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## ROLE OF BUSINESSES IN ENVIRONMENT MANAGEMENT AND SUSTAINABLE DEVELOPMENT: NEW DIRECTIONS, GREEN HRM

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**Abstract:** *The rampant changes in the scientific- technological civilization has always satisfied the human urges, pleasures and comfort. Environment Management basically attempts to focus and control human impact and interaction with the environment so as to sustain and take care of the natural resources. Its ultimate objective is human welfare for the present and future generations. In an administrative sense, for an organization, it develops, monitors and implements an environmental policy. The first part of this research paper is an attempt to understand the environmental problems due to human modified ecosystems. These human modified ecosystems also will decide the future evolution of mankind. Should fundamental human values of harmony with one another and nature, be neglected then humans may cease to be humans! Science and technology should be moving towards creating and maintaining a deeper understanding of the symbiotic relationship of man and nature. The human modified ecosystems are influenced by our activities and their side-effects. Sustainable development is that, which meets the needs of the present without compromising the ability of future generations to meet their own needs. An ecosystem should maintain population, biodiversity and overall functionality for extended period of time. This paper further tries to analyze the crucial role of businesses in environmental conservation and sustainable development and the concept of Green HRM, which is currently the buzzword in industries. It is highlighted with a case-study.*

**Keywords:** *Environment management, environmental policy, human modified ecosystem, sustainable development, biodiversity, GreenHRM.*

### INTRODUCTION

An ecosystem comprises of the biotic and the non-biotic / abiotic components. Biotic basically includes all living organisms plants, animals and others. The non-biotic/abiotic component includes the environment i.e the sun, earth- soil, climate, and atmosphere. The biotic components

interact with each other and also with the abiotic. These two components share a symbiotic relationship with each other, with the energy flows and nutrient cycles flowing through them. There is a rich bio diversity in every ecosystem/habitat. That is we see a wide variety of species of different plants and animals which are considered as the natural wealth of every nation. Human beings are at the top/apex of the ecological pyramid thus making them the most vulnerable to changes in the ecosystem. Through civilizations, man has exploited nature to satisfy his needs and also greeds. We see an accelerated degradation of environment due to socio-economic activities like agriculture, rapid industrialization, urbanization, growing population etc. On one hand development is an essential agenda for all nations but we need to understand that development and environment are two sides of the same coin. Lack of awareness of the laws and forces of nature that keep ecological balance leads to improper behavioral patterns leading to environment degradation and problems. On one hand in both the developing and developed nations are small groups like the tribals in specific areas who are in perfect harmony with nature, without being influenced by the technological changes. They love and respect the forces of nature and draw from nature only what is essential for them. On the other hand are people who are in conflict with nature and their behaviours are dominated by their greed as a result they use the maximum extraction principle from nature thus disturbing the sensitive ecological balance resulting in natural calamities and other man- made disasters. Thus all nations confront with the environmental problems where air, water and noise pollution are common features. There are two basic reasons for our concern to pollution, firstly human health and welfare and secondly sustenance and survival of mankind. Earlier civilizations had self-imposed norms held by their religious beliefs and spiritual practices. Legal measures to regulate detrimental environment behavior is a recent development.

The term development also implies that it should be “sustainable”, which means that the natural resources viz. the non-renewable, should be preserved for the future generations while fulfilling needs of the present generation as well. From organizational perspective, managers and decision –makers are responsible for environment management. They also would be evaluated on the basis of their contribution towards green and sustainable business development. It also helps us taking one step closer to a socially responsible corporate world.

## **OBJECTIVE**

The nations of the world are facing severe environmental challenges. The process of environment degradation was accelerated by the development of socio-economic activities of man, like agriculture, industrialization, urbanization and also the growing human population and indiscriminate use of technology. It is difficult to manage the environment crisis unless people change their behaviours and attitude to consumption patterns, marketing, HR practices and manufacturing processes to more green practices. It is high time that nations think about the use of non-carbon energy economy, also more usage of renewable material resources and energy. It is high time that planners of the world unite together for a common goal to combat climate change. The main aim of this paper is to try and understand the symbiotic relationship between man and nature. It also tries to envisage the damage caused to nature to human modified ecosystem stressing the need for eco-industrial systems. Further it addresses the concept of sustainable development and its significance to preserve the bio-diversity. How can common people like you and me play a part?

Can businesses play an important role in environment conservation? This paper throws light with case-study and illustrations the social responsibility of businesses. Green HRM today is the buzzword, and has become a key business strategy. How can green behaviours and role of HR be extended in developing sustainable businesses? This paper tries to address these facets of the ultimate slice of reality!

## **LITERATURE REVIEW**

According to Bhatnagar, K.C.(2009) there is a crucial need of environment management to the wider industry. He stresses on the application of its best ideas and principles across government, businesses and society at large thus converting the theories of environment management into operational reality.

For a sustainable development it is highly imperative to use the scarce and non-renewable resources religiously and judiciously and protect our environment(Behra& Khan:2009)

Pollution has become a world- wide phenomena and so is the concern for its control. The compulsions of the present conditions have attracted and awakened the engineers, technocrats, government, international organizations.(Pandey, G.N.: 1997)

Bala Krishnamoorthy (2005) expresses his thought provoking ideas and the growing concerns about environmental pollution and degradation. He further covers the aspect of sustainable development, waste management and environmental ethics.

Various contemporary scholars have studied the concept of Green HRM in the last few years (Berrone & Gomez Mejia:2009) also Jackson Susan , Douglas, Charbel, Renwick, Jabbour, Muller\_Camen have suggested the future directions for Green HRM. In German Journal Of HRM.

Stringer Leigh(2010) highlights the aspect of green change management, and how the future green workplaces can benefit employees, environment and the bottom line.

## **METHODOLOGY**

Data collection is through secondary sources that is from various articles, books,journals and other secondary sources.

### **Environmental problems due to human modified ecosystems:**

The human modified ecosystems are not necessarily dependent on solar energy, they may use electricity or fossil fuel energy sources. Some of the examples are urban ecosystem, rural ecosystem, industrial areas etc. Some of their characteristics are:- they are oversimplified, food chains are simple and small, species diversity is low, they suffer from soil erosion and are highly unstable.

The rapid growth of the human population in combination with changes in the distribution patterns such as over- urbanization and the technological advancements used indiscriminately are the two major causes of environmental problems.

Overpopulation and urbanization leads to over-utilization of land,depletion of natural resources, increase in urban pathology, increased wastes and major ecological changes. Freshwater sources are decreasing .High quality freshwater availability is becoming sparse. Natural disasters are an

outfall of excessive exploitation of nature by man. Another issue is the eutrophication of water and its secondary effects. When freshwater bodies are contaminated with industrial and agricultural effluents like nitrogen and phosphorus compounds, there is unprecedented blooms of algae. This algae spoils the water quality and their oxygen demands after their death and decay cause death of large shoals of fish. Industrial effluents like mercury which are let in water bodies without proper treatment enter the bodies of the sea creatures which when consumed by man can cause harmful disorders of intestine and other carcinogenic diseases. Improper land usage leads to soil erosion, leaching out nutrients from soil leading to decreasing soil fertility and creation of arid zones. Large scale climatic changes disturbing the biodiversity in the ecosystem are visible. Wide varieties of species of plants and animals get extinct due to man's overexploitation of nature to satisfy his greed.

Air too is heavily polluted with heavy concentrations of carbon dioxide, carbon monoxide, sulphur dioxide and other toxic substances. The greenhouse gases are emitted by the vehicular pollution, thus changing the air composition which ultimately affects man causing respiratory illness and other disorders and diseases. Effects of global warming are already visible with average earth surface temperatures ever increasing, thus melting the polar ice caps and rising ocean levels thus more land being submerged under water. The atmospheric turbidity (aerosol content) results in global cloudiness. There is also an impact of increase in the amount of heat generated by man's activities.

There is also excessive noise pollution due to human activity and faulty urban planning. Constant exposure to high decibels of noise levels can result into hearing disability among humans. It also can result into cardio-vascular diseases, accidents and increasing stress levels.

### **Eco- industrial system:**

In short the pollution problems have increased, global warming is rising, over exploitation of nature has led to deforestation, depletion of water bodies, and increasing human diseases and ailments. All human modified ecosystems are not sustainable and suffer loss of biodiversity. There are several advantages of human modified ecosystems, no doubt which helps in enhancing quality of human lives. But we need to try and curtail our needs and change our habits so as to conserve our natural resources. The answer lies in Eco-industrial revolution which seems to be a unique solution to eliminate the side effects of human modified ecosystems. Eco-industry or

industrial ecology refers to a new efficient production system which helps in reducing the wastage thus generating minimum wastage. It makes the manufacturing processes sustainable. It also recycles the industrial waste for example waste from one industry is used as raw material by another thus enhancing industrial efficiency.

### **Sustainable Development:-**

Any desirable change in a positive direction for economic and in general human growth is called as progress. Any planned desired change deliberated by human capital is development. Economic development without depletion of natural resources, sustaining the ecosystems and meeting the developmental goal, in short harmony between environment, economy and social community is called sustainable development. Some of the factors that promote sustainable development are population stabilization, integrated land use planning, preventing pollution in air, water and controlling the noise pollution. Waste recycling, conserving bio-diversity and environment education and awareness also helps sustainable development.

In September 2015, at United Nations the General assembly adopted the 2030 agenda for sustainable development that includes 17 sustainable development goals which aims at leaving no one behind and encompasses holistic development. It adopted a set of goals to end poverty, protect our planet and ensure prosperity for all as a part of a new sustainable development agenda. For these goals of humanity at large to be met with everyone needs to do their bit - governments, private sector, civil society and common people like us. In this context it is important to highlight the concept of Indigenous Protected Areas (IPAs) which is of growing importance in order safeguard the rights of the indigenous societies and also preserve the biodiversity in these habitats. It emphasizes long term health and protection of nature. IPAs are considered as a vital part of a nation's conservation system which contributes to indigenous protection of biodiversity .For example Brazil's Xingu river basin hosts 25,000 indigenous group of more than 18 ethnic communities. Here they are called as (ILPAs)Indigenous lands and protected areas. Another example is the protection and conservation of the threatened medicinal plants in the Himalayan region in India or the National Park for the Management of natural heritage of Giant Panda in Jiain Mountains in China.

### **Corporate Environmental Responsibility/The role of Businesses in environment conservation:**

Industrial participation and an organization's commitment to the environmental policy is reflected in their production techniques, sensitizing techniques used to sensitize employees and other stakeholders. Socially responsible business organizations comply with all the safety requirements of the present and future like handling the hazardous material, emergency guidelines thus co-operating with the government and other regulating bodies. These initiatives generally include top management commitment to sustainable practices which includes responsible employee behaviour with respect to waste avoidance, recycling, reusing, resource management, reduction of noise, waste disposal and overall control and reduction of environment impact. Some of the examples of companies who are certified for ISO environmental management are- Hindalco, National Organic Chemical Industries Ltd., UnitedPhosphorus, ITC etc. Discussed below is the case-study of Google:-

**Case: EDF And Google Earth Outreach: Project-Air view(Mapping the invisible- Street view cars add air pollution sensors)**

Like in other countries, in US the heavy-duty trucks, vehicular pollution, industrial activities including the 1.3 million miles of natural gas distribution pipelines contributed to the air pollution. The main problems with these pipelines were they leaked the hazardous methane gas along with the other greenhouse gases. Law requires to fix any leak that are a safety threat. The main problem was it was difficult to find out from where the gas leaked. The EDF(Environmental Defence Fund) worked with Joe Von Fischer, a scientist at the Colorado University to develop a new technology as a solution to this problem, to detect methane concentrations from a moving vehicle. When EDF decided to expand to more locations, they reached out to Google who already had the street view cars project running. These vehicles had high precision GPS capturing 360 degree photos for Google maps, maybe could measure methane while they were at it. Google Earth outreach had the potential to turn street view fleet into environmental sensing platforms. They fitted an intake tube on the front bumps to collect the air samples. Once the air sample was collected the data was sent to Google cloud for analysis thus showing methane leakage. This trial began in 2012 and using this technology 5,500 leaks in 11 cities were detected. The US Govt. fixed this problem by changing these pipelines, thus reducing the air pollution. In 2014 Google expanded their partnerships, equipping several more street view cars with Environmental Intelligence mobile platforms to measure air pollutants.

Thus now people can not only get the weather on their smart phones, but also can scroll down and see the air quality when they are walking.

## **GREEN HRM**

As the world is getting more environment conscious, businesses have a moral and social obligation to conserve the environment. Green HRM is the use of HRM policies, philosophies and practices to encourage sustainable use of resources, curtailing any harmful practice causing damage to environment thus contributing to the cause of environment conservation. Further it encourages and promotes green initiatives by employees and maintains green objectives throughout HRM processes of recruitment, hiring, training, compensating, promoting and developing the human capital in an organization. It creates a win-win situation for the employees, business, natural environment and individuals & society at large. In fact the HR function as suggested by some scholars can be renamed as "People & Society"

The need is to go green that is use **green practices** and promote and encourage customers to do the same. In this context it is important to mention that businesses need to follow the environmental regulations which is legally and morally a binding factor. For example regardless of the personal views of the owner they need to follow the local, state, national and international laws like following the limits of the amount of waste or effluents that end up in water or rather treating the waste and recycling it. The oil companies must follow safety practices and get the necessary government approvals providing the necessary information, for new offshore oil wells. Regulations must also be followed for quarrying in mines.

In most countries use of green energy projects by using solar energy or wind turbines, electric cars are given tax benefits or deductions. These type of businesses serve as role models to the society and help in creating green awareness among customer and other stakeholders. Green energy basically reduces impact on environment and helps reducing use of fossil fuel and also reduces the wastage produced. One more step that businesses can take for reducing the waste is try to use recycled products such as providing reusable bags for customers at discounted price or charging heavily for a plastic bag. Companies that use recycling bin at their business locations become business leaders in environment conservation movement.



Other green practices include car-sharing/ pooling, cycling, using public transport which can help enhance employee health, also other examples are virtual interviews , paperless offices, telecommuting, well –managed energy efficient office spaces. Companies like Ford, Pepsico and other Fortune 1000 companies have sound sustainability policies and have office spaces in Green Buildings. It is also observed that people too prefer working in organizations that have an active policy to reduce carbon emissions.

HR department recruit candidates with green bent of mind, who are familiar with concepts like recycling of waste and other sustainable processes mentioned above. Examples are companies like Siemens, Bayer. At Rover environmental responsibility is part of every job profile. Induction and training process about green procedures and policies, including waste management and other social and environmental issues at the shop floor to the boardrooms are commonly used. E-learning modules and apps are introduced by many organizations leveraging learning technology, for example Bajaj Allianz General Insurance.

Performance appraisals encourage promotions and other incentives for environmental innovations and rewarding other green behaviours, Green rewards can include workplace and other lifestyle benefits like free bicycles to engage people in green agenda. Some others give carbon credit card to their employees.

## **CONCLUSION & FUTURE SCOPE**

The capacity of earth to support the human species depends on the delicate balance between the population density and the lifestyle of people on one hand and the availability and prudent usage of the non-renewable resources on the other. Substantial increase of the material consumption with the indiscriminate use of technology in all countries is simply not compatible with the total needs of the present and future generations. We cannot afford to neglect the human values of harmony with one another and nature. It is imperative that sustainable development is an opportunity as well as a challenge in the global transformation. Governments, businesses, and society/humanity at large are responsible for the quality of life and sustenance on this planet. There is a huge scope and opportunities for research at the intersection of strategic HRM and environment management. Green HRM is the key business strategy!

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