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The Idea of sustainable energy

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Abstract
We are bounded by different levels of boundaries which measures the required sustainable environment in coming years. Sustainable energy calls for upgrading of existing technologies or developing green technology which is energy and environment friendly. The goal of sustainable energy is to develop clean environment equally among the world population and teach them that how to escape from global warming. We need to find a sustainable environment which is based on low carbon emission and economically viable all over the world. Though the environment is so complex that no single field can provide clear knowledge about changing face of sustainable energy. Well in search of sustainable energy researchers around the world are working hard to find the best solutions for better and sustainable environment. The search of sustainable energy should meet the boundaries of different region globally and locally. The distribution of energy should be fair and enjoyed by population equally. The article will cover up some basic sustainable technologies which will be taking place in near future.

Keywords: Sustainable technologies, Carbon emission, energy.

1. Introduction
When we are talking about developing the energy source sustainably, it needs experts from multidisciplinary areas to come together with an integrated solution. Considering the problem on global basis, we should aim to develop technologies by conserving the regional as well as global nature, therefore it will ultimately leads to sustainable international development. The research and development should be done with the existing resources present with in the country. The country should not compete with other countries development. Environment and Humans have a strong relationship and they both plays an important role in maintaining the sustainable system. Energy is the core system for regulating the sustainability in the world in all fields. Now, the challenge is to us to create a pack of sustainable technologies for green future. The main goal is to deduce the waste and energy therefore motivate the use of recycling and reuse. The solutions/technologies should be replicable and scalable at world level. Irreversible environment change, species getting endangered, increase in Green house gases and depletion of most used energy sources can have serious and unchangeable impacts. (1) Thus far, researchers have done an incredible job in renewable energy like hydropower, tidal and wave, Bio-power, geothermal and solar but still when we are talking about energy need or environmental impacts, it is always discussed on global basis, the scientist still need to come up with innovative developments to meet the world energy intensive lifestyle. This attitude has led to many global problems like climate change, health issues, dwindling freshwater supply, loss of biodiversity etc. The sustainable technology and energy market will definitely increase in coming years.
The main commercial source of energy for industrial, transportation and agriculture related activities have been coal and petroleum which are contributing majorly towards global warming effects. The challenges, development and applications of new renewable energy technology like using wind, biomass, solar and tidal for energy generation have been discussed in this article.

Some innovative and energy technologies such as:-
1. Using solar energy for desalination to give fresh water in developing countries.
2. Cooling system powered by solar energy for greenhouse to offer better agriculture system in hot climate regions.

2. Biomass
Biomass is the oldest method of using organic matter for renewable energy applications.

Some of the major examples are wood, algae, animal and plant waste, sewage sludge etc. Considering biomass as major topic is wide to discuss, so the basic knowledge of generating power using biomass will be discussed here. The basic fundamental of using biomass is quite similar to coal and it can also be called as stored form of solar energy. Biomass energy is carbon neutral fuel as the carbon dioxide released during the process is balanced by absorption during the growth of next set of biomass. Considering the life cycle assessment difference between the burning the coal and biomass. Coal is breaking down the most stable form of carbon stored and generated after millions of year preparation stored deep down the earth which will be added into atmospheric carbon dioxide where as carbon dioxide released by biomass burning will be captured by biological life in growing phase. The literature studies shows that biomass burning will release less harmful chemicals into the environment as they contain low amount of sulphur content. (2) The use of biomass for power generation has increased tremendously in recent years. It was stated that there are 2200 biomass power plants installed globally.

3. Wind

The major principle of wind energy working is that it converts the kinetic energy of wind into mechanical power which can be used to various applications such as pumping water, grinding grains and other household activities.

You feel the wind coming from fan is using electricity by processing our non renewable resources like coal whereas by using wind energy present provided by our nature; we can generate electricity for household as well commercial activities. The wind energy is depended on various factors:-

1. We can say that wind energy is a stored form of solar energy as it is depended on uneven heating of earth surface by sun.
2. Wind power potential is generated by the force known as Coriolis force which is responsible for movement of air both in northern and southern altitudes.

With increase in development from past few years the cost of setting the wind power plant has dropped significantly. The only disadvantage of setting wind energy generator is initial investment cost as compared to fossil fuel power generator but wind power generator will be having minimal maintenance requirement as it does not need any fuel to run. (2)

4. Solar

The government have to shift to renewable energy strategies to boost up their economy and green environment. State governments are investing in green technologies and they have to invest smartly to cover up their first investment. Because of increase in green house gases in the atmosphere which is subsequently increasing the global mean temperature researchers are considering the solar energy to be one of the alternatives. Solar system is considered to be really very helpful as their won`t be any need to pay taxes while extracting energy from the sun. Solar energy is vast source of energy which is available constantly for free of cost. Solar systems are making a big impact in high altitude regions such as Himachal Pradesh, Leh and Ladakh in India as they get high intensity rays from the sun. Solar panels are now being used widely globally and holding a good market share of Renewable energy. But government still need to motivate other stakeholders and community members to invest this technology in their houses to make a small contribution towards green environment.

5. Conclusion

The destruction`s caused due to increasing development has led to several extremities such as shortage of resources, imbalance in environmental cycles, ozone layer depletion etc. Electricity generation is the major need all around the world where as generating electricity through coal and other non-renewable sources leads to GHG emission therefore there is no other option to replace exhaustible sources by non exhaustible source of energy. Various stakeholders and small community believe strongly in setting up renewable energy plants such as wind, solar and Biomass which could improve their lives. Fortunately there has been great improvement in quality of renewable energy plants recently. Indeed, the demand of energy will increase constantly with in population as it is estimated the world population will be 9 Billion by 2030.(3) There are few disadvantages of using renewable energy which I believe can overcome easily by research and development and developing new green technologies to protect our healthy environment.

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