

Is it time to promote employee green behaviour? The need and scope

Jovita Sherin George^{1,*}, K.N. Jayakumar²

¹Research Scholar, ²Assistant Professor, Periyar University, Salem, Tamil Nadu

***Corresponding Author:**

Email: jovitasheringeorge3@gmail.com

Abstract

Environmental degradation and depletion of natural resources has created havoc to the nature. Human beings exploited the environment for their personal motives. The destruction created to the environment is irrevocable. But still, protecting it from further damage is very essential for the survival of human and other species on Earth. Exploitation of the nature is beyond the endurance now. People have gradually realised the relevance of the nature and it's retaliation against senseless exploitation. Now it is the time to pay off for what humans have done. Human greed through Industrial exploitation results in plundering of the natural resources and creating awareness among employees to engage in green behaviour can mitigate the environmental problem. Employee engagement is crucial for retaining productive employees in an organization and there are different types of it. Employee Green Behaviour (EGB) is the pro environmental behaviour that the employees engage in. This is one of the several methods in which environment could be protected. The research method used in the present EGB analysis is exploratory in nature. This paper explores the significance of employee green behaviour which plays a major role in protecting the environment. Also, it analyses the benefits of green behaviour for the employees as well as the environment.

Keywords: Industrial exploitation, Human greed, Environmental degradation, Employee engagement, Environmental awareness and Employee Green Behaviour

Introduction

Employee Engagement: Kahn (1990, 2010) described engagement as the harnessing of people's selves to their work, such that they fully invest their physical, cognitive, and emotional resources in their work roles. Schmidt et al (1993) define employee engagement as a modernized version of job satisfaction, which is basically an employee's involvement with, commitment to and satisfaction with work. Today, competition is the buzzword among the managers. To compete with other companies, they have to increase the productivity and efficiency of the employees. This can be accomplished by the engaged employees. The engaged employees mainly shows three behaviours. They are *Say* (the employee promote their organisation by referring potential employees and customers), *Stay* (the employees prefer to continue to be a member of their own organisations even if they get chance in some other organisation), *Strive* (the employee spare extra time, invest effort and take initiative for the success of the organisation) (Baumruk and Gorman, 2006).

Engaged employees are emotionally attached to their organization, show enthusiasm and highly involved in their job for the accomplishments and success of the organisation (Sridevi, 2010).

The types of employee engagement are:

1. **Actively Disengaged Employees:** These employees are discontent with regard to their job and persuade others to leave the organisations especially the potential employees who have chances of reaching higher position.
2. **Engaged Employees:** These employees have emotional attachment towards the employers. These employees are passionate about their job. They work

innovatively and considered as an asset to the organisations. They are future oriented and concerned about the progress of the organisation.

3. **Not Engaged Employees:** These employees obey the direction from the superior and do only the tasks what they are assigned to. These employees are not passionate about their work and lack innovativeness.

In the book *Getting Engaged: The New Workplace Loyalty* by the author Tim Rutledge (2005) explained that the truly engaged employees are motivated, dedicated and enjoy the work they are involved in. Engaged employees are concerned about the future of the organisation and are put extra effort than required for the betterment of the organisation

Environmental consciousness as employee engagement: According to Stanton (2014), the best ways to engage employees is to incorporate green initiatives in the organisation. This includes carpooling, using recycled paper, switch to real mugs instead of Styrofoam cups. The association between financial, environmental and social issues is understood well by engaged employees. Park beautification projects and fundraisers are some of the way in which employees are engaged. (Bertels, 2012).

Environmental Degradation is the process in which the environment is deteriorated by the human activities like over exploitation of resources, improper waste management and deforestation etc. The ever growing population, urbanisation, poverty, industrialization and pollution have lion's share in the degradation of the environment. Excessive usage of commodities and fossil fuels are the other reasons for the environmental degradation. Only 32.7% of sewage generated in the

town is treated, the rest is flowing into the rivers without undergoing any treatment. The average growth of vehicles in the urban area is 15.7%. The municipal solid wastes generated per day are 127mn kg in India (Hindustan Times, 2015). There is an increase of 1.2% population growth rate in the year 2016 in India (Worldometers, 2017).

Consumerism and health issues: The huge amount of wastes including plastics, a non-biodegradable pollutant harmful to human beings is the result of increase in the consumer buying behaviour. Materialistic lifestyle leads to environmental deterioration due to the disposal of wastages to the landfills. Landfills are sites where the waste materials are disposed by burying it. The introduction of mobile phones, mobile towers, laptops and motor vehicles has further contributed in polluting the environment. Population growth has also depleted the natural resources. To meet the demands of the huge population, the food production has been accelerated. This can lead to the use of pesticides that get into the food chain of humans and other dependent organisms. The toxic substances present in the air lowers the quality of air. This causes respiratory diseases like asthma, bronchitis, heart disease, lung cancer, stroke and premature death. Air pollution has both acute and chronic impacts on human health that affect a number of different systems and organs. It includes minor upper respiratory irritation, chronic respiratory and heart disease, lung cancer, acute respiratory infections in children and chronic bronchitis in adults, aggravating pre-existing heart and lung disease, or asthmatic attacks. In addition, the short and long-term exposures to air pollution have also been shortened life expectancy and increased premature mortality (Kampa & Castanas, 2008). The increase in the temperature of the earth due to ozone depletion causes sun burn, skin cancer and cataract. Exposure to high frequency sounds contribute to temporary or permanent deafness, lack of concentration, fatigue, blood pressure and anxiety. The toxic substances released into the environment due to the e-wastes and the improper recycling and disposal of these wastes create health hazards like cancer, kidney problems, neurological problems etc. Lead and mercury are the some of the hazardous material present in the computers. The toxicity of lead affects various systems in the body such as the central and peripheral nervous systems, the hemopoietic system, the genitourinary system and the reproductive systems. Mercury adversely affects the genitourinary system, the central and peripheral nervous systems as well as the growth of fetus. A polycyclic aromatic hydrocarbon (PAH) affects lung, skin and bladder. (Pinto, 2008).

Cholera, diarrhea, dysentery and typhoid fever are some of the diseases caused by the contamination of water. Extreme weather events, such as severe flooding, increase the spread of water borne diseases, such as malaria and diarrhea (Sharma, 2008). Also, consuming chlorinated water causes liver damage and even cancer.

Due to the contamination of soil, humans get affected by brain and nerve damage when come in contact with lead contaminated soil. The interaction between human health and environment has been extensively studied and environmental risks have been proven to significantly impact human health, either directly by exposing people to harmful agents, or indirectly, by disrupting life-sustaining ecosystem (Remoundou and Koundouri, 2009). The risks of neglecting the environment are going to be severe in the forthcoming years. Accelerating environmental degradation leads to a strong sustainability challenge; natural resources are limited and there is a lack of availability of technology to overcome environmental and planetary challenges in future (Ayres, 2007). UNEP (the United Nations Environment Program) estimated that an extra 250,000 deaths could occur each year between 2030 and 2050 as a result of climate change, leading to malnutrition, malaria, diarrhoea and heat stress. According to WHO, depression will be the second largest single cause of ill health by 2020 (Mind, 2007). Cooper et al., (2008) mentioned that the occurrences of depression, psychiatric morbidity, alcohol and drug dependence are higher in urban areas compared to rural areas. Also, the incidences of environmental degradation are higher in urban areas. The sulphur dioxide, which is a pungent suffocating irritant gas generated due to the combustion of fuel result in the damage of the respiratory system. These sulphur compounds also causes issues in visibility, reduction of sunlight, unpleasant smells, irritation and burning sensation in the eyes, nose and throat (Etuonovbe, 2009).

Panacea in sustainable development: On the one hand there is an uncontrollable consumerism and on the other hand, there is a critical need to preserve the nature before it's too late. The future of the people and environment is dependent on the sustainability of natural resources.

Sustainable development is the need of the hour. It is preserving the resources for future generation and meeting people's current needs. Following 3Rs of solid waste management i.e., reduce, recycle and reuse can decrease the environmental degradation produced by human activities. To minimize the damage to earth, use of biodegradable materials instead of non-biodegradable is effective. Reduction in the usage of pesticide, insecticide and fertilizers can improve the soil condition. Moreover, planting trees and maintaining the surroundings green is another suitable way to decrease environmental degradation. Protecting all the water bodies from contamination is very relevant in the current scenario. Use of renewable materials and energy can also bring down the adverse effects of environmental degradation. Choosing public transport instead of private can also be helpful in reducing carbon footprints. Afforestation is another solution to the destruction on mother earth.

One of the green inventions is vertical farming. Vertical farming is the method of producing food in

vertically stacked layers especially in skyscrapers. Another green invention is making plastics out of banana peels and as it is a bio plastic, it is degraded by the soil. Aquaponics is a system in which fishes are raised in the fish tank and the wastes from the fishes are used as nutrients for plants grown hydroponically (soilless growth of plants) which in turn purifies the water.

Organisations that help to go green: Green Peace India addresses one of the most challenging threat i.e., climate change. They also promote solar power and initiate programs to protect environment, ecological farming, reduce the use of pesticide, prevent radioactive discharges to marine water bodies. One of their main objectives of this independent organisation is to reduce air pollution and generation of urban wastes. Centre for Environmental Research and Education (CERE) is an organisation that helps other organisations to map their carbon footprints, implement low cost carbon reduction strategies etc. These organisations work in the fields of Education, Environment and Awareness and Advocacy. The projects undertaken by this organisation include Urban Afforestation, River Rejuvenation etc. Tata Energy and Research Institute (TERI) is a non-profit organisation that impart knowledge through workshops, audio-visual aids. This organisation also promotes conversion of wastes into useful products and mitigating harmful impacts of human activities. Kalpavriksh is a non-profit organisation which was initiated to save Delhi Ridge Forest. This organisation mainly focuses to develop an understanding and concern for the environment especially among the youth. They conduct research, organise campaigns on environmental disputes that affects the society.

Employee Green Behaviour: Ones and Dilchert (2012) defined Employee Green Behaviour (EGB) as any measureable individual behaviour that contributes to environmental sustainability goals in the work context. Further they argued that EGBs are an essential component of organizational environmental sustainability.

University of California Los Angeles study by Magali Delmas and Sanja Pekovic (2010) has found that there is 16 per cent increase in the productivity of the employees in the companies that voluntarily adopt international "green" practices and standards as they get better training, are more motivated and derive benefit from better interpersonal relationship.

Materials and Method

The research method used in the present EGB analysis is exploratory in nature. Exploratory research is a type of research conducted to clarify and define the nature of the problem. It helps to provide greater understanding of a concept. Secondary research is one of the techniques of exploratory research which involve reviewing the literature. In this study, the researchers tried to review the available literature and gain insight about employee green behaviour which is one of the

methods of employee engagement programmes. This study explores the different ways in which Indian IT companies engage in pro environmental behaviour. Further, this seeks to understand the psychological outcomes on the employees work behaviour due to their attitude towards environment, so that this could serve as a conceptual ground to conduct further quantitative research.

Green behaviour and its environmental benefits in Indian companies

Tata Consultancy Services (TCS) is one of the multinational IT services, consulting and business solutions organisation that provides consulting, BPO, infrastructure, engineering and assurance services. The company endorses the concept of Green IT.

In the article *Make IT Green-The TCS way*, the author Anand Sivasubramaniam (2008) explained the activities included in Green IT at TCS are using of energy efficient LED lights; sensor based light turn on/off. They also involve in rain water harvesting and ground water recharging to reduce the consumption and to save the water. Their employees also engage in waste reduction by reducing the usage of paper. Other green practices in which TCS employees involve are fuel and carbon emission reduction by cycling to the office, arriving in public transports to the office etc. TCS company also uses teleconferencing and video conferencing to substitute face-to-face meetings.

Major Outcome has not only helped to reduce the travel expenses but also travel-induced carbon footprints. The green initiative has resulted in cost reduction. The company has achieved a reduction of 12.5% in the electricity consumption, 67% of reduction in paper and printer cartridge consumption, 1.5M cubic metre of water usage and generation of 76 MWH of solar energy which ultimately led to reduction of 2% carbon footprint.

Western India Palm Refined Oil Limited (WIPRO) was initially established to manufacture vegetable and refined oil. During 1980, it entered the IT domain. Later, they expanded the production line into heavy-duty industrial cylinders, mobile hydraulic cylinders and overseas design centre. To provide internet services in India, it developed a joint venture company called Wipro Net Limited with global telecom major KPN (Royal Dutch telecom).

The author of *Going Green Is Inevitable*, Anurag Srivastava (2009) mentioned that the campuses in WIPRO are LEED (Leadership in energy and environmental design) rated. WIPRO Company promotes greater use of natural ventilation and lighting. They adopt double glazed glass that reduces cooling demand. They encourage usage of energy certified personal computers, TFT monitors and cent percent usage of CFL lights. Other green initiatives taken by WIPRO are regular energy audits, life cycle analysis of equipment's such as air conditionings, lifts and also

usage of Building Management System (BMS) to optimise energy.

The benefits derived from the green initiatives in WIPRO are resource efficiency (i.e., 36% of water needs are satisfied through recycling), reduction of carbon footprints, zero discharge of untreated waste to nearby premises, safe disposal of hazardous waste. Other benefits are decreased capital expenditure and optimized operational expenditure.

Essar Oil (EOL) is one of the major oil companies in India that engages in the exploration and production of oil, refining crude oil and marketing of petroleum products. In the year 2013, EOL bagged second in the All India Carbon Leadership Index of CDP for cutting down greenhouse gases, energy conservation and efficient use of energy.

Some of the green initiatives of EOL are that reduction of greenhouse gases through the replacement of fuel oil with natural gas. The newly built ships are asbestos-free and devoid of any ozone-depleting substances. Materials and equipments used for ships are entirely reusable. To lower energy consumption, the Essar Steel plant introduced a heat recovery power plant that uses waste heat — utilizing heat produced from the hot briquetted iron (HBI) manufacturing processes and surplus steam from blast furnace boilers — as fuel to generate electricity that make sure that there is only zero wastage at the plant site. Another green initiative by EOL is diminished water usage and also installing rainwater harvesting at the plants. Also, the company engages in carbon mapping of all its trucks, dumpers, trailers, vehicles etc. for emission levels. Some of the impacts of green behaviour in Essar oil company are GHG has decreased nearly half a million tons of carbon dioxide that ultimately reduced the air pollution. The zero wastage from the plants reduced the soil contamination and degradation. Replacing effluent water instead of fresh water for cooling machineries helps to conserve water (“Moving towards a green solution”, 2014).

Tech Mahindra Limited is one of the Indian multinational that provide information technology (IT), networking technology solutions and Business Process Outsourcing (BPO) to the telecommunications industry. The company also encourages the employees to engage in pro environmental behaviour.

To reduce the electricity consumption, the company has installed occupancy sensors which automatically switch off the lights when nobody is occupying it. This has saved total electricity of 890496 KWh and the estimated annual carbon emission savings of 730.21. Uses of advanced technologies like tele-conferencing and video conferencing by Tech Mahindra have reduced the business travel expenses as well as the carbon emission. Installation of LED lights resulted in energy efficient lighting. Also, the company ensures that all laptops, desktops and electrical appliances have the highest energy rating which resulted in a saving of 30%-

65% against the usage of standard non-rated laptops and desktops. The recycling of the waste water decreased the fresh water withdrawals and this water is used for landscaping. The company also adopts “3-R” (reduce, reuse and recycle) to reduce water footprints. As a waste management initiative, the wet wastes are recycled through vermicomposting which yielded 20.06 tons of manure that is used for landscaping. To conserve and enhance biodiversity, a swan pond is maintained in one of the branches of Tech Mahindra. Also the company encourages to maintain green area which includes plants, trees and shrubs which helps to control climate change (“Corporate Sustainability Report”, 2014).

Psychological outcome of employee green behaviour

According to Ones and Dilchert (2012), the following characteristics are exhibited by the employees who engage in green behaviour i.e., (1) working sustainably, (2) conserving resources, (3) influencing others, (4) taking initiative, and (5) avoiding harm. Employees *work sustainably* by creating sustainable products i.e., environmental friendly products, choosing paperless option instead of printouts. *Conserving* is done by switching off the lights when not in use, recycling bottles, paper and cans, setting monitors in sleep mode while inactive. Employees *avoid harm* to the environment by planting trees in their workplace, disposing biodegradable and non-biodegradable waste separately. Employees *influence others* by providing training for their colleagues and creating awareness among them. Employees *initiate* programs and policies that are environmentally friendly and also give preferences to environmental interests like turning down environmentally unfriendly project.

The benefits of employees engaging in sustainable practices are that it helps to develop new skills and thus improve job satisfaction. It offers employees new experiences outside the usual workplace and also provides opportunity to execute the practices that has been learned from the offices at home. The advantages of employers engaging in sustainable practices are cost savings, improved credibility and reputation among staffs, consumers and investors, increased market shares and revenues. The National Environmental Education Foundation’s (NEEF) by Ken Strassner and Diane Wood(2009) in the report *The Engaged Organization: Corporate Employee Environmental Education Survey and Case Study Findings* reported that, “By engaging employees, companies can spark innovative changes in everyday business processes that save money and reduce environmental and social impacts while also inspiring employees to make sustainable choices at home and in their communities.”

The companies that promote these behaviours among employees create a great impact in the reduction of carbon footprints as well as prevent the environment from exploitation. Many companies have taken the

initiative to address the negative impact on pollution and environmental degradation.

The challenges the companies encounter in executing the green initiatives is the initial cost involved in activities like construction of rain water harvest. Cooperation of the employees is highly necessary. Environmental ideas in the organisation are only supported with very little senior management support and do not get enough budget to materialise. The execution of pro-environmental behaviours like switching off the lights, removing personal bins to enhance recycling happens at a low rate due to poor habits. (Whiteman, 2011).

Many of the companies focus only on the benefits that yield out of the business. The negative consequences of the organisation's undertaking are not taken into account. Policy makers pay more attention in bringing down the personal environmental impact (Whitmarsh, 2009), but the major contribution for producing greenhouse gases is from commercial and industrial activities (Cudmore, 2015).

Other than cost reduction, companies that promote employee behaviour have another advantage i.e. efficient and productive employees prefer organisations that endorse green behaviour. This can ultimately increase the productivity of the company. According to Magali Delmas and Sanja Pekovic (2010) "Green practices make a company more attractive because so many employees want to work for a company that is green".

Maintaining swan pond, watering plants and shrubs is not only a green behaviour but it can help the employees to break their stress. Apart from these, it is a recreational activity which is essential for employee's sound health and mind and also for the rejuvenation of the employees. Engaging in green behaviour can act as a stress buster. Whitelaw et al., (2008) mentioned that green spaces have a beneficial impact on mental well-being and cognitive function through both physical access and usage as well as through access to views. The climate of the organisation should act as an aid to enhance employee health. Some of the ways in which employees engage in pro environmental behaviour are availability of healthy behavioral options (e.g., healthy food choices), enhanced and optimized safety, environmental sustainability and stewardship, and the opportunity for nature contact at work (Engbers, Van Poppel, Chin A Paw, Van Mechelen, 2005). Cultivating a healthy workplace with nature-contact exposures by promoting the use of outdoor break areas can be useful (Largo-Wight E., 2011). This can increase employee engagement. According Amy Adkins (2016), employee engagement has a strong link with the organization's financial success, such as efficiency, profitability and customer engagement. Pro-environmental employee behaviours (PEBs) at work are essential for sustainable community development (Dale, 2001). When employees feel that a company is living its professed values, it

significantly influences "employee engagement, and in turn employee engagement significantly influences organizational and financial performance" (Gomez, 2009). In addition, "the more skills and values employees reported transferring from work to family, the better their mental health and the higher their job satisfaction" (Hanson, Hammer, & Colton, 2006) and the higher their commitment to their roles and employers.

Already the world is experiencing the heat for the callous human behaviour and considering the organisational as well as the environmental benefits, it is high time for the organizations to promote employee green behaviour. Otherwise human and other species has to face dire consequences in the upcoming years.

Conclusion

Human beings almost destructed the environment for their greedy benefits. This has affected almost all the life on the Earth. Now, it's time to protect nature from further damage. Through EGB, not only the employees reap the benefit, or improve the productivity of the organisations but also safeguard the nature. So promoting EGB in various forms in each organisation is essential for the sustenance of life on earth.

References

1. Amy, A.(2016). Employee Engagement in U.S. Stagnant in 2015.
2. [2] Badruddin, S. T. (2015). Role of NGOs in the protection of environment. *Journal of Environmental Research and Development*, 9(3), 705.
3. Benefits of Green Infrastructure. (2010). Retrieved from [http://www.forestry.gov.uk/pdf/urgp_benefits_of_green_infrastructure.pdf/\\$FILE/urgp_benefits_of_green_infrastructure.pdf](http://www.forestry.gov.uk/pdf/urgp_benefits_of_green_infrastructure.pdf/$FILE/urgp_benefits_of_green_infrastructure.pdf).
4. Corporate Sustainability Report. (2014).Retrieved from http://www.techmahindra.com/en_US/www/Company/Documents/Tech_Mahindra_Sustainability_Report_FY_2014_15.pdf.
5. Cudmore, T. (2015). *Delivering Workplace Pro-Environmental Behaviour Change Using Evidence-Based Practice* (Doctoral dissertation, De Montfort University).
6. Engbers, L. H., van Poppel, M. N., Paw, M. J. C. A., & van Mechelen, W. (2005). Worksite health promotion programs with environmental changes: a systematic review. *American journal of preventive medicine*, 29(1), 61-70.
7. Etuonovbe, A. K., & Etuonovbe, A. K. (2009). The Devastating Effects of Environmental Degradation-A case study of the Niger Delta region of Nigeria.
8. Green, A. S. M. I. (2008). The TCS way (pp. 1-12). Tech report.
9. Hewitt, A. (2012). Employees at 'green' companies are significantly more productive.
10. India Population. (2017). Retrieved from <http://www.worldometers.info/world-population/india-population/>.
11. Largo-Wight, E. (2011). Cultivating healthy places and communities: evidenced-based nature contact recommendations. *International journal of environmental health research*, 21(1), 41-61.
12. Lory Rich. (2015). Ways to Prevent and Reduce Air, Water, and Land Pollution.

13. Martin, N.(2016). A quarter of deaths caused by environmental degradation, says UN.
14. Moving toward a Green Solution.(2014, June, 04). Retrieved from http://www.essar.com/article.aspx?cont_id=gRUznexnIac
15. Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee green behavior a theoretical framework, multilevel review, and future research agenda. *Organization & Environment*, 28(1), 103-125.
16. Ranga, NR. (2015). How Do Humans Affect The Environment 6 Negative Ways. *Environment*.
17. Remoundou, K., & Koundouri, P. (2009). Environmental effects on public health: An economic perspective. *International journal of environmental research and public health*, 6(8), 2160-2178.
18. Srivastava, A. (2009, November). Going Green Is Inevitable.
19. Strassner, Ken and Wood, Diane.(2009,March). The Engaged Organization.
20. Wiernik, B. M., Dilchert, S., & Ones, D. S. (2016). Age and Employee Green Behaviors: A Meta-Analysis. *Frontiers in psychology*, 7.