

# A Descriptive Study on Sustainable Development with Reference to Environmental Sustainability

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**Abstract:** Sustainable development is the development that meets the need of the present without compromising the ability of future generations to meet their own needs. Sustainable development is based on three pillars of sustainability Economic, Environmental and Social sustainability .Environment sustainability is very important for tackling the effect of climate change, to achieve gender equality, sustainable economic growth while promoting jobs and other environmental factors that can harm and do harm people and live hood. At present environmental sustainability issues are climate change, emerging global crisis, water pollution, loss of biodiversity, damage to ecosystem, waste production and disposal, impact of chemicals, use of toxic substance, damaged aquatic system a deforestation. Environmental problems are the most one faced by our country .Natural resources are depleting rapidly creating scarcity for next generation. Environmental problems are becoming more complicated due to excessive use of resources. Sustainable development encompasses the view that a healthy environment is essential to support a thriving economy .The decisions has to be made taking into account both the present and future value of resources in order to achieve continued economic development without the decline of the environment . An attempt is made in this paper to study the environment sustainability issues and the various measures to promote the sustainable development.

**Keywords:** Natural resources, sustainable development, Environment pollution and depletion

## **INTRODUCTION:**

Nature has a tremendous capacity to sustain itself. But however the speed at which the natural resources are getting depleted it is not possible for nature to sustain itself anymore .we have to employ environmentally sustainable methods to ensure that future generations can enjoy the natural resources of our planet in the same way as we are utilizing it .

At the united nations sustainable development summit in 2015 world leaders adopted the 2030 agenda for sustainable development which includes a set of 17 sustainable development goals (SDGS) aimed at ending poverty, fighting inequality and injustice and tackling climate change by 2030.

## **LITERATURE REVIEW:-**

**Definition of environmental sustainability:-**According to business dictionary .com, environmental sustainability is defined as maintaining the factors and practices that contribute the quality of environment on a long term basis.

Another definition given of environmental sustainability has given by daily 1)output rule :waste emissions from a project or action being considered should be kept within the assimilative capacity of local environment without unacceptable degradation of future waste absorptive capacity or other important services .2 input rule renewable resources (e.g. forest ,fish)harvest rates of renewable resource inputs must be kept within regenerative capacities of the natural system that generates the Non renewables depletion rates of non-renewable resource inputs should be set below the historical rate at which renewable substitutes were developed by human invention and investment according to the sustainability rule.

The Brundtland Report's definition of sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". 31 The report highlighted three fundamental components of sustainable development: environmental protection, economic growth, and social equity, which are sometimes referred to as the three pillars of sustainability

In Economic Sustainability and Preservation of Environmental Assets-FOY Explains that from an economic stand Point Sustainability required Current Economic activity not disproportionately burden further generation

In 2009, Butler Concluded that a common professional goal for Environmental Managers does exists separate from, though related to that of industries that employ them and he tentatively identified that goal has ecological balance.

## **OBJECTIVE OF STUDY: -**

To study the concept of sustainable development in environmental point of view.

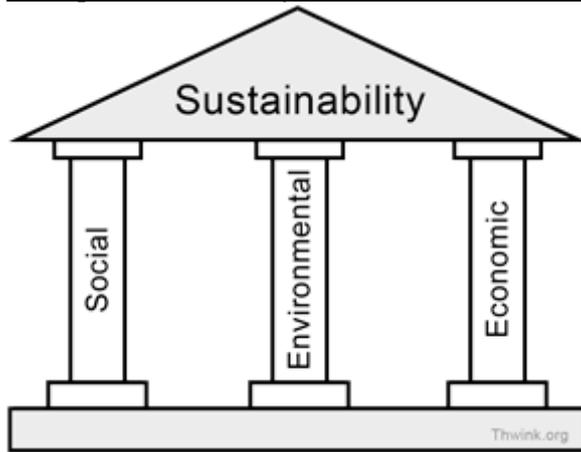
To understand the various problems faced due to lack of environmental awareness and various measures adopted by government to maintain environmental sustainability.

To suggest few measures for maintaining environmental sustainability.

## **Research methodology:-**

This study is a descriptive in nature and focuses on extensive study of secondary data collected from various books journals and publication from websites which focus on various aspects of environmental sustainability.

**Concept of Sustainability and Environmental sustainability**



The Principle of three pillars of sustainability says that for the complete sustainability problem to be solved all three pillars of sustainability must be sustainable .Three pillars of sustainability ,environmental sustainability ,and economic sustainability .Of these three pillars, the most important is environmental sustainability .If this is not solved then there is no matter how hard we try the other pillars and cannot be made strong because they are dependent on the greater system they live within, the environment .

**Environmental Dimension of Sustainable Development:-**

- Reduced waste, effluent generation, Emission into environment.
- Reduced Impact on human Health.
- Use of Renewable Raw materials.
- Elimination of toxic substances.

**Findings**

**Appraisal to be implemented: -**

The four approaches:

- 1) Appraisal of environment
- 2) Estimation of environmental impact
- 3) Natural resource accounting
- 4) Government policies and economic outlook

APPROACH	IMPLEMENTATION
Appraisal of environment	Bio physical investigation
Estimation of environmental impact	Ecological inputs along with climate, soil, vegetation and drainage resource should be monitored and controlled
Natural resource accounting	To save valuable mineral deposits, loss of wildlife habitat, pollution of ground water. Natural resource accounting is much necessary
Government policies and economic outlook	Lac k in developmental policies hamper sustainability. government policies play a decisive role in environment sustainability

**Examples of environmental sustainability: -**

**Sustainable Agriculture:** Repeated Cultivation of the same crops may lead to depletion of the quality of the soil. Contamination of the crops with chemicals which can harm human health. Crop rotation is a very effective way to maximize the productivity of crops. Rotation of crops helps in rejuvenating the fertility of the soil and help to lower the presence of disease in the soil.

**Sustainable Forestry:** Forests are very important contributors to the environment of the earth .They help in cleaning the air from harmful pollutants prevent soil erosion and contribute to cloud seed formation. Sustainable forestry offers a chance to retain some of the natural resource in its original form by ensuring that number of trees that are felled are replaced immediately with healthy saplings.

**Sustainable Construction:** The highest amount of energy is consumed every year for domestic purpose worldwide which include heating ,cooling and lighting .we have to ensure that the homes, offices and other structures that are built are energy efficient and they incorporate renewable and recycled resource. Incorporation of green spaces into the residential or office areas not only enhances the aesthetics of the location but also provide a great outdoor location to relax and rejuvenate .Small patches of green across city can go a long way in bringing in a positive effect on our lives and environment .

**Waste Management:** Tons of waste is produced every day. The thoughtless disposal of these wastes into the water bodies since years had impact on health and environment .The aquatic life had to suffer due to disposal of waste into the water system .Sustainable waste management starts from the very start of the life cycle of a product .The design and manufacturing process in sustainable waste management is developed in a way that it yields minimum waste and disposal of waste like the packaging should not impact

the environment or should have minimal effect. Use biodegradable material which has a minimal impact on the environment and is water safe. Composting is a very effective way to deal with organic waste that can be converted to manure for gardening or farming. Burning of plastic waste is not advisable as well due to emission of harmful dioxins that are emitted. The best way to manage the plastic waste is to recycle them. In recent years plastic waste has been used in construction of houses and roads that have been reported to be much stronger than usual roads and houses made of conventional materials.

**Sustainable water management:** Sustainable water management methods ensure that the water supply is not exhausted. The first step towards this is to install water efficient shower heads and low flow taps in our houses to make sure there is no wastage of water. Building complexes can profit largely from water treatment plan. Use sprinklers and drip water methods for farms and garden can help in a great way.

**Renewable energy resources:** The alternative source of energy to regain a sustainable environment are mainly wind energy, solar energy, Geothermal energy, hydropower and tidal or wave and using biofuel.

### **Supporting principles of environmental sustainability:-**

Societal needs:

- Design and deliver products and services that contribute to more sustainable economy
- Review the environmental attributes of raw materials and make environmental sustainability a key requirement in the selection of ingredients for new products and services

Preservation of biodiversity

- Select raw materials that maintain the biodiversity of natural resources
- Use environmentally responsible and sustainable energy sources and invest in improving energy efficiency

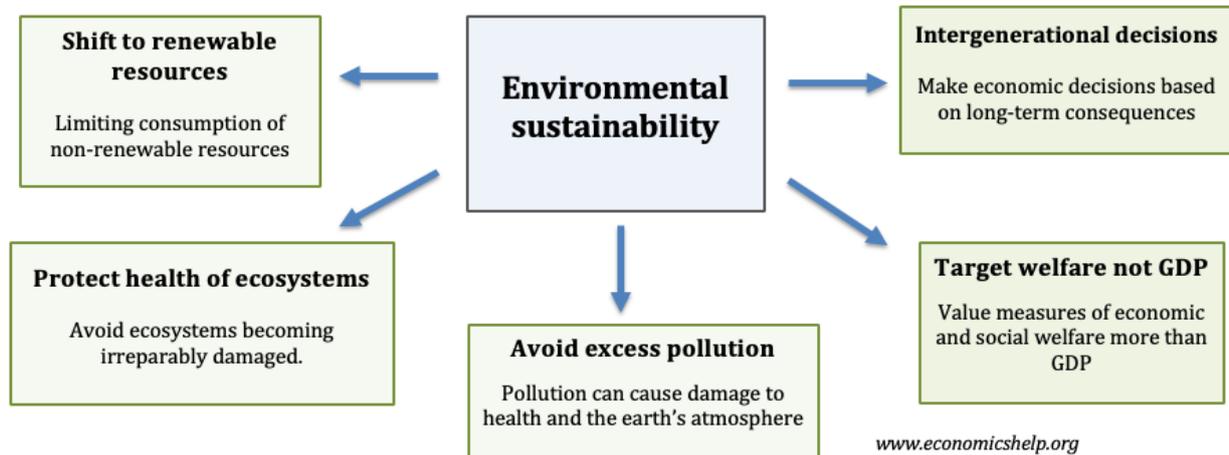
Regenerative capacity

- Keep harvest rates of renewable resource inputs within regenerative capacities of the natural system that generates them
- Keep depletion rate of nonrenewable resource inputs below the rate at which renewable substitutes are developed

Reuse and Recycle

- Design for Reusability and recyclability
- Design manufacturing and business processes as closed loop systems reducing emissions and waste to zero.
- The scale of the human economic subsystem should be limited to a level that if not optimal, is at least within carrying capacity and therefore sustainable.
- Keep waste emissions within the assimilative capacity of receiving ecosystems without unacceptable degradation of its future waste absorptive capacity or other important ecological services
- Develop transportation criteria that prioritize low impact transportation modes
- Approach all product development and product management decisions with full consideration of the environmental impact of product throughout its life cycle.

### **Measures to promote environmental sustainability:-**



### **Suggestions**

#### **To create environmentally sustainable development: -**

- Carbon tax-a tax placed on production or consumption of carbon-e.g., burning fossil fuels. the aim is to make users face the full social cost as oppose to private cost.
- Government regulations to limit harmful emissions .for example some cities have promised to ban diesel cars by a certain date
- Subsidizing /encouraging more sustainable environmental practices. For example moving towards renewable energy like solar and wind power rather than relying on non-renewable energy resources which create pollution
- Including all environmental consequences in the cost and benefit analysis of decision making.
- Shifting consumer /firm behavior through persuasion and use of behavior through persuasion and use of behavioral economics –for example discouraging the use of plastic bags.

- Environmental polluters have to pay for the damage they cause to environment, for example the levying of pollution tax is one of the measures to protect the environment.
- Making home with energy efficient versions. purchase all home appliances with energy efficient and be updated with infrastructure that is creating waste
- Understanding about carbon foot prints
- Getting rid of excess

Last but not least we have to get rid of the excess things that is not necessary.

Example: Get rid of excess things suppose we don't need two cars then sell one. The more of extra things we get rid of more sustainable development takes place. We will be able to find more psychological space to work with.

### **Conclusion:-**

In a recent news release by IMF it says that India is a country that recognizes the need for an environmentally sustainable development strategy as a global community gears up for a decisive fight against climate change .India is fully committed to the Paris agreement .It implies in reducing CO2Emissions .India is more ambitious in attaining the goal of having all cars on the road transformed to electricity by 2030.In the latest research IMF has shown that for an USD 50 per ton carbon tax ,the net benefits for India would be more than two percent of India GDP. India has also introduced very interesting instrument which is a clean environment cess. Excise tax that targets coal production and import .Green transformation of economies and societies is one of those transformational changes that must be taken in to account .India has a growing population and we have to create millions of jobs ahead. To conclude it is responsibility of each and every individual to maintain the sustainable environment so that the future generations will get benefit in having natural and clean environment.

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