



Environmental Economics and Sustainable Development: HR Perspective

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Abstract: Organizations, world over, are striving to integrate the principles of sustainability in their operations for various reasons - to improve their brand image, to increase employee satisfaction, engagement and retention, to manage environment and to demonstrate social responsibility. This paper draws attention on Sustainable Development with a focus on Environmental Economics and the factors that are driving organizations towards integrating sustainability within their operations from the most important HR perspective. HR Managers face increased expectations for attainment, in the form of performance and contribution. Main challenge of HR is to ensure that there is a strong linkage between organization's strategic priorities and effectiveness of Human Resource Management and ultimately meet the goal of Organizational Sustainable Development. This paper is an attempt to explore the potential of sustainability as a new paradigm and the role of HR in supporting Organizational sustainable development with the help of Environmental Economics. This study finds that both HR practices and Environmental Management System influence Sustainable Development. By exploring the effects of best HRM practices and being environmentally-sensitive, we find that Environmental Economics is also important to sustain the pressures from all stakeholders.

Key words : Sustainability, Sustainable Development ,Environmental Sustainability,

1.Introduction: Policies and procedures provide a guidance for meeting organizational objectives and describe the steps that employees are to take when creating a product or delivering a service. This ensures consistency in practice and helps to maintain product or a service quality. A policy will set the *expectation* for employee behaviours and the *procedure* outlines the steps for it. Every organization has policies to ensure fairness and continuity within the organization. One of the jobs of HRM is to develop the wordiness surrounding these policies. In the development of policies, HRM, management, and executives are involved in the process. For example, the HRM professional will likely recognize the need for a policy or a change of policy,

seek opinions on the policy, write the policy, and then communicate that policy to employees. It is key to note here that HR departments do not and cannot work alone. Everything they do needs to involve all other departments in the organization. Some examples of workplace policies might be the following: Discipline process policy; Vacation time policy ; Dress code ; Ethics policy ;Internet usage policy ; Environmental Policy etc.

2. Importance of study
Economic Sustainability and Sustainable development are the important issues in the field of Social Sciences Research but received little attention in the context of Human Resource Management. Previous literature showed no systematic link between Economic Sustainability and



HRM and are rarely inter-related with each other (Ehnert, 2009, Baker, 2009). Sustainability attempts to bridge Social science with Civic Sciences and Technology of future and is the study of how systems function, remain diverse and implement(epa.gov). Hence, the present conceptual study of the importance of Environmental Economics in Sustainable Development stands important to further study empirically on how HRM's role is incorporated in putting in action for Organizational Sustainable Development.

3. Objectives of the study

- In the light of Organizational Sustainable Development, main objective of this study is to draw parallel between HRM and Environmental Economics while studying
 - i. HRM functions,
 - ii. Environmental Policy Making.
 - iii. Corporate Sustainability Reporting

4. Scope of the study: The scope of study would appear merely as Organizational Sustainable Development but in reality Sustainability has something for everyone and the wider scope has been extended as a guide to HR Professionals.

5. Methodology of the study: The conceptual research study is based on secondary data collected from books, journals, WCED, United Nations SD Goals and world wide web (internet). The primary data collected from HR professionals and stakeholders from an e-survey conducted is used to test the Hypothesis

6. Limitations of the study: The topic itself is very vast and includes various other areas of interest for HR managers. The research is limited to few important issues and topics as the absence of primary data restricts the present paper in discussing how HR professionals

actually apply Environmental Economics in action.

7.Literature Review :(Maler, 2005)Economics is the study of the allocation of scarce resources. The theories of economics can be applied to any scarce resource, not just traditional commodities. Economics is not simply about profits or money. It applies anywhere constraints are faced, so that choices must be made. Economists study how incentives affect people's behaviour. (Xue,2003) Environmental and Natural Resource Economics or Environmental Economics(Maler, 2005) is the application of the principles of economics to the study of how environmental and natural resources are developed and managed. History of three schools of economic thought in relation to the environment(Steiguer, 1995):Origins of the theories during the Industrial Revolution(1760-1850), their re-emergence during the years immediately following *Silent Spring* to explore the present status and finally compare their potential value in the resolution of future environmental matters. Each of these theories have something different to contribute, and together they present a comprehensive scheme for solving environmental problems. Quoting from the National Bureau of Economic Research Environmental Economics program, "Environmental Economics undertakes theoretical or empirical studies of the economic effects of national or local environmental policies around the world. Particular issues include the costs and benefits of alternative environmental policies to deal with air pollution, water quality, toxic substances, solid waste, and global warming".



Table : Difference between Economists and Ecologists

Economists	Ecologists
Economists typically conceptualize Sustainability as constant, or non-declining, consumption (or utility). Given the use of a model where there is a single commodity, this is equivalent to sustainability as maintaining productive potential through time.	Ecologists are more inclined to focus explicitly on the properties of the biosphere, such as resilience, than on human welfare. However, in effect, their approach is also anthropocentric and at the level of general objectives the approaches should be seen as complementary rather than competitive.
Economists are more optimistic	Ecologists tend to be less optimistic than economists.
Economists tend to favour 'keep total capital intact'.	They tend to favour some variant of 'keep natural capital intact'
Economists tend to be 'weak sustainabilistists'	Ecologists tend to be 'strong sustainabilistists'
	Ecologists are more inclined to urge a cautious approach to policy objectives, and less inclined to rely on price incentives as policy instruments.
The Father Of Economics . Adam Smith is often touted as the world's first free-market capitalist. While that designation is probably a bit overstated, Smith's place in history as the father of modern economics and a major proponent of laissez-faire economic policies is quite secure.	Alexander von Humboldt is often considered a father of ecology. He was the first to take on the study of the relationship between organisms and their environment.

- Natural resources – resources provided by nature that can be divided into increasingly smaller units and allocated at the margin.
- Environmental resources – resources provided by nature that are indivisible.
- Natural resources serve as inputs to the economic system. Environmental resources are affected by the system (e.g. pollution).

Robert Stavins (2007) article provides an overview of the economics of environmental policy, including the setting of goals and targets. The choice of

specific policy instruments, featuring an examination of potential criteria for assessing alternative instruments, with focus on cost-effectiveness are reviewed. The theoretical foundations and experiential highlights of individual instruments are reviewed, including conventional command-and-control mechanisms and market-based instruments.

HRM and Environmental Economics(Wood,2009): Economic Analysis is given priority in the policy process and HRM need to be able to "speak the language". Markets, and



prices often do not exist in Environmental Economics but the main goal is to apply economic tools to environmental problems. The problem in environmental economics is often that there is no market for environmental resources. Efficiency versus equity(Nicola,2013) : The fundamental theorem of welfare economics says nothing about the distribution of resources in an efficient solution , Equity issues are also important. Policymakers need to consider how various groups will be impacted. This can be complicated in environmental economics.Welfare economics is the branch of economic theory which has investigated the nature of the policy recommendations that the economist is entitled to make. For example, how should the welfare of future generations be weighed when making environmental policy?

(Caplin & Schotter,2010) There are two types of economic analysis: Positive economics – studies how the economy actually functions. It is purely descriptive. E.g.: how do people respond to higher energy prices? Normative economics – the study of whether or not the economy produces socially desirable results. Requires value judgments. E.g.: What is the best way to reduce gasoline consumption (e.g. tax, fuel economy regulations, oil import tariff)?Even though we cannot prove scientifically which values are correct, we can have rational discussions about them, and can evaluate what goals are being met – leaving it to politics, etc. to decide which goals should be met.

If sustainability is a social goal, then it would need many contributions from 'sustainability indicators' of various

kinds. Many firms appear to have very poor procedures for recording quantities of waste flows, where they originate, how much cost is associated with waste controls and to which activity these costs can be attributed. More generally, environmental impacts and the costs of environmental management within firms are not usually adequately represented in a cost-accounting framework. Similarly, when legislative or administrative controls impose costs of environmental control on firms, these costs are not usually attributed to particular production processes, but are treated as general environmental management expenses. This hides the true costs of particular products and processes from managers, and undervalues the benefits to the firm of pollution-control programmes.

There is so much emphasis on HR practitioners being strategic partners in the business that the importance of their policy-making role is often overlooked. HRM is a strategic process having to do with the staffing, compensation, retention, training, and employment law and policies side of the business. In other words, your job as human resources (HR) manager will be not only to write policy and procedures and to hire people (the administrative role) but also to use strategic plans to ensure the right people are hired and trained for the right job at the right time.

(Wood , 2009)Human resource management (HRM) is the process of employing people, training them, compensating them, developing policies relating to them, and developing strategies to retain them. As a field, HRM has undergone many changes over the last twenty years, giving it an even



more important role in today's organizations.

Human Resource Management includes a number of functional areas, including responsibilities from recruitment and staffing to compensation and benefits or training and development. This profession has evolved a few decades ago and continues to change from time to time while bringing value to the organizations (Harris et al, 2005). They are encouraged to offer much more to organizations than just traditional personnel management function – from the involvement of implementing business strategy to development of leadership activities (Chanda, 2009). This depends on different organizational factors and also on the size of the organization. Headcount in an organization influences HRM function as well as various factors also decide the HR responsibility (Kay, 2012). HR strategic role in the organizational context would influence on business success (Sims, 2002). With the ongoing changes in Human Resources Management (HRM), it's important that managers, executives and HR employees, specifically, be aware of the challenges that today's HRM team may face. Main challenges include but not restricted to: Workplace diversity, Change management, Compensation and benefits, Recruiting skilled employees, Training and development, policy making (Kramar, 2012).

(Stavins, 2007) Economists help in providing information not only on the value of the environment, but also on the policy options available. Behavioral provide insights on how individual behavior can be changed. Focus on marginal analysis :What is the value of a

specific Department , rather than all Departments, Helps to highlight the complexity of environmental issues. In the U.S., the most visible role for economics is for cost-benefit analysis. This has led to a more normative use of environmental economics. Environmental economics (Maler, 2005) contributes to policy by clarifying the choices available. By placing values on potential benefits, it can help clarify what we are getting for these costs. The development of cost-effective policy is also important. Economists play two roles here: Estimating compliance costs and Designing cost effective policies. This affects both the type of policy and the timing of policy. New policy instruments (e.g. tradable permits) have gained increased acceptance among policy makers. One concern raised is that economists simplify environmental problems. Environmental problems are "wicked" problems that involve multiple stakeholders. Economists should have a seat at the table, but other disciplines (and other interests) must also be represented.

Key players in environmental policy:

- Industry, who prefer policy instruments with low costs to the firm (not necessarily to society as a whole);
- Consumers can influence firms by their purchasing decisions: And
- Stakeholders or Interest groups

Weaknesses of economic approach to environmental policy:



- There may be oversimplification of some environmental problems.
- The dominance of economists in policy making may result in crowd out of other stakeholders.

Importance of Environmental Economics in Sustainability Reporting :

(Field,2016) Environmental Economics plays a significant role facing contemporary environmental issues, at all levels and It is essential to understand the causes and consequences of the misuse of natural resources, environmental degradation, contamination and climate change. (Motta,2001)It is the central piece for designing environmental policy-making in organizations in developing countries.

According to UN Global Compact Guide to Corporate Sustainability, Corporate sustainability is imperative for business today – essential to long-term corporate success and for ensuring that markets deliver value across society. To be

sustainable, companies must do five things: They must operate responsibly, must do in alignment with universal principles and take actions that support the society around them. Then, to push sustainability deep into the corporate DNA, companies must commit at the highest level, report annually on their efforts, and engage locally where they have a presence.

According to GRI Reporting, Sustainability has evolved at the center-stage of all the strategic decisions taken by the organizations and the stakeholders . The idea of integrating strategic sustainability-related information with other material financial information signifies positive development. Sustainability disclosures help to reflect the organization's approach and impacts created across the value chain. Expertise to establish the process and the ability to write the content has been the task of HR professionals of big and small organization with the help of participants at all levels on the reporting process and framework based on GRI G4 guidelines.

8. Analysis and Inference form the e-survey conducted among 40 stakeholders where 25 respondents were HR Practitioners and the rest were non-hr practitioners:

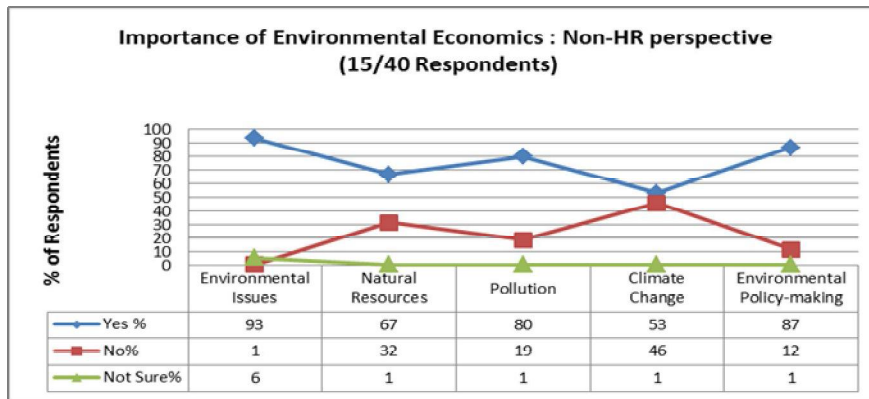
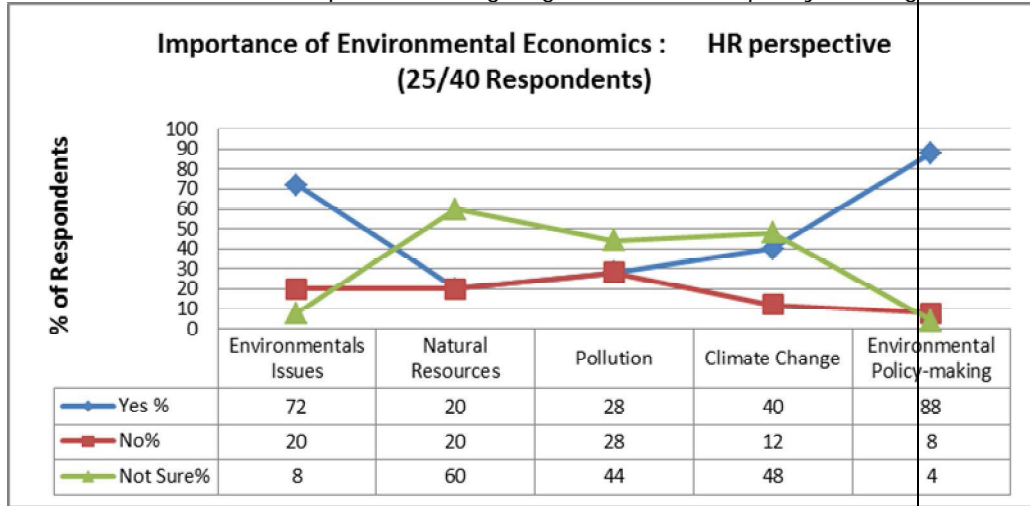
H_0 : "Environmental Economics is not important to sustain the pressures from all stakeholders"

H_1 : "Environmental Economics is important to sustain the pressures from all stakeholders"



Table : E-survey among HR practitioners to find the Importance of Environmental Economics

- S.No Importance of Environmental Economics in Sustainable Development:
- 1 Plays significant role facing Contemporary Environmental Issues
 - 2 Essential to understand the causes and consequences of the misuse of natural resources
 - 3 Helps to understand the causes and consequences of Contamination
 - 4 Essential to understand the causes and consequences of Climate change
 - 5 It is the central piece for designing environmental policy-making



t-Test Result: Two-Sample Assuming Unequal Variances

	HR (25)	Non-HR(15)
Mean	25.4	11



Variance	53.3	4.5
Observations	5	5
Hypothesized Mean Difference	0	
Df	5	
t Stat	4.235294118	
P(T<=t) one-tail	0.004103256	
t Critical one-tail	2.015048372	
P(T<=t) two-tail	0.008206513	
t Critical two-tail	2.570581835	
t-Test: Paired Two Sample for Means		
	<i>HR Mean</i>	<i>Non-HR Mean</i>
Mean	25.4	11
Variance	53.3	4.5
Observations	5	5
Pearson Correlation	0.500416754	
Hypothesized Mean Difference	0	
Df	4	
t Stat	4.950821982*	
P(T<=t) one-tail	0.003878329	
t Critical one-tail	2.131846782	
P(T<=t) two-tail	0.007756658	
t Critical two-tail	2.776445105**	
<p>t Stat* in absolute value is larger than the critical value** . Hence we REJECT the null Hypothesis H_0 : "Environmental Economics is not important to sustain the pressures from all stakeholders" and accept Alternate Hypothesis H_1 : "Environmental Economics is important to sustain the pressures from all stakeholders" and opens horizon and further research is required to conclude how Environmental Economics would be useful to HR Practitioners in Policy-making.</p>		



10.Conclusion:

Business Dictionary defines Economically Sustainable as “Quality of careful, efficient, and prudent use of natural, fiscal, and human resources over the long-term with minimal waste, and accounting for all (monetary and non-monetary) costs”. Sustainable Development (Baker, 2009) is a demanding challenge for everyone alike to generation after generation while retaining economic growth and improving living standards. Positive trends like slowing down of world population growth, rise in food production, rise in life expectancy and improvement in living standards and environment are some of the current positive trends which are the result of awareness being caused in all groups.

It is evident that the environmental economics is important to sustain from all stakeholders and Sound regulations, taxes, price mechanisms in implementation of SDGs by all the Business Industry and other stakeholders under supervision of respective Governments and active participation of humankind in developing countries like India will make Sustainability a reality by 2030.

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