From energy saving light bulb and electric car, we can conclude that a complete set is important to magnify the effect of a green technology in developing the environment. For example, the electricity for electric cars is generated from an electric power plant using renewable energy; the amount of carbon dioxide emitted would be further reduced. In the case of energy saving light bulb, a comprehensive recycling system should be set up. This helps to reduce the release of toxic substances like mercury.

REFERENCES


50. Planning and management of Non-Conventional energy development, CIRE1995.

51. Biogas as vehicalfuel, Atrend setter report.

52. Hashimoto AG. Microbial hydrolysis of thermochemically treated and untreated manure-straw mixture, Agricultural wastes, 1982;4:345-364.


57. Mittal KM. Biogas systems, Principles and applications, New age international (P) Ltd, New Delhi,1996.


62. Hooi Ling Ho. Xylanase Production by Bacillus subtilis Using Carbon Source of Inexpensive Agricultural Wastes in Two Different Approaches of Submerged Fermentation (SmF) and Solid State Fermentation (SsF). J Food Process Technol 2015;6:437


65. Faithpraise FO, et al. Pesticide Free Control of Mosquitoes via Toxorhynchites predators and Fermentation Traps. 2014;JJIRSET

66. Peddapalli SR and Meena V, Studies on Optimization of Process Parameters for Nattokinase Production by Bacillus subtilis NCIM 2724 and Purification by Liquid-Liquid Extraction 2013;JJIRSET.
68. Jahir AK and Sumit KS. Production of Cellulase using Cheap Substrates ny Solid State Fermentation. 2011;JPAES.
72. Hooi LH, Effects of Medium Formulation and Culture Conditions on Microbial Xylanase Production Using Agricultural Extracts in Submerged Fermentation (SmF) and Solid State Fermentation (SsF):A Review. J Biodivers Biopros Dev 2014;1:130.