

# Green Human Resource Management: Simplified General Reflections

H. H. D. N. P. Opatha<sup>1</sup> & A. Anton Arulrajah<sup>2</sup>

<sup>1</sup> Department of HRM, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Sri Lanka

<sup>2</sup> Department of Management, Faculty of Commerce and Management, Eastern University, Sri Lanka

Correspondence: Anthonypillai Anton Arulrajah, Department of Management, Faculty of Commerce and Management, Eastern University, Batticaloa, Sri Lanka. E-mail: aantonarulrajah@yahoo.com

Received: May 31, 2014

Accepted: June 14, 2014

Online Published: July 25, 2014

doi:10.5539/ibr.v7n8p101

URL: <http://dx.doi.org/10.5539/ibr.v7n8p101>

## Abstract

This paper seeks to provide simplified general reflections in respect of green human resource management (green HRM) that is a novel concept at least in Sri Lankan context and indeed has a great potential to serve the individual, society and business. The paper has its focus on seven aspects such as meaning of green, reasons for greening, meaning of green HRM, importance of green HRM, green human resource requirements, greening of HRM functions and the findings of some green HRM research studies. It is hoped that the paper has some utility for generating an interest within potential researchers and for gaining a conceptual understanding of green HRM.

**Keywords:** Sri Lanka, greening, human resource management, environmental management

## 1. Introduction

Our examination of popular textbooks published internationally on HRM reveals that green HRM is not described and discussed as a concept or a topic. A few research articles have been published in respect of green HRM. The term 'green human resource management' seems to be a novel concept to majority of Sri Lankan people including academics and professionals in HRM. Of course there are people who have never heard about this concept and some people who have heard about the concept are not clear about what it is. However, it was perhaps originated in 1996 from the contribution by Wehrmeyer (1996) who edited a book titled *greening people: human resources and environmental management* (as in Jackson, Renwick, Jabbour, & Muller-Camen, 2011). There are some developments with regard to research on green HRM though they have occurred outside our country. Despite some developments, the volume of scholarly work focusing on green HRM remains small, making clearly the field of green HRM young and there are many gaps to be filled theoretically and empirically as well (Jackson et al., 2011). Research works on green HRM done in Sri Lanka or by Sri Lankan scholars are almost none. We believe that university teachers in HRM in Sri Lankan universities have not yet started talking and teaching about green HRM formally (may be even informally in most of the cases).

The purpose of our paper is to provide a fundamental comprehension of green HRM, and ostensibly our approach is reflective, descriptive and prescriptive. In specific terms, the paper attempts to address the following interrelated questions:

- 1) What is green?
- 2) Why is green?
- 3) What is green HRM?
- 4) Why is green HRM important?
- 5) What are the green human resource requirements?
- 6) How to make HRM functions green?
- 7) What are the findings of some research studies done so far in green HRM?

## 2. Method

In order to develop a sound underpinning for our attempt to answer the above interrelated questions, a systematic review of existent literature was performed by using the archival method as recommended by Tranfield et al.,

(2003). The archival method enabled us to structure research and build a reliable knowledge base in this research area. The articles cited in the databases Sage, Taylor and Francis Online, Springerlink, ScienceDirect, JSTOR, Wiley Online Library, and Emerald with 'green HRM or environmental HRM' as the topic were utilized.

### 3. Review of Literature

#### 3.1 Meaning of Green

What do you mean by the term green? The term 'green' is used as an adjective and a noun in the normal context of our usage. The New Oxford Thesaurus of English (2000) presents several meanings such as verdant (grassy, grass-covered, leafy, verdurous, rural, pastoral (opposite: barren); environmentally friendly; unripe; unseasoned; raw; inexperienced; naive; vivid; vigorous; and pale (in combining form) to the term green. The same defines "green as a noun" as environmentalist, conservationist, preservationist, nature-lover, or eco-activist. The Collins Birmingham University English Language Dictionary (1987) defines 'green' as the colour of grass or leaves or leafy or verdant. Also the same treats 'a green' as an area of land covered with grass, plants, and trees and with not houses or factories (used showing approval). The Oxford Paperback Dictionary (1979) defines 'green' as the colour between blue and yellow; the colour of growing grass; covered with grass or with growing leaves; unripe, not seasoned; immature, inexperienced, easily deceived; pale and sickly-looking. Thus, the term 'green' has different meanings. However, mostly it means something relevant to nature or natural environment. Green means environmental. 'Green' or 'Greening' has at least four meanings in the context of managing people at work/human resource management (HRM).

- 1) *Preservation of the natural environment*: all the things in the world which are neither caused nor controlled by human beings and they include land, forests, plants, animals, and other natural phenomena are referred to as the natural environment. To keep it in its original form and protect it from harm, loss, or negative change.
- 2) *Conservation of the natural environment*: to be very careful in the way of using it in order to let it last as long as possible, to use it at the minimum level so that future generations will be able to utilize it.
- 3) *Avoidance or minimization of environmental pollution*: to stop contaminating the water, air, atmosphere, etc. through unpleasant and poisonous substances and wastes. To guard against outcomes that will ultimately endanger the planet/earth where humans and non-humans are living.
- 4) *Generation of gardens and looking-like natural places*: to create parks and places which have plants, trees, and grass.

Figure 1 presents these four contextual meanings of the term *green* or *greening*.

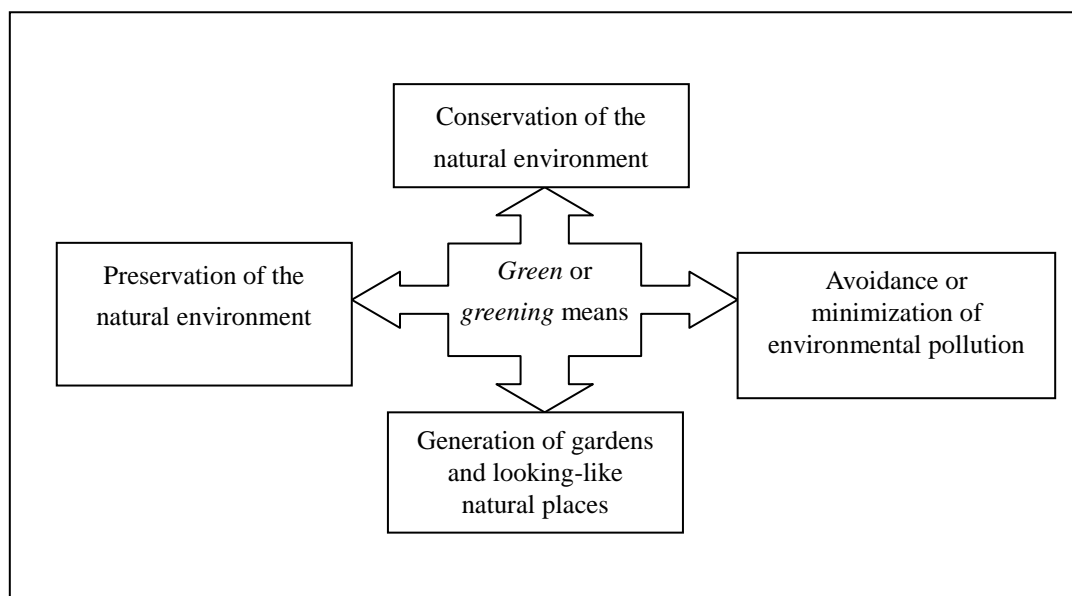


Figure 1. Four meanings of green or greening in the context of HRM

Thus, it is possible to argue that an employee who may be a manager or a non-manager is supposed to perform

four roles for the purpose of becoming a *green employee*. They are preservationist, conservationist, non-polluter, and maker. *Preservationist* does keeping the natural environment in its original form and protecting it from harm, loss, or negative change. *Conservationist* becomes very careful in the way of using the natural environment in order to let it last as long as possible. In other words, he or she does using the natural environment at the minimum level so that future generations will be able to utilize it.

*Non-polluter* does preventing from (or minimizing) contaminating the water, air, atmosphere, etc. through unpleasant and poisonous substances and wastes. In other words he or she becomes a guardian against behaviours and outcomes that will ultimately endanger the planet/earth where humans and non-humans are living. *Maker* does creating gardens and looking-like natural places. In other words he or she intentionally builds parks and places which have plants, trees, and grass.

In order to cover the four roles which need to be performed by an employee to become green, a composite term, i.e., *nature-lover* or *eco-activist* can be used. Hence, a Green employee is a nature-lover or an eco-activist. Figure 2 shows the four roles of a green employee.

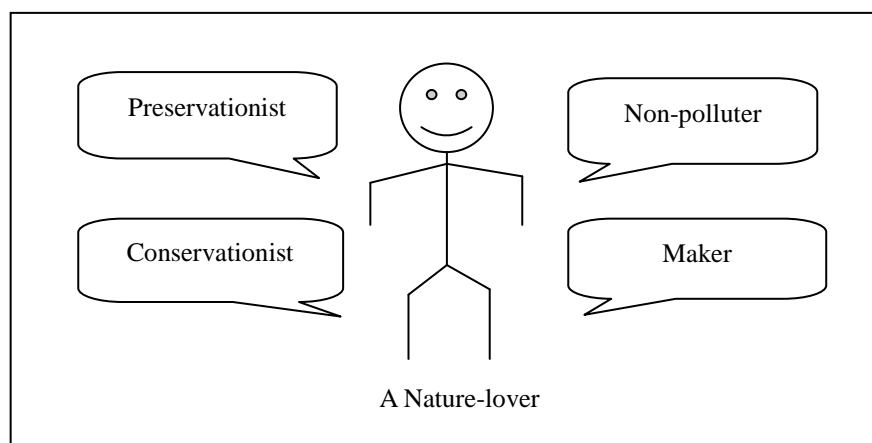


Figure 2. The four roles of a green employee

### 3.2 Why Is Green?

The environmentally destructive nature of organisations' activities and outcomes (Shrivastava, 1994) has contributed to the current environmental issues globally. According to Rugman & Verbeke (1998), environmental issues are some of the most complex and significant managerial challenges of twenty-first century. It includes climate change, resources depletion and reduction of biodiversity and ecosystem integrity. Rapid destruction of natural resources is seen and heard. Organizations are responsible for the environmental degradation (Alshuwaikhat & Abubakar, 2008; Haden et al., 2009). Natural resources are being used by governments and organizations lavishly for production of various goods and services needed by people who want to enhance their standard of living.

It seems that some people in certain parts of the world are too greedy and never get saturated resulting in development which is concerned with meeting the unlimited, various needs of people at the expense of the ability of future generations to meet their own needs, at least their essential needs. It is generally observable that people get unhealthy (and even die) suddenly owing to inhalation of poisonous air and drinking contaminated water. The water drawn from wells which was pure previously has been contaminated and poisonous owing to sinking various wastes of production into the land. Natural disasters such as Acid rains, red rains, Tsunamis, flooding, hurricanes, droughts etc have been experiencing all over the world and their magnitude and frequency seem to have increased. Climate change is a major issue and this is of increasing concern to governments, general public and business organisations nowadays (Boiral et al., 2012). Global warming is in existence. Ecologists who study the pattern and balance of relationships among plants, animals, people, and their environment recommend a natural balance for survival of the planet. Fortunately some governments, some organizations and some individuals including environmentalists and nature lovers commenced increasingly to pay a serious attention to preserve (to protect), conserve (to save) the environment and to minimize environmental pollution. Resultantly an increased attention was created among governors, owners of the

organizations, managerial employees, customers, and scholars in respect of environmental sustainability. Hence, *green* or *greening* is for our survival and development. It is possible not only to make organizations green but also to make each individual/employee green. As a matter of fact it is impossible to make an organization green without making its people green.

### 3.3 What Is Green HRM?

Green HRM is referred to all the activities involved in development, implementation and on-going maintenance of a system that aims at making employees of an organization green. It is the side of HRM that is concerned with transforming normal employees into green employees so as to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability. *It refers to the policies, practices and systems that make employees of the organization green for the benefit of the individual, society, natural environment, and the business.* The purpose of green HRM is to create, enhance and retain greening within each employee of the organization so that he or she gives a maximum individual contribution on each of the four roles, i.e., preservationist, conservationist, non-polluter, and maker.

### 3.4 Why Is Green HRM Important?

Understanding about why green is (mentioned above) indicates the importance of green HRM. If reiterated in another form, greening is essential for the following:

- 1) To avoid or minimize global warming.
- 2) To avoid or minimize natural disasters such as acid rains, red rains, tsunamis, flooding, hurricanes, droughts etc owing to informal, harmful and greedy usage of natural resources for production and consumption.
- 3) To avoid or minimize health diseases owing to pollution.
- 4) To avoid or minimize harms to animals and other natural creatures.
- 5) To ensure appropriate balance of relationships among plants, animals, people, and their environment.
- 6) To ensure survival of humans and business organizations for a prolonged period of time.

The above reasons are general reasons for greening. As far as a particular organization is concerned a phenomenon called corporate social responsibility (CSR) exists. CSR is defined as the extent to which an organization will strive to improve the overall welfare of society. It is an obligation to the general society. According to Certo & Certo (2008), CSR is the managerial obligation to take action that protects and improves both the welfare of society as a whole and the interests of the organization. Four specific reasons are given below for CSR:

- 1) The organization gets natural resources including materials, people and water from the environment in which it is operating. Hence it has to show gratitude to give something to protect and improve the environment.
- 2) The organization causes to pollute the environment (air, sand, noise etc.). The polluted environment will be a danger to the organizational members in future. Environmental pollution will threaten the survival of all. Hence it needs to be stopped, or at least minimized by various CSR activities.
- 3) The people of the society and the government will make demands to the organization to conserve resources for future generation, to protect and improve prevailing conditions of the environment where all citizens live.
- 4) Through CSR activities an organization can enhance its image as a good corporate citizen which will make people appreciate the organization and consequently customers will become loyal and employees will become loyal. Also the organization will be able to attract more suitably qualified applicants for its job vacancies. Investor preference generates. Eventually the organization can reap an increased profit from a generally improved society.

Thus, every organization gets obligatory to perform corporate environmental management and therefore there are environmental goals to be achieved by the organization or environmental requirements (some are as per ISO 14001 and others may be legal requirements relevant to the environment) to be met by the organization. There can be no corporate environmental management without employees and their related performance. Green HRM becomes necessitated in order to provide environmentally friendly products and operations, to manage corporate environmental programs successfully, and to overcome implementation challenges of corporate environmental programs (Milliman & Clair, 1996). Distinguished policies in recruitment, performance appraisal, training and

development, employee relations and reward systems are considered powerful tools for aligning employees with a company's environment strategy (Renwick et al., 2008) and therefore green HRM can decisively contribute to successful environmental management (Jackson et al., 2011). According to the Rothenberg (2003), successful environmental management in an organisation requires contributions from human resource management. Similarly Jabbour and Santos (2008) also stated that superior environmental performance outcome requires human resource practices that support the whole implementation and maintenance of environmental management systems in the organisations. Organisations which are able to line up HRM practices with objectives of environmental management can be successful in corporate environmental management journey (Jabbour, 2011). A study conducted by Jabbour and Santos (2010) verified that the most evolved characteristics of environmental management of the ISO 14001 certified Brazilian companies tend to be associated with almost all of the functional and competitive dimensions of human resource management. A study conducted by Harvey et al., (2012), indicates the contribution of HRM (both in its direct and indirect effects) to the green performance of airlines in the UK.

It is not an exaggeration to mention here that the employees are the key to success or failure of eco-activities of an organization. In fact green HRM is important not only at the organizational level but also at the employee or individual level. An employee has a private life in addition to work life and therefore he or she is an employee at the work life domain and a consumer at the private life domain. Environmentally friendly behaviour in both life domains is facilitated. Greening will be beneficial for the employee to give a significant individual contribution to successful environmental corporate management and to become a good citizen giving a significant contribution to environmental sustainability.

### 3.5 Green Human Resource Requirements

In order to achieve organizational environmental goals or greening, green human resource requirements need to be identified. What are the green human resource requirements for greening or corporate environmental management? There are four categories of green human resource requirements, i.e. green competencies, green attitude, green behaviours and green results. Though these major types of green human requirements are related they can be distinctly treated. Figure 3 shows these requirements and relevant dimensions.

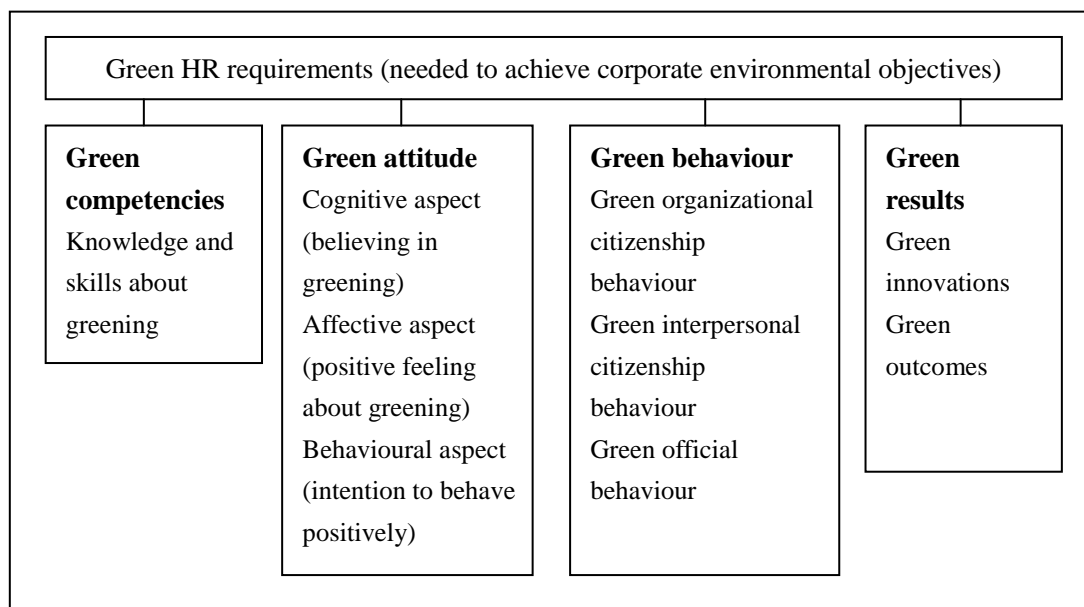


Figure 3. Green human resource requirements

Employee is required to possess a sufficient amount of knowledge and skills in respect of greening and without this knowledge and skills (competencies) it is not possible for the employee to become a green employee (Callenbach et al., 1993; Gupta & Sharma, 1996; Madsen & Ulhoi, 1996; Daily & Huang, 2001; Ramus, 2002; Rothenberg, 2003; Bhattacharya & Sen, 2004; Busck, 2005; Collier & Esteban, 2007; Garavan et al., 2010; Sudin, 2011). An active role of human resource management requires in developing cleaner technologies. Based

on the environmental strategy of an organisation, HRM has to provide the competencies needed for the continuous improvement of the organisational environmental performance (Jabbour & Santos, 2008). Indeed there is a research gap with regard to specific green competencies to be possessed by the employee necessitating empirical research studies to be carried out in this regard. Also the employee needs to have a right attitude of greening. Right attitude (favorable) means appropriate beliefs (cognitive), feelings (affective) and intention to behave (behavioural) with regard to greening, and it should be identical to the one given in Appendix 1. It does not matter whatever the job or the field of specialization of the employee is. What matters is that he or she should have a right attitude (favorable) about greening (Stern & Dietz, 1994; Barrett & Murphy, 1996; Cordano & Frieze, 2000; Dunlap et al., 2000; Bamberg, 2003; Naffziger & Montagno, 2003; Peterson, 2004; Schultz et al., 2004; Perron et al., 2006; Tallon, 2008; Bamberg & Moser, 2007; Park, 2009; Garavan et al., 2010; Milfont & Duckitt, 2010).

As environmental sustainability requires behavior change by employees (Harries & Helen, 2012) and all members of an organisation at all levels are required to exhibit a positive behavioral change. A critical green human resource requirement is green behaviour (Daily et al., 2009; Jackson et al., 2011; Bissing-Olson et al., 2013) one dimension of which is green organizational citizenship behaviour that is defined as the extent to which the employee engages in positive actions aimed at helping the organization as a whole to achieve greening. These actions do not become a part of formal job requirements. They primarily represent voluntary green actions. Examples of such actions:

- Use natural water rather than refrigerated water for drinking (this will reduce electricity consumption).
- Use both sides of the paper when writing or printing or photo-copying (this will reduce electricity and save trees).
- Come to work by walking or bus/train (this will reduce fuel consumption and air pollution) whenever possible.
- Shut down computer when not working instead of hibernating it (this will reduce electricity and air pollution).
- Use natural light when working (this will reduce electricity).
- Put plants in the working cubicles to absorb pollution.
- Bring his or her own mugs and dishes.
- Buy organic food for parties.
- Work with a minimum number of bulbs which are on.
- Re-use many items at the office such as jugs, cans, bottles, bags, etc rather than throwing them away.
- Report to a relevant officer regarding damages, possible harms etc to the environment whenever noticed.
- Switch off the air-conditioners before the ending time of daily work (30 minutes in advance).

Another dimension of green behaviour is green interpersonal citizenship behaviour that is defined as the extent to which the employee engages in positive actions aimed at helping specific co-employees to do their green work. These actions are not a part of formal job requirements and represent voluntary helps given by the employee to other employees at the similar level (peers) to become them green or perform their green work. Examples of such actions:

- Stimulate others to become green.
- Answer questions asked by others about green positively.
- Teach others about how to become green.

Green official behaviour is the third dimension of green behaviour and it is defined as the extent to which the employee engages in official duties assigned by the superior with regard to greening. This engagement is not a voluntary one and it is an official requirement to be met by the employee. Such duties may include specific procedures to be followed by the employee to reduce wastage and remove wastes. However, very few research has focused on environmental (green) behaviours at the individual employee level within the organisations (Daily et al., 2009). We consider this as a major exclusion because of that environmental performance at the organisational level cannot take place without the behavioural contribution of individual employees.

Green results are outcomes or outputs which are environmentally friendly. Green results are defined as the extent to which the employee has produced green outcomes. Green results have the following two dimensions:

- 1) Green innovations: new environmental initiatives, new solutions for waste reduction, pollution reduction, etc. (Callenbach et al., 1993; Ramus & Steger, 2000; Ramus, 2001; Ramus, 2002; Govindarajulu & Daily, 2004).
- 2) Green outcomes: number of hours of working with natural light or minimum number of electricity bulbs, amount of reduction of electricity consumption, amount of reduction of existing level of inputs wastage, and degree of achievement of specific environmental performance targets (Russo & Fouts, 1997; Berry & Rondinelli, 1998; Kitazawa & Sarkis, 2000; King & Lenox, 2001; Melnyk et al., 2003; Rothenberg, 2003; Daily et al., 2009).

Considering the above mentioned green human resource requirements, a new concept is introduced namely employee green performance of job. It is defined as the extent to which a particular employee has engaged in behaviours (actions and activities) and produced results in respect of greening during a particular period of time. Green competencies and green attitude are viewed as green employee inputs and green behaviour and green results are viewed as employee green performance of job which contributes to green organizational performance meeting the CSR to a significant extent. See Figure 4.

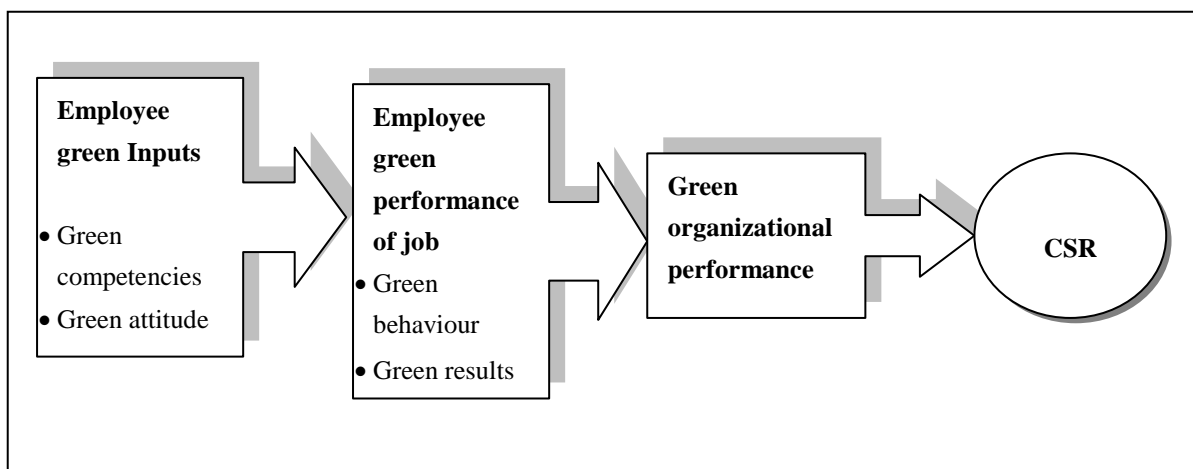


Figure 4. Employee green inputs and employee green performance of job

### 3.6 Making HRM Functions Green

In order to make sure that the organization gets right employee green inputs and right employee green performance of job, it is indispensable that HRM functions are adapted or modified to be green. Traditionally there are 18 functions of HRM including job design, job analysis, human resource planning, recruitment, selection, hiring, induction, performance evaluation, training and development, career management, pay management, incentives management, welfare management, management of employee movements, discipline management, health and safety management, grievance management and labour relations. Making a HRM function green involves inclusion of policies, procedures, and practices which ensure right employee green inputs and right employee green performance of job. Ideally it is possible to make each function green. An attempt is made to show how to make some major HRM functions green in this paper. For the purpose, the following Table 1 was developed:

Table 1. Some HRM functions and ways of making them green

<i>HRM function</i>	<i>Green policies, procedures, or practices</i>
Job analysis	<ul style="list-style-type: none"> <li>To include environmental dimension as a duty in job description.</li> <li>To include green competencies as a special component in job specification.</li> </ul>
Recruitment	<ul style="list-style-type: none"> <li>To include environmental criteria in the recruitment messages.</li> <li>To communicate the employer's concern about greening through recruitment efforts.</li> </ul>
Selection	<ul style="list-style-type: none"> <li>To select applicants who are sufficiently aware of greening to fill job vacancies.</li> <li>To select applicants who have been engaging in greening as consumers under their private life domain.</li> </ul>
Induction	<ul style="list-style-type: none"> <li>To make new employees familiar with greening efforts of the organization.</li> <li>To develop induction programs showing green citizenship behaviour of current employees.</li> </ul>
Training	<ul style="list-style-type: none"> <li>To impart right knowledge and skills about greening (the four green roles) to each employee through a training program exclusively designed for greening.</li> <li>To do training needs analyses to identify green training needs of employees.</li> </ul>
Performance evaluation	<ul style="list-style-type: none"> <li>To evaluate employee's job performance according to green-related criteria.</li> <li>To include a separate component for progress on greening in the performance feedback interview.</li> </ul>
Rewards management	<ul style="list-style-type: none"> <li>To give financial incentives to employees for their good green performance of job.</li> <li>To give non-financial rewards such as praises and recognitions to employees for their greening.</li> </ul>
Discipline management	<ul style="list-style-type: none"> <li>To formulate and publish rules of conduct relating to greening.</li> <li>To develop a progressive disciplinary system to punish employees who violate the rules of green conduct.</li> </ul>

### 3.7 Research in Green HRM

Jackson et al., (2011) presents a literature review of research linking specific HRM functions and environmental management. Based on their writing, following Table 2 was developed.

Table 2. Research linking specific HRM functions and environmental management

<i>Author</i>	<i>Specific HRM function</i>	<i>Finding</i>
Wehrmeyer (1996)	Recruitment	Recruitment practices can support effective environment management by ensuring that new recruits understand an organization's environmental culture and share its environmental values.
Stringer (2009)	Recruitment	Graduates and other job applicants pay attention to the environmental management practices and performance of companies and use such information when deciding where to apply.
Phillips (2007)	Recruitment	Increasingly, firms are beginning to recognize that gaining a reputation as a Green employer is an effective way to attract new talent.
Ramus (2002)	Training	Environmental training and establishing a culture in which employees feel they are accountable for environmental outcomes were the most salient HRM practices for achieving environmental goals.
Milliman & Clair (1996)	Incentives management	Tying incentive pay to the attainment of environmental goals helps focus managers' attention and invigorate efforts aimed at achieving them.
Ramus (2002)	Incentives management	Recognitions and financial incentives can be effective in motivating employees to generate eco-initiatives.

Source: Adapted from Jackson et al., (2011).

Cherian and Jacob (2012) published a comprehensive list in respect of studies on Green HRM. Based on their reviewed studies, very recent studies done in 2010 and 2012 are given in the following Table 3:



Table 3. Very recent research studies of green HRM

<i>Author</i>	<i>HRM Functions</i>	<i>Objective</i>	<i>Data Type</i>	<i>Findings</i>
Sarkaris et al., (2010)	Training and development	Impact of stakeholder pressure on environmental management principles	Primary-Survey approach	Employees presented with better training have better perception of environmental management systems.
Jabbar et al., (2010)	Training, recruitment, rewards	Impact of HRM on Environmental Management System	Primary-Case study	Human dimensions impact implementation of Green management principles.
Teixeira et al., (2012)	Training and development	Impact of green HRM practices on teamwork, organizational culture	Primary-Case study	Employees with better training are vital to promote a good environmental management system in any organization and build an effective organizational culture.
Grolleau et al., (2012)	Recruitment	Impact of environmental principles on recruitment	Primary-Survey	Professionals were concerned with the environmental stance of a company.
Jabbar et al., (2012)	Employee empowerment, rewards and recognition and feedback	Impact of HRM and environmental management on organizational performance of the company	Primary-Survey	Human dimension impacts organizational performance as well as mediates environmental management system implementation.
Daily et al., (2012)	Training and development	Impact of training and development related to environmental management on performance of employees	Primary-Survey	All other facets of HRM related to implementation of Green management principles are directly associated with good training.
Ji et al., (2011)	Employee Training	Employee training influence on firm's performance in sustainable development	Primary-Survey approach (Empirical Study)	This study predicts both direct and moderating effects of employee training on the firm's performance in sustainable development.

Source: Cherian and Jacob (2012).

#### 4. Concluding Remarks

Indeed, there are many gaps to be filled in respect of green HRM, and theoretical and empirical studies are needed to enhance the body of knowledge of green HRM. Empirical studies of green HRM in Sri Lankan context are not available though green HRM studies were started in 1990s in international context. Major challenges that will be faced by researchers are conceptualization and operationalisation of various constructs in the field of green HRM as valid and reliable instruments need to be developed. The four Figures, Appendix 1 and Table 1 which are in this paper representing our reflections are original contributions to the existing body of knowledge of green HRM.

#### References

- Alshuwaikhat, H. M., & Abubakar, I. (2008). An integrated approach to achieving campus sustainability: assessment of the current campus environmental management practices. *Journal of Cleaner Production*, *16*, 1777–1785. <http://dx.doi.org/10.1016/j.jclepro.2007.12.002>
- Bamberg, S. (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. *Journal of Environmental Psychology*, *23*, 21–32. [http://dx.doi.org/10.1016/S0272-4944\(02\)00078-6](http://dx.doi.org/10.1016/S0272-4944(02)00078-6)
- Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, *27*, 14–25. <http://dx.doi.org/10.1016/j.jenvp.2006.12.002>
- Barrett, S., & Murphy, D. (1996). Managing Corporate Environmental Policy. In W. Wehrmeyer (Ed.), *Greening People* (pp. 75–98).

- Berry, M. A., & Rondinelli, D. A. (1998). Proactive corporate environmental management: A new industrial revolution. *Academic Management Executive*, 12(2), 38–50.
- Bhattacharya, C. B., & Sen, S. (2004). Doing Better at Doing Good: When, Why and How Consumers Respond to Corporate Social Initiatives. *California Management Review*, 47(1), 9–25. <http://dx.doi.org/10.2307/41166284>
- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34, 156–175. <http://dx.doi.org/10.1002/job.1788>
- Boiral, O., Henri, J. F., & Talbot, D. (2012). Modeling the Impacts of Corporate Commitment on Climate Change. *Business Strategy and the Environment*, 21(8), 495–516. <http://dx.doi.org/10.1002/bse.723>
- Busck, O. (2005). Employee Participation in Environmental Work in Companies. In L. H. Kørnø, & A. Remmen (Eds.), *Tools for a Sustainable Development*. Aalborg University.
- Callenbach, E., Capra, F., Goldman, L., Lutz, R., & Marburg, S. (1993). *Eco-Management: The Elmwood Guide to Ecological Auditing and Sustainable Business*. Berrett-Koehler, San Francisco, CA.
- Certo, S. C., & Certo, S. T. (2008). *Modern Management* (10th ed.). New York, NY: Prentice Hall.
- Cherian, J., & Jacob, J. (2012). A Study of Green HR Practices and its Effective Implementation in the Organization: A Review. *International Journal of Business and Management*, 7(21), 25–33. <http://dx.doi.org/10.5539/ijbm.v7n21p25>
- Collier, J., & Esteban, R. (2007). Corporate Social Responsibility and Employee Commitment. *Business Ethics: A European Review*, 16(1), 19–33. <http://dx.doi.org/10.1111/j.1467-8608.2006.00466.x>
- Collins Birmingham University International Language Database (Cobuild) English Language Dictionary. (1987). London: Collins.
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: applying Ajzen's theory of planned behaviour. *Academy of Management Journal*, 43(4), 627–641. <http://dx.doi.org/10.2307/1556358>
- Daily, B. F., & Huang, S. (2001). Achieving Sustainability Through Attention to Human Resource Factors in Environmental Management. *International Journal of Operation and Production Management*, 21(12), 1539–1552. <http://dx.doi.org/10.1108/01443570110410892>
- Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). Conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society*, 48(2), 243–256. <http://dx.doi.org/10.1177/0007650308315439>
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale. *Journal of Social Issues*, 56(3), 425–442. <http://dx.doi.org/10.1111/0022-4537.00176>
- Garavan, T. N., Heraty, N., Rock, A., & Dalton, E. (2010). Conceptualizing the Behavioral Barriers to CSR and CS in Organizations: A Typology of HRD Interventions. *Advances in Developing Human Resources*, 12(5), 587–613. <http://dx.doi.org/10.1177/1523422310394779>
- Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement. *Industrial Management & Data Systems*, 104(4), 364–372. <http://dx.doi.org/10.1108/02635570410530775>
- Gupta, M., & Sharma, K. (1996). Environmental operations management: an opportunity for improvement. *Production and Inventory Management Journal*, 37(3), 40–46.
- Haden, S. S. P., Oyler, J. D., & Humphreys, J. H. (2009). Historical, practical and theoretical perspectives on green management: an exploratory analysis. *Management Decision*, 47(7), 1041–1055. <http://dx.doi.org/10.1108/00251740910978287>
- Harris, C., & Tregidga, H. (2012). HR managers and environmental sustainability: strategic leaders or passive observers? *The International Journal of Human Resource Management*, 23(2), 236–254. <http://dx.doi.org/10.1080/09585192.2011.561221>
- Harvey, G., Williams, K., & Probert, J. (2013). Greening the airline pilot: HRM and the green performance of airlines in the UK. *The International Journal of Human Resource Management*, 24(1), 152–166. <http://dx.doi.org/10.1080/09585192.2012.669783>

- Jabbour, C. J. C. (2011). How green are HRM practices, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2), 98–105. <http://dx.doi.org/10.1108/00197851111108926>
- Jabbour, C. J. C., & Santos, F. C. A. (2008). The central role of human resource management in the search for sustainable organisations. *The International Journal of Human Resource Management*, 19(12), 2133–2154. <http://dx.doi.org/10.1080/09585190802479389>
- Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2010). Contribution of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil. *The International Journal of Human Resource Management*, 21(7–9), 1049–1089. <http://dx.doi.org/10.1080/09585191003783512>
- Jackson, S. E., Renwick, W. S., Jabbour, C. J. C., & Muller-Camen, M. (2011). State-of-the-Art and Future Directions for Green Human Resource Management: Introduction to the Special Issue. *German Journal of Research in Human Resource Management*, 25(2), 99–116.
- Ji, L., Huang, J., Liu, Z., Zhu, H., & Cai, Z. (2012). The effects of employee training on the relationship between environmental attitude and firms' performance in sustainable development. *International Journal of Human Resource Management*, 23(14), 2995–3008. <http://dx.doi.org/10.1080/09585192.2011.637072>
- King, A. A., & Lenox, M. J. (2001). Lean and green? An empirical examination of the relationship between lean production and environmental performance. *Production and Operations Management*, 10(3), 244–256. <http://dx.doi.org/10.1111/j.1937-5956.2001.tb00373.x>
- Kitazawa, S., & Sarkis, J. (2000). The relationship between ISO 14000 and continuous source reduction. *International Journal of Operation and Production Management*, 20(2), 225–248. <http://dx.doi.org/10.1108/01443570010304279>
- Madsen, H., & Ulhoi, J. P. (1996). *Corporate Environmental and Resource Management: Overview of Results from a Survey of the Present Greening Situation in Danish Companies*. Working paper, No.4, The Aarhus School of Business, Aarhus.
- Melnyk, S. A., Sroufe, R. P., & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management*, 21(x), 329–351. [http://dx.doi.org/10.1016/S0272-6963\(02\)00109-2](http://dx.doi.org/10.1016/S0272-6963(02)00109-2)
- Milfont, T. L., & Duckitt, J. (2010). The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, 30(1), 80–94. <http://dx.doi.org/10.1016/j.jenvp.2009.09.001>
- Milliman, J., & Clair, J. (1996). Best Environmental HRM Practices in the US. In W. Wehrmeyer (Ed.), *Greening People, Human Resources and Environmental Management*. Sheffield: Greenleaf Publishing. [http://dx.doi.org/10.9774/GLEAF.978-1-909493-00-1\\_4](http://dx.doi.org/10.9774/GLEAF.978-1-909493-00-1_4)
- Naffziger, D. W., & Montagno, R. V. (2003). Perceptions of Environmental Consciousness in US Small Businesses: An Empirical Study. *SAM, Advanced Management Journal*, 68(2), 23–32.
- Park, J. (2009). *The Relationship Between Top Managers' Environmental Attitudes and Environmental Management in Hotel Companies* (Unpublished M.Sc. dissertation). State University in Blacksburg, Virginia, Faculty of the Virginia Polytechnic Institute, U.S.
- Perron, G. M., Cote, R. P., & Duffy, J. F. (2006). Improving Environmental Awareness Training in Business. *Journal of Cleaner Production*, 14, 551–562. <http://dx.doi.org/10.1016/j.jclepro.2005.07.006>
- Peterson, R. B. (2004). A Call for Testing our Assumptions: Human Resource Management Today. *Journal of Management Inquiry*, 13(3), 192–202. <http://dx.doi.org/10.1177/1056492604268201>
- Ramus, C. A. (2001). Organizing support for employees: Encouraging creative ideas for environmental sustainability. *California Management Review*, 43(3), 85–103. <http://dx.doi.org/10.2307/41166090>
- Ramus, C. A. (2002). Encouraging innovative environmental actions: what companies and managers must do. *Journal of World Business*, 37, 151–164. [http://dx.doi.org/10.1016/S1090-9516\(02\)00074-3](http://dx.doi.org/10.1016/S1090-9516(02)00074-3)
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviours and environmental policy in employee 'ecoinitiatives' at leading-edge European companies. *Academy of Management Journal*, 43(4), 605–626. <http://dx.doi.org/10.2307/1556357>

- Renwick, D., Redman, T., & Maguire, S. (2008). *Green HRM: A Review, Process Model, and Research Agenda*. University of Sheffield Working Paper. Retrieved from <http://www.sheffield.ac.uk/content/1/c6/08/70/89/2008-01.pdf>
- Rothenberg, S. (2003). Knowledge Content and Worker Participation in Environmental Management at NUMMI. *Journal of Management Studies*, 40(7), 1783–1802. <http://dx.doi.org/10.1111/1467-6486.00400>
- Rugman, A., & Verbeke, A. (1998). Corporate strategies and environmental regulations: An organizing framework. *Strategic Management Journal*, 19(4), 363–375. [http://dx.doi.org/10.1002/\(SICI\)1097-0266\(199804\)19:4<363::AID-SMJ974>3.0.CO;2-H](http://dx.doi.org/10.1002/(SICI)1097-0266(199804)19:4<363::AID-SMJ974>3.0.CO;2-H)
- Russo, M. V., & Fouts, P. A. (1997). A resource based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40(3), 534–559. <http://dx.doi.org/10.2307/257052>
- Schultz, P. W., Shriver, C., Tabanico, J. J., & Khanzian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology*, 24, 31–42. [http://dx.doi.org/10.1016/S0272-4944\(03\)00022-7](http://dx.doi.org/10.1016/S0272-4944(03)00022-7)
- Shrivastava, P. (1994). CASTRATED Environment: GREENING Organizational Studies. *Organization Studies*, 15(5), 705–726. <http://dx.doi.org/10.1177/017084069401500504>
- Stern, P. C., & Dietz, T. (1994). The Value Basis of Environmental Concern. *Journal of Social Issues*, 50(3), 65–84. <http://dx.doi.org/10.1111/j.1540-4560.1994.tb02420.x>
- Sudin, S. (2011). *Strategic Green HRM: A proposed model that supports Corporate Environmental Citizenship*. Paper presented at the International Conference on Sociality and Economics Development, IPEDR (Vol. 10), IACSIT Press, Singapore. Retrieved from <http://www.ipedr.com/vol10/16-E10014.pdf>
- Tallon, P. P. (2008). Inside the Adaptive Enterprise: An Information Technology Capabilities Perspective on Business Process Agility. *Information Technology and Management*, 9(1), 21–36. <http://dx.doi.org/10.1007/s10799-007-0024-8>
- The Oxford Paperback Dictionary. (1979). Oxford: Oxford University Press.
- The Oxford Thesaurus of English. (2000). Oxford: Oxford University Press.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222. <http://dx.doi.org/10.1111/1467-8551.00375>

## Appendix

### Appendix 1. An illustration of right attitude

*Cognitive:* I believe in greening. It is very important for survival and sustainability of myself, my organization, my society, my country, and the earth. It deals with protecting and saving the nature. Greening is one of the most important virtues. I will be able to lead a very happy life by being green.

*Affective:* I feel positively about the need of greening. I like to working in greening. I feel happy when I think and talk about greening.

*Behavioural:* I intend to be a serious contributor to greening. I will be in greening. I hope to live with greening. I am going to be a serious green employee.

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).