

Study on Green Technology Related Factors

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ABSTRACT: Among the different growing technologies, green technology is one of the important sector. The main reason of growth in green technology is awareness of people towards global warming, detrimental effects on the environment, the greenhouse effect etc. The technology refers to practical need through application of knowledge. The green technology basically deals with the renewable resource that minimize the pollution of environment, replacement of waste product or renewed product that increase greenery. The proposed paper includes the different innovations on green technology, the various factors that harm the green technology and the factors that are beneficial for the growth of technologies. The present paper also considered the study on environmental improvements, environmental technical systems, regulation systems etc. Basically the paper focuses on various advantages, importance and requirement related to green technology. For the future scope such different factors can be studied related to renewable energy that increase the application related to green technology.

KEYWORDS: Energy, Environmental, Innovation, Management, Technologies.

INTRODUCTION

The green technology is the growing technology today, as it is improving fast in different industries sectors. In the early days there are lots of problems faced by people on green technology, now a day's serious shift to a perfect construction design implementation which makes sustainable innovations feasible[1]. The green innovation is reliable technology which driven-insight geared towards sustainability application. Green technologies consider the effect of creativity on the ecosystem, whether it is immediate or long-term. In construction point of view Green technology encompasses the innovative buildings in order to integrate aspects of eco-friendly solutions in different industrial projects[2]. Figure 1 shown the diagram of green technology.



Figure 1: Conversion of Wind Energy into Electric Power

The green technology refers to the green products that discovers renewable energy that deals with efficient energy, recycling, health safety concerns, and resources etc. The construction of environmentally friendly building has some goals[3]. The main requirement of green technology is to safeguarding natural resources, eliminate the impact of construction activities on environmental safety, and reduce waste[4]. Wherein Figure 2 shown the several different factors involved in green technology. Figure 3 shown the goals of green technology.

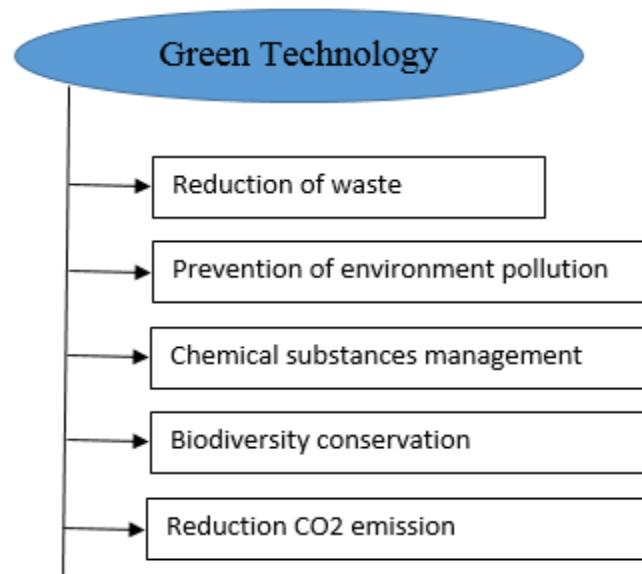


Figure 2: Detail of environmental friendly green technology

The green technology has different types that use various technology to produce elements which are pollution free as well as more environmental friendly. The technological infrastructures utilized for water purification, recycling garbage, generate renewable electricity, and conserve natural resource are examples of green technology.



Figure 3: Goals of green technology

The green technology refers to renewable resources that never vanishes from eco-system with different energies like tidal energies, wind energies, hydro energies etc. [5]. The use of green energy decreases air emissions and increases the wellbeing of living creatures. According to the law, energy cannot be generated or lost, but it could be transformed from one type of form to the other. The perfect design is used and construction is obtained, to improve the energy efficiency. Climate policy can serve as a roadmap for green technical progress as it transitions from concept to practice. The indicates that environmental policy can be used to promote green technical advancement, and there are policies in place to do so [6]. It controls compensation requirements for the environmental conservation industries resource recovery, as well as various obligations for various topics, in such regulations and laws. Table 1 shows a list of green technology applications.

Table 1: Application of Green Technology

Green Technology	
Green building	The design, construction, eliminates negative impacts on our climate and natural environment
Green chemistry	Design of chemical products. Green chemistry is used in the lifespan of a chemical substance, including manufacturing, construction, and dispose.
Green energy	Clean energy that do not release pollution and renewable energy comes from sources such as hydropower, wind power or solar energy.
Green purchasing	The procurement of products that reduced effects on health of human as well as environment
Green nanotechnology	The nanotechnology to enhance the environmental sustainability and the application of nanotechnologies to improve sustainability

Research Question

What is green technology?

The role of renewable energy in green technology?

LITERATURE REVIEW

K.M. Rajkotia et al has given view in paper which was published in 2015 some organic chemical compounds are initial entry resources for a variety of different industrial processes. Natural chemicals are used as raw resources or materials in the manufacture of polymer, pharmaceutical, pesticide, paint, artificial fabric, food additive, and other products. Green Chemistry aspires to improve the performance of conventional processes by using fewer volatile solvents, reducing the number of steps in the synthetic process, and minimizing waste as much as possible. Chemical synthesis would therefore be a part of the initiative for long-term growth [7].

Mohammed S. Imbabi et al explained in his paper which was published in 2012 that as a result, better processing processes and compositions which mitigate or remove CO₂ pollution from the concrete industrial sector are top priority. New laws, environmental taxation, and rising fuel prices all have an effect on commodity costs, so emissions control is however necessary. Available locally rocks, recycled products, and wastes can be ideal for mixing with alternative or substitution additives throughout this respect. Silica gas, blast furnace slag, and Coal ash are 3 possibly the best cement substitutes which have been studied and tested in lab experiments and also in practice [8].

Marina cvjetko bubalo et al explained in his which was published in 2015 that Designing modern, environmentally sustainable, and configurable chemicals to satisfy both technical and financial requirements is an increasing field of study in the growth of green technology. Room temperature ionic liquids, super-critical as well as sub-critical liquids, and adhesives derived from natural or sustainable materials rank out between the potential additives as the most efficient strategies for modern solvent advancement. This paper provides a brief summary of current information about such additives, with a focus on their activities, uses, and future prospects as genuinely green industrial solvents[9].

METHODOLOGY*1. Design:*

The study on green technology strategy implementation concerns various design and structure of strategies to implement. The study on green technology related to different sectors has been discussed. The paper is divided into different sections. The first section discussed the introduction part of green technology followed by mechanism related to environment. The related parts such as goals of green technology are also explained through table and diagrams. Figure 4 shown the model of work.

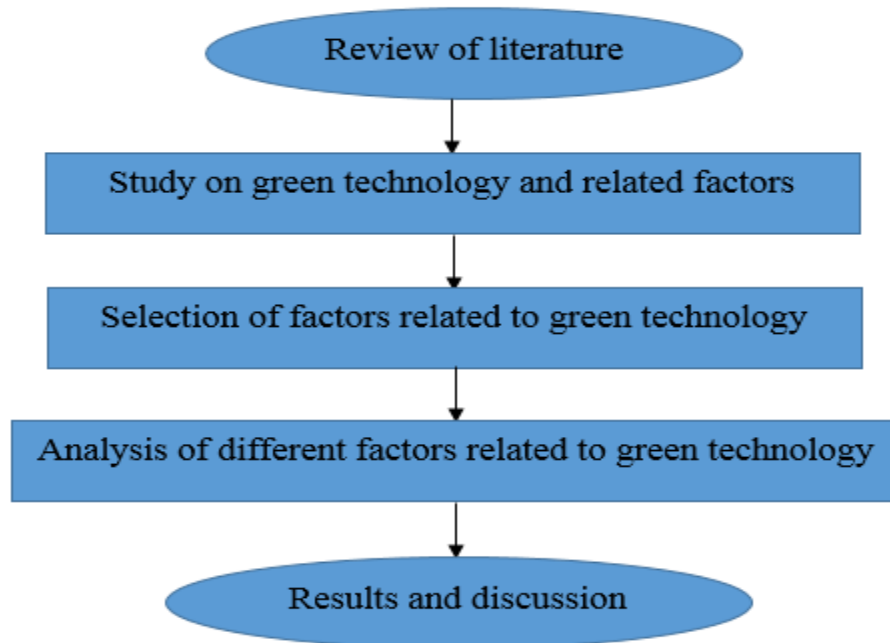


Figure 4: Model of work

2. *Sample:*

For the study, different factors related to green technology has been selected. The different factors discussed green technology related factors such as detail of green technology, green technology environmental system, mechanism of regulation system, green cost, standard system improvement, challenges and requirement of green technology.

3. *Data Collection and Analysis:*

The data for the study on green technology has been collected from the different sources of the review papers and research papers. Green technologies apply to green goods that use clean energies which do not pollute the atmosphere or deplete natural resources. Technology is now being seen as the main reason of environmental degradation. Green scientific progress and ecological responsibility are inextricably linked, and implementing green technology advancement is the only way to ensure the social economy's long-term viability.

The environmental related green technology discussed wherein Figure 5 shown the detail of environmental system related to Green Technology. Figure 6 shown the mechanism of regulation system in Green Technology. Figure 7 shown the mechanism of Green Cost related to Green Technology. Figure 8 environment technical standard system improvement with respect to green technology.

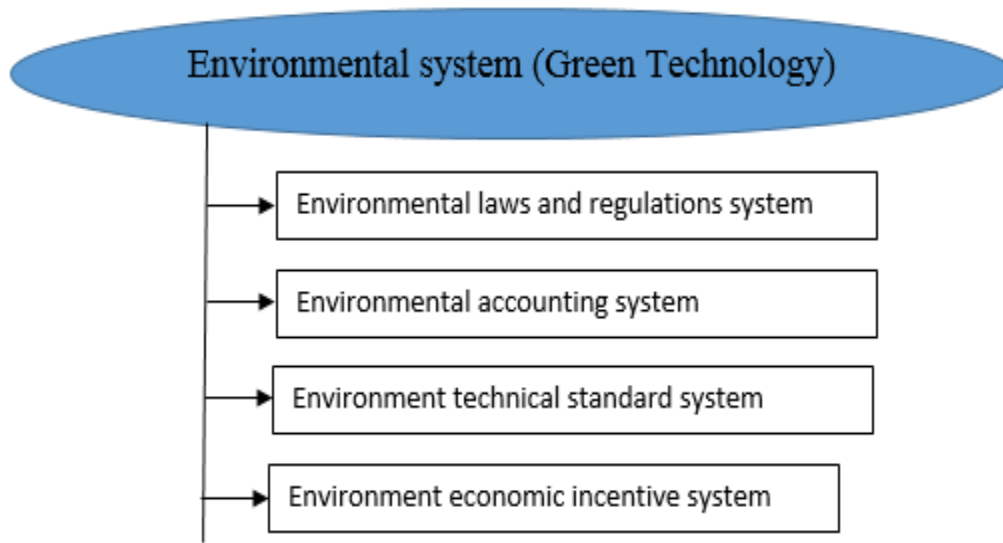


Figure 5: Detail of environmental system (Green Technology)

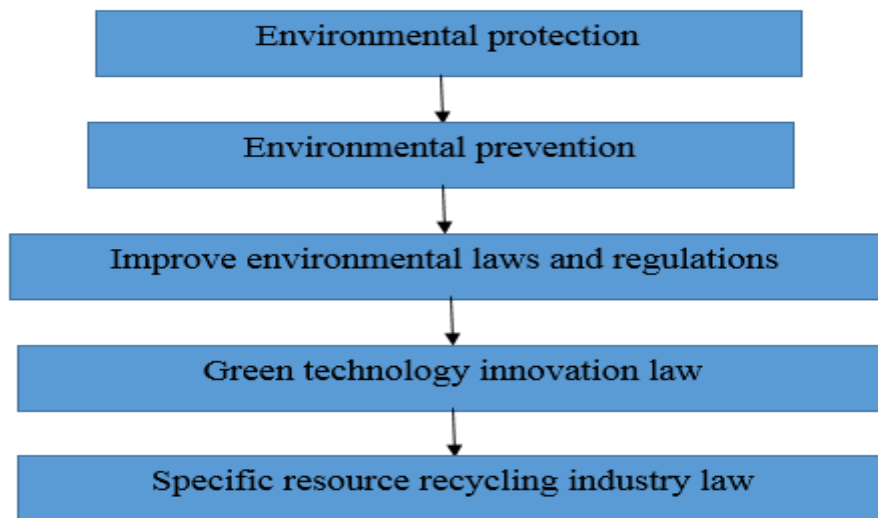


Figure 6: Mechanism of regulation system in Green Technology

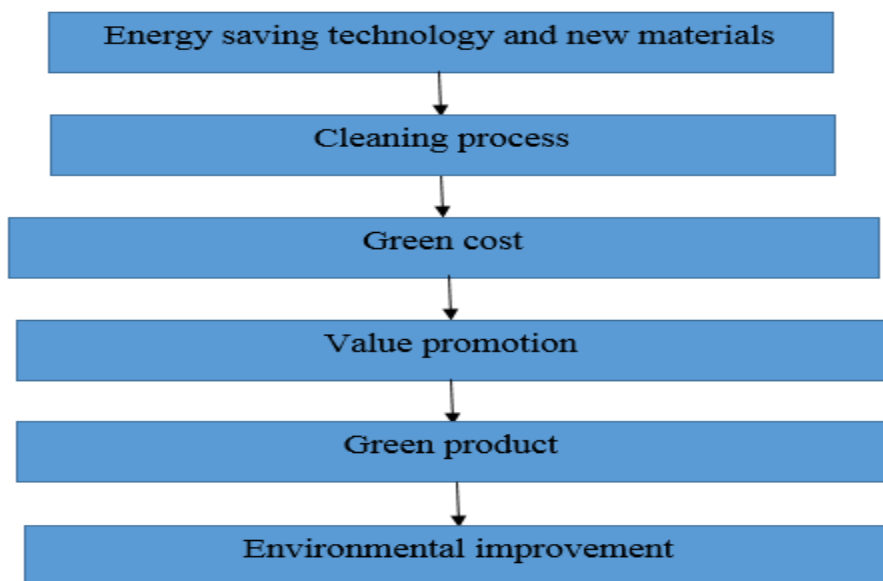


Figure 7: Mechanism of Green Cost (Green Technology)

4. *The challenges faced in Green Technology:*

- Insufficient information
- Cost of process is high
- Lack of alternative green technology process
- Lack of alternative green technology raw material input and chemical input
- Insufficient skills and human resources towards green technology
- Performance impact uncertainty

There are some goals of green technology that assist the green technology more efficient. The goal of green technology is “rethinking” that is fundamental changes radically. The “recycling” that have the applications like paper, plastic, aggregates, concrete, batteries, can clothing etc. The “renewing” is for the energy such as hydro power, wind power, solar energy, bio-fuel, waste water. The “reducing” is applicable for reducing waste, use of fuels, energy consumption etc. The “responsibility” refers to one dream and on world.

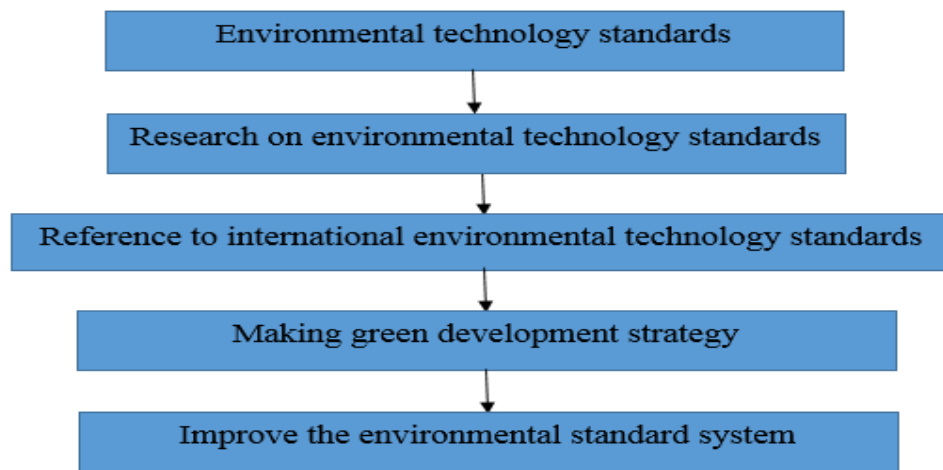


Figure 8: Environment technical standard system improvement

5. *Requirement of Green Energy:*

- Using non-renewable sources are the main reason of pollution.
- Natural resources in on decline as used on generation of energy process.

6. *Results of Green Energy:*

- Green energy to Environmental responsibility
- Green energy to rethinking way we live
- Green energy to exhaustion reducing
- Green energy to renewing the power, energy
- Green energy to waste recycling

Green technology has a mission to accomplish in terms of meeting the next generation's demands. However, it is just one-sided; we must still accept its disadvantages. Green technology's principal aspects are to meet demands despite reducing consumption or destroying the earth. It entails the use of environmentally sustainable materials. If we want to invest in innovation every time, we would be wasting a lot of resources. The basic goals reduce product, reuse product and recycle product. The Reducing refers to reduce waste, make the environment free from pollution and reduce fuel waste. We can achieve good health for the sustainable development by being waste aware. For example, rather than using papers for any use, we can use online documents. Another method for eliminating waste is to reuse materials in the reuse and recycling.

7. *The sources of renewable energy:*

- Hydroelectric energy
- Wave energy
- Geothermal energy
- Biomass energy
- Solar energy
- Wind energy
- Landfill gas energy

The green technology is sustainable technology that driven-insight geared towards sustainability application. Green technologies consider the effect of creativity on the environment, whether it is immediate or long-term. Since technology has been around for so long, many people have not considered the negative impact it has on the world. Many consumers buy electronics because they are frustrated or because it is the most recent version. As previously said, innovation has, for the most part, seriously contaminated our environment. The void in our ozone layer, and also climate change, is found. The frightening thing is that many of the occurrences which were expected to occur if we didn't improve the practices are now happening.

Advancement is necessary to reach sustainability objectives. Green management information systems, primarily the production, discovery, sharing, including the use of information, and even its effect on green technology, eco-innovation, and the social and economic component of environmental sustainability, play a pivotal part in environmental sustainability. The corporation will stay up with the technological thanks to long-term creativity. The objective of sustainable green developments is to create high-quality creative goods that have a minimal impact on the environment.

Among the most important facets of green approach is that it allows people to live their life in a more environmentally friendly manner. Green technology spans a wide range of equipment, making it possible to be more environmentally conscious in daily life. There are positive and negative impacts of the defects related to green technology. The problems such that are studied in green technologies such as energy crises or global warming cannot be solve in few years, it takes some more years. For improving the situation requires some efforts and determination. Green technologies would be a mechanism that has the ability to contribute with the resolution of environmental concerns.

RESULTS & DISCUSSIONS

The study on green technology related factors has been done successfully. The main reason of growth in green technology is awareness of people towards global warming, detrimental effects on the environment, the greenhouse effect etc. The technology refers to practical need through application of knowledge. The green technology basically deals with the renewable resource that minimize the pollution of environment, replacement of waste product or renewed product that increase greenery. The proposed paper includes the different innovations on green technology, the various factors that harm the green technology and the factors that are beneficial for the growth of technologies.

CONCLUSION

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