

**INFLUENCE OF GREEN HUMAN RESOURCE  
MANAGEMENT PRACTICES ON ENVIRONMENTAL  
SUSTAINABILITY IN SERVICE BASED STATE  
CORPORATIONS IN KENYA**

**RAEL JERUTO MANDAGO**

**DOCTOR OF PHILOSOPHY**

**(Human Resource Management)**

**JOMO KENYATTA UNIVERSITY OF  
AGRICULTURE AND TECHNOLOGY**

**2019**

**Influence of Green Human Resource Management Practices on  
Environmental Sustainability in Service Based State Corporations in  
Kenya**

**Rael Jeruto Mandago**

**A Thesis Submitted in Partial Fulfilment for the Degree of Doctor of  
Philosophy in Human Resource Management in the Jomo Kenyatta  
University of Agriculture and Technology**

**2019**

## DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature ..... Date .....

**Rael Jeruto Mandago**

This thesis has been submitted for examination with our approval as the University Supervisors.

Signature ..... Date .....

**Dr. Josphat Kwasira, PhD**

**JKUAT, Kenya**

Signature ..... Date .....

**Dr. Willitter Rop, PhD**

**University of Kabianga, Kenya**

Signature ..... Date .....

**Dr. Joel Chelule, PhD**

**JKUAT, Kenya**

## **DEDICATION**

I dedicate this work to my husband Ezra Cherus and our children Whitney, Britney and Anaya for their encouragement, love and support throughout my studies, and for being patient when I had to be away most weekends. A special dedication also to my Parents Mr. Paul Mandago and Mrs. Christine Mandago, who impacted my life positively.

## **ACKNOWLEDGEMENT**

I would like to acknowledge the almighty God for his support throughout my studies and life as a whole. Secondly I'm forever grateful to my supervisors Dr. Josphat Kwasira, Dr. Willitter Rop and Dr. Joel Chelule for their guidance, constructive criticism and encouragement from the very beginning of the research proposal to the ultimate submission of the thesis. Without their input the thesis would not have seen the light of the day. I also acknowledge the effort of Dr. Geoffrey Kimutai who took time to read through my work hence further shaped the thesis. My very special appreciation goes to my entire family for their support and prayers throughout my study period. I specifically thank my husband Ezra Cherus and my children Whitney, Britney and Anaya for their understanding and love that made life bearable throughout the entire study period. I also thank my parents Mr. and Mrs. Paul Mandago for their concern, inspiration and fervent prayers that kept me going. I'm indebted to my sister Dr. Elsebah Maseh for being there for me, supporting and hosting me the entire period, my sister Anne for her prayers always. I also appreciate all my brothers for their moral support and their presence in times of need, God bless you all. Last but not least, I thank all my friends and relatives who took time to pray for me and encouraged me when the going became tough. My special thanks to my friends Nelly Limo, Rael Daisy Koiyet, Brigid Choge, Caroline Koech, indeed your prayers have been my pillars in the otherwise lonely path. Lastly, I thank all the PhD students in the 2015 class – Margaret Keter and Julius Kiptanui, for the team work especially at course work stage.

## TABLE OF CONTENTS

<b>DECLARATION .....</b>	<b>II</b>
<b>DEDICATION .....</b>	<b>III</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>IV</b>
<b>TABLE OF CONTENTS.....</b>	<b>V</b>
<b>LIST OF TABLES .....</b>	<b>XII</b>
<b>LIST OF FIGURES .....</b>	<b>XV</b>
<b>LIST OF APPENDICES.....</b>	<b>XVI</b>
<b>LIST OF ABBREVIATIONS AND ACRONYMS .....</b>	<b>XVII</b>
<b>DEFINITION OF TERMS .....</b>	<b>XIX</b>
<b>ABSTRACT .....</b>	<b>XXI</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
1.1 Background of the Study .....	1
1.1.1 Global Perspective of Green Human Resource Management Practices and Environmental Sustainability .....	3
1.1.2 African Perspective of Green Human Resource Management Practices and Environmental Sustainability .....	5
1.1.4 State Corporations in Kenya .....	6
1.2 Statement of the Problem .....	8

1.3 Research Objectives .....	9
1.3.1 General Objective .....	9
1.3.2 Specific Objectives .....	9
1.4 Research Hypotheses.....	10
1.5 Significance of the Study.....	10
1.5.1 Corporates .....	10
1.5.2 State Corporations .....	10
1.5.3 Future Researchers .....	11
1.6 Scope of the Study .....	11
1.7 Limitations of the Study .....	11
<b>CHAPTER TWO .....</b>	<b>13</b>
<b>LITERATURE REVIEW .....</b>	<b>13</b>
2.1 Introduction.....	13
2.2 Theoretical Review .....	13
2.2.1 The Resource Based View (RBV).....	13
2.2.2 ISO 14001 Environmental Management System Model.....	16
2.2.3 Social Exchange Theory .....	19
2.2.4 Best Practice Human Resource Management Theory .....	21
2.3 Conceptual Framework .....	23

2.4 Empirical Review .....	24
2.4.1 Green Recruitment and Selection Management Practice and Environmental sustainability .....	25
2.4.2 Green Training and Development Management Practice and Environmental Sustainability .....	27
2.4.3 Green Reward Management Practice and Environmental Sustainability ..	31
2.4.4 Green Performance Management Practice and Environmental Sustainability .....	34
2.4.5 Concept of Environmental Sustainability .....	36
2.5 Critique of Reviewed Literature .....	37
2.6 Summary of Reviewed Literature .....	39
2.7 Research Gap .....	40
<b>CHAPTER THREE .....</b>	<b>43</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>43</b>
3.1 Introduction.....	43
3.2 Research Paradigm.....	43
3.3 Research Design.....	44
3.4 Target Population .....	45
3.5 Sample Size and Sampling Technique .....	46
3.5.1 Determination of Sample Size .....	46

3.5.2 Sampling Technique .....	47
3.6 Data Collection Instrument.....	49
3.7 Pilot Testing .....	49
3.7.1 Reliability of the Instrument .....	50
3.7.2 Validity of the Instrument .....	50
3.8 Data Collection Procedure.....	52
3.9 Data Analysis and Presentation .....	52
3.9.1 Measurement of the Variables .....	53
3.9.2 Multiple Regression.....	54
3.9.3 Assumptions of the Model .....	54
<b>CHAPTER FOUR.....</b>	<b>56</b>
<b>RESEARCH FINDINGS AND DISCUSSION .....</b>	<b>56</b>
4.1 Introduction.....	56
4.2 Response Rate.....	56
4.3 Pilot Testing Results.....	58
4.4 Background Information of the Respondents .....	58
4.4.1 Gender of Respondents.....	58
4.4.2 Level of Education of Respondents.....	59
4.4.3 Employment Duration .....	61

4.5 Descriptive Analysis .....	62
4.4.1 Green Recruitment and selection Practice and Environmental Sustainability .....	62
4.4.2 Green Training and Development and Environmental Sustainability .....	68
4.4.3 Green Reward Management Practice and Environmental Sustainability ..	71
4.4.4 Green Performance Management Practices and Environmental Sustainability .....	74
4.4.5 Environmental Sustainability of State Corporations .....	76
4.6 Test for the Model Assumptions .....	78
4.6.1 Tests of Normality .....	78
4.6.2 Test of Homogeneity .....	80
4.6.3 Test of Linearity .....	81
4.6.4 Test of Multi-collinearity of Variance .....	82
4.7 Inferential Statistics .....	83
4.7.1 Hypothesis Testing .....	83
4.7.2 Correlation Analysis .....	100
4.7.3 Multiple Regression.....	102
<b>CHAPTER FIVE .....</b>	<b>110</b>
<b>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>110</b>
5.1 Introduction.....	110

5.2 Summary of the Study Findings .....	110
5.2.1 To Determine the Influence of Green Recruitment Practice on Environmental Sustainability in Selected State Corporations in Kenya	110
5.2.2 To Examine the Influence of Green Training and Development Practice on Environmental Sustainability in Selected State Corporations in Kenya	111
5.2.3 To Evaluate the Influence of Green Reward and Compensation Practice on Environmental Sustainability in Selected State Corporations in Kenya	112
5.2.4 To Assess the Influence of Green Performance Management Practice on Environmental Sustainability in Selected State Corporations in Kenya	112
5.3 Conclusions of the Study .....	113
5.3.1 Green Recruitment Practice .....	113
5.3.2 Green Training and Development .....	113
5.3.3 Green Reward and Compensation Management Practice.....	114
5.3.4 Green Performance Management Practice.....	114
5.4 Recommendations for the Study .....	115
5.4.1 Green Recruitment Practice .....	115
5.4.2 Green Training and Development .....	115
5.4.3 Green Reward and Compensation.....	115
5.4.4 Green Performance Management Practice.....	116
5.4.5 Recommendation for Policy.....	116

5.5 Area for Further Research .....	117
<b>REFERENCES .....</b>	<b>119</b>
<b>APPENDICES.....</b>	<b>134</b>

## LIST OF TABLES

<b>Table 3.1:</b> Target Population .....	45
<b>Table 3.2:</b> Sample Size.....	47
<b>Table 4.1:</b> Response Rate .....	57
<b>Table 4.2:</b> Reliability Coefficients.....	58
<b>Table 4.3:</b> Gender of Respondents.....	59
<b>Table 4.4:</b> Level of Education of Respondents .....	60
<b>Table 4.5:</b> Employment Duration of Respondents.....	61
<b>Table 4.6:</b> Green Recruitment and selection Practices and Environmental Sustainability.....	65
<b>Table 4.7:</b> Green Training and Development Practice and Environmental Sustainability.....	69
<b>Table 4.8:</b> Green Reward Management Practice and Environmental Sustainability.	72
<b>Table 4.9:</b> Green Performance Management Practice and Environmental Sustainability.....	75
<b>Table 4.10:</b> Environmental Sustainability of State Corporations .....	77
<b>Table 4.11:</b> Test of Normality .....	79
<b>Table 4.12:</b> Tests for Skewness and Kurtosis.....	79
<b>Table 4.13:</b> Levene’s Test of Equality of Error Variance.....	80
<b>Table 4.14:</b> Tests of Between-Subjects Effects .....	81

<b>Table 4.15:</b> Test of Linearity (ANOVA test) .....	82
<b>Table 4.16:</b> Test of Multi-collinearity .....	83
<b>Table 4.17(a):</b> ANOVA Results on Green Recruitment Practices and Environmental Sustainability .....	84
<b>Table 4.17(b):</b> Overall ANOVA for Green Recruitment and Selection Management Practices and Environmental Sustainability .....	85
<b>Table 4.18(a):</b> ANOVA Results on Green training and development practice and Environmental Sustainability .....	88
<b>Table 4.18(b):</b> Overall ANOVA for Green training and development and Environmental Sustainability .....	89
<b>Table 4.19(a):</b> ANOVA Results on Green Reward Management practice and Environmental Sustainability .....	92
<b>Table 4.19(b):</b> Overall ANOVA for Green Reward Management practice and Environmental Sustainability .....	93
<b>Table 4.20(a):</b> ANOVA Results on Green performance management practice and Environmental Sustainability .....	96
<b>Table 4.20(b):</b> Overall ANOVA for Green Performance Management Practice and Environmental Sustainability .....	97
<b>Table 4.21:</b> Summary of Findings .....	99
<b>Table 4.22:</b> Correlation Analysis Results .....	100
<b>Table 4.23:</b> Model Summary on GHRM Practices and Environmental Sustainability .....	103

<b>Table 4.24:</b> ANOVA Results on GHRM Practices and Environmental Sustainability .....	104
<b>Table 4.25:</b> Model Coefficients on GHRM Practices and Environmental Sustainability.....	105
<b>Table 4.26:</b> Results of VIF Analysis .....	107

## LIST OF FIGURES

<b>Figure 2.1:</b> Model for the Analysis of the Contributions of HR in EM.....	19
<b>Figure 2.2:</b> Conceptual Framework .....	24

## LIST OF APPENDICES

<b>Appendix I:</b> Letter of Introduction .....	134
<b>Appendix II:</b> Questionnaire .....	135
<b>Appendix III:</b> List of State Corporations.....	143

## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>EEO</b>	Equal Employment Opportunity
<b>EM</b>	Environmental management
<b>EMM</b>	Environmental Management Maturity
<b>EMS</b>	Environment Management System
<b>ET</b>	Environmental Training
<b>GHRM</b>	Green Human Resource Management
<b>GOK</b>	Government of Kenya
<b>HR</b>	Human resources
<b>HRM</b>	Human Resource Management
<b>KPA</b>	Key Performance Areas
<b>LED</b>	Light Emitting Diode
<b>MDGs</b>	Millennium Development Goals
<b>MEMR</b>	Ministry of Environment and Mineral Resources
<b>NEMA</b>	National Environment Management Authority
<b>NSG</b>	National School of governments
<b>PEs</b>	Public Enterprises
<b>PM</b>	Performance management
<b>PPP</b>	Public-Private Partnership

<b>RBV</b>	Resource Based View
<b>ROK</b>	Republic of Kenya
<b>SHRM</b>	Strategic Human Resource Management
<b>SMEs</b>	Small and Medium Enterprises
<b>SPSS</b>	Statistical Packages for Social Sciences
<b>T&amp;D</b>	Training and Development
<b>UK</b>	United Kingdom
<b>UNEP</b>	United Nations Environment Program
<b>USA</b>	United States of America
<b>VIF</b>	Variance inflation Factor

## DEFINITION OF TERMS

**Environmental sustainability** – This can be described as the state in which the demands placed on the environment can be met without reducing its capacity to allow all employees to work well, now and in the future (Gerhart, Wright, McMahan & Snell, 2010).

**Green Human Resource Management** – This are the practices and policies of HRM for the encouragement of sustainable resource use in businesses and the promotion of environmentalism that would be helpful for boosting the satisfaction and hence morale of the employees within organizations (Mampra, 2013).

**Green performance management** – it is the process whereby companies manage the environment by developing environmental management strategies in which companies balance between industrial growth and safeguarding the natural environment so that future generation may thrive (Lee, 2009).

**Green recruitment and selection**– It is the procedure of hiring people having behavior, knowledge and skills of environment management systems in the organization (Wehrmeyer, 2006).

**Green reward management** – These are Incentives that influence employee's attention to the maximum at work and motivate them to exert Maximum effort to achieve organizational goals (Ramus, 2002).

**Green training and development-** This refers to the practice of equipping the employees with foundational skills as to teach them to collect waste data, to raise the level of eco-literacy, and environmental proficiency in the organization (Roy & Therin, 2008).

## ABSTRACT

Initiatives of Green management have become an important factor in businesses that are thinking ahead around the world. Studies have argued that employees must be inspired, empowered and be made environmentally aware of greening in order for them to carry out green management initiatives. The study therefore sought to evaluate the influence of green human resource management practices in environmental sustainability of five service based state corporations in Kenya. It addressed specific practices that included green recruitment and selection, green training and development, green reward and green performance management practices on environmental sustainability in state corporations in Kenya. The study used four theories namely. The study adopted a descriptive design but specifically a survey which involved collecting data from five state corporations in order to test hypotheses of the study. The target population were the 13,940 managerial staff in state corporations in Kenya. The sample size was 122 respondents. Multistage sampling was adopted to select the individual subjects randomly. Primary data was collected using a self - administered semi structured questionnaire while secondary data was collected from journals and databases. Data was analyzed quantitatively and both descriptive and inferential statistics was used. Multiple regression model was used to establish the relationship between the independent variables and the dependent variable which are explained in the model. The results were presented in form of tables. The study assists organizations appreciate and implement the relevant Green Human Resource Practices. The study found that green recruitment had a positive influence on environmental sustainability in state corporations in Kenya. Further the study found that green training and development had significant influence on environmental sustainability, green reward had the least influence and green performance management practice had the highest influence on environmental sustainability. Overall, green human resource management practices were found to have a positive influence on environmental sustainability among state corporations. The adjusted R square indicated that green human resource management practices in exclusion of the constant variable explained the change in environmental sustainability. The study recommended that state corporations in Kenya to adopt green human resource management initiatives that are geared towards enhancing environmental sustainability in State Corporations in Kenya. On the area of further study it is recommended that future researchers should look into the mediating / moderating factors influencing environmental sustainability.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

The growth of global environmental concerns and the introduction of international standards on environmental issues have created the need for businesses worldwide to embrace formal environmental strategies and programs (Daily & Huang, 2011). According to there are agreements to manage climate changes which according to (Victor, 2011) is the major reason why the recent increase in environmentalism. Therefore, GHRM is the use of employees to promote sustainable practices and increasing their awareness and commitments on sustainability issues. The GHRM consists of practices and policies which are specific in nature and regards human resources in line with economic, social, and environmental pillars of sustainability worldwide (Muster & Schrader, 2011).

According to Shore *et al.* (2006), green human resource plays a crucial role in organizations globally to aid the environmental connected problems by accepting it. In a management viewpoint, he asserted that organizations take up policies and practices, and implement rules linked to environmental protection. A study by Mandip (2012) indicates that GHRM refers to the use of every employee interface to promote sustainability practices and supplementing employee responsiveness and commitments on sustainability problems. He asserts that GHRM engages activities and programs which are environmentally friendly which in return lead to greater efficiencies, reduction in costs, improved employee engagement and retentions.

This will result in organizations practicing job sharing, carpooling, teleconferencing, virtual interviews, recycling, telecommuting, e-learning, reduction of carbon footprint by adoption of electronic filing and energy efficient office spaces. Moreover, Jabbour (2010) explained that green HRM is one which engages two important fundamentals, environmentally friendly human resource practice and the conservation of knowledge capital. Green HR involves reducing carbon footprint by minimizing printing of papers, adopting video conferencing and online interviews.

Organizations that are quick to dismiss when economic times are hard must understand future suggestions of losing the knowledge capital. For the implementation of corporate green management initiatives, there is need of a high level of technical and management skilled workers. This explains the reasons why most businesses are developing innovation-focused environmental initiatives and programs with a significant impact on the sustainable competitiveness of the firms (Cherian *et al.*, 2012). It is for this reason that the implementation of rigorous recruitment and selection, performance based appraisal system and the introduction of training programs geared towards adding the employee's environmental awareness and are important for fostering environmental innovations should be practiced (Renwick *et al.*, 2008).

HRM practices are expected to improve environmental friendly human capital and culture of a firm through hiring pro-environment employees, training employees with skills and competencies in technology, innovation, and providing rewards and incentives for making EM a success. Little attention has been paid towards fine tuning human resource management practices and its effectiveness in environmental management (Dalaney & Huselid, 2006). It was until 2008, that GHRM practices were categorized for environmental management, with practices such as recruitment and selection; performance management and performance appraisal; training and development; employment relations; and pay and reward (Renwick *et al.*, 2008). With the help of their HR professionals, companies today are attempting to embrace strategies to green their business.

Organizations emphasizes on online sharing of training/self-learning materials, encouragement of employees to switch off their computer monitors when they are away from their desks, keeping minimum lighting when not working and more usage of LED. According to Mandip (2012) two important elements of GHRM are environmentally friendly HR practices and the preservation of knowledge capital. He asserted that Greening of businesses requires total involvement of all the organization members as firms have realized the need to develop a strong social conscience and green sense of responsibility where corporate social responsibility is a business imperative. He argues that the driver of environmental sustainability

within the organization is the Human resource function which should align its practices and policies with sustainability goals.

According to Jackson and Schuler (2005), modern HRM practices should be improved to ensure that there is maximum utilization of these resources within an organization and that the practices should contribute towards the desired transformation of the public sector. This necessitates a change in the way employees are managed especially in state corporations to ensure they deliver the desired results by designing approaches that will consider the Kenyan national value orientations and environmental sustainability.

### **1.1.1 Global Perspective of Green Human Resource Management Practices and Environmental Sustainability**

Adoption of GHRM in organizations has been done globally with examples in Germany where we have, Siemens, Mannesmann, Bayer and BASF as examples of firms who have capitalized the use of green image and environment friendly activities and policies to attract highly-talented employees. In Britain we have the Rover Group carmaker which has made environmental related responsibilities to become part of every job with environmental responsibilities captured in every job description, (Wehrmeyer, 2006). According to Beard and Rees (2010) “green teams” have been established at Kent County Council which is a UK local authority that aims to generate ideas, enhance learning experiences, explore issues, identify conflict and focus on actions that enhance the understanding about why, what, how, where and when to pursue the best practicable environmental options.

There is much work that seem to be needed in the United States to develop measures of green performance baselines. These enable organizations to draw a comparison between managerial environmental performance more accurately across different plants/units, and to attempt to set goals for supervisors and employees (like assembly and manufacturing staff). There is also a need to develop HR systems in performance appraisals and in the reward to make environmental management initiatives be seen to be for all in the organization (Milliman & Clair, 2010). A poll in 2007 reports that 72% of working women and 64% men preferred to work for green employers while

92% of the students and entry-level professionals preferred to work in an eco-friendly environment.

The study also indicated that 80% of the young professionals showed a marked preference for a job with that positive impact on the environment (Lee & Ball, 2009). This is supported by a survey done in the United Kingdom showing a high achieving graduates judging the environmental performance and reputation of a company as a factor to consider in deciding to apply for a job, (Oates, 2010). A survey by the British Carbon Trust showed above 75% of 1,018 seeking for employment in a firm insists on the firm having an active policy that supports the reduction of carbon emissions (Clarke, 2011). Another survey administered by U.K. (CIPD) reveals that 49% respondents prefer environmental credentials on deciding to take up a job with a firm like Boots which views the “green job candidate” being influential in this area, (Brockett, 2009).

In China, the development of green jobs is aligned with the government’s development strategy with green occupations having made a tremendous contribution to global green employment in terms of volume and growth. For example, there are 600,000 workers in the solar water heater industry which accounts for 96 % of the total global (Muster & Schrader, 2011). According to Daily and Huang (2011) there is an estimate of 10,000,000 people engaging in recycling business in China with approximately 700,000 workers in the home appliances recycling. They asserted that, three million people were employed in environmental protection-related industries by the end of 2007, with jobs in new-energy, forestry, parks, solar water heaters and a range of recycling industries totaling around 17.2 million hence qualifying China to have made a significant impact in global green employment.

A comparative analysis of environmental management systems in Mexican manufacturing sector was done by Massoud (2011). The study measured environmental objectives and the results indicated that firms that were implementing EMS and had environmental certifications received higher ratings than those firms without EMS. In India, Public Enterprises (PEs) cannot be separated with the process and dynamics of economic development. Public enterprises are involved in

innovation processes to demonstrate how organizations can innovatively manage sustainable developments by establishing green sense of responsibility as part of the firm's operation (Lather & Goyal, 2015). Seven case studies done in Singapore have shown how companies have attained substantial savings from the implementation of EMS/ ISO14001.

The study indicated that the savings was attained through recycling activities, product process, reduced energy consumption, reduction in chemical use and improvement in pollution prevention processes .The Kenyan government is developing a green economy strategy to support development efforts towards addressing key challenges such as poverty, unemployment, inequality, environmental degradation, climate change and variability, infrastructure gaps and food insecurity.

### **1.1.2 African Perspective of Green Human Resource Management Practices and Environmental Sustainability**

South Africa has progressed greatly with environmental management by implementing laws and strategies focusing on sustainability and green issues, with this addressed in the King III Report in terms of the triple bottom-line concept of economic, social and environmental sustainability (Carroll & Buchholtz, 2010). According to Van Wyk and Deegan (2009) it is important for large and small businesses to adhere to the principles of the King III Report. The establishment of the ISO 14000 standards that took place at the Rio Summit on the Environment and provided a framework for Environmental Management control systems, such as ISO 14001 and ISO 14002 (Sustainable Business Report, 2009). This resulted to a South African company, Green Business R, being charged with the responsibility of certification of businesses because environmental exploitation and sustainability is of long-term concern in South Africa (Finlay, 2010). The natural environment has gained attention and businesses are developing new and innovative ways to improve their global competitiveness (Lin & Ho, 2008).

### **1.1.3 Kenyan Perspective of Green Human Resource Management Practices and Environmental Sustainability.**

The Kenya Green Economy Assessment Report launched by UNEP in 2014 revealed that Kenya is already implementing various green economy approaches and policies, and that a move towards green economy has positive impacts in the medium and long term plans. By 2030, a green growth path results in faster growth, a cleaner environment and high productivity, relative to the ‘business as usual’ growth scenario. In the Medium Term Plan (2013-2017), the Government committed to develop a green economy strategy (ROK, 2015).

According to Kenya Vision 2030, Kenya aims to be a nation that has clean, secure and sustainable environment. Companies listed in the allied and industrial sector of Nairobi stock exchange have made great strides towards promoting environmental sustainability. Athi river mining with the assistance of the Kenya association of manufacturers has been conducting annual energy audits which proved helpful in reducing their energy bill by 20 % from 2007-2009. KenGen have also developed six clean development mechanism projects in Kenya which intends to reduce carbon dioxide emissions to the atmosphere, (GOK 2012). Green Human resource management practices have been implemented in some Kenyan organizations. According to (Owino & Kwasira 2016), organizations have established automation services which enable employees to access their pay slips anywhere, applications of jobs are done online and there is e-learning portal where training materials can be accessed online.

#### **1.1.4 State Corporations in Kenya**

State Corporations Act (1987) describes a state corporation as a body that is described that way by statute. A body corporate established by an Act of Parliament; a bank or other financial institution or other company whose shares or a majority of whose shares are owned by government or by another state corporation, and; a subsidiary of a state corporation. According to Nijhawan (2014), they are established to meet both commercial and social goals. He asserts that they exist to correct market failure, exploit social and political objectives, provide education and health as well as redistribute income or develop marginal areas.

The Kenyan government has acknowledged that over the years there has been poor performance in the public sector, especially in the management of public resources which has hindered the realization of sustainable economic growth. This led to the development of Kenya Vision 2030 as the country's development blueprint covering the period 2008 to 2030. Challenges facing State Corporations include Environmental issues, factors for sustainable development and improvement of people's livelihoods. Key environmental problems include climate change, forest depletion and degradation, and land and water degradation and loss of ecosystem services. Agricultural production is severely affected by land degradation which causes losses of biodiversity and ecosystem services.

Continued climate change is expected to increase climate variability and the incidence of extreme weather events GOK (2013). There are some improvements seen in the area of environmental health in Kenya. Looking at the trend in environmental performance, Kenya is declining in the area of climate change and it is for this reason that human resource managers should be on the front line in combating these effects (Owino, 2016). Over 36 per cent of Kenya's rural poor live on marginal lands or areas that are particularly vulnerable to environmental degradation, such as floodplains, coastal areas, where Environmental hazards and extreme events are more damaging. The main drivers behind Kenya's environmental degradation include high population growth and associated pressures on scarce natural resources, high urbanization rates as well as a rapid economic growth. The Kenyan government recognizes that full attention is needed to secure the Kenya's environment and build resilience to climate change and other hazards and State corporations in order to play this role must be managed sustainably (GOK, 2012).

In addition, political, market and institutional failures also contribute to Kenya's environmental situation. Lack of legal enforcement of environmental policies is widespread, and environmental governance is insufficient. Unattended to, there is high risk that economic growth may be attained at the expense of Kenya's environmental capital, which will have serious repercussions on the country's economic social and ecological resilience. Policies and laws should therefore be harmonized with respect to the key environmental issues (ROK, 2015).

All human resource managers in government entities should transition towards an inclusive and resilient green economy which will constitute a new opportunity to enter the path of sustainable development through the human resource management practices. Careful design and implementation of green economy policies will be crucial for the country's environmental as well as economic and social outlook as it would stimulate a green, inclusive and equitable growth, reduce poverty and create green jobs. From the above, it is clear that the human resource practices that are key to environmental sustainability of state corporations are Green recruitment and selection management practices, green training and development practice, green reward and compensation practice, and green performance management practice (GOK, 2012).

## **1.2 Statement of the Problem**

Sustainability has become a key focus for many organizations as climate change, regulatory pressures and societal demands for greater environmental and social responsibility have increased. State corporations have been increasingly confronted with environmental issues and are faced with much pressures from stakeholders and shareholders to develop environmentally responsible activities (Marcus & Fremeth 2010). Environmental performance reflects an output demonstrating the degree to which firms are committed to protecting the natural environment (Lather & Goyal, 2015). National Environment Management Authority and the Kenya Forest service have reported a number of issues in relation to environmental degradation (GOK, 2013). This is attributed to the practices which the state corporations have adopted which does not promote environmental sustainability. Human resource practices in State Corporations should reduce the use of papers and encourage their employees to switch off their computers when away from their workstations. This will ensure all employees have the opportunity to ensure that environmental sustainability is promoted and the end result is a quality life within a clean and healthy environment as envisaged in the vision 2030 (MDG status report, 2014). Human resource being the custodian of all employees in organizations has the mandate to initiate best practices to bring everyone on board. The change towards greener HR practices can be beneficial to organizations in cost reduction, employee retention and attraction

(Muster & Schrader, 2011). The integration between human resource management and environmental sustainability should focus on supporting business sustainability by creating and delivering HRM core processes which are founded on the principles of sustainability. Adoption of green HRM in Kenya's state corporations is one aspect of environmental management that should be emphasized. Studies on Green Human Resource and environmental sustainability has been done globally but a few studies have been conducted in Kenya particularly in state corporations and it is against this gap that the current study was conducted. The study therefore sought to establish the influence of Green Human Resource Management practice in environmental sustainability of selected state corporations in Kenya.

### **1.3 Research Objectives**

The study was guided by the following objectives:

#### **1.3.1 General Objective**

The general objective of this study was to evaluate the influence of green human resource management practices on environmental sustainability of selected service based state corporations in Kenya.

#### **1.3.2 Specific Objectives**

- i. To determine the influence of green recruitment and selection practices on environmental sustainability in service based state corporations.
- ii. To examine the influence of green training and development practice on environmental sustainability in service based state corporations.
- iii. To evaluate the influence of green reward management practice on environmental sustainability in service based state corporations.
- iv. To assess the influence of green performance management practice on environmental sustainability in service based state corporations.

## **1.4 Research Hypotheses**

**H<sub>01</sub>:** Green recruitment and selection practice have no significant influence on environmental sustainability in state corporations.

**H<sub>02</sub>:** Green training and Development practice have no significant influence on environmental sustainability in state corporations.

**H<sub>03</sub>:** Green Reward management practice has no significant influence on environmental sustainability in state corporations.

**H<sub>04</sub>:** Green performance management practice has no significant influence on environmental sustainability in state corporations.

## **1.5 Significance of the Study**

The study is beneficial to the following groups of persons due to its informational value. These include corporate, State Corporations and researchers.

### **1.5.1 Corporates**

Human resource practitioners and managers in general benefits from this study in that they will be in a better position to use the findings and recommendations provided in this study to improve the efficiency of green human resource practice. Thus this study provides a framework for policy formulation as it highlights the various practices that have a significant impact on environmental sustainability. The findings of the study also provide insights into the trends and direction HRM has taken in the 21st Century. This influences the kind of business policies concerning HR that are formulated to ensure that they are in line with the market trends. Such policies influence the attainment of Sustainable Development Goals and Vision 2030.

### **1.5.2 State Corporations**

The Management of state owned corporations is likely to benefit greatly from this study because; the findings of this study helps in implementing green HRM to

enhance environmental sustainability. The information enables them make the necessary changes in a bid to align themselves with the requirements of Vision 2030 of being environmentally sustainable. The findings may lay a theoretical framework for future empirical study on green HRM practice.

### **1.5.3 Future Researchers**

The scholars will use the findings as an inference for further studies on the influence of green human resource management practices on environmental sustainability. This study specifically presents findings on the influence of green recruitment practice, green training and development practice, green reward and compensation practice and green performance management practice on environmental sustainability in selected service based state corporations in Kenya.

### **1.6 Scope of the Study**

The scope of the study encompasses service based state corporations in Kenya. However, the study focused on five service based state corporations with a common mandate of conservation of the environment and biodiversity. The target population was 13,940 managers from state corporations. The study focused on five service based state corporations who have been in operation for more than 5 years and the sample was 122 managers picked from the five service based state corporations. Survey method was used to gather information at the corporations' headquarters in Nairobi. The study investigated various aspects of green human resource practice: influence of green recruitment practice, influence of green training and development practice, influence of green reward and compensation and finally influence of green performance management on environmental sustainability in service based state corporations.

### **1.7 Limitations of the Study**

The main limitation experienced was that most respondents considered some information as confidential and did not want to reveal everything. However, confidentiality and protection of information was assured to the organizations'

management and the respondents. Information was coded to avoid direct reference to particular companies and individuals. The study was also limited to 5 service based state corporations due to time all 170 state corporations could not be studied. However the study made inferences from the findings to be a true reflection of the 170 state corporations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews literature by various scholars in the area of green human resource management practices. The chapter aims to present the gaps in the literature requiring investigation and the development of a research model and research questions. The chapter covers the theoretical review on green recruitment practice, green training and development, green reward and compensation, and green performance management practice leading to the development of the conceptual framework guiding this study. It also deals with empirical studies carried out in the past and in accordance with the variables presented in the research model, the critique and the research gaps.

#### **2.2 Theoretical Review**

According to Creswell (2003), a theory is a set of interconnected constructs, definitions and suggestions that present an organized view of phenomena by stating relations among variables, with the purpose of explaining and predicting phenomena. According to Cooper and Schindler (2008), a theory is a set of systematic interrelated concepts, definitions, and propositions that are advanced to explain and predict phenomena. Theories are relevant to any study since they offer a base for the conceptualization of the variables under study and in this section, theories relevant to the study were reviewed. These include the Resource Based View theory, ISO 14001 systems model, Social exchange theory and Best Practice Human Resource Management Theory.

##### **2.2.1 The Resource Based View (RBV)**

This theory derives from the idea of economist Edith Penrose. The theory argues that resources including employees, systems and business partners are combined into ways of working which are rare, inimitable, valuable and non-substitutable so that they become sources of competitive advantage (Tyson & York, 2006). HR systems

create the human capital pool of skilled people so that they can sustain what Wright et al., (2001) described as strategically relevant behaviours. The Resource-Based Approach focuses on internal resources that are viewed as the principal factor for a sustainable competitive advantage.

In effect, the value brought by human resource is the core of this approach where flexibility is optimized in order to reduce costs and increases efficiency. Human resources, by adding value, uniqueness and the most effective way to use resources, tend to increase the competitive advantage of a company in comparison to another (Porter, 1991). The (RBV) tends to ignore the baseline of specific industries as it takes into account the differences of firms in the same sector as a competitive advantage. However, competitive advantages are gained by the rightsizing process (Hamel & Prahalad, 1993), which implies that an organization obtains more output from its existing resources and optimizes the way in which they are used.

Therefore, it is the way in which these resources are used, along with the same baseline in an industry, which create the competitive advantages rather than the differences between firms. According to (RBV), managers seek to gain a competitive advantage through the quality of the people employed. The basic requirement to trade in most industries is a well trained workforce, flexible and responsive to customer demands. These basic policies Purcel (1994) describes as ‘table stakes’ the price necessary for terms and trading in the market, but not a sufficient differentiator for a long term competitive advantage. The RBV, therefore requires, a skills and capability focus, so that firms learn faster than their rivals, and that they protect and enlarge their intellectual capital. As a consequence, companies can generate a human capital advantage as well as an organizational process advantage.

According to Mavrillac and Siesfield (1997), 35% of an institutional investor’s valuation of a company is attributed to non-financial attributes, such as management credibility and expertise, innovativeness, the ability to attract and retain talent, compensation practices, and the quality and execution of the business strategy. As a basis of competitive advantages the (RBV) lies primarily in the application of the bundle of valuable interchangeable tangible resource at the firm’s disposal

(Wernerfelt, 1984). To transform a short-run competitive strategy into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile (Peteraf, 1993).

Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable. Such elements as the speed of response to the customer, the brand image, the quality of the product or service and the relationship, marketing approach are the constituent parts of the competitive strategy, into which the HRM component of competency recruitment and development, motivation and retention, innovation and problem-solving are embedded (Tyson & York, 2006). Despite the enthusiasm with which the theory has been embraced, it has received a lot of criticisms. The theory focuses on the macro phenomena averaged over a wide industry samples (Rouse & Daellebach, 1999). This approach seems inconsistent with major tenets of the resource based view which include resource heterogeneity which directs researchers to uncover unique, firm specific assets that can result in sustained profitability of the firm and not tailor research to understand what is the case for the average representative firm (Aharoni, 1993).

Resource based view has been unable to obtain more basic understanding of the specific resource set applicable to various industries and firms. Moreover, the specific managerial processes through which resources become valuable have been extremely neglected, (Barney, 2001) despite scholars acknowledging that it is the management of resources and skills that is crucial to firm's competitiveness and not just the resources themselves (Aakar, 1989). This theory is relevant to the study because to get human resources who are rare, inimitable, valuable and unique, State Corporation's managers must ensure that their recruitment and selection practice guarantee hiring of people with the right skills which .

State Corporations also must understand that for the employees to be a source of competitive advantage, they need to be knowledgeable. Knowledge acquired and possessed by employees is a source of competitive advantage as this is tacit knowledge which is impossible to imitate. Therefore training and developing the staff hired becomes inevitable so that employee's skills and knowledge is improved.

Rewarding these employees is also crucial so that the organization can win the commitment of these employees as they reciprocate the rewards they get from the organization. Therefore, this theory infers as to whether green recruitment and selection practices, green training and development and green reward management practice influences environmental sustainability in state corporations in Kenya.

### **2.2.2 ISO 14001 Environmental Management System Model**

According to the international standards, ISO 14001, an environmental management system is the part of the overall management system that includes organization structure. EM also includes planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy. According to Gupta (2003), EMS creates integration between the environmental issues and the organizational activities by putting in place the principles which attempt to search for continuous improvement in the link between the natural environment and the company. The study asserts that, environmental management system is actually a set of managerial processes that require a company to identify, measure, and control its environmental impacts.

There are benefits accrued to a company by adopting an EMS which may be tangible or intangible such as reduction of operational costs, reducing fines related to environmental issues, improving brand image and lastly attracting and maintaining environmentally responsible consumers (Owino, 2016). ISO 14001 model is globally adopted because of its legitimacy and support ISO, it is procedural in structure similar to ISO 9000 series and it is voluntary which may be adopted and it does not depend on its location, activity, or size, (Ashwin *et al.*, 2011). One of the major areas that have gained prominence as target for environmental management is the area of human resource management. According to (Daily, 2002) human resource is the key resource of any organization and has a significant impact on how the organization operates.

Therefore, the support of HRM practice is considered fundamental for adopting environmental management practice as it leads to people management towards

contributing to green movement. It provides the guiding platform to engage employees in environmentally sustainable ways at work to reduce their carbon footprint and embed an eco-friendly culture within the organization. ISO 14001 standards has five main stages with environmental policy which is a declaration of an organization intentions and principles related to the global environmental performance (Slovik, 2013). The structure for action and description of environmental objectives and targets are indicated.

Planning is the second step and here a plan is formulated in order to follow the environmental policy in areas of legal demands, environmental objectives and targets, identification of the environmental aspects and structuring the program of environmental management. The third stage of implementation and operation stage requires that companies empower its resources and the mechanism for policy implementation, objectives and environmental targets. According to Daily and Huang (2002) there has to be an optimal integration among the physical, financial and Human resources that will support the effectiveness of the environmental policy of a company. Checking and corrective action is the stage where environmental performance is measured and monitored, corrective actions carried out, registration of environmental activities and audits done.

The last step of management review considers the eventual need to change the policy, the objectives and other elements of EMS, in view of the results of the audit of the management system, changes in circumstances and commitment to continuous improvement (Slovik, 2013). ISO 14001 model is relevant to this study as it links the Green Human Resource Management practice to the phases of an EMS as it shows the importance of including the human resource areas when coming up with an EMS environmental policy. It helps in creating awareness of the company strategy in order to plan and implement practices of human resource management that favors the attainment of the green strategy. The element of green recruitment, green training and development, green reward and compensation, green performance management contribute to environmental management particularly in moments and situations of implementing and maintaining the EM (Ramus, 2012).

Green recruitment guarantees that staffs who are committed to environmental assumptions makes up the staff of a company and therefore makes the planning of an environmental management system feasible. This is achieved by recruiting employees who are eco- friendly and environmentally aware. Green Training and development is an important practice at the implementation and operating phase of the environmental management system as it requires all staff members to be trained intensively (Stringer, 2012). Green performance management is important as it allows for the effectiveness of the EMS to be analyzed in line with the performance of individuals and teams taking up environmental responsibilities.

The stage of critical analysis of the EMS requires the use of green rewards and compensation to bring about changes which are necessary for the cycle of EMS (Zakaria, 2012). The model is applicable to the study in that the state corporations can use the compliance approach in their environmental programs driven by laws and regulations. The model allows state corporations the ability to better control the company's environmental impacts by ensuring that the environmental policy is made known to all employees in the organizations. This communication of policy can be done through emails sent to employees and other stakeholders of the corporation until the policy has gained acceptance.

Further the model is of significance to management of state corporation who when planning EM must ensure the right people are in the team. This makes planning easier for them and implementation is also done without much resistance. State corporations also ensure that their environmental policy includes a commitment by all to the continual improvement and prevention of pollution, commitment to comply with legislation and regulations. The model also assists state corporations in conducting environmental training programs for changes in the corporate environmental philosophy. These trainings help state corporations comply with regulatory requirements and acts as a source of competitive advantage.



**Figure 2.1: Model for the Analysis of the Contributions of HR in EM (Renwick 2008)**

### 2.2.3 Social Exchange Theory

Social exchange theory as propounded by Blau 1964, has been highly influential in a variety of disciplines, including anthropology, clinical psychology, social psychology, and sociology. In his highly cited book, *Exchange and Power in Social Life*, Blau (1964) identified two kinds of exchange relationships: (a) social and (b) economic. According to Blau, social exchanges entail unspecified obligations such that when an individual does another party a favor, there is an expectation of some future return.

However since it is unclear when the favor will be returned, and in what form, social exchange relationships depend on trust (Blau, 1964). “Obligations, trust, interpersonal attachment, or commitment to specific exchange partners” (Emerson,

1981) are not incorporated into economic exchange relationships. Rather, economic transactions between parties are not long term or ongoing, but represent discrete, financially oriented interactions (Shore *et al.*, 2006).

Thus, social exchange has emphasized socio-emotional aspects of the exchange relationship, such as feelings of obligation and trust, while economic exchange has emphasized the financial, material and more tangible aspects of the exchange relationship, such as pay and other monetary rewards (Thompson & Bunderson, 2003). Most theorists agree that, in general, social exchange involves a series of interdependent interactions that generate obligations between two parties (Emerson, 1976). Accordingly, an individual's perceived relationship with a specified other party has been conceptualized as a form of social exchange in which individuals attempt to strike a balance between the perceived costs and benefits of maintaining their relationships (Homans, 1958). Three elements are fundamental to social exchange: (a) relationship, (b) reciprocity, and (c) exchange (Coyle-Shapiro & Shore, 2007).

A social exchange relationship begins when one party offers a benefit to the other. In the study, State Corporations use the inducement of green rewards to create a side bet. The employees receiving the reward reciprocate with behaviors that lead to environmental sustainability. State Corporations also offer Green training and development to its staff and as a result the employees tend to behave in a manner that enhances environmental sustainability. Thus social exchange is a process that entails the continuous exchanging of benefits over time in which both parties understand that "the bestowing of a benefit creates an obligation to reciprocate" (Coyle-Shapiro & Shore, 2007).

Obligation is a commitment to some future action whereby the mutual acceptance between the exchange parties is implied (Rousseau & McLean Parks, 1993). Although social exchange theory has long been considered one of the most influential theories in organizational behavior and human resources management, theoretical ambiguities within the theory remain (Cropanzano & Mitchell, 2005). For example, though social behavior is often characterized by an exchange of both social

and economic elements (Thompson & Bunderson, 2003), these two types of exchanges have traditionally been examined as contrasting constructs. Another criticism is that the theory fails to completely articulate the distinction between behavioral action and inaction. More clearly, social exchange theory naturally assumes the absence of something that is positive (justice, trust) is effectively the same as the presence of something that is negative (injustice, distrust).

However, evidence suggests this is not necessarily true. The relationship employees develop with their organizations will, over time, develop investments that are both social and economic in nature. It is these investments, or “side bets” (Becker, 1960), that help determine how individuals decide to reciprocate their obligations. The theory is relevant to this study because State Corporations uses the rewards either monetary or non-monetary to induce employees to perform desired environmental behavior as an exchange for the reward. The theory therefore infers as to whether green reward and compensation and green training and development influences environmental sustainability in State Corporations in Kenya

#### **2.2.4 Best Practice Human Resource Management Theory**

The characteristics of the “soft” model of HRM are very similar to those that are under the HRM “best practice”. Johnson (2000) suggests that the underlying guiding principle of best practice is the valuing and rewarding of employee performance. After extensive research, Huselid (1995) developed a list of 13 “High performance work characteristics” that he believed constituted best practice HRM. According to Pfeffer (1998) who drew heavily from the previous work done by Huselid, outlined seven best practices of successful organizations which includes such things as employment security, selective hiring of new personnel, self-managed teams, decentralized high compensation relative to performance, extensive training, reduction in barriers and extensive sharing of financial and performance information. However, Guest (1999) and others have questioned the basis of some of the universal claims made about the connection between HRM strategies and organizational performance.

They report that they are not convinced by the idea that there is a general prescription of HRM intervention that can be applied in any organization, irrespective of context and priorities with the likelihood of a similar level of response and results, (Guest, 1999). Although there is still debate between HRM practitioners as to what common sense meaning; literally the methods and techniques which produce superior results in HRM, (Price, 2004). Therefore, activities that are designed to empower and develop the employee in addition to positively affect the bottom line of the organization are considered “best practice” (Edgar, 2003). A study carried out in New Zealand firm resulted in contrasting results. According to a study conducted by Stablein and Geare (1993) investigating the commonality of best practice HRM activities in New Zealand organizations.

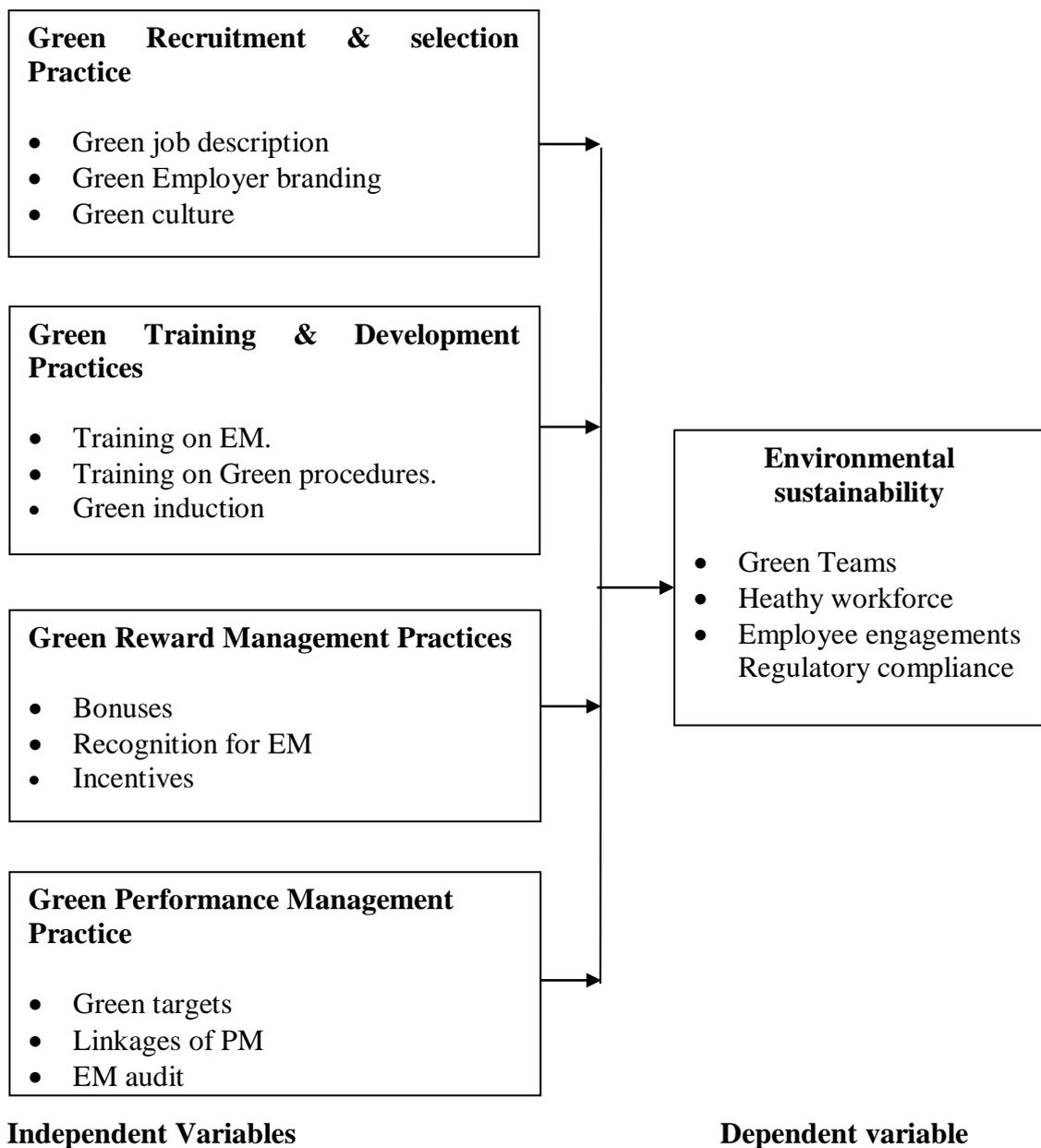
Examining different functions of the organizations such as salary, administration and employment. Results showed that based on EEO (Equal Employment Opportunity), most sectors tended to be very good at utilizing HRM best practice to activities within the firm and that much improvement was required to get business up to the levels of HRM best practice utilized abroad. The best practice approach suffers from a series of limitations. When implementing best practice standards organizations run risk of introducing mutually prohibitive combinations like team working and compensation based on individual performance resulting in a deterioration of employee collaboration through over exaggerated competition (Johnson, 2000).

Moreover, high commitment management systems are generally a complex undertaking requiring large inputs of planning and top level management commitment. Best practice HR lacks direct linkages with organizational strategies and is minted by the belief that outstanding high performing human resources will influence strategy (Price, 2004). By making HR policy precede corporate strategy an organization risks prescribing standardized sets of “one size fits all” best practice approaches which will not support the particular needs of employees and be detrimental to overall strategic objectives. The theory is relevant to the study because if state corporations does proper performance management of its workers, this will result to enhance environmental performance. This can be done by ensuring that green targets are set for all employees in the organization. They can also practice

selective recruitment and selection of employees with prior knowledge on the environment; administer extensive training on environmental issues as well as rewarding and compensating them as these constitute best practices.

### **2.3 Conceptual Framework**

According to Kasomo (2006), conceptual frameworks is a description of the phenomenon under study representing graphically and diagrammatically the relationship between the dependent variable and independent variables. It forms the basis for testing hypothesis and coming up with generalizations in the findings of the study. The conceptual framework for this study shows the constructs for green recruitment and selection management practice, green training and development management practice, green reward management practice and finally green performance management practice which are directly related to Environmental sustainability



**Figure 2.2: Conceptual Framework**

## 2.4 Empirical Review

It is the literatures, or previous studies that relate or argue positively with your studies hypothesis and variables. Literature review involves systematic identification, location, and analysis of documents containing information related to a research problem under investigation (Garner, 2010). The empirical review covered studies on green recruitment and environmental sustainability, green training and development

and environmental sustainability, green reward and compensation and environmental sustainability and green performance management and environmental sustainability.

#### **2.4.1 Green Recruitment and Selection Management Practice and Environmental sustainability**

Green organizations have emphasized on importance of green recruitment and selection. According to Hussain (2013) in his study of the effects of green recruitment and selection on environmental sustainability in Spain, Green recruitment process is aimed to influence on the quantity and type of candidates for a specific vacancy. The study used a sample of 100 respondents in manufacturing companies .The study concluded that recruitment and selection practices can support effective green management by ensuring that new recruits understand an organization's green culture and share its environmental value. A study by Owino and Kwasira (2016) on their study on the influence of green human resource management practices on environmental sustainability in Menengai oil in Nakuru supports these sentiments as she also concludes that recruiting employees who are eco-concerned will enable the company attain its sustainability agenda.

The job descriptions should reflect the sustainability agenda and the company's website and other research tools available for candidate access clearly outline its greening attempt, this is according to (Mandip, 2012) in his study on the influence of green recruitment and selection on environmental sustainability of firms in Ukraine. The study concluded that green recruitment and selection process includes the hiring of green-aware candidates without the use of paper (employee applications can be accepted on the web). The study used survey design with a sample of 200 respondents. A study conducted by (Harvey *et al.*, 2010).

The effects of green human resource management on environmental sustainability of microfinance companies encourages the involvement of employees for monitoring of long term competency and informing employees about the green company-wide initiatives like reducing wastage and greenhouse gasses. The study used a case study design with a target population of 200 employees and a sample of 100 respondents. The study concludes that this ultimately facilitates in improving environmental

performance of a firm. The process of recruitment and selection can assist firms in producing effective performance including performance related to the environment by ensuring that newly hired staff are aware of the environmental culture of the organization and he or she can maintain the environmental values followed by the organization.

According to Wehrmeyer (2006), on his study that looked at the contributions green recruitment and selection on environmental management of government agencies in Malaysia. The study used a survey of 100 firms with a sample of 56 government agencies. The study concluded green recruitment and selection has been used extensively and leads to improved sustainability in the organizations. It focuses on the identification of the high performing employees and the areas where they may work well. The organizations are now realizing the fact that the reputation as an employer following green practices is an effective tactic for attracting new talent (Stringer, 2012).

The inclusion of the green element in the recruitment process encourages efficacy in green management (Jabour, 2013). This is achieved by helping the recent recruits to understand the green culture of the company and also supports its green values (Jackson & Seo, 2010). A study by Renwick *et al.* (2013) on their study on the effects of attracting high high-quality staff in the “war for talent” concluded that organizations should focus on the practices which enable the organization to bring on board employees who will enhance the environmental sustainability of the organization. The study used a census of 50 firms in Mexico. According to Holtom *et al.*, (2008) in their study on the influence of green human resource management and environmental sustainability of manufacturing firms in Germany, the most important benefit dimensions of HR and sustainability are retention, recruitment and selection ,satisfaction and training .

The study used a survey of training firms in Germany with a sample of 150 respondents. According to Grolleau *et al.* (2012) in their study on impact of environmental standards of a company on recruitment of an employee found that environmental commitment of the company adds to profile of a company. In their

primary survey, they found that professionals were more concerned with respect to the environmental strategy of a company. A study by Pascal *et al.* (2012) investigated the relationship between strategic human resource management, internal environmental concern, organizational citizenship behavior for the environment, and environmental performance. The main results indicated that organizational citizenship behavior for the environment fully mediates the relationship between strategic human resource management and environmental performance.

Results also indicated that internal environmental concern moderates the effect of strategic human resource management on organizational citizenship behavior for the environment. A study by Marco *et al.* (2015) compared the effects of attracting applicants of two green recruitment practices, that is, the green reputation of a company, and the amount of information provided on the recruitment website about the company's environmental policies and practices. With regard to the later, the study examines the substitution effect on attracting applicants between the two green recruitment practices, and additive effects on attracting applicants between them and two non-green recruitment practices.

In terms of direct effects, the findings support the impact of a green reputation on attracting applicants, but no impact of information on the recruitment website about company environmental policies and practices. In terms of interactive effects, the findings do not confirm the substitution effects between green recruitment practices, but indicate additive effects between green and non-green recruitment practices. According to Obaid and Alias (2015), on their study on critical factors contributing to environmental management, there exists a positive influence of recruitment and selection, training and development, and learning on the performance of the firm.

#### **2.4.2 Green Training and Development Management Practice and Environmental Sustainability**

In GHRM, training means to equip the employees with foundational skills as to teach them to collect waste data, to raise the level of eco-literacy, and environmental proficiency in the organization. According to (Roy & Therin, 2008), on their study on the factors that leads to the improvement of environmental sustainability in

Hawaiian firms, the study concluded that green training and development stands out. The study adopted a correlational research design with a sample of 80 respondents picked from the firms. According to Liebowitz, (2010), in his study the factors that stop the corrosion of environmental development of attitudes, behaviors, knowledge and skills in employees of manufacturing firms indicated that training and development Training is considered as the preparation of multi-talented employees that are concerned with the development of knowledge and skills required for innovation.

A study by (Zoogah, 2011), on the influence of green training and development on the performance of the organization concluded that training and development of employees improves performance of organizations because training incorporates knowledge and skills in the employees needed to achieve organizational goals and objectives. The study used exploratory design with a sample size of 320 employees in Taiwan. The study further concludes that employees must be equipped with the necessary skills in order to perform effectively in the organization. The capability to acquire new knowledge can be produced among employees through training that can be used for innovation and enhanced performance and competitiveness of the organization as a whole. Exploratory learning is associated with organizations conducting training. The skill development and the exploratory learning are the potential means of encouraging innovations in the organization.

According to Zakaria (2012) on his study on the influence of green training and development on environmental sustainability in Ghanaian manufacturing firms concludes that employee training and development programs should include social and environmental issues at all levels, from technical health and safety considerations on the shop floor, to strategic sustainability issues at executive management and board level. The study used a survey of 50 manufacturing companies with a sample size of 200 employees. The study further concludes that the focus should be on developing competencies for different business functions and different levels of seniority. Green orientation programs for the newly hired employees should be an integral part of the training and development process.

A study by (Prasad, 2013) on the relationship between training and development and environmental sustainability concluded that employees should be informed about the green procedures and policies including the vision/mission statement of the company, the sustainability oriented benefits, company-wide initiatives like reducing greenhouse gases, creating green products. The study used a correlational research design with a target population of 300 employees and a sample size of 150 respondents. The study further concludes that Green training and development educate employees about the value of EM, train them in working methods that conserve energy, reduce waste, diffuse environmental awareness within the organization, and provide opportunity to engage employees in environmental problem-solving.

Green training and development activities make employees aware of different aspects and value of environment management. It helps them to embrace different methods of conservation including waste management within an organization. Further, it sharpens the skill of an employee to deal with different environmental issues. A study by Ramus (2012) concluded that environmental training and education, along with establishing a favorable environmental culture for the employees where they feel that they are the part of environmental outcomes, were the most important HRM processes that facilitate the achievement of environmental goals. Similarly, Liebowitz (2010), in his study on the role of human resource in achieving a sustainability culture, suggests that the human resource department can offer leadership development workshops to help managers develop their “front wheel” soft, people e- skills, or behavioral competencies, diversity, managing change, and collaboration.

A study by Olusanya (2013) investigated on embedding environmental sustainability competencies in human capital training and development. The study concluded that green organizations would require using learning in association with environment and sustainability as an intrinsic and continuous part of the social responsibility process. In other words, training and development are essential elements in the implementation of green management. Another study was conducted by Daily *et al.* (2007) to ascertain the EMS training framework and its relation to practices on HR in

organizations. The results from the survey among the 437 employees indicates that the formation of an effective green management systems was directly dependent on environmental training.

The study further concludes that training and developmental processes are appropriate mechanisms to facilitate corporate sustainability and pro-environmental practices, which in turn can create an opportunity to develop intellectual capital. According to Teixeira *et al.* (2012) on their study on the factors that led to the success of environmental management in Nigeria, the study concluded that among the green HRM practices considered essential for the success of green management at organizations, green training stands out. The study further concludes that green training is one of the most important tools to develop human resources and facilitate the transition to a more sustainable society.

A study by Sarkis *et al.* (2010) identifying the effect of stakeholder pressure in promoting effective environmental training was conducted in Spain. The results concluded that good environmental training from management mediates presences of good green management practice. This is supported by a study by Owino (2016) as she concludes that offering training and development programs on green aspects of the organization and environmental consciousness will help the organization to improve its environmental sustainability. According to Wee and Quazi (2015), on their survey in Singapore identified seven critical factors of environmental management established through reliability and validity analyses as top management commitment, total involvement of employees, training, green product/process design, supplier management, measurement and information management which showed higher performance measure scores for ISO 14000 certified companies than non-certified companies.

A study by Nancy *et al.* (2013) analyzed the experiences of graduates from a New York City, USA green jobs training program targeting 18–24 year olds previously disconnected from the workforce as they transition to full-time employment. Findings reveal the significant challenges facing training program graduates and their supervisors, but also the benefits of urban conservation job training and employment that are potentially transformational for these economically disadvantaged young adults. Green job training and employment present real opportunities for intellectual stimulation and an increased sense of accomplishment, due in part to the uniqueness of environmental work. Individuals reported positive environmental attitudes and behaviors as a result of green jobs training and employment.

### **2.4.3 Green Reward Management Practice and Environmental Sustainability**

Rewards and compensation are the major HRM processes through which employees are rewarded for their performance. These HR practices are the most powerful methods which links together an individual's interest to that of the organization's. According to Ramus (2002) on his study on the benefits of green reward management practice and environmental sustainability concluded that incentives and rewards can influence employees' attention to the maximum at work and motivate them to exert maximum effort on their part to achieve organizational goals. The study used descriptive research design with a target population of 300 employees and picked a sample of 200 respondents.

The study further observed that in the context of Green HRM, reward management can be assumed as potential tools for supporting environmental activities in organizations. Modern organizations are developing reward systems to encourage ecofriendly initiatives embarked upon by their employees. A survey conducted in the UK by CIPD/KPMG estimated that 8% of UK firms are rewarding green behaviors with various types of awards and financial incentives. This is according to (Phillips, 2007), who further observed that these practices can be effective in motivating employees to generate eco-initiatives. Another study by Forman and Jorgensen (2001) on the importance of employee participation in environmental programs, observed that employee commitment to environment management programs was

increased when they were offered compensation to take up duties in relation to environmental responsibility. The study adopted descriptive research design with a target population of 500 employees of a local county council in Britain. The study used a sample of 300 employees as the study respondents.

A study by Pillai and Sivathanu (2014) on their study relationship between green reward management and environmental effectiveness observed that green rewards can include the use of workplace and lifestyle benefits, ranging from carbon credit offsets to free bicycles, to engage people in the green agenda while continuing to recognize their contribution. The study used correlational research design with a target population of 300 management employees and a sample of 160 respondents in the Rover group car Maker in Britain. The efficacy of green rewards and compensation was best observed in a study conducted by Berrone and Gomez-Mejia (2009) on 469 US firms operating in high-polluting industries. They found that the firms having eco-friendly performance paid their CEOs more than non-eco-friendly firms.

The study also concluded that long-term company results in accordance to pay were associated with greater pollution prevention success. Literature review reveals that incentives encourage executives to use accounting and other works to achieve short-term results and enrich themselves (Benz & Frey, 2007). The study further observed that though compensation and rewards increase green initiatives in organizations, it can never be completely free from some malpractices. Developing effective monetary incentives can be challenging due to the difficulty of accurately and fairly evaluating environmental behaviors and performance (Fernandez *et al.*, 2003).

According to Gupta (2008) in his study on the difference between two firms using green reward management and non-green rewards observed the firm that used green rewards reported commitments to environmental management that the firms using non green rewards. The study asserts that if green rewards and compensation systems are aligned to the process of HRM, then a green culture in organizations can be encouraged and by incorporating elements of green management in the compensation program, managers can promote the green behaviors among the employees. Further,

managers can ask employees to bring specific green ideas pertaining to their individual jobs which can be through mutual decisions included into the objectives to attain in for the upcoming year. Attaining these objectives would be the basis of receiving incentives.

According to Liebowitz (2010) Employee compensation programs can be modified to give bonuses based in part on the employee's appraisal ratings on the behavioral and technical competencies and in addition, employees could be awarded bonuses for their outstanding work on special projects. Green rewards can include the use of workplace and lifestyle benefits, ranging from carbon credit offsets to free bicycles, engaging people in the green agenda and continuing to recognize their contribution. The study emphasizes that employee is satisfied with green rewards and help establish environmental performance.

A study by Johnson (2000) on the effects of green human resource management practices and environmental performance of municipal councils in Russia observed that green rewards lead to the highest level of job satisfaction which significantly enhances the environmental performance. The study used a case study approach with descriptive research design. The target population was employees of municipal council. The study further observed that green rewards management practice have a significant impact on employee satisfaction for eco-initiatives. The usage of rewards and recognition on the basis of environmental sustainability places a positive impact on the motivation of employees to experiment green initiatives. A study by Prasad, (2013) on the characteristics of reward packages reveals that it should be customized to reward green skills acquisition and achievements by employees.

The study further points that Monetary- based, nonmonetary based and recognition-based rewards can be used for green achievements of employees. Monetary-based rewards for contributions in environment management can be allocated in the forms of salary increase, cash incentives and bonuses while non-monetary rewards may include sabbaticals, special leave and gifts to employees and their family members. Recognition-based awards can highlight green contributions of employees through

wide publicity and public praise and appreciation of green efforts by CEO or top management executives.

#### **2.4.4 Green Performance Management Practice and Environmental Sustainability**

A study by Owino and Kwasira 2016 on the influence of green human resource management practices in environmental sustainability of Menengai oil identifies Green performance management as the most important practice which when established leads to environmental sustainability if the firms. The study adopted a case study approach with descriptive research design. The study further observes that the company's needs should balance between industrial growth and safeguarding the natural environment so that future generation may thrive.

A study by Banerjee (2011), on the relationship between green performance management and environmental sustainability concludes that Performance management programs are essential to guarantee the effectiveness of green management work over time because they guide an employee's performance to the environmental performance desired by an organization. A study by Jabbour & Santos (2008) on the critical factors of managing the environment indicated that an effective way to successfully manage the environment is to link performance management with green job description. The study further observes that the approaches to measuring green performance include adopting corporate-wide metrics for assessing resource acquisition, usage and waste; implementing information systems to track resource flows; and conducting field audits to provide employees opportunities to identify problems while gaining information and feedback about the green performance of the firm.

According to Jackson and Seo (2010) on their study on the challenges of environmental management observes that using performance management in green management provides standards across various units of the firm, and gaining useful data on the environmental performance of managers. The study observes that Performance management can be applied on areas such as environmental incidents, usage of environmental responsibilities, and the communication of environmental

concerns and policy. Performance management systems should be developed to include 'green' targets in the Key Performance Areas (KPA). According to Liu (2010), on his study on the effectiveness of green performance management on environmental sustainability indicates that green performance standards and green behavior indicators should serve as yard sticks in performance appraisal of employees at all levels.

The study further observes that green targets, goals and responsibilities should be established for managers and achievement of managers in accomplishing green results should be included in appraisals. The study adopted descriptive research design with a target population of 300 managers and a sample size of 150 respondents in manufacturing firms in China. A study by Bebbington, (2011), on the influence of green performance management practice on environmental management of Bayer car manufacturing firm indicates that performance management is the critical factor that enhances the environmental performance of a firm. The study observes that green performance management has emerged in and became a popular slogan internationally. It is considered that organizations should play an imperative role in addressing environmental issues since they are the main cause of environmental problems

The study further observes that organizations having good environmental reputation can have improved visibility, devoted employees, loyal customers, trusty suppliers and investors. Performance management is the process by which employees are prompted to enhance their professional skills that help to achieve the organizational goals and objectives in a better way. The recognition of the corporate strategy culminates into the PM. With the EM affecting global business strategy, PM is also being influenced by the green wave in a possible positive manner.

A study by Epstein and Roy (2007) identifies Green performance management as an element related to environmental management and policies of the company and also concentrates on use of environmental responsibilities. The study further concludes that when HR managers integrate environmental performance into PM systems they safeguard environment management against any damage. Today some firms deal

with the issue of PM by installing corporate-wide environmental performance standards, and Green information systems and audits to gain useful data on environmental performance. According to (Marcus & Fremeth, 2010), in their study on the relationship between green human resource management and environmental sustainability identifies the most important aspect of performance management as performance appraisal. The study further observes that in addition to meeting the criteria of reliability, validity, and fairness, effective performance appraisals provide useful feedback to employees and support continuous improvements in the firm's environmental outcomes. Issues involved in environmental PA concern the need for managers to be held accountable for environmental management performance in addition to wider performance objectives.

#### **2.4.5 Concept of Environmental Sustainability**

The importance of sustainability is growing very fast and with particular emphasis on sustainable development as an area of concern. Sustainability issues cuts across many boundaries since they are trans-disciplinary and trans-organizational in nature. Environmental sustainability revolves around the economic, social and environmental level and is driven by the development and growth concerns that are underpinned by a sense of social responsibility (Avery, 2005). Organizations should consider how to make the best knowledge interpretations and recommendations to support sustainability across its wider range of stakeholders and a commitment to the sustainable developments (Laszlo & Laszlo, 2015).

According to Marshall (2004), developing management and leadership capabilities to support commitments to sustainability is the key towards improving the present situation. They asserted that sustainability requires significant change, increased awareness of social and shareholder context and the developments of social responsibilities. They further argue that major changes in work practices are required and organizations therefore must also change the driving vision and management approaches that underpin their organizations towards sustainability.

According to Doppelt (2003) the major key to organizations successfully embracing sustainability is leadership. Leadership commitment to sustainability will shift the

focus to change and eliminate barriers to achieving sustainability. Supporting sustainability through the development of various leadership and management capabilities give organizations an opportunity to ensure that ideas on, sustainability and social justice form part of management thinking and priorities (Ulrich, 1999).

Specific leadership capabilities include the ability to articulate a vision that supports sustainability concepts and social responsibility. He asserted that there is also a need to act as role models and to convince others of the positive impact of a commitment to sustainability (Jackson *et al.*, 2003). Capabilities that support sustainability should include the ability to think across boundaries and establish new relationships, work across organizations, value chains, extended markets and national and international boundaries (Marshall, 2004).

They should be excellent communicators and have the ability to maintain broad networks. There is also a need to implement sustainability strategies and plans across various levels. The ability to align business goals with sustainability targets and objectives is a capability that is admired and the capacity to develop return on investment for all stakeholders as opposed to shareholders only. The other important capability is to emphasis on renewal and revitalization in economic terms (Wood *et al.*, 2004) management capabilities include the capacity to ask questions and engage in critical inquiry and to be aware of values that underpin issues relating to sustainability.

## **2.5 Critique of Reviewed Literature**

The effect of green business practices requires an in-depth knowledge of client requirements together with the ability to satisfy these requirements while contributing to environmental sustainability. Thus, managers need to redesign their business systems to satisfy the requirements of green practices while still achieving strategic business goals. HR managers must stay abreast of sustainable business needs and of the sustainability recruitment and career landscape because organizations are required to disclose sustainability performance and improve it. More organizations now recruit environmental specialists to support environmental strategy development (Smith, & Perks, 2010).

A systematic literature review by Renwick *et al.* (2013) demonstrated that organizations can improve their environmental management by enhancing employees' ability, motivation and involvement. The authors concluded that organizations can develop green workforces by attracting/recruiting green-aware employees. Further, organizations should provide training or education programs in relation to environmental management. Renwick *et al.* (2013) also illustrated that performance appraisals and incentive systems should include green objectives and performance indicators. Finally, organizations should encourage employees to engage in green activities such as having green champions. The review by Renwick *et al.* (2013) highlights the important role of human capital and its impact on environmental management but did not look into the influence of specific GHRM practices on environmental sustainability. A number of empirical studies have also illustrated the role of HR in environmental management and climate change.

Two studies examined four organizations introducing ISO14001 certification, reporting that an effective way to encourage employees to participate in the ISO activities was through HR policies and practices (Jabbour *et al.*, 2012). More recently, some HRM scholars have called for more research in linking environmental sustainability into HR policies and practices (Renwick *et al.*, 2013). Recent research has gradually focused on HR strategy to encourage employee involvement in green initiatives (Daily *et al.*, 2012). These studies have also focused on human resource strategies and have not looked into the specific green human resource management practices. Currently literature on environmental management also recognizes the important role of HRM in encouraging employee participation in green initiatives. Egri and Herman (2010) proposed the need for environmental leaders who have the skills to drive employees' green participation.

These skills include collaboration, granting responsibility to subordinates, two-way communication, orientation towards change, charisma, creation of individualized confidence and consideration. Senior managements' contribution is considered essential because they can create and foster conditions through their endorsement. However, while much research highlights the important role of HRM in environmental sustainability senior managers may not see environmental aspects as their concern (Lee, 2009).

Thus it is important for HR managers to understand the determinants of green HR initiatives which will assist to increase the uptake of formal green initiatives within organizations. This include the green recruitment management practice, green training and development management practice, green reward and compensation management practice and green performance management practice. A study by Owino (2016) analyzed the influence of selected green human resource management practices at Menengai oil refinery. She adopted a case study approach which may not have reflected the influence of green human resource management practices in state corporations in Kenya hence necessitating a study to be carried out to establish this influence on government institution. Further, she focused on Nema policies and health safety but practices like Green reward and compensation was not considered.

## **2.6 Summary of Reviewed Literature**

This chapter reviewed the various theories that explain the independent and dependent variables. The chapter also posits the conceptual framework which presented diagrammatically the independent variables showing the specific constituents that influence a particular variable. Further, the chapter also explored the conceptualization of the independent and the dependent variables by analyzing the relationships between the two set of variables. It is from these critiques that the research gap was identified. A systematic literature review by Renwick *et al.* (2013) demonstrated that organizations can improve their environmental management by enhancing employees' abilities. The authors concluded that organizations can develop green workforce by attracting and recruiting green-aware employees.

Further, organizations should provide training or education programs in relation to environmental management. A number of empirical studies have also illustrated the role of HR in environmental management and climate change. For example, two studies examined four organizations introducing ISO14001 certification, reporting that an effective way to encourage employees to participate in the ISO activities was through HR policies and practice (Jabbour *et al.*, 2012). More recently, some HRM scholars have called for more research in linking environmental sustainability into HR policies and practice (Renwick *et al.*, 2013). Currently literature on environmental management also recognizes the important role of HRM in encouraging employee participation in green initiatives.

According to Egri and Herman (2010) there is the need for environmental leaders who have the skills to drive employees' green participation. These skills include collaboration, granting responsibility to subordinates, two-way communication, orientation towards change, charisma, creation of individualized confidence and consideration. Senior managements' contribution is considered essential because they can create and foster conditions through their endorsement. However, while much research highlights the important role of HRM in environmental sustainability, senior managers may not see environmental aspects as their concern. Thus it is important for human resource managers to understand the determinants of green HR initiatives which will assist to increase the uptake of formal green initiatives within organizations.

## **2.7 Research Gap**

A critical review of past literature showed that several conceptual and contextual research gaps existed in the influence of green recruitment, green training and development, green reward and compensation, and green performance management on the environmental sustainability of state corporations. Research conducted by Wee and Quazi (2015) developed and validated a set of seven critical factors of environmental management that could be used by managers in assessing and improving their own environmental practice. A survey methodology was used and a pre-tested questionnaire was mailed to the managing directors or the chief executive

officers of 848 electronic and chemical manufacturing companies in Singapore, 186 completed responses were received. The study reveals a conceptual gap as it focused on environmental management while this study focused on green HRM practice. The study also reveals a contextual gap since it focused on electronic and chemical manufacturing companies in Singapore while this study focused on state corporations in Kenya.

A relationship between Environmental Training (ET) and Environmental Management Maturity (EMM) was assessed by (Jabbour, 2013) using survey and statistical analysis of 95 Brazilian companies with ISO14001 certification. The study reveals a conceptual gap as it focused on the relationship between environmental training and environmental management while this study focuses on the influence of green HRM practice and environmental sustainability. The study also reveals a contextual gap since it was conducted in Brazil while this study was done in Kenya.

Experiences of graduates from a New York City USA, green jobs training program targeting 18–24 year olds previously disconnected from the workforce as they were transitioned to full-time employment was analyzed by Nancy *et al.* (2013). The study reveals a conceptual gap as it focused on the experiences of graduates from a New York City, USA green jobs training program while this study focuses on the influence of green HRM practice and environmental sustainability. The study also reveals a contextual gap since it was conducted in New York City while this study was conducted in Kenya. A study by Owino (2016) investigated the influence of selected GHRM Practices and environmental sustainability. The study adopted a case study strategy focusing on employees of Menengai oil refinery limited while the current study focused on five state corporations in Kenya hence a survey method was adopted.

A study by Marco *et al.* (2015) compared the effects on attracting applicants of two green recruitment practices, that is, the green reputation of a company, and the amount of information provided on the recruitment website about the company's environmental policies and practice. This reveals a conceptual gap as the current study investigated the influence of green recruitment, green training and

development, green reward and compensation and green performance management on environmental sustainability. A study by Grolleau *et al.* (2012) on their study on the impact of environmental standards of a company on recruitment of an employee found that environmental standards of company adds to the profile of a company. This encourages the employees to apply for the job.

This depicts a conceptual gap as the study focuses on the impact of environmental standards of a company while the current study focused on the influence of green human resource management practices on the environmental sustainability in state corporations. A study by Daily *et al.* (2007) was conducted on EMS training framework and its relation to practices of HR in the organization. This study was empirical in nature as a survey was conducted among 437 employees. From the results of the survey it was identified that the formation of an effective green management system was directly dependent on environmental training. The study reveals a conceptual gap as it focused on EMS training framework while the current study focused on the influence of green human resource management in state corporations.

A study by Sarkis *et al.* (2010) identified the effect of stakeholder pressure in promoting effective environmental training. This study conducted surveys across 157 companies in Spain. From the results of the study it is clearly identified that good environmental training by the management mediates the presence of a good green management practice. The study reveals a conceptual gap as it focused on identifying the effect of stakeholder pressure while the current study focused on the influence of GHRM on environmental sustainability in state corporations in Kenya. The study also reveals a contextual gap as it was conducted in Spain while the current study was conducted in Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the research methodology that was used, in an attempt to achieve the objectives of the study. Attention was focused on research design, target population, sample size, sampling techniques, data collection instruments, data collection and analysis.

#### **3.2 Research Paradigm**

A paradigm is a discipline's specific method of structuring reality. According to Laudan (1995) is a set of assumptions about the basic kinds of entities in the world, about how these entities interact, and about the proper methods to use for constructing and testing theories of these entities. According to Polit and Beck (2008) paradigms for human inquiry are characterized in terms of the ways in which they respond to basic philosophical questions: ontological; epistemological and methodological. On the other hand, Lincoln and Guba (1985) explained these three questions as being: the chronological question referring to the nature of reality; the philosophy of how we come to know that reality; and the practice of how we come to know that reality.

A paradigm can therefore be referred to as a way of looking at natural phenomena that encompasses a set of philosophical assumptions that guide one's approach to inquiry (Polit & Beck, 2008). It is an overarching philosophical framework of the way in which scientific knowledge is produced. Creswell (2003) in this regard identified the following paradigms: Positivist also referred to as the scientific method. It reflects a deterministic philosophy in which causes probably determine effects or outcomes and is reductionist in nature.

The knowledge that develops through it is based on careful observation and measurement of the objective reality that exists out there. Secondly, socially constructed paradigms are also referred to as interpretivism. This relies as much as possible on the participants' views of the situation being studied. Thirdly, advocacy / participatory paradigm which is the belief that the research should contain an action agenda for reform that may change the lives of the participant.

Finally, pragmatic paradigms states that knowledge claims arise out of actions, situation and consequences rather than antecedent conditions. Studies using pragmatism are concerned with what works and solutions to problems rather than the methods used. This study used the positivist research paradigm by setting up the hypotheses on the basis of the existing theories. The hypotheses was tested and confirmed or disproved by quantitative and statistical methods in order to answer the research objectives and accomplish the research purposes. The choice of a positivist approach was justified on the basis that the study was guided by theories from which specific hypotheses were drawn up that led to gathering of facts that provided the basis for subsequent hypothesis testing.

### **3.3 Research Design**

A research design shows how all of the major parts of the research study work together in an attempt to address the research questions. It gives directions from the underlying philosophical assumptions to research design, and data collection (Creswell, 2003). The study adopted a descriptive research design specifically a survey of 5 state owned service based corporations in Kenya to evaluate the influence of GHRM practice on environmental sustainability. The selected corporations' mandate is on the conservation of the environment, have well developed governing structures. They have also been in existent for more than five years, therefore forming a reliable knowledge base on the influence of GHRM practices on environmental sustainability. This design has been adopted in similar studies. A study by Owino (2016) on the influence of selected GHRM practices on environmental sustainability at Menengai oil refinery adopted a descriptive design.

According to Saunders *et al.* (2012) surveys using questionnaires are used to answer what, who, where, how much and how many questions and are perceived as authoritative by people in general and is both comparatively easy to explain and understand and allows the collection of data which can be analyzed quantitatively using descriptive and inferential statistics. According to Mugenda and Mugenda (2008) surveys enable researchers to obtain data about practices, views and situations at a point in time through questionnaires and interviews. The purpose of using survey was to give quantitative descriptions of some aspects of the study population.

It described how green recruitment management practice, green training and development management practice, green reward and compensation management practice and green performance management, influence environmental sustainability in state corporations. Survey was a preferred method because its analysis is primarily concerned with relationships between variables (Kothari, 2004). A similar study by (Jabbour, 2013) used survey questionnaire on 95 Brazilian companies.

### 3.4 Target Population

The target population is defined as the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize (Mugenda, 2003). The target population was as indicated in Table 3.1.

**Table 3.1: Target Population**

<b>Respondents</b>	<b>Number</b>
Top level management	2550
Middle level management	3740
Supervisors/ line managers	7650
<b>Total</b>	<b>13,940</b>

Source: State corporations database (2016)

The target population was 13,940 management employees of the 170 state corporations. This was made up of 2550 top level management, 3740 middle level management and 7650 supervisors/ line managers. The three different levels of management were targeted to provide the information required because they are responsible for strategic decisions in organizations and policy formulations and implementations is their responsibility.

### **3.5 Sample Size and Sampling Technique**

According Cooper and Schindler (2006) sampling is selecting a given number of subjects from a defined population as representative of that population. Sampling is a deliberate choice of a number of people who provided the data from which conclusions were drawn on larger group which these people represent.

#### **3.5.1 Determination of Sample Size**

There are various ways of deciding on a suitable sample size suggested by different scholars. According to (Kothari, 2004) there are two approaches that can be used: one is specifying the precision of estimation desired and then to determine the sample size necessary to insure it, and the second approach uses the cost of additional information against the expected value of additional information. He asserts that a researcher should consider the nature of the universe, number of classes proposed, nature of the study, type of sampling, standard of accuracy, acceptable confidence level and available finances when determining the sample size.

Sample sizes can also be determined using a census approach where the entire population is used as the sample. Using a sample size of a similar study is another technique of determining a sample size, while Saunders et al (2012) has proposed using published tables which provide sample sizes for a given set of criteria. The other technique that can be used to determine the sample size is by using a formula to calculate a sample for proportions.

According to Saunders *et al.* (2012) the choice of sample size is governed by the confidence needed in the data, the margin of error that can be tolerated and the type of analyses to be undertaken and the size of the population from which the sample is to be drawn. This study adopted Yamane (1967) formula to determine the sample sizes.

A similar study by Owino & Kwasira (2016) adopted the same formulae in their study on selected GHRM Practices at Menengai Limited.

$$\text{Sample size} = \frac{N}{1 + Ne^2} = \frac{13940}{1 + 13940(0.09)^2} = 122.37 \dots \dots \dots \text{Equation 3.1}$$

= 122 respondents

Consequently, the sample size for the current study was as indicated in Table 3.2.

**Table 3.2: Sample Size**

<b>Respondents</b>	<b>Top level management</b>	<b>Middle level management</b>	<b>Supervisors/ line manager</b>	<b>Total</b>
Kenya Power	8	12	26	46
Kenya Wildlife Service	6	7	15	27
Kenya Forest Service	4	6	13	23
NEMA	2	4	5	11
Nyayo Tea zone	2	4	9	15
<b>Total</b>	<b>22</b>	<b>33</b>	<b>67</b>	<b>122</b>

### 3.5.2 Sampling Technique

According to Saunders, Lewis and Thornhill (2012) there are two types of sampling techniques: probability sampling which is a technique that ensures that the chance or probability of each case being selected from the population is known and is usually equal for all cases. Probability sampling ensures it is possible to answer research

questions and achieve objectives that require the researcher to estimate statistically the characteristics of the population and is often associated with survey strategy. They include; simple random sampling, systematic random sampling, stratified random sampling and multistage sampling.

Non probability sampling on the other hand is a technique used when the probability of each case being selected from the total population is not known and it is impossible to answer research questions or address objectives that require the researcher to make statistical inference about a population. This include; quota sampling, purposive sampling, volunteer sampling and convenience sampling. Multistage sampling technique is used where it is expensive and time consuming to construct a sampling frame from a large geographical area (Saunders, Lewis & Thornhill, 2012).

The study adopted multi stage sampling technique where state corporations in Nairobi were put in a cluster. Simple random sampling was used to pick the 5 service based corporations whose mandate is on environmental conservation. Stratified sampling technique was used to categorize managers into the top, middle and lower managers and finally simple random sampling technique was used to select managers from each stratum.

The researcher sampled the five service based corporations whose mandate is on environmental conservation. These were Kenya Power, Kenya Wildlife Service, Kenya Forest Service, National Environmental Management Authority and Nyayo Tea zone development authority. The number of managers in Kenya Power were 356, Kenya Wildlife Service 210, Kenya forest service 185, NEMA were 86 and Nyayo tea zone 120. Proportionate distribution was used to get the respondents from the five state corporations. The researcher used simple random sampling to get the 22 top level management, 33 middle level management and 67 supervisors/ line managers.

### **3.6 Data Collection Instrument**

The data collected were both primary and secondary. Primary data was obtained from the field using a questionnaire from the management employees while secondary data was obtained from published information from reviewed HR journals, HR policy manuals in the state corporations and books. Secondary data that was collected included the total number of managers in the 170 state corporations. This was important since State corporations had undergone changes which resulted into many firms being merged together. Primary data was collected using a 58 item questionnaire developed by the researcher as the data collection instrument to address the objectives of the study and a five point likert type scale which ranged from 5 (strongly agree) to 1 (strongly disagree) required the respondents to indicate against each statement the extent to which they either agreed or disagreed.

A similar study by Ahmad and Farha (2015) used a five point likert scale on their study on different aspects of GHRM. The questionnaires were composed of semi structured and open ended question which was used as the response format for the variables. Structured questionnaires refer to questions which are accompanied by a list of all possible alternatives from which the respondents select the answer that best describe their situation (Mugenda & Mugenda, 2003). Structured questions are easier to analyze since they are in the immediate usable form (Orodho, 2004).

### **3.7 Pilot Testing**

The researcher carried out a pilot test to detect ambiguity in the instrument, and in evaluating the type of answers given to determine whether they help the researcher to achieve the laid down objectives. According to Kothari (2004), when a measure is reliable and valid the results can be correctly utilized and understood. According to Mugenda and Mugenda (2003) a pre-test sample should be between 1% and 10% depending on the target population. The study used a sample of 12 respondents randomly picked from Kenya Water Tower Agency which was not involved in the actual study to minimize bias. The findings from the pilot study were used to refine the questionnaire for final administration and also gave the researcher a clue on how

long it would take to complete the questionnaire. A similar study by Owino and Kwasira (2016) used a sample of 10 % during piloting.

### **3.7.1 Reliability of the Instrument**

Reliability is the degree of consistency with which the instrument measures an attribute. According to Saunders *et al.* (2012) it is concerned with whether or not the questionnaire will produce consistent findings at different times and under different conditions such as with different samples or in the case of an interviewer completed questionnaire, with different interviewers. It further refers to the extent to which independent administration of the same instrument yields the same results under comparable conditions. The less variation the instrument produces in repeated measurements of an attribute the higher the reliability. Reliability analysis was used to assess internal consistency among the variables of the study.

In order to test the reliability of the instrument to be used in the study, the test- retest method was used. The questionnaire was administered twice within an interval of two weeks. The reliability of the study measures was assessed by computing Cronbach's Alpha coefficient for all items in the questionnaire and the overall assessment given. The Cronbach's alpha coefficient ranges between 0 and 1 with higher alpha coefficient values being more reliable. All items that returned a Cronbach's alpha coefficient of 0.7 or more was considered reliable hence fit for the study while a lower coefficient led to checking the questions in the questionnaire and correcting the errors that was discovered, ambiguous questions were made clear. This was done by running the reliability test again until the coefficient was 0.7 and above.

### **3.7.2 Validity of the Instrument**

Validity refers to the extent to which an instrument measures what is supposed to measure, data need not only to be reliable but also true and accurate. The questionnaire should be in line with the definition used in the research. If a measurement is valid, it is also reliable (Mugenda & Mugenda, 2003). The instrument's validity can be regarded as the extent to which the instrument actually reflects the abstract construct being examined. There are several types of validity that

contribute to the overall validity of a study. The two main dimensions are content and construct validity.

Burns and Grove (2003) stated that content validity is obtained from three sources: literature, representatives of the relevant populations, and experts. Content validity could also be established in two stages; development and judgment stage. Content validity in judgment stage, professional subjective judgment is required to determine the extent to which the scale was designed to measure a trait of interest. As such, the researcher sought assistance from her supervisor, in order to help improve content validity of the instruments. The researcher ensured validity by restructuring the research items in simple language and limiting the number of items while ascertaining that they capture the targeted data after piloting.

Those items that were found irrelevant were replaced. Construct validity refers to how well you translated or transformed a concept, idea, or behavior that is a construct into a functioning and operating reality, the operationalization (Trochim, 2006). To substantiate construct validity involves accumulating evidence in face validity, content validity, concurrent and predictive validity, and convergent and discriminant validity. Construct validity divided these six types into two categories: translation validity and criterion-related validity. He asserted that translation validity centers on whether the operationalization reflects the true meaning of the construct. Face validity is a subjective judgment on the operationalization of a construct. For instance, one might look at a measure of reading ability, read through the paragraphs, and decide that it seems like a good measure of reading ability. Even though subjective judgment is needed throughout the research process, the aforementioned method of validation is not very convincing to others as a valid judgment. As a result, face validity is often seen as a weak form of construct validity.

Validity of the questionnaire was tested using construct validity. This method involves using a panel of experts familiar with the construct. The experts examined the items and decided what each specific item is intended to measure. The study used different experts in the field of Human Resource and Management and issued them with the questionnaire. The experts were required to assess if the questionnaires

helped in establishing the influence of green human resource management practices on environmental sustainability in selected service based state corporations in Kenya. This was in order to enable the establishment of the content and construct validity of the research instrument. The recommendations from these experts and the pilot study respondents were used to improve on the data collection instrument. Further to ensure validity of the research instrument, the questionnaire was pre-tested on 12 respondents randomly picked from Kenya Water Tower Agency which was not involved in the actual study to minimize bias. All the issues raised by the pilot study were incorporated in the final questionnaire, taking caution not to lose the intended information.

### **3.8 Data Collection Procedure**

According to Kombo and Tromp (2009), data collection is important in research because it allows for dissemination of accurate information and development of meaningful programmes. The questionnaires were self-administered to the top, middle and lower level managers after the researcher obtained permission from the organizations to collect data. The semi structured questions provided a set of alternative solutions for the respondents to fill the one that best fits their opinion. The open ended questions captured the opinions of the respondents regarding the variables under investigation.

### **3.9 Data Analysis and Presentation**

According to Zikmund *et al.* (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. All the data collected was coded and entered into an Excel sheet, organized and cleaned for any inconsistencies. Statistical package for social sciences software was used to aid in the analysis. Data was analyzed by using statistical tests that depended greatly on the type of variables being studied.

Variables can be either continuous, meaning that they change according to small increments, or dichotomous, in which the variable is divided into categories (Slavin,

2007). Both descriptive statistics and inferential statistics was conducted. Descriptive analysis refers to research studies which are based on first initial observations and are intended to describe the features that accompany the phenomena (Jwan, 2010). This was done by computing the percentages, mean and standard deviation which assisted with the generalization of results. This technique gave simple summaries about the sample data and presented quantitative descriptions in a manageable form (Kothari, 2004). Inferential statistics involved hypotheses testing and testing of relationship between variables using correlations. Qualitative data on the other hand was analyzed using content analysis, where the data was coded into theoretically derived categories for the identification of the critical aspects of green human resource practice and environmental sustainability.

Quantitative data was analyzed using descriptive statistics and inferential statistics. Multiple regression model was used to measure the relationship between the independent variables and the dependent variable which are explained in the model. Multiple linear regression was used because there are more than one variable assumed to be having combined linear effect on the dependent variable. Multiple regression model attempts to determine whether a group of variables together predict a given dependent variable (James & Frank, 1985).

### **3.9.1 Measurement of the Variables**

This study involved measurement of four variables namely: green recruitment, green training and development, green reward and compensation and green performance management. A five likert scale (5-1) was used for each of the statements corresponding to the various parameters of the green human resource management practices. The dependent variable for this study which is environmental sustainability was measured by the subjective and objective measures of existence of the environmental sustainability charter. A likert scale (5-1) was used to collect views on the levels of environmental sustainability at the area of study in relation to green teams, leadership roles, budgets, CSR initiatives and Regulatory practices. (Check the attached appendix 2 for the table).

### 3.9.2 Multiple Regression

A multiple regression model separates each individual variable from the rest allowing each to have its own coefficient describing its relationship to the dependent variable. The regression model also helps to explain the magnitude and direction of relationship between the variables of the study through the use of coefficients like the coefficient of determination and the level of significance.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \dots\dots\dots \text{Equation 3.2}$$

Where: Y = Environmental sustainability

$\{\beta_i; i=1,2,3,4\}$  = The coefficients for the various independent variables

$X_1$  = Green Recruitment management practice

$X_2$  = Green Training and Development management Practice

$X_3$  = Green Reward and compensation management practice

$X_4$  = Green Performance Management Practice

$e$  = error term

In the model,  $\beta_0$  is the intercept (constant term) which represents the bare minimum effect on the dependent variable assuming all the other variables have no effect while the coefficients  $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  denote the proportion of effect of independent variables on the unit change in the dependent variable (Y).  $X_1, X_2, X_3,$  and  $X_4$  are independent variables while  $e$  is the error term which captures the unexplained variations in the model.

### 3.9.3 Assumptions of the Model

When determining regression equation there are assumption that must be met before the data is utilized for inferential analysis. Linearity ensures that dependent and independent variables are linear. Homogeneity of Variance was also tested and normality test was conducted to test whether the data values was normal. The last two assumptions tested was multicollinearity which checked whether independent variables are highly correlated and the assumption of the error term. .

The regression model was tested to depict the relationship between the dependent and independent variables using SPSS. The significance of each independent variable was also tested. Fischer distribution test commonly referred to as F-test was used to test the significance of the overall model at a 95 percent confidence level.

It refers to the ratio between the model mean square divided by the error mean square. The p-value for the F-test was applied in determining the significance of the model. The conclusion was based on the basis of p value where if the null hypothesis of the beta is rejected then the overall model was significant and if null hypothesis is accepted the overall model was insignificant. In other words a p-value of less than 0.05 then concluded that the model was significant and had good predictors of the dependent variable and that the results were not based on chance.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the empirical results and findings of the variables using descriptive survey design. The analysis first presents the characteristics of the sample. Secondly, the findings and results of the background analysis of respondents are introduced. Lastly, characteristics and discussion of variables are presented. This was done by conducting descriptive and inferential analysis of the variables. The open ended questions were analyzed qualitatively as per the research questions of the study.

#### **4.2 Response Rate**

Response rate refers to the number of successful questionnaires completed and returned Yin (2009). This is expressed as a percentage of total target questionnaires issued. Different scholars have given their opinion on the acceptable response rate levels. According to Babbie and Mouton (2001) response rate of 50 per cent is adequate for analysis and reporting, while a response rate of 60 per cent is good and a response rate of 70 per cent is very good. On the other hand, Polit and Beck (2004) asserted that a response rate greater than 65% maybe sufficient for most purposes, but lower response rates are common.

Meanwhile, Neuman (2000) argued that anything below 50% is considered to be poor and over 90% as excellent and according to Arora & Arora, (2003) a questionnaire that produces above 75% response rate has done extremely well. The current study obtained an overall response rate of 90.16 % as indicated in the Table 4.1.

**Table 4.1: Response Rate**

<b>Respondents</b>	<b>Expected Number</b>		<b>Response</b>
	<b>of Respondents</b>	<b>Total (N)</b>	<b>Rate (%)</b>
Top level management	22	18	82
Middle level management	33	28	85
Line managers/ supervisors	67	64	95
<b>Total</b>	<b>122</b>	<b>110</b>	

The findings in Table 4.1, indicates that the study involved 110 (90.16%) respondents from the five State Corporation. One hundred and ten (110) out of 122 questionnaires administered were received. A total of 22 questionnaires were administered to top level managers and 18 were returned representing 82 % response rate. Another 33 questionnaires were issued to middle level managers and 28 were returned which represented 85 percent. This level of response rate from the top and middle level managers was attributed to the fact that the respondents reported that they had extremely busy schedules and could not make time to respond to the questionnaires. Some of them however, promised that they would make time to respond but even after repeated reminders by the researcher they failed to respond. On the other hand 67 questionnaires were issued to the line managers and supervisors and 64 were returned representing 95 %.

This good response was attributed to the fact that most line managers had time to read through the questionnaires and respond even though there were those who were on leave and therefore could not be available to respond. In general the good response rate was attributed to the strategies the researcher used which included making follow up calls to the organization. The researcher also had to establish contact persons in most of the organizations and this assisted as the contact persons ensured that the questionnaires were filled. Another strategy used was personal visits made to the organizations by the researcher and sending of emails as reminders to the organizations.

### 4.3 Pilot Testing Results

Individual items in the instrument measuring a single construct gave highly correlated results with an average of 0.754. The test results are shown in Table 4.2.

**Table 4.2: Reliability Coefficients**

<b>Variables</b>	<b>No of Test Items</b>	<b><math>\alpha</math> – value</b>
Green recruitment practice	13	0.715
Green training and development practice	15	0.711
Green reward and compensation practice	13	0.819
Green performance management practice	8	0.777
Environmental sustainability	10	0.749
<b>Average</b>		<b>0.754</b>

### 4.4 Background Information of the Respondents

The researcher started by a general analysis on the demographic data got from the respondents which included: gender, level of education of respondents and duration respondents had worked in the state corporation, awareness of Green Human Resource Management practices and key areas where Green Human Resource Management was being practiced. This was followed by a description of the study variables under various sections of the questionnaire.

#### 4.4.1 Gender of Respondents

The respondents were required to indicate their gender by ticking against the option of either male or female. This was to ascertain that there was a balance in the distribution of views collected from both gender. Gender distribution is presented in Table 4.3.

**Table 4.3: Gender of Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	53	48
Female	57	52
<b>Total</b>	<b>110</b>	<b>100</b>

The findings revealed that 52% of the respondents were female while the remaining 48% were male. The findings indicated female respondents were slightly more 57 in total, and male respondents were 53 showing that there was diversity in respondents and hence the data collected was not distorted by factors relating to data distribution.

This is also an indicator that state corporations are in compliance with the gender equality rule in the Kenyan constitution 2010 which states that no single gender should be more than two thirds of the total population and that institutions should give equal opportunities to both males and females (GOK 2012). According to the study, diversity of talent is associated with diversity in thought and innovation in organization is linked with diversity that is brought about by having more women in boards. According to a study by Tawiah (2009), women were found to be more committed than their male counterparts.

Gender diversity in organization positions could improve environmental performance of firms through a number of channels. Greater representation of women could bring in heterogeneity in values, beliefs, and attitudes, which would broaden the range of perspectives in the decision making process (OECD, 2012) and stimulate critical thinking and creativity (Lee & Farh, 2004).

#### **4.4.2 Level of Education of Respondents**

The study sought to determine the respondents' level of education. This is because the level of education influences the impartation of managerial skills as observed by Owino and Kwasira (2016). Response on the level of education of the respondents is as presented in Table 4.4.

**Table 4.4: Level of Education of Respondents**

<b>Level of Education</b>	<b>Frequency</b>	<b>Percentage</b>
Diploma	18	16
Bachelors	57	52
Masters	33	30
PhD	2	2
<b>Total</b>	<b>110</b>	<b>100</b>

The study findings revealed 52% of the respondents were found to be Bachelor holders. The findings are similar to those recorded by Wario (2012) in a similar study where he indicated that a majority of the population had bachelor's degrees at 76%. This is attributed to the fact that state corporations when advertising for jobs indicate bachelor's degree as the minimum qualifications. There are also organizations who sponsor their employees for degree courses and some offer scholarships which give employees opportunities to further their education. There has also been an increase on the modular studies which encourage most employees to attend evening or classes over the weekend. From the findings respondents with Masters were 30% because some of the employees having gained experience opt for masters programs in order to put themselves at a competitive edge over the others. Employees with Diploma level were 16%, this follows the establishment of the technical and vocational education and training Act of 2013. The act aims to expand and improve learning institutions in Kenya by imparting practical and technical skills to the learners.

Learners from these institutions have the practical skills to create their own jobs and this explains the small number in employment as evidenced in those in State corporations. Holders of PHD were the least with 2% and this is attributed to the fact that those employees who advance their education to this level prefer to teach at institutions of higher learning as compared to working in the office. As per this study' findings, majority of the respondents were well above diploma level. A study by King and McGrath (2002) indicated that in today's constantly fluctuating business

environment, education is one of the factors that impact positively on development of firms.

He asserts that organizations with larger stocks of human capital, in terms of education and vocational training, are better placed to adapt their organizations to unexpected fluctuations. This shows that academic qualifications affect environmental sustainability in state corporations in Kenya. Having employees with high academic qualification has a positive impact on the organization's overall performance and rating. High quality decisions and less supervision is likely to occur.

#### **4.4.3 Employment Duration**

The respondents were required to state the number of years they had worked with the state corporation. This was to ascertain the experiences that employees have gained over time. Findings are presented in Table 4.5.

**Table 4.5: Employment Duration of Respondents**

<b>Duration</b>	<b>Frequency</b>	<b>Percentage</b>
0 to 3 years	15	14
3 to 5 years	31	28
Over 5 years	64	58
<b>Total</b>	<b>110</b>	<b>100</b>

The findings indicated that 58% of the respondents had worked for over 5 years. A further, 28% had worked for between 3 to 5 years while 14% had worked for less than 3 years. According to most corporations interviewed over 5 years of work experience was considered adequate for an employee to be considered informative on the study.

This means that the information provided was reliable and could be used to make conclusions on the study hypothesis and variables. The findings also indicated that

employees stay in employment for long periods within state corporations and therefore a good indication that corporations have high employee retention. This can be explained by the aspects of permanent and pensionable employment contracts that give security of tenure to employees in state corporations. The state corporation needs to start succession planning in order to replace the aging work force and prepare for retirement replacements.

#### **4.5 Descriptive Analysis**

Descriptive analysis refers to research studies which are based on first initial observations and are intended to describe the features that accompany the phenomena (Jwan, 2010). This was used to describe the basic features of the data collected and the quantitative descriptions presented in tables and percentages. Descriptive analysis preceded quantitative analysis of the data done to test the hypotheses proposed by the research model. General descriptive statistics of the study variables were summarized through the use of frequencies, percentages, means, and standard deviation.

##### **4.4.1 Green Recruitment and selection Practice and Environmental Sustainability**

The first objective of the study was to determine the influence of green recruitment and selection on environmental sustainability in state corporations in Kenya. This was done by examining if staff in state corporations are subjected to knowledge in GHRM practices during the selection process, analyzing ways in which green recruitment and selection have an influence on environmental sustainability and analyzing use of green recruitment and its benefits. The study sought to determine the respondents' awareness of Green Human Resource Management practices. This was done to establish if they understood the concept under study and make sure they give relevant information. The findings indicated that majority of the respondents understood Green Human Resource Management practices. This therefore means that the findings on the influence of green human resource management practices on environmental sustainability were dependable.

The researcher further sought to find out whether the organization practiced green human resource management. Majority of respondents indicated that state corporations practiced Green Human Resource Management. This implies that human resource department in a number of corporations appreciates the role of GHRM practices on environmental sustainability. The researcher investigated the key areas where Green Human Resource Management practices were being applied to understand if the state corporations fully implemented the practices. The findings revealed that their state corporations had automated processes, online recruitment, telephone interviews during selection and teleconferencing, it was also noted that the firms applies GHRM in payroll administration, human resource and marketing of products.

Other respondents indicated that it was applied in the training of employees and others revealed that was used in licensing and procurement. This study revealed that State Corporations mostly applies GHRM practices on financial management like during payroll administration. Employees can access their pay slips online and can even check the deductions on their salaries unlike a situations where the human resource managers have to print pay slips. During selection, conducting telephone interviews increases efficiency and can help the corporation further in ensuring accountability among the staff. The study tested the interviewees' knowledge in GHRM during selection. The results revealed that majority of the respondents indicated that interviewees were being subjected to knowledge in GHRM practices during selection process. This means that the state corporations were interested in determining the prior knowledge the employees have on GHRM practices when they are hiring. This is important as it could make the implementation of the GHRM practices easier.

These findings are supported by a study by Revill, (2000) which indicated that in the selection context, when making selection for the job vacancies some companies consider candidates' environmental concern and interest as selection criteria. When interviewing candidates or evaluating them for selection, environmental-related questions are asked by those companies. This means that state corporations does induction on GHRM practices to new staff and this is important as they will get to

understand the green values of the organization hence contribute to positive influence to environmental sustainability.

This finding is supported Mandip (2012) in his study which indicated that it is crucial to allow employees to achieve practical skill in implementing new job processes in order to have an understanding and commitments to sustainable efforts. He states that training should start in orientation and infiltrate through all the levels of an organization focusing on social and environmental issues. The respondents were required to rate various statements on green recruitment and selection and environmental sustainability using a scale of 5-1 (SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree). The findings are in Table 4.6.

**Table 4.6: Green Recruitment and selection Practices and Environmental Sustainability**

	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>
The state corporation has green job descriptions for employees.	0.0%	14.5%	26.4%	48.2%	10.9%	3.55	.87
The recruitment and selection of employees involves those who are 'green aware'.	0.0%	7.3%	14.5%	40.9%	37.3%	4.08	.90
There is green employer branding.	0.0%	7.3%	30.0%	48.2%	14.5%	3.70	.81
The corporation has introduced green selection test to the process.	0.0%	3.6%	11.8%	50.9%	33.6%	4.15	.76
There is encouragement of job applicants to use online means to apply jobs.	0.0%	7.3%	18.2%	56.4%	18.2%	3.85	.80
The organization has a full department or section that handles GHRM	0.0%	10.9%	25.5%	37.3%	26.4%	3.79	.96
There exist policies in regard to environmental sustainability	3.6%	11.8%	10.9%	51.8%	21.8%	3.76	1.04
<b>Average</b>						<b>3.84</b>	<b>0.88</b>

The study sought to find out whether State Corporation had green job descriptions for employees, majority of the respondents were in agreement with this statement as indicated by a means of 3.55 and a standard deviation of 0.87. The researcher further sought to find out whether the recruitment of employees involved those who are 'green aware', and majority of the respondents were in agreement with this statement as indicated by a means of 4.08 and a standard deviation of 0.90. Further the respondents were required to indicate their level of agreement to the statement that there is green employer branding and majority of them agreed with the statement (mean = 3.70 and standard deviation = 0.81). This research also sought to know

whether there was encouragement of job applicants to use green criteria when applying for jobs and majority of the respondents were in agreement with this statement as indicated by a means of 3.85 and a standard deviation of 0.80.

The findings also indicate that majority of the respondents agreed to the statement that organization had a full department or section that handles GHRM (mean=3.79 and standard deviation=0.96). On whether there exist policies in regard to environmental sustainability, majority of the respondents agreed to the statement. This means that the state corporations have policy to guide in the implementation of GHRM practices in various departments. The average mean of 3.84 indicated that majority of the respondents agreed that green recruitment and selection practices influenced environmental sustainability in state corporations in Kenya. The standard deviation on the other hand describes the distribution of the responses in relation to the mean. It provides an indication of how far the individual responses to each factor vary from the mean. A standard deviation of more than 1 indicates that the responses are moderately distributed, while less than 1 indicates that there is no consensus on the responses obtained.

From the findings, the standard deviations of the items are in the range of 0.76 and 1.04. This indicates that the responses to the items were not deviating from the mean and an average of 0.88 for all statements on green recruitment and selection management practices indicates that the responses are moderately distributed. The study sought to determine whether use of green recruitment and selection have an influence on environmental sustainability. The findings showed that majority of the respondents were in agreement that the use of green recruitment and selection has an influence on environmental sustainability.

The findings of this study were in agreement with those of Mandip (2012) who posited that job descriptions should reflect the sustainability agenda and the company's website and other research tools available for candidate access clearly should outline its greening attempt. Moreover, the findings of this study concur with those of Harvey *et al.* (2010) who stipulated that the green recruitment and selection process includes the hiring of green-aware candidates without the use of paper

(employee applications can be accepted on the web) and interviews can be made either on the telephone or online. The respondents were required to indicate the ways green recruitment and selection have an influence on environmental sustainability. From the results, majority of the respondents indicated that green recruitment leads to a rise in environmental performance while some revealed it led to reduction of wasted papers and manpower.

Moreover, some indicated that it led to fulfilling the corporation's mandate while others indicated that it led to proper utilization of space. The study sought to find out how green recruitment and selection could be enhanced. The findings revealed that 50% of the respondents indicated that it could be enhanced through use of e-recruitment while the remaining 50% indicated that it would be done through applying it on training of employees. Majority of the respondents indicated that green recruitment and selection could be enhanced by establishing policies on green recruitment and selection. From the findings, management in state corporations might consider fully automating its recruitment operations in order to conduct e-recruitments as they are the ones charged with the responsibility of making decisions.

This is supported by a study by Slovik (2013), who asserted that HR experts are in better positions to change the culture of the workplace by hiring new employees who have a wealth of experience. The respondents were required to indicate what they considered to be the benefits of using green recruitment and selection management practice. The study indicated that using green recruitment and selection was time saving while some showed that it led to cost cutting. Other respondents indicated that it led to efficiency while some revealed that it enhanced environmental conservation. Only a few of the respondents indicated that green recruitment and selection led to best talent being brought onboard.

According to this study, Green recruitment and selection guarantee that staffs who are committed to environmental assumptions makes up the staff of a company and therefore makes the planning of an environmental management system feasible. This is achieved through recruiting employees who are environmentally aware.

#### **4.4.2 Green Training and Development and Environmental Sustainability**

The second objective sought to examine the influence of green training & development on environmental sustainability. This was done by analyzing the incorporation of green training and development practices in HRM policies and practices. The study also probed the ways of incorporating green training and development in HRM policies and practices. Finally, the researcher examined how green training and development influences environmental sustainability. The respondents were required to indicate whether green training and development is incorporated in HRM policies and practices in the corporations. The study findings revealed that majority 79 % agreed that the state corporations had incorporated green training & development in HRM policies and practices. The study by Jabbour et al., (2010) supports these as they propose the idea that companies which promote novel and effective green management practices always provide a methodological environmental training program to their employees.

They made an attempt to identify importance of HRM in promoting environmental management of a company. The study further probed ways of incorporating green training and development in HRM policies and practices. The results indicated that the state corporations had established e-learning as a practice of green training and development. 40% respondents indicated that the state corporations use job rotation to train environmental staff whereas 20% indicated that the corporation has annual environmental trainings scheduled. Another 40% indicated that their corporation incorporated green training and development through creating employee awareness through seminars and workshops. A study by Sarkis *et al.* (2010) concluded that in order to manage effective green HR practices it is vital to promote environmental training in an organization as it presents essential knowledge for promoting green teams in an organization and presents them with the ability to deal with the different issues which emerge as a result of problems related to environment and the associated opportunities.

The respondents were required to rate various statements on green training and development using a scale of 5-1 (SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree).The findings are presented in Table 4.7.

**Table 4.7: Green Training and Development Practice and Environmental Sustainability**

<b>Statements</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>
There is training introduced on environmental management & processes/material use.	0.0%	3.6%	26.4%	48.2%	21.8%	3.88	.79
The state corporation conducts environmental management training needs analysis.	7.3%	7.3%	7.3%	48.2%	30.0%	3.86	1.15
There is integration of training on instruction and generation of eco-values.	0.0%	3.6%	22.7%	37.3%	36.4%	4.06	.86
There is development of skills and competence of employee in environmental management.	7.3%	10.9%	8.2%	59.1%	14.5%	3.63	1.09
The state corporation socializes employees in green values/management.	3.6%	7.3%	7.3%	44.5%	37.3%	4.05	1.04
Employees are educated about climate change and other environmental issues.	0.0%	3.6%	25.5%	45.5%	25.5%	3.93	.81
Environmental management uses green teams.	0.0%	3.6%	14.5%	37.3%	44.5%	4.23	.83
There is training of staff to produce green analysis of workspace.	0.0%	0.0%	33.6%	36.4%	30.0%	3.96	.80
The state corporation conducts job rotation to train green managers of the future.	0.0%	10.9%	18.2%	38.2%	32.7%	3.93	.97
The firm has safety representatives who give emerging information on green programs.	0.0%	3.6%	7.3%	54.5%	34.5%	4.20	.73
<b>Average</b>						<b>3.97</b>	<b>0.91</b>

*N=110, SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree  
S.D=Standard Deviation*

From the findings, majority of the respondents agreed that there is training introduced on environmental management and processes/material use (mean = 3.88, standard deviation = 0.79). In addition, majority of the respondents were in agreement with the statement that the state corporations' conducts environmental management training needs analysis as shown by a means of 3.86 and a standard deviation of 1.15. The results revealed that majority of the respondents were in agreement with the statement that there is integration of training on instruction and generation of eco-values as shown by a means of 4.06 and a standard deviation of 0.86.

Majority of the respondents were agreeing with the statement that there is development of skills and building competence of employee in environmental management as shown by a mean of 3.63 and a standard deviation of 1.09. The study endeavored to determine whether the state corporation conducts green orientation programs (socialization) in green values/management, majority of the respondents were in agreement with the statement as shown by a means of 4.05 and a standard deviation of 1.04. The findings also indicated that majority of the respondents were in agreement with the statement that employees are educated about climate change and other environmental issues as shown by a means of 3.93 and a standard deviation of 0.81.

The study also found out that majority of the respondents were in agreement with the statement that environmental management uses green teams (means = 4.23, standard deviation = 0.83). Majority of the respondents agreed with the statement that State Corporation conducts job rotation to train green managers for the future (means = 3.93, standard deviation=0.97). Consequently, majority of the respondents were in agreement with the statement that their firms had safety representatives who give emerging information on green programs (means = 4.20, standard deviation = 0.73). The study further examined the ways in which use of green training and development influence environmental sustainability. The findings showed that the respondents indicated that it led to competitive advantage while some revealed that using green training and development helped the organization fulfill its mandate. Others revealed

that it led to increased forest cover and others indicated that it increased staff awareness on environmental issues.

Average mean of 3.97 indicated that green training and development influenced environmental sustainability to a greater extent. The standard deviation describes the distribution of the response in relation to the mean. It indicates how far the individual responses to each factor diverge from the mean. A standard deviation of more than 1 shows that the responses are moderately distributed, while less than 1 indicates that there is no agreement on the responses obtained. An average of 0.91 for all statements on green training and development practice indicates that the responses are moderately distributed.

#### **4.4.3 Green Reward Management Practice and Environmental Sustainability**

The study investigated the influence of green reward management practice on environmental sustainability by probing if there was incorporation of green reward management in HRM policies and practices, various aspects of green reward management and environmental sustainability and ways of incorporating green reward in HRM policies and practice. The respondents were required to indicate whether the corporation incorporated green reward management in HRM policies and practices. The findings indicated that majority of the respondents agreed that green reward management practice had been incorporated in the HRM policies and practice in their state corporations. A study by Mandip (2012) supports these findings as he indicated that reward systems can improve the organization's efforts to implementing sustainable practices and they encompass more than just financial rewards. Rewards can also take the form of schedule flexibility, profit-sharing, benefits and incentives, recognition, paid time off and holidays, favored parking and gift certificates (Daily, 2011).

The study further explored ways of incorporating green reward management practice in HRM policies and practices. The findings reveal that a large number of respondents 60 % revealed that it was done by rewarding environmental champions with bonuses while some indicated that it could be through employee recognition where the environmental stars receive public praise. Moreover, some of the

respondents 40 % indicated that green reward was incorporated through the presence of a policy on green reward in the corporation.

In the context of Green HRM, rewards management practice can be assumed as potential tools for supporting environmental activities in organizations. A study by Garg (2014) investigating the participation of employees in environmental work programs supports these findings as it reveals that reward management practice can be used to make employees undertake responsibility of participating in environmental efforts. The respondents were required to rate various statements on green reward management practice using a scale of 5-1(SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree). The findings are indicated in Table 4.8.

**Table 4.8: Green Reward Management Practice and Environmental Sustainability**

<b>Green Reward and Compensation Practice</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>
There are bonuses to employees who accomplish environmental assignments.	2.7%	0.0%	22.7%	41.8%	32.7%	4.02	.90
The state corporation recognizes employees who are rated as environmental champions.	2.7%	3.6%	14.5%	54.5%	24.5%	3.95	.89
There is issuance of special leaves and sabbaticals to staff who are environmental champions.	2.7%	3.6%	19.1%	30.9%	43.6%	4.09	1.01
The management prefers to customize their compensation package to reflect their environmental goals.	6.4%	7.3%	8.2%	63.6%	14.5%	3.73	1.01
There is offering gifts to staff members considered environmental champions.	2.7%	0.0%	21.8%	26.4%	49.1%	4.19	.96
There is form of schedule flexibility as a form of reward	2.7%	0.0%	18.2%	71.8%	7.3%	3.81	.68
The organization share profits as a form of appreciation	2.7%	0.0%	24.5%	40.9%	31.8%	3.99	.90
Employees who champion environmental issues get paid time off	2.7%	3.6%	19.1%	52.7%	21.8%	3.87	.89
Reward improves organization effort to implement sustainable practices	2.7%	7.3%	11.8%	25.5%	52.7%	4.18	1.08
Employees recognition is used as a form of reward in the organization	2.7%	3.6%	10.9%	49.1%	33.6%	4.07	.92
<b>Average</b>						<b>3.99</b>	<b>0.92</b>

*N=110, SA= strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree S.D=Standard Deviation*

From the findings, majority of the respondents were in agreement with the statement that there were bonuses given to employees who accomplish environmental assignments (means=4.02, standard deviation=0.90). It was revealed that the state corporation recognized employees who are rated as environmental champions. This was accounted for by the findings which had a means of 3.95 and a standard deviation of 0.89. The findings further showed that management preferred to customize their compensation package to reflect their environmental goals as shown by a means of 4.09 and a standard deviation of 1.01. Further majority of the respondents agreed that there was offering of gifts to staff members considered environmental champions as shown by a means of 3.73 and a standard deviation of 1.01.

The study further probed if there was schedule flexibility as a form of reward and majority of the respondents agreed with the statement (means= 3.81, standard deviation=0.68) and in addition majority of the respondents agreed that the organization shared profits as a form of appreciation (means= 3.99, standard deviation=0.90). It was found out that employees who champion environmental issues get paid time off; this was indicated by a means of 4.19 and a standard deviation of 0.96. Moreover, majority of the respondents concurred with the statement that reward improves organization effort to implement sustainable practices (means= 4.18, standard deviation=1.08) . The study also indicated that majority of the respondents agreed that employees' recognition was used as a form of reward in the organization (means= 4.07, standard deviation=0.92).

The average mean of 3.99 indicated that the respondents agreed that green reward management practice influenced environmental sustainability in state corporations. The standard deviation describes the distribution of the response in relation to the mean. It indicates how far the individual responses to each factor diverge from the mean. A standard deviation of more than 1 shows that the responses are moderately distributed, while less than 1 indicates that there is no agreement on the responses obtained. An average standard deviation of 0.92 for all statements on reward management practice indicates that the responses are moderately distributed.

Further, the research probed if the use of green reward management practice influence environmental sustainability of the corporations. The findings indicated that 70 % respondents disagreed that the use of green reward management had an influence on environmental sustainability. A study by Lin and Ho (2008), supports this by asserting that though compensation and rewards increase green initiatives in organizations, it can never be completely free from some malpractice. Developing effective monetary incentives can be challenging due to the difficulty of accurately and fairly evaluating environmental behaviors and performance (Lin & Ho., 2008). The study explored ways that green reward management can be incorporated in HRM policies and practice. The findings showed that a large number of respondents indicated that it can be done through issuing gifts to environmental champions to reinforce positive environmental behaviors and documenting reward policies and automation of reward processes.

#### **4.4.4 Green Performance Management Practices and Environmental Sustainability**

The study investigated the influence of green performance management practices on environmental sustainability. The researcher further explored whether the organizations incorporated green performance management practices in HRM policies and practice, ways of incorporating green performance management practices in HRM and aspects of green performance management practices and environmental sustainability. Analysis of whether the organizations incorporated green performance management practice in HRM policies and practices revealed that there was incorporation of green performance management practices in HRM policies and practices.

A study by Renwick *et al.* 2008 supports these findings as they suggest that performance management can be used in green management to provide challenges to measure green performance standards across various units of the firm. He concludes that performance management should be developed to include green targets in the Key Performance Areas (KPA). The study further examined the ways of incorporating green performance management practice in HRM policies. The results

indicated that it could be incorporated through setting of monthly green targets while some respondents indicated that it could be done through having annual green targets. Others indicated that it could be incorporated through performance contracting where employees sign performance contracts that capture the green issues of the organization.

Green targets, goals and responsibilities should be established for managers and achievement of managers in accomplishing green results should be included in appraisals. Examples of such contributions can include creating awareness and familiarization of green issues amongst the subordinates, encouraging them to involve themselves in green activities of the company and facilitate environment management teaching, Lin and Ho (2008). The findings are indicated in Table 4.9.

**Table 4.9: Green Performance Management Practice and Environmental Sustainability**

<b>Green Performance Management Practice</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>
There is incorporation of green performance indicators.	2.7%	10.9%	7.3%	44.5%	34.5%	3.97	1.05
Proper communication of green schemes is done to all levels of staff.	2.7%	2.7%	10.9%	61.8%	21.8%	3.97	.83
Managers set green targets, goals and responsibilities.	2.7%	7.3%	8.2%	46.4%	35.5%	4.05	.99
State corporation has integrated green criteria in appraisals.	2.7%	0.0%	25.5%	40.0%	31.8%	3.98	.91
There are penalties for noncompliance on targets in environmental management.	5.5%	18.2%	30.0%	28.2%	18.2%	3.35	1.14
<b>Average</b>						<b>3.86</b>	<b>0.98</b>

*N=110, SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree S.D=Standard Deviation*

The study sought to find out whether there is incorporation of green performance indicators into performance management system and appraisals, majority of the respondents were in agreement to the statement (means=3.97 ,standard deviation=1.05) indicating that state corporations practiced green performance management practice. The findings indicated that majority of the respondents were in agreement

with the statement that there was proper communication of green schemes (means=3.97, standard deviation= 0.83).

The results showed that majority of the respondents agreed that their managers set green targets, goals and responsibilities as shown by a means of 4.05 and a standard deviation of 0.99. Moreover, majority of the respondents agreed with the statement that state corporation has integrated green criteria in appraisals. This is supported by a means of 3.98 and a standard deviation of 0.91. The findings showed that there were penalties for noncompliance on targets in environmental management as shown by a means of 3.35 and a standard deviation of 1.14. The average mean of 3.86 indicated that green performance management practice influenced environmental sustainability to a greater extent and respondents agree that it influenced environmental sustainability. A standard deviation of more than 1 shows that the responses are moderately distributed, while less than 1 indicates that there is no agreement on the responses obtained.

An average standard deviation of 0.98 for all statements on performance management practice indicates that the responses are moderately distributed. The study sought to establish how green performance management could be incorporated into the green human resource management policies. The findings indicated that majority of the respondents suggested that it could be done through setting of green performance targets for every employee while some suggested that it could be through documentation of performance policies. A study by (Jackson & Seo, 2010), is in line with these as they assert that Approaches to measuring green performance include adopting corporate-wide metrics for assessing resource acquisition, usage and waste; implementing information systems to track resource flows; and conducting field audits to identify problems while gaining information and feedback about the green performance of the firm.

#### **4.4.5 Environmental Sustainability of State Corporations**

The study looked into various aspects of environmental sustainability of state corporations by analyzing whether they lead to enhance environmental sustainability. The findings are indicated in Table 4.10.

**Table 4.10: Environmental Sustainability of State Corporations**

<b>Environmental Sustainability</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>SD</b>
Environmental sustainability has resulted to establishment of green teams.	0.9%	13.6%	30.0%	40.9%	14.5%	3.55	.93
With environmental sustainability firms are environmental compliant	3.6%	11.8%	29.1%	35.5%	20.0%	3.56	1.05
There in increased workforce health.	2.7%	18.2%	26.4%	29.1%	23.6%	3.53	1.12
There is establishments of environmental budgets.	3.6%	2.7%	32.7%	51.8%	9.1%	3.60	.84
Environmental committees handle environmental issues.	2.7%	6.4%	22.7%	32.7%	35.5%	3.92	1.04
Employees are engaged more on environmental issues	2.7%	13.6%	11.8%	52.7%	19.1%	3.72	1.01
<b>Average</b>						<b>3.65</b>	<b>0.99</b>

*N=110, SA=strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree S.D=Standard Deviation*

The environmental sustainability of state corporations was measured on a five point scale where the respondents were required to indicate the level of agreement to various statements on Environmental sustainability. Environmental sustainability resulting to establishment of green teams, 40% of the respondents agreed with the statement as shown by a means of 3.55 and a standard deviation of 0.93. Environmental sustainability has resulted to state corporations following regulatory regulations in corporations as indicated by a means of 3.56 and a standard deviation of 1.05. Consequently, 30 % of the respondents agreed environmental sustainability has resulted to increased workforce health as shown by a means of 3.53 and a standard deviation of 1.12. The findings indicated that majority of the respondents 51% agreed that with environmental sustainability State corporations have established environmental budgets (means=3.60, standard deviation=0.84).

It was also indicated that environmental sustainability practice has resulted to establishments of committees on environmental issues as shown by a means of 3.92 and a standard deviation of 1.04. Finally, 52% of the respondents agreed that environmental sustainability has resulted to better employee engagements on matters of environmental concerns as shown by a means of 3.72 and a standard deviation of

1.01. The average mean of 3.65 indicated respondents are agreeing that environmental sustainability is being practiced in the organization. The average standard deviation of 0.99 showed that the responses were clustered around the means. A SD of more than 1 show that the responses are moderately distributed, while less than 1 indicates that there is no agreement.

The study further examined the ways in which use of green HR practice influences environmental sustainability of State Corporation. The findings indicated that it led to keeping and maintaining a clean and healthy environment for employees and fulfilling the organization mandate on conservation. 30% of the respondents indicated it resulted to meeting environmental targets while 55% indicated that it resulted to regulatory compliance while and 15% indicated that it led to a spacious working environment. The findings are reflected by Jackson et al., (2003) who asserts that specific leadership capabilities include the ability to articulate a vision that supports environmental sustainability concepts and social responsibility.

#### **4.6 Test for the Model Assumptions**

The study carried out an exploration of data to ensure that the assumptions for parametric tests were true. There are assumptions that parametric tests are based on before analyses can be done. These include normality of the distribution, homogeneity of variance, internal data and independence (Field, 2009). For ordinary least of squares to provide unbiased estimates of the study parameters, various assumptions have to be in place (Creswell, 2008).

##### **4.6.1 Tests of Normality**

According to Indiana (2011), many data analysis methods including t-test, ANOVA and regression depends on the assumption that data was sampled from Gaussian distribution. Multiple regression analysis requires that data is normally distributed. Tests of normality were conducted to determine whether the distribution was normal. The study used Shapiro-Wilk test and when the p value is greater than 0.05, we conclude that the data is normal. The results are as shown in Table 4.11.

**Table 4.11: Test of Normality**

	Shapiro-Wilk		
	Statistic	df	Sig.
Environmental sustainability	.988	109	.284

a. Lilliefors Significance Correction

The test for normality, the Shapiro-Wilk test shows that the data was normally distributed with a significance of 0.284 which is greater than 0.05. Another test for normality conducted was skewness and kurtosis. Skewness is the extent to which a distribution of values deviates from symmetry around the mean while Kurtosis is a measure of whether the data is heavily tailed or light tailed (Norusis, 1994). A value of zero meant that the distribution was symmetric while a positive skewness indicates a greater number of smaller values and a negative value indicates a greater number of larger values. A kurtosis value near zero indicated the shape of data was close to normal. A negative value indicated a distribution which was more flat than normal and a positive kurtosis indicates a shape peaked than normal.

According to Creswell (2008) kurtosis and skewness statistics of +/-2 are adequate for statistical analysis. The results of Kurtosis and Skewness are indicated in Table 4.12, and had an associated standard error. The skewness value can be positive or negative. If the skewness is greater than 1.0 (or less than -1.0), the skewness is substantial and the distribution is far from symmetrical

**Table 4.12: Tests for Skewness and Kurtosis**

	Environmental Sustainability	GP
N	Valid	110
	Missing	0
Skewness	-.080	.586
Std. Error of Skewness	.210	.210
Kurtosis	.157	-1.682
Std. Error of Kurtosis	.417	.417

The results indicate skewness value of -.080 for environmental sustainability and 0.586 for green performance and therefore the study concluded that the distribution was symmetrical. Further if the kurtosis is less than zero, then the distribution is light tailed and is called a platykurtic distribution. If the kurtosis is greater than zero, then the distribution has heavier tails and is called a leptokurtic distribution. Therefore, a kurtosis value of .157 for environmental sustainability meant that the distribution was heavily tailed while a kurtosis value of -.1.682 for green performance meant the distribution for green performance was lightly tailed.

#### 4.6.2 Test of Homogeneity

This was done to evaluate data prior to parametric inferential statistics like ANOVA. Levene's test was conducted to examine the homogeneity of variance. Table 4.13 indicates the results of Levene's test from the study data set.

**Table 4.13: Levene's Test of Equality of Error Variancesa**

F	df1	df2	Sig.
2.265	44	65	.001

Levene's test tests the null hypothesis that the difference between the variances is zero. If the test is significant at  $p \leq .05$  then it can be concluded that the null hypothesis is incorrect and that the variances are significantly different. If this happens then the assumption of homogeneity of variances has not been violated.

**Table 4.14: Tests of Between-Subjects Effects**

Source	Type III Sum				
	of Squares	df	Mean Square	F	Sig.
Corrected Model	8508.088 <sup>a</sup>	44	193.366	6.036	.000
Intercept	338895.478	1	338895.478	10579.418	.000
GHRM practices	8508.088	44	193.366	6.036	.000
Error	2786.912	66	32.033		
Total	543552.000	110			
Corrected Total	11295.000	109			

a. R Squared = .753 (Adjusted R Squared = .628)

From the environmental sustainability outcomes, the variances were equal,  $F(1,109) = 6.036$ . The significance value of 0.001  $p < 0.05$  indicated that the level of homogeneity in the data set was acceptable.

a. Design: Intercept + Environmental sustainability

The test of between subject effects also indicated homogeneity in the data set. This was shown by a Sig of .000 for corrected model, .000 for intercept, .000 for environmental sustainability. Hence the data set was utilized in further analysis involving the relationship between GHRM practices and environmental sustainability.

### **4.6.3 Test of Linearity**

Linearity test whether the amount of change between two scores in two sets of variables is constant for the entire range of scores for the variables (Simon, 2004). To test for linearity, the ANOVA test was used which computes both the linear and nonlinear components of a pair of variables. The results are presented in Table 4.15.

**Table 4.15: Test of Linearity (ANOVA test)**

<b>Variables</b>	<b>F</b>	<b>Sig.</b>
Green recruitment practice	254.469	.520a
Green training and development practice	.007	.27a
Green reward and compensation practice	121.466	.26a
Green performance management practice	104.213	.28a.

a. Predictors: (Constant), Green recruitment practice, green training and development practice, green reward and compensation, green performance management practice

b. Dependent Variable: Environmental sustainability

According to Zhang (2011), linearity is significant if the significance value for the linear component is above 0.05. The results of the ANOVA test of linearity showed all readings were above 0.05 hence confirming linear relationships (constant slope) between the predictor variables and the dependent variable.

#### **4.6.4 Test of Multi-collinearity of Variance**

Multi-collinearity is statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated. In such a scenario, the coefficient estimates may change erratically in response to small changes in the model or data (Farrar & Glauber, 2005). Multicollinearity helps to reduce the variables that measure the same things and check model's redundancy. Formal detection-tolerance and the variance inflation factor (VIF) were used to test multicollinearity. A common Variance Inflation Factor (VIF) rule of thumb is that VIFs of 10 or higher is a sign of severe or serious multi-collinearity that affects the study (Newbert, 2008). Table 4.15 presents the result of tests for Multicollinearity.

**Table 4.16: Test of Multi-collinearity**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Green recruitment practice	.427	2.342
	Green training and development practice	.880	1.136
	Green reward and compensation practice	.512	1.954
	Green performance management practice	.500	2.001

a. Dependent Variable: Environmental sustainability

According to (Field, 2009), tolerance statistics below 0.1 indicate serious problems. In the current study tolerance ranged from 0.42 to 0.88 and its reciprocal, the VIF was between 1 and 2.34, which lie within the acceptable limits.

#### **4.7 Inferential Statistics**

The quantitative phase of the study was preoccupied with testing hypothesis in a bid to evaluate statements about the population to determine which statements were best supported by the sampled data. Correlation was done to test the relationship between variables and multiple regressions to determine the relationship between dependent and independent variables. Qualitative findings were used to get in-depth discussions so as to facilitate analysis for the emerging conclusions to be easily drawn from analysis.

##### **4.7.1 Hypothesis Testing**

The major purpose of hypothesis testing was to choose between two competing hypotheses about the value of a population parameter. This was done by using the F test statistic at 5% level of significance. F test is used when the population is normal and samples drawn randomly, Kothari (2004). The first hypothesis claimed that green recruitment practice had no significant influence on environmental sustainability in selected state corporations in Kenya.

**H<sub>01</sub>:** Green recruitment and selection management practices have no significant influence on environmental sustainability in state corporations in Kenya.

**H<sub>a1</sub>:** Green recruitment and selection practices have significant influence on environmental sustainability in state corporations in Kenya.

**Table 4.17(a): ANOVA Results on Green Recruitment Practices and Environmental Sustainability**

		Sum of Squares	Df	Mean Square	F	Sig.
Members being subjected to level of knowledge in GHRM practices during recruitment	Between Groups	2.627	1	2.627	11.756	.001
	Within Groups	24.136	108	.223		
	<b>Total</b>	<b>26.764</b>	109			
Induction of members on GHRM practices during recruitment	Between Groups	2.784	1	2.784	13.263	.000
	Within Groups	22.670	108	.210		
	<b>Total</b>	<b>25.455</b>	109			
Presence of green job descriptions for employees	Between Groups	9.694	1	9.694	5.243	.024
	Within Groups	195.964	106	1.849		
	<b>Total</b>	<b>205.657</b>	107			
Recruitment involving those who are "green aware"	Between Groups	16.039	1	16.039	7.102	.009
	Within Groups	239.396	106	2.258		
	<b>Total</b>	<b>255.435</b>	107			
Presence of green employer branding	Between Groups	17.444	1	17.444	7.949	.006
	Within Groups	230.425	105	2.195		
	<b>Total</b>	<b>247.869</b>	106			
Introduction of green aspects to the induction process	Between Groups	10.230	1	10.230	5.387	.022
	Within Groups	199.378	105	1.899		
	<b>Total</b>	<b>209.607</b>	106			
Encouragement of job applicants to use green criteria when applying for jobs	Between Groups	13.749	1	13.749	.513	.475
	Within Groups	2814.494	105	26.805		
	<b>Total</b>	<b>2828.243</b>	106			
Presence of department that handles GHRM	Between Groups	16.488	1	16.488	7.305	.008
	Within Groups	236.988	105	2.257		
	<b>Total</b>	<b>253.477</b>	106			
Existence of policies regarding environmental sustainability	Between Groups	5.458	1	5.458	2.395	.125
	Within Groups	239.290	105	2.279		
	<b>Total</b>	<b>244.748</b>	106			

**Table 4.17(b): Overall ANOVA for Green Recruitment and Selection Management Practices and Environmental Sustainability**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	7181.808	33	217.631	2.552	.000
Within Groups	6481.183	76	85.279		
<b>Total</b>	<b>13662.991</b>	<b>109</b>			

The results showed a significant difference in the means of the different green recruitment practices in state corporations influencing environmental sustainability  $\{F(33, 76) = 2.552, p = .000\}$ . Therefore, the null hypothesis was rejected and the alternative hypothesis accepted. Green recruitment practices that influenced environmental sustainability included; members being subjected to level of knowledge in GHRM practices during recruitment  $\{F(1, 108) = 11.756, p = .001\}$ .

Induction of members on GHRM practices during recruitment  $\{F(1, 108) = 13.263, p = .000\}$  presence of green job descriptions  $\{F(1, 106) = 5.243, p = .024\}$ , Recruitment involving those who are “green aware”  $\{F(1, 106) = 7.102, p = .009\}$ , presence of green employer branding  $\{F(1, 105) = 7.949, p = .006\}$ . Introduction of green aspects to the induction process  $\{F(1, 105) = 5.387, p = .022\}$  and presence of department that handles GHRM  $\{F(1, 105) = 7.305, p = .008\}$ .

Green recruitment and selection practices that did not show significant difference included: Encouragement of job applicants to use green criteria when applying for jobs  $\{F(1, 105) = .513, p = .475\}$  and existence of policies regarding environmental sustainability  $\{F(1, 105) = 2.395, p = .125\}$ . It should be noted that their significance level is above  $p = .05$  and therefore there is no any statistically significant difference in the means of the two grouped categories of green recruitment practice. This is to mean that green recruitment and selection led to an increase in environmental sustainability in state corporations therefore enabling them to meet their sustainability goals and agendas. Testing employees understanding on sustainability issues during recruitment boosts sustainability in the organization.

Moreover, using green job descriptions and recruiting employees who are green aware influences the sustainability of the corporation to a great extent.

### **Green Recruitment and selection Management Practices and Environmental Sustainability**

The study found that green recruitment and selection practices have a positive effect on environmental sustainability among state corporations in Kenya ( $F(33, 76) = 2.552, p = .000$ ). These results are consistent with those of Jabbar and Abid who established a positive influence of green recruitment and selection and environmental performance of a firm. Another study by Jackson and Seo (2010) indicated that recruitment and selection practice can support effective green management by ensuring that new recruits understand an organization's green culture and environmental values. This implies that when recruiting employees in organizations, job descriptions which highlight the green responsibilities of the potential employee should be used both to attract the employees to apply for the job and to help managers during placements. The organization should support sustainability by promoting its green values through advertisements in their websites as a green employer brand attracts candidates who are environmental conscious. A Study by Marcos *et al.* (2015) indicates that there is an impact on the firms' green reputation on attracting applicants.

This therefore calls for a recruitment strategy where the organization portrays itself as a green organization by sharing its green values on their websites to ensure that green recruitment is successful. State corporations should therefore ensure that green aspects of the organization are introduced during the induction process when the recruits are socialized into the organization. Further there should be the encouragement of applicants to use green criteria when applying for jobs either as new to the organization or those seeking for promotions.

Most of the state corporations have established recruitments portals and hand written applications are declined. For instance, at the Kenya power and lightening company, it is indicated on their websites that no handwritten applications are accepted. Adopting green recruitment also calls for the Corporation conducting telephone

interviews and this improves not only the efficiency of the State Corporation but also ensures that their corporate image is improved hence placing themselves at a competitive edge. In Kenya if the results of this survey are implemented, it means that the practice of recruitment and selection plays an important role in encouraging employees to operate to the standards that enhance environmental sustainability in the state corporations.

Respondents from the state corporation indicated that the practice of green recruitment and selection have not only led to the organization saving on costs but also offering green solutions. This implies that because compilation of data, filling of records and all related administrative work is done electronically, paper work is significantly lessened and less space is taken up for file storage. Therefore, the ecological footprint is smaller than the more traditional recruiting and selection methods.

A study by Owino and Kwasira (2016) in their study on the influence of selected GHRM practices in environmental sustainability on Menengai oil concludes that recruiting and selecting employees who are eco-concerned will enable the company to attain its sustainability agenda. This is also confirmed by (Massaoud, 2011) who affirms that the process of recruitment and selection assists organizations in producing effective performance including those related to the environment by ensuring that newly hired staffs are aware of the environmental culture of the organization and that they can maintain the environmental values of the organization. RBV theory supports these findings in that state corporations practice selective hiring of employees who are environmental conscious and this help in achieving the environmental objectives.

The second hypothesis stated that green training and development practice has no influence on environmental sustainability.

**H<sub>02</sub>:** Green training and development practice has no significant influence on environmental sustainability in selected state corporations in Kenya.

**H<sub>a2</sub>:** Green training and development practice has significant influence on environmental sustainability in selected state corporations in Kenya.

**Table 4.18(a): ANOVA Results on Green training and development practice and Environmental Sustainability**

		Sum of Squares	Df	Mean Square	F	Sig.
Training introduced on environmental management and processes/material use	Between Groups	13.230	1	13.230	7.377	.008
	Within Groups	175.760	98	1.793		
	<b>Total</b>	<b>188.990</b>	99			
Conducting environmental management training needs analysis	Between Groups	60.750	1	60.750	2.162	.145
	Within Groups	2753.760	98	28.100		
	<b>Total</b>	<b>2814.510</b>	99			
Integration of training on instruction and generation of eco-values	Between Groups	9.013	1	9.013	5.750	.018
	Within Groups	153.627	98	1.568		
	<b>Total</b>	<b>162.640</b>	99			
Development of skills and builds competence of employee in environmental management	Between Groups	28.213	1	28.213	2.760	.100
	Within Groups	1001.787	98	10.222		
	<b>Total</b>	<b>1030.000</b>	99			
The state corporation socializes employees in green values/management	Between Groups	20.280	1	20.280	12.636	.001
	Within Groups	157.280	98	1.605		
	<b>Total</b>	<b>177.560</b>	99			
Employees being educated about climate change and other environmental issues	Between Groups	6.453	1	6.453	3.624	.060
	Within Groups	174.507	98	1.781		
	<b>Total</b>	<b>180.960</b>	99			
Environmental management uses green teams	Between Groups	7.363	1	7.363	4.685	.033
	Within Groups	154.027	98	1.572		
	<b>Total</b>	<b>161.390</b>	99			
Existence of training of staff to produce green analysis of workspace	Between Groups	8.333	1	8.333	5.420	.022
	Within Groups	150.667	98	1.537		
	<b>Total</b>	<b>159.000</b>	99			
Conduction of job rotation to train green managers of the future	Between Groups	9.363	1	9.363	5.173	.025
	Within Groups	177.387	98	1.810		
	<b>Total</b>	<b>186.750</b>	99			
Safety representatives who give emerging information on green programs	Between Groups	6.453	1	6.453	3.045	.084
	Within Groups	207.707	98	2.119		
	<b>Total</b>	<b>214.160</b>	99			

**Table 4.18(b): Overall ANOVA for Green training and development and Environmental Sustainability**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	8988.300	44	204.280	2.840	.000
Within Groups	4674.690	65	71.918		
<b>Total</b>	<b>13662.991</b>	109			

The results showed a significant difference in the means of the different green training and development practice in state corporations influencing environmental sustainability {F (44, 65) = 2.840, p = .000}. The null hypothesis was therefore rejected and the alternative hypothesis accepted. The results indicated that the green training and development practices that influenced environmental sustainability included the following: Existence of training of staff to produce green analysis of workspace {F (1, 98) = 5.420, p = .022}, Environmental management using green teams {F (1, 98) = 4.685, p = .033}, The state corporation socializes employees in green values/management {F (1, 98) = 12.636, p = .001}, Integration of training on instruction and generation of eco-values {F (1, 98) = 5.750, p = .018}, Training introduced on environmental management and processes/material use {F (1, 98) = 7.377, p = .008} and Conducting job rotation to train green managers of the future {F (1, 98) = 5.173, p = .025}.

The other green training and development practices under study which did not show any significant difference between the means of different practices of green training and development practice includes: Safety representatives who gave emerging information on green programs {F (1, 98) = 3.045, p = .084}, Conducting of environmental management training needs analysis {F (1, 98) = 2.162, p = .145}. Development of skills and building competence of employee in environmental management {F (1, 98) = 2.760, p = .100}, Employees being educated about climate change and other environmental issues {F (1, 98) = 3.624, p = .060}. Their

significance level is above  $p = .05$  and therefore there is no any statistically significant difference in the means of the three grouped categories of green training and development practice.

The overall results therefore concluded that green training and development practices have positive significant influence on environmental sustainability among the state corporations in Kenya.

### **Green Training and Development Practice and Environmental Sustainability**

The study indicates that green training and development practices have a positive effect on environmental sustainability among state corporations in Kenya ( $F(44, 65) = 2.840, p = .000$ ). This emphasizes the fact that a well-functioning training department has some influence on the environmental sustainability of the organization. This implies that the state corporations have incorporated green training in their human resource management policies by adopting use of slides rather than printed notes during employee training to enhance environmental sustainability. Green training being a practice of human resource, plays a crucial role in ensuring that the department performs an enabling function within the organization which leads to the achievement of organizational goals.

A study by Renwick (2008) supports these finding as he concludes that training is a key intervention to manage waste (in terms of both prevention and reduction), and occurs through organizations training teams of front-line employees to produce a waste analysis of their work areas. The study further states that, such employees are seen as ideal staff to spot and reduce waste as they are closest to it, but they must be knowledgeable on how to collect the relevant data. Employees must be equipped with the necessary skills in order to perform effectively in the organization. Improvement to the training function in state corporations leads to improvement in environmental sustainability.

In Kenya, the Kenya School of Government is responsible for giving training to government officers and employees and it is therefore important that training is introduced on environmental management. During such trainings, environmental

gaps should be identified. This is important as it leads to training being tailored towards the development of skills and building of employee competence on environmental management which in turn yields to improved environmental sustainability in the organization.

The findings further support an argument by Olusanya (2013) that green organizations would require using learning in association with environment and sustainability as an intrinsic and continuous part of the social responsibility process. Further, Ramus (2012) concluded that environmental training and education along with establishing a favorable environmental culture for employees is the most important HRM process that facilitates the achievement of environmental goals. The ISO 14001 management system model supports this finding because training offered during the implementation and operation of EMS ensures that employees understand issues touching on environmental sustainability in the organization. From the findings therefore, state corporations need to adopt green trainings to ensure that their employees are well equipped with knowledge in EM. State corporations should therefore endeavor to sensitize their employees more on issues of climate change through field workshops, use of green teams and induction trainings done regularly as a means to relay important issues that touches on the sustainability. The third hypothesis stated that green reward and compensation practice has no influence on environmental sustainability in selected State Corporation.

**H<sub>03</sub>:** Green Reward management practice has no significant influence on environmental sustainability in selected state corporations in Kenya.

**H<sub>a3</sub>:** Green Reward management practice has significant influence on environmental sustainability in selected state corporations in Kenya.

**Table 4.19(a): ANOVA Results on Green Reward Management practice and Environmental Sustainability**

		Sum of		Mean		
		Squares	df	Square	F	Sig.
Incorporation of green reward and compensation in HRM policies and practices	Between Groups	2.421	1	2.421	10.770	.001
	Within Groups	21.579	96	.225		
	<b>Total</b>	<b>24.000</b>	<b>97</b>			
Existence of bonuses to employees who accomplish environmental assignments	Between Groups	8.407	1	8.407	7.788	.001
	Within Groups	170.320	97	1.756		
	<b>Total</b>	<b>178.727</b>	<b>98</b>			
Recognition of employees who are rated as environmental champions	Between Groups	7.578	1	7.578	7.303	.003
	Within Groups	185.078	97	1.908		
	<b>Total</b>	<b>187.656</b>	<b>98</b>			
Issuance of special leaves and sabbaticals to staff who are environmental champions	Between Groups	1.940	1	1.940	6.161	.004
	Within Groups	162.080	97	.671		
	<b>Total</b>	<b>164.020</b>	<b>98</b>			
Management preferring to customize their compensation package to reflect their environmental goals	Between Groups	3.493	1	3.493	4.426	.023
	Within Groups	139.678	97	1.440		
	<b>Total</b>	<b>143.172</b>	<b>98</b>			
Offering gifts to staff members considered environmental champions	Between Groups	4.400	1	4.400	3.214	.025
	Within Groups	177.438	97	1.829		
	<b>Total</b>	<b>181.838</b>	<b>98</b>			
Form of schedule flexibility as a form of reward	Between Groups	.193	1	.193	.146	.703
	Within Groups	110.703	84	1.318		
	<b>Total</b>	<b>110.895</b>	<b>85</b>			
Employees who champion environmental issues get paid time off	Between Groups	.634	1	.634	.491	.485
	Within Groups	108.355	84	1.290		
	<b>Total</b>	<b>108.988</b>	<b>85</b>			
Reward improves organization effort to implement sustainable practices	Between Groups	3.024	1	3.024	6.014	.036
	Within Groups	141.732	84	1.687		
	<b>Total</b>	<b>144.756</b>	<b>85</b>			
Employees recognition being used as a form of reward	Between Groups	4.030	1	4.030	7.015	.034
	Within Groups	167.796	84	1.998		
	<b>Total</b>	<b>171.826</b>	<b>85</b>			

**Table 4.19(b): Overall ANOVA for Green Reward Management practice and Environmental Sustainability**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9324.024	33	282.546	8.661	.004
Within Groups	6338.967	76	83.407		
<b>Total</b>	<b>15662.991</b>	109			

The results showed that there was a statistical significant difference in the means of the different green reward management practices in state corporations influencing environmental sustainability {F (33, 76) = 8.661, p = .004}. The study therefore rejected the null hypothesis and accepted the alternative hypothesis. However, results indicate that green reward and compensation practices that did not influence environmental sustainability included form of schedule flexibility as a form of reward {F (1, 84) = 0.146, p = .703}, employees who champion environmental issues get paid time off {F (1, 84) = 0.491, p = .485}.

The other green reward management practices under study showed significant difference in the means between the different practices of green reward and compensation: Recognition of employees who are rated as environmental champions {F (1, 97) = 7.303, p = .003}, Issuance of special leaves and sabbaticals to staff who are environmental champions {F (1, 97) = 6.161, p = .004}, Management preferring to customize their compensation package to reflect their environmental goals {F (1, 97) = 4.426, p = .023}.

Offering gifts to staff members considered environmental champions {F (1, 97) = 3.214, p = .025}, Reward improves organization effort to implement sustainable practices {F (1, 84) = 6.014, p = .036} and employees' recognition being used as a

form of reward { $F(1, 84) = 7.015, p = .034$ }. It should be noted that their significance level is below  $p = .05$  and therefore there is a statistically significant difference in the mean of the grouped categories of reward and compensation. It was therefore concluded that green reward and compensation practice have a significant influence on environmental sustainability among the state corporations in Kenya.

This therefore meant that green reward boosts employee's morale and encourages them to put in extra effort and thus positively influence environmental sustainability. If employees are rewarded for meeting their targets, they may repeat the desired behaviors frequently and this does influence the sustainability agenda of the state corporation.

### **Green Reward Management Practice and Environmental Sustainability**

The study found that green reward management practices has an effect on environmental sustainability among state corporations in Kenya { $F(33, 76) = 8.661, p = .004$ }. This shows that green rewards being incorporated into the human resource policies in state corporations in Kenya does influence environmental sustainability. The findings were in agreement with other studies for instance, Daily and Huang, (2001) indicated that rewards are reinforcements to motivation and commit employees to be environmentally responsible.

He asserts that a reward system can be used systematically to motivate employees to perform desired behaviors so that both the company and its workers can get benefit from the program. These benefits include bonuses, special leaves, gift vouchers, flexible schedules, paid holidays, profit sharing schemes, and paid time off. These rewards improve employees to perform desired behaviors which in turn ensure that organizations sustainable practices are improved.

Respondents from the state corporations indicated that such rewards have been put in place and this is an indication that non-monetary incentives are important and employees value them but it's not meant to entice them to work towards improving

the environment. Respondents from NEMA confirmed that conservation and environmental sustainability is their core mandate and the organization must come up with innovative ways to encourage their employees to perform the desired behavior and fulfill the mandate of the organization. These results therefore show the importance of using green rewards to encourage employee behavior towards achieving environmental goals. Reward management should recognize contributions in green management.

In addition, the findings of this study were in agreement with those of Prasad (2013) who argued that Monetary- based, nonmonetary based and recognition- based rewards can be used for green achievements of employees. Monetary-based rewards for contributions in environment management can be allocated in the forms of salary increase, cash incentives and bonuses while non-monetary rewards may include sabbaticals, special leave and gifts to employees and their family members. Reward packages should be customized to reward green skills acquisition and achievements by employees. Reward management practices are the major HRM processes through which employees are rewarded for their effort.

These HR practices are the most powerful methods which link together an individual's interest to that of the organization's. Therefore, state corporations need to design reward programs that can be motivational to all employees in order to enhance environmental sustainability. Best practice human resource theory identifies rewards as a best practice which influences performance of the organization and this concurs with the findings of this study because from the findings, there is an influence this has had on the environmental performance of the firm. Social exchange theory also identifies reward as a side bet the organization can use to induce employees to perform desired behaviors. State corporations by using green rewards make their employees to perform towards enhancing environmental sustainability.

The fourth hypothesis stated that green performance management practice has no influence on environmental sustainability in selected state corporations in Kenya.

**H<sub>04</sub>:** Green performance management practice has no significant influence on environmental sustainability in selected state corporations in Kenya.

**H<sub>a4</sub>:** Green performance management practice has significant influence on environmental sustainability in selected state corporations in Kenya.

**Table 4.20(a): ANOVA Results on Green performance management practice and Environmental Sustainability**

		Sum of Squares	Df	Mean Square	F	Sig.
Organization incorporating green performance management practices in HRM policies and practice	Between Groups	4.190	1	4.190	20.307	.000
	Within Groups	19.810	96	.206		
	<b>Total</b>	<b>24.000</b>	<b>97</b>			
Incorporation of green performance indicators into performance management system and appraisal	Between Groups	19.508	1	19.508	10.495	.002
	Within Groups	178.451	96	1.859		
	<b>Total</b>	<b>197.959</b>	<b>97</b>			
Proper communication of green schemes	Between Groups	17.930	1	17.930	11.246	.001
	Within Groups	153.060	96	1.594		
	<b>Total</b>	<b>170.990</b>	<b>97</b>			
Managers set green targets, goals and responsibilities	Between Groups	15.524	1	15.524	9.527	.003
	Within Groups	156.435	96	1.630		
	<b>Total</b>	<b>171.959</b>	<b>97</b>			
State corporation having integrated green criteria in appraisals	Between Groups	20.774	1	20.774	12.737	.001
	Within Groups	156.573	96	1.631		
	<b>Total</b>	<b>177.347</b>	<b>97</b>			
Penalties for noncompliance on targets in environmental management	Between Groups	24.936	1	24.936	13.435	.000
	Within Groups	176.321	95	1.856		
	<b>Total</b>	<b>201.258</b>	<b>96</b>			

**Table 4.20(b): Overall ANOVA for Green Performance Management Practice and Environmental Sustainability**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10222.484	25	408.899	9.983	.000
Within Groups	3440.507	84	40.958		
<b>Total</b>	<b>13662.991</b>	109			

The results showed a significant difference in the means of the different green performance management practices in state corporations influencing environmental sustainability {F (25, 84) = 9.983, p = .000}. The null hypothesis was therefore rejected at 5% confidence level and the alternative hypothesis accepted. The green performance management practices that influence environmental sustainability includes; Organization incorporating green performance management practices in HRM policies and practice {F (1, 96) = 20.307, p = .000}.

Incorporation of green performance indicators into performance management system and appraisal {F (1, 96) = 10.495, p = .002}, Proper communication of green schemes {F (1, 96) = 11.246, p = .001}, Managers set green targets, goals and responsibilities {F (1, 96) = 9.527, p = .003}, State corporation having integrated green criteria in appraisals {F (1, 96) = 12.737, p = .001} and penalties for noncompliance on targets in environmental management {F (1, 96) = 13.435, p = .000}.

It was therefore concluded that green performance management practice have positive significant influence on environmental sustainability among the state corporations in Kenya. This means green performance management practices have been incorporated into the human resource management policies of the organization and therefore the environmental goals of the organization are met. Managers in State corporations in Kenya should be able to carry out performance appraisal covering areas like environmental incidents and how well communication of environmental

issues is done. When this is incorporated into performance management system in state corporations in Kenya, environmental sustainability will improve.

### **Green Performance Management Practice and Environmental Sustainability**

The study indicates that performance management practices have a positive effect on environmental sustainability among state corporations in Kenya, ( $F(25, 84) = 9.983$ ,  $p = .000$ ). These findings are similar to those of Owino and Kwasira in their study on the influence of selected green human resource management practices on environmental sustainability in Menengai oil. They found a positive correlation between green performance management and environmental sustainability. This finding implies that state corporations have embraced performance management as evidenced by the signing of performance contracts following a directive from the government. This puts the state corporation at a competitive edge.

There should be incorporation of green performance indicators into the performance management system and appraisal so that as the individual employee works towards the achievement of their targets, overall environmental goals of the organization are met. These green performance indicators will be effective when there is proper communication of green schemes done to all levels of staff during performance management meetings. Managers should be trained to set green targets, goals and responsibilities. Creating awareness and familiarization of these green issues amongst all in the organization is one way of encouraging them to perform the desired behaviors. A study by (Mandip, 2012) indicates that, to successfully implement green performance management, is to link it with green job descriptions. This is an effective way to successfully implement green performance management successfully.

Measurement of employee performance in State Corporation should ensure that there are penalties for those who don't meet their environmental targets through things like low ratings during appraisal as this makes sure that every individual puts in effort to ensure that their targets are met. ISO 14001 environmental management systems model supports this finding since performance management ensures that EMS is effective and its analysis is done in line with performance of those employees who

are taking up environmental responsibilities and this result in enhancing the environmental goals of the organization.

**Table 4.21: Summary of Findings**

<b>Objective</b>	<b>Hypothesis</b>	<b>P-value</b>	<b>Comment</b>
To determine the influence of green recruitment practice on environmental sustainability in selected service based state corporations in Kenya.	H <sub>01</sub> : Green recruitment & selection practice has no significant influence on environmental sustainability in selected state corporations in Kenya.	0.000	Hypothesis was rejected
To examine the influence of green training and development practice on environmental sustainability in selected service based state corporations in Kenya.	H <sub>02</sub> : Green training and Development practice have no significant influence on environmental sustainability in selected state corporations in Kenya.	0.000	Hypothesis was rejected
To evaluate the influence of green reward and compensation practice on environmental sustainability in selected service based state corporations in Kenya.	H <sub>03</sub> : Green Reward management practice have no significant influence on environmental sustainability in selected state corporations in Kenya.	0.004	Hypothesis was rejected
To assess the influence of green performance management practice on environmental sustainability in selected service based state corporations in Kenya.	H <sub>04</sub> : Green performance management practice has no significant influence on environmental sustainability in selected state corporations in Kenya.	0.000	Hypothesis was rejected

#### 4.7.2 Correlation Analysis

The study tested for existence of significant relationship between the independent variables and the dependent variable. This was to ascertain whether the independent variables relate with the dependent variable by carrying out correlation test. The results in Table 4.22 show that there exists a significant relationship between each green human resource management practice and environmental sustainability and this was strong because the correlation coefficient (r) for each comparison between green human resource management practices and environmental sustainability was positive.

**Table 4.22: Correlation Analysis Results**

		GR& S	GTD	GRMP	GP	ES
Green Recruitment and selection	Pearson Correlation	1	.590**	.263**	.568**	.519**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	110	110	110	110	110
Green Training and Development	Pearson Correlation	.590**	1	.424**	.723**	.692**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	110	110	110	110	110
Green Reward management practice	Pearson Correlation	.263**	.424**	1	.505**	.358**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	110	110	110	110	110
Green Performance	Pearson Correlation	.568**	.723**	.505**	1	.805**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	110	110	110	110	110
Environmental Sustainability	Pearson Correlation	.519**	.692**	.358**	.805**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	110	110	110	110	110

\*\* Correlation is significant at the 0.05 level (2-tailed).

The result show that Green performance management had the highest relationship ( $r = .805$ ), followed by Green training ( $r = .692$ ) then Green Recruitment and selection management ( $r = .519$ ) and lastly Green reward management practice ( $r = .358$ ). This means that an increase in green recruitment and selection practice leads to an increase in environmental sustainability and an increase in green training and development also leads to an increase in environmental sustainability. From the results also, it is evidenced that an increase in green reward and management practice leads to an increase in environmental sustainability and finally an increase in green performance management practice leads to an increase in environmental sustainability.

The relationship between independent variables was also established and the results indicated that green recruitment and selection practice had a positive significant relationship with green training and development with a correlation coefficient of 0.590 and a p-value of 0.000. This means that as green recruitment and selection practices increases, green training and development practice also increases. The coefficient also showed a positive significant relationship between green recruitment and selection practices and green reward management practice and green performance management practice with coefficients of 0.263, P-value of 0.000, and 0.568 and p-value of 0.000 respectively.

This means that an increase in green recruitment and selection practice leads to an increase in green reward management practice and an increase in green performance management practice. There was a positive significant relationship between green training and development practice and green reward management practice with coefficient of 0.424 and a p-value of 0.000. This means that an increase in green training and development leads to an increase in green reward and compensation practice. Green training and development practice had a positive significant relationship with green performance management practice with a coefficient of 0.723 and a p-value of 0.000, which means that an increase in green training and development practice results to an increase in green performance management practice.

From the results; the relationship between green training and development and green performance management practices was found to be the strong among the predictor variables ( $r = .723$ ,  $p\text{-value} = .000$ ), followed by green training management practice and Green Recruitment management practice ( $r = .599$ ,  $p\text{-value} = .000$ ) and relationship between green reward management practice and green recruitment was the least ( $r = .263$ ,  $p\text{-value} = .000$ ). The results of correlation analysis in Table 4.18 also show that all the independent variables; Green Recruitment and selection management practice, Green Training and Development Management Practice, Green Reward management practice and Green Performance Management Practice were significantly related to environmental sustainability in State corporations, since the  $p\text{-value}$  for each relationship was less than 0.01.

#### 4.7.3 Multiple Regression

Multiple regression was used to determine whether independent variables affect the dependent variable. To achieve this, environmental sustainability in state corporations as the dependent variable was regressed against four variables namely Green Recruitment management practice and Green Training and Development Management Practice. The other two variables were Green Reward management practice and Green Performance Management Practice as independent variables. The regression model for this study generally assumed the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \quad \dots\dots\dots \text{Equation 4.1}$$

Where:  $Y$  = Environmental sustainability,  $\{\beta_i ; i=1,2,3,4\}$  = The coefficients for the various independent variables  $X_i$  for;  $X_1$  = Green Recruitment and selection management practice,  $X_2$  = Green Training and Development management Practice,  $X_3$  = Green Reward management practice.

$X_4$  = Green Performance Management Practice,  $e$  = Standard error. In the model  $\theta$  is the constant term while the coefficients  $\beta_1$  to  $\beta_4$  were used to measure the sensitivity of the dependent variable ( $Y$ ) to unit change in the independent variable ( $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$ ).  $e$  is the error term which captured the unexplained variations in the model. This section examined whether the multiple regression equation can be used to

explain the influence of green human resource management practices on environmental sustainability in state corporations in Kenya.

**Table 4.23: Model Summary on GHRM Practices and Environmental Sustainability**

Model	R	R Square	Adjusted R	
			Square	Std. Error of the Estimate
1	.831 <sup>a</sup>	.691	.679	6.567

a. Predictors: (Constant), Green Recruitment and selection management practice, Green Training and Development management Practice, Green Reward management practice, Green Performance Management Practice

From the results obtained, an R of 0.831 shows that there is a positive correlation between GHRM practices and environmental sustainability.

The adjusted R square of 0.679 indicates that Green Recruitment and selection management practice, Green Training and Development Management Practice, Green Reward management practice and Green Performance Management Practice in exclusion of the constant variable explained the change in environmental sustainability by 67.9%, and the remaining percentage can be explained by factors not included in the model.

The coefficient of determination (r-squared) of 0.691 indicates that 69.1 % of environmental sustainability can be explained by green recruitment and selection management practice, green training and development, green reward management practice and performance management practice. The findings on ANOVA results on Green Human Resource Management practices and environmental sustainability are presented in Table 4.24.

**Table 4.24: ANOVA Results on GHRM Practices and Environmental Sustainability**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10111.282	4	2527.821	58.622	.000 <sup>b</sup>
	Residual	4527.709	105	43.121		
	Total	14638.991	109			

a. Dependent Variable: Environmental sustainability

b. Predictors: (Constant), Green Recruitment management practice, Green Training and Development management Practice, Green Reward and compensation management practice, Green Performance Management Practice

The Analysis of Variance (ANOVA) indicated a p-value of 0.000. This, therefore, means that the relationship between GHRM practices and environmental sustainability was significant at 95% confidence level. The F statistics of 58.622 was large enough to conclude that the set of variables have a significant influence on environmental sustainability in state corporations.

This implies that  $X_1$  = Green Recruitment and selection Management Practice,  $X_2$  = Green Training and Development Management Practice,  $X_3$  = Green Reward management practice,  $X_4$  = Green Performance Management Practice, are significant predictors at explaining environmental sustainability in state corporations in Kenya and that the model is significantly fit at 95% confidence level.

**Table 4.25: Model Coefficients on GHRM Practices and Environmental Sustainability**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	.337	2.205		.153	.879
Green Recruitment and selection management practice	.025	.072	.024	.340	.734
Green Training and Development management Practice	.180	.062	.241	2.896	.005
Green Reward management practice	.082	.075	.069	1.096	.276
Green Performance Management Practice	1.006	.131	.659	7.668	.000

a. Dependent Variable: Environmental sustainability

Further analysis as shown in Table 4.25 shows that Green Recruitment and selection management practices had a coefficient of 0.025, Green Training and Development Management Practice had a coefficient of 0.180 while Green Reward management practice had a coefficient of 0.082 and Green Performance Management Practice a coefficient of 1.006. From the coefficients, the model developed was as follows; Environmental sustainability = 0.337 + 0.025 Green recruitment management practice + 0.180 Green training and development management practice + 0.082 Green reward management + 1.006 Green performance management practice.

The beta Coefficients in the regression shows that all of the tested variables had positive relationship with environmental sustainability. The findings show that all the four variables tested were statistically significant with positive beta coefficients.

$\beta_1 = 0.025$ ; which implied that a unit change in Green Recruitment management and selection management practice resulted into a 0.025 change in environmental sustainability.

$\beta_2 = 0.180$ ; which implied that a unit change in Green Training and Development Management Practice resulted into a 0.180 change in environmental sustainability.

$\beta_3 = 0.82$ ; which implied that a unit change in Green Reward management practice resulted into a 0.82 change in environmental sustainability.

$\beta_4 = 1.006$ ; which implied that a unit change in Green Performance Management Practice resulted into a 1.006 change in environmental sustainability.

A t critical of 2.776 indicated that Green Performance Management Practice with a t-value of 7.668 was the most significant followed by Green Training and development management Practice with t value of 2.896 followed by Green Reward and compensation management practice with a t-value of 1.096 and lastly Green Recruitment management practice with a t-value of .153. A linear dependence can exist among the independent variables in correlation such that the correlation analysis among pairs of predictors becomes limiting. Linear dependence of the independent variables could possibly be present at the correlation and remains undetected. The standard issue in multi-collinearity is that the standard errors and hence variances of the estimated coefficients are inflated when multi-collinearity exists (Simon, 2004).

This necessitated carrying out of Variance Inflation Factor analysis which is a widely used measure of the degree of multi-collinearity of the independent variables in a regression model (O'Brien, 2007). The Variance Inflation Factor analysis (VIF) indicates whether a predictor has a strong linear relationship with the other predictor(s). Although there are no hard and fast rules about what value of the VIF should cause concern, Myers (1990) suggests that a value of 10 is a good value at which to worry. Related to the VIF is the tolerance statistic, which is its reciprocal (1/VIF). As such, values below 0.1 indicate serious problems (Field, 2009). Therefore, VIF analysis was conducted to determine whether any of the predictors had a strong linear relationship with the other predictor(s). The results of VIF were as tabulated in Table 4.26.

**Table 4.26: Results of VIF Analysis**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Green recruitment and selection practice	.427	2.342
	Green training and development practice	.880	1.136
	Green reward management practice	.512	1.954
	Green performance management practice	.500	2.001

a. Dependent Variable: Environmental sustainability

From the results in Table 4.26, no VIF was above 10 and no tolerance statistic was below 0.1. It was therefore concluded that no predictor had a strong linear relationship with any of the other predictor(s). The  $\beta$ -values in Table 4.25 were therefore adopted to indicate the individual contribution of each predictor to the overall regression model. The overall regression model is as follows: -  
 Environmental sustainability =  $\beta_0 + \beta_1$  Green recruitment and selection management practice +  $\beta_2$  Green training and development management practice +  $\beta_3$  Green reward management practice +  $\beta_4$  Green performance management practice. On substituting the  $\beta$  values, we have the optimal regression model as:

Environmental sustainability = 0.337 + 0.025 Green recruitment and selection management practice + 0.180 Green training and development management practice + 0.082 Green reward management practice + 1.006 Green performance management practice

### **Green Human Resource Management Practices and Environmental Sustainability**

The overall objective of the study was to evaluate the influence of green human resource management practices on environmental sustainability in selected service based State Corporation in Kenya. Green human resource management practices were found to have a positive and significant influence on environmental sustainability in State Corporation as indicated by the coefficient of correlation of

0.831. The coefficient of determination was 0.691 indicating that green human resource management practices explains 69.1 % of environmental sustainability. This means that as green human resource management practices increase, environmental sustainability in state corporations increase by 69.1 %.

These results are corroborated by those of Renwick *et al.* (2008) who categorized practices such as recruitment and performance management for environmental management. A study by Beard and Rees (2010) concludes that establishment of green teams is a way of enhancing learning experiences that enhance the understanding about practicable environmental options. This means that when appropriate green human resource management practices are established, an organization better manages their environmental issues. Respondents from the study generally had the opinion that green human resource management practices influence environmental sustainability.

The results further support the assertion that green human resource management practices in State Corporation in Kenya are geared towards effective management of the environment. This was indicated by the fact that respondents from the sampled state corporation confirms to practice green recruitment management practice, green training and development management practice, green reward and compensation practice and green performance management practice which were the main green human resource management practices examined in the study. Therefore, it would be correct to assert that if green HRM practices in state corporations are well designed and implemented, contributes to 69.1% increase in environmental sustainability.

These findings are in line with those of Owino (2016) who established that green human resource management practices had an influence on environmental sustainability in Menengai oil in Nakuru. State corporations should therefore put a lot of emphasis on the green human resource management practices as they have been found to have a great influence on environmental sustainability. State Corporations for instance should have a well-established database to aid on its recruitment and selection processes. Applicants would then post their applications and the human resource managers would electronically review and select the suitable candidates.

This would not only influence the environmental sustainability by limiting use of papers but will also save on costs and improve the brand image. The corporation should also focus on training on environmental issues which would be done using the e-learning portals by encouraging employees to access and go through the learning materials. Seminars and workshops could only be done by power point presentations unlike issuing of printed notes to the employees. National Environment Management Authority have adopted online trainings and even issuing of compliance certificates are done online. Environmental assessment impact is also done online. The corporation would also adopt rewarding employees who are considered environmental champions through issuing of bonuses and granting them special leaves as this will motivate them to perform desired green behaviors. Finally, at the end of the period, the employees are assessed on the extent to which they have met their green targets.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The study sought to investigate the influence of green human resource management practices in selected service based state corporations in Kenya. Specifically, the study looked at the influence of green recruitment management practice on environmental sustainability in selected service based state corporations in Kenya, influence of green training and development on environmental sustainability in selected service based state corporations in Kenya, influence of green reward and compensation on environmental sustainability in selected service based state corporations in Kenya and influence of green performance management practice on environmental sustainability in selected service based state corporations in Kenya. This chapter summarizes the collected data and the statistical treatment of analysis; discussion with reference to the specific objectives/research questions and assesses the meaning of the results by evaluating and interpreting them. The conclusions relate directly to the specific objectives/research questions. The recommendations refer to suggestions for further study, or proposals for change, or both.

#### **5.2 Summary of the Study Findings**

##### **5.2.1 To Determine the Influence of Green Recruitment Practice on Environmental Sustainability in Selected State Corporations in Kenya**

The study found that state corporations had adopted green human resource management practices and was applied in areas such as online recruitment, teleconferencing, and interviews. The findings indicated that interviewees were tested on knowledge on green human resource management as the interviewers asked questions that test their understanding of green human resource management. It was also established that staff were being inducted on green matters. The results of analysis on the extent to which green recruitment practice was used in state corporation established that recruitment of staff who are green conscious, green

employer branding and the establishment of a full department that handles green issues was extensively used. It was established that there was green job descriptions for employees and that the organization did encourage applicants to use green criteria when applying for jobs.

The findings also indicated that state corporations in Kenya have established online recruitment and they did not accept any hand written applications. Potential employees are required to log into the recruitment portal to apply for Jobs. The regression analysis results revealed that green recruitment has a strong positive influence on environmental sustainability in state corporations in Kenya. This confirms that green recruitment practice has a great influence on environmental sustainability in state corporations in Kenya and can therefore be used as an effective means of influencing environmental sustainability in state corporations in Kenya.

### **5.2.2 To Examine the Influence of Green Training and Development Practice on Environmental Sustainability in Selected State Corporations in Kenya**

The study found that there was incorporation of green training and development practices in the corporation's policies. The State Corporation incorporated green training and development practices through the establishment of e-learning portals, use of job rotations to train environmental staff and conducting staff awareness on green matters, and scheduling green trainings annually. Training on EM, conducting environmental management needs analysis, integration of training on the generation of eco values, education on climate change were also done.

The study further found that use of green training and development led to increased forest cover, enhanced the fulfillment of the corporation's mandate, helped in building green teams, led to competitive advantage and lastly improved staff awareness on green matters. At the National Environmental Management Authority and Kenya wild life service, green trainings and development are highly used as they have field trainings attended by staff where various issues on the environment and conservation are dealt with. The regression analysis results revealed that green training and development has a significant positive influence on environmental sustainability in state corporations in Kenya. This confirms that green training and

development has a great influence on environmental sustainability and can therefore be used as an effective means of influencing environmental sustainability among the State corporations in Kenya.

### **5.2.3 To Evaluate the Influence of Green Reward and Compensation Practice on Environmental Sustainability in Selected State Corporations in Kenya**

The study found that state corporations had incorporated green rewards and compensation into their policies through recognition of employees who are environmental champions, issuing of bonuses, use of gift vouchers and special leaves. The state corporation also offered schedule flexibility as a form of reward, and used paid time off. It was established that rewards actually improved organization's effort to implement sustainable practices to a great extent. State Corporation had automated processes like online pay slips. The regression analysis results indicated that green reward and compensation practice had a positive influence on environmental sustainability. This means that green reward and compensation practice aids in realization of environmental sustainability in State Corporation in Kenya.

### **5.2.4 To Assess the Influence of Green Performance Management Practice on Environmental Sustainability in Selected State Corporations in Kenya**

The study found that state corporations had adopted green performance management through the use of green targets which are set annually. The researcher established that state corporations had adopted performance contracting which was an initiative of the government in line with its strategic plan. The state corporations develops their organization objectives which serve as the basis for planning in line with the different departments and employees within the organization. The study established further that green performance indicators, integration of green criteria in appraisals and penalties for unmet targets in environmental management were practiced to a great extent. The study found that through green performance management, there was maintenance of healthy environment, fulfillment of Corporations mandate, meeting of environmental targets and regulatory compliance.

The regression analysis results indicate that green performance management practice had a strong positive influence on environmental sustainability. This confirms that green performance management had a great influence on environmental sustainability in state corporations in Kenya. Green performance management therefore can be used as an effective means of influencing environmental sustainability in state corporations in Kenya.

### **5.3 Conclusions of the Study**

#### **5.3.1 Green Recruitment Practice**

The first hypothesis of the study was green recruitment and selection have no significant influence on environmental sustainability in service based state corporations in Kenya. The hypothesis was tested, and green recruitment and selection was found to have a significant statistical influence on environmental sustainability in service based state corporations in Kenya. Therefore it was concluded that green recruitment and selection were statistically significant in explaining environmental sustainability at ninety five percent confidence level. This is in corroboration with the RBV theory which advocates for developing internal resources through bringing on board the best employees who will be a source of competitive advantage to the State Corporation

#### **5.3.2 Green Training and Development**

The second hypothesis of the study was green training and development have no significant influence on environmental sustainability in service based state corporations in Kenya. The hypothesis was tested, and training and development was found to have a significant statistical influence on environmental sustainability in service based state corporations in Kenya. Therefore it was concluded that green recruitment and selection were statistically significant in explaining environmental sustainability at ninety five percent confidence level. ISO 14001 management systems model proposes that training be offered at the implementation level to ensure that all employees understand all the environmental issues of the organization.

### **5.3.3 Green Reward and Compensation Management Practice**

The third hypothesis of the study was green reward management has no significant influence on environmental sustainability in service based state corporations in Kenya. The hypothesis was tested, and green reward management practice was found to have a significant statistical influence on environmental sustainability in service based state corporations in Kenya. Therefore it was concluded that green reward management practice was statistically significant in explaining environmental sustainability at ninety five percent confidence level.

The theory of Best practice HRM theory lists reward as one of the best practice that can be used to improve performance and from the findings it can be concluded that rewarding employees improves on environmental performance of the state corporations. Employees also reciprocate by performing desired behaviors when reward is used as a side bet as suggested by the social exchange theory.

### **5.3.4 Green Performance Management Practice**

The fourth hypothesis of the study was green performance management practice has no significant influence on environmental sustainability in service based state corporations in Kenya. The hypothesis was tested, and green performance management was found to have a significant statistical influence on environmental sustainability in service based state corporations in Kenya. Therefore it was concluded that green performance management was statistically significant in explaining environmental sustainability at ninety five percent confidence level. ISO 14001 is applicable in that Green performance management is important as it allows for the effectiveness of the EMS to be analyzed in line with the performance of individuals and teams taking up environmental responsibilities. State Corporations charter for instance can serve as a guide to the expected environmental standards and evaluation of employee performance can be based on how well they have adhered to the environmental standards stipulated in the charter.

## **5.4 Recommendations for the Study**

### **5.4.1 Green Recruitment Practice**

The study recommends that state corporations in Kenya should adopt green recruitment practice as they positively and significantly influence environmental sustainability. Green recruitment can be done through recruiting employees who are green conscious and making use of the organization's green image to attract new talent. The study also recommends the state corporation to advertise job vacancies on the corporations' websites rather than using newspapers. State Corporations therefore need to establish a recruitment portals and ensure that employees who are environment conscious are brought on board into the organization, they should also ensure that the brand image of the corporation portray the green values of the organization.

### **5.4.2 Green Training and Development**

The study recommends that state corporations in Kenya continuously adopts green training and development practices since they lead to improved environmental sustainability. In Kenya, the Kenya school of Government is responsible for giving training to government officers and employees and it is therefore recommended that training be offered on environmental management. The practices should include establishment of e-learning portals, use of job rotations to train environmental staff and conducting staff awareness on green matters, and scheduling green trainings annually. The study recommends the state corporation to use job rotations to train green managers. The study further recommends the use of PowerPoint presentations during staff trainings which can be enhanced by offering soft copy notes to the trainees rather than printed copies. This will reduce the usage of papers that cause pollution and hence enhance environmental sustainability.

### **5.4.3 Green Reward and Compensation**

The study recommends that state corporations should emphasize on the practices which when implemented enhance environmental sustainability. Therefore since

green reward influence environmental sustainability in the positive direction, the study recommends that the corporation should focus more on rewarding employees with intentions to make them be more environmental conscious. Rewards could also be used as a way of compensation for work done so that rewards are given to any employee in the organization who performs well.

#### **5.4.4 Green Performance Management Practice**

The study also recommends that state corporations in Kenya to adopt green performance management practices since they enhance environmental sustainability. This can be done by integrating green criteria in staff appraisals, having penalties for targets not met and this can be done through pay cuts. The organization should have proper communication of green schemes across the organization. This is important as it ensures that every employee is informed of the expected standards of performance. Generally, the study recommends for enhanced adoption of green human resource management practices since it will lead to improved environmental sustainability in the state corporations.

This is because environmental sustainability remains paramount to State Corporations due to climate changes, effects of global warming and pollution experienced across the divide. Therefore, organization needs to continuously monitor the environment and determine the appropriate actions that need to be adopted to improve environmental sustainability. Well established green human resource management initiatives will be highly considered by the government as it facilitates environmental sustainability in organizations. Such initiatives include creating awareness and familiarization of green issues amongst the subordinates, encouraging them to involve themselves in green activities of the company and facilitate environment management learning.

#### **5.4.5 Recommendation for Policy**

The study found that green performance management practices significantly influences environmental sustainability among state corporations in Kenya. Therefore, state corporations should come up with policy guidelines that will lead to

design green human resource management practices like green recruitment, green training and development, green reward and compensation and green performance management practice. These will lead to enhanced environmental sustainability. Generally, Green Human Resource Management Practices were found to have positive effect on environmental sustainability.

To any government, environmental sustainability is of great concern. The study recommends that the government to issue policy guidelines requiring all state corporations to adopt practices that combats environmental challenges. An example is the recent plastic bag ban by the government which is a very positive move towards saving the environment. Further, a harmonized detailed Green Human Resource Management practice policy should be formulated to ensure that no State Corporation is left out in providing improved environmental sustainability. State corporations further need to constantly monitor their operations to determine the additional GHRM initiatives that need to be adopted to improve environmental sustainability.

### **5.5 Area for Further Research**

This study examined the influence of green human resource management practices on environmental sustainability in selected service based state corporations in Kenya. The study concentrated on four green human resource management practices that included green recruitment practice, green training and development practice, green reward and compensation practice and green performance management practice. However the study did not examine the differences in application of green human resource management practices among the state corporations and establish whether differences in environmental sustainability were attributed to the green human resource management practices.

A further study is, therefore, recommended to determine whether green human resource management practices adopted could explain the difference in environmental sustainability among various state corporations. The current study also investigated Green Human Resource Management practices on sample drawn from only five service based state corporations. Further study is, therefore,

recommended where a repeat study can be done using samples from other state corporations which are not service based.

This will ensure that the findings can be compared among the various samples of state corporations and determine whether green human resource management practices affect environmental sustainability in equal magnitude. The current study also looked at four objectives affecting environmental sustainability in State Corporations in Kenya but did not look at either moderating or mediating effects between the variables under study. A further study is therefore recommended to look into the moderating/mediating factors influencing environmental sustainability in state corporations.

## REFERENCES

- Aharoni, Y. (1993). In search for the unique: Can firm-specific advantages be evaluated? *Journal of management studies*, 30(1), 31-44.
- Ahmad, S. (2015). Green human resource management policies. *Cogent business & management*, 2(1), 345-356.
- Alchian, A. A., & Demsetz, H. (2002). Production, information costs economic. *Organization American Economic Review*, 62(5), 777-795.
- Ashwin, A., Tsou, T., Chen, X., Datla, D., Gaeddert, J., Newman, T., .& . Bose, T. (2011). Green Communications: A Call for Power Efficient Wireless Systems. *Journal of Communications*, 6(4), 550-612.
- Avery, G. (2005). *Leadership for sustainable futures: achieving success in a competitive world*. Elgar: Cheltenham.
- Babbie, E., & Mouton, J. (2001). *The Practice of Social Research*. Cape Town: Oxford.
- Banerjee, S. (2011). Managerial perceptions of corporate environmentalism: interpretation from industry and strategic implications for organizations. *Journal of Management Studies*, 38(4), 489-513.
- Barney, J. (2001). Is the resource- based view a useful perspective for strategic management? *The academy of Management Review*, 26(1), 41-56.
- Barney, J. (2007). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 17-26.
- Barrett, C. B., Bellemare, M. F., & Hou, Y. J. (2010). Reconsidering conventional explanations of the inverse productivity–size relationship. *World Development Journal*, 38(1), 88-97.

- Beard, C., & Rees, S. (2010). Green teams and the management of environmental change in a UK county council. *Environmental Management and Health*, 11(1), 27-38.
- Bebbington, J. (2011). Sustainable development: A review of the international development, business and accounting literature. *Accounting Forum*, 6(4), 128-157.
- Becker, H. S. (1960). Notes on the concept of Commitment . *American Journal of sociology*, 66(1), 32-42.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Brockett, J. (2009). Change agents. *People Management Journal*, 6(1), 18-19.
- Bryman, A., & Bell, E. (2007). *Business Research Methods*. Oxford: Oxford University Press.
- Burns, N., & Grove, K. (2003). *Understanding Nursing Research*. Philadelphia: W.B./Saunders Company.
- Carroll, A. B., & Buchholtz, A. K. (2010). *Ethics and Stakeholder Management*. Ohio: South Western College Publishing.
- Chen, Y. S., & Chang, C. H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics*, 6(1), 107-119.
- Cherian, J., & Jacob, J. (2012). A study of Green HR practice and its effective implementation in the organization. *International Journal of Business and Management*, 66(3), 25-33.
- Christina, L., & Dennis, H. (2016). Using human resource activities to implement sustainability in SMEs". *Journal of Small Business and Enterprise Development*, 66(5), 652- 670.

- Clarke, E. (2011). Power Brokers. *People Management*, 6(1), 40-42.
- Colbert, B., & Kurucz, E. (2007). Three conceptions of triple bottom line business sustainability and the role for HRM”,. *Human Resource Planning*, 6(2), 21-29.
- Cooper, D., & Schindler, P. (2006). *Business Research Methods*. Boston: McGraHill press.
- Coyle- Shapiro, J. A., & Shore, L. M. (2007). The Employee organization relationship: Where do we go from here? *Human resource Management Review*, 17(2), 166-179.
- Creswell, J. W. (2003). *Resarch Design: Qualitative, Quantitative and mixed methods research approaches*. London: Sage publication.
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An interdisciplinary review. *Journal of Management* , 31(6), 874-900.
- Daily, B. F., & Huang, S. (2011). in environmental management. *International Jornal of operation and production management*, 31(6), 1539-1552.
- Daily, B. F., Bishop, J., & Steiner, R. (2007). pertains to HR factors and perceived environmental performance. . *Journal of Applied Business Research* , 23(1), 95-109.
- Dalaney, T., & Huselid, A. (2006). perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949-969.
- Delmas, M. A., & Pekovic, S. (2013). that sustain sustainability. *Journal of Organizational Behavior*, 9(4), 230-252.
- Dobers, P., & Wolff, R. (2009). *Managing the learning of ecological competence*. Boston: McGrahill press.

- Doppelt, B. (2003). *Leading change toward sustainability*. Greenleaf: Sheffield press.
- Dutta-Bergman, M. J. (2005). Theory and practice in health communication campaigns: A critical interrogation. *Health communication*, 18(2), 103-122.
- Edgar, F. (2003). Centred Human Resource Management Practice. New Zealand. *Journal of Industrial Relations*, 28(3), 230-232.
- Emerson, R. M. (1976). Social Exchange Theory. *Annual review of Sociology*, 2(1), 335-362.
- Emerson, R. M. (1981). Social Exchange theory. In M. Rosenberg, & R. H. Turner, *Social Psychology: Sociological perspectives* (pp. 30-65). New York : Basic books.
- Epstein, M., & Roy, M. (2007). Using ISO 14000 for improved organizational learning and environmental management. *Environmental Quality Management Journal*, 2(1), 21-30.
- Farrar, D. E., & Glauber, R. R. (2005). Multicollinearity in regression analysis: the problem revisited. *the review of economics and statistics*, 92-107.
- Finlay, P. (2010). *An Introduction to Business and Corporate Strategy*. London: Pearson Education Limited.
- Gall, M. D., & Borg, W. R. (2003). *Educational research: An introduction*. White Plains, NY: Longman press.
- Garg, B. (2014). Human resource driving force of sustainable business practices. *International Journal of innovative research & development*, 5, 378-382.
- Garner, R. (2010). *A Short Guide to Introductory Statistics in the Social Sciences*. Toronto: University of Toronto Press.

- Gerhart, B., Wright, P. M., McMahan, G. C., & Snell, S. A. (2010). Measurement Error in Research on Human Resources and Firm Performance: How Much Error is there and how does it Influence Effect Size Estimates,. *Personnel Psychology*, 7, 803-834.
- Government of Kenya. (2008). *Economic Survey*. Nairobi: Government Printer.
- Government of Kenya. (2012). *Economic Survey*,. Nairobi: Government Printer.
- Government of Kenya. (2013). *Historical Background and Evolution*. Nairobi: Government printer.
- Grolleau, G., Mzoughi, N., & Pekovic, S. (2012). Green not (only) for profit: An empirical examination of the effect of environmental-related standards on employee's recruitment. *Resource and Energy Economics*, 34(1), 74–92.
- Guest, D. (1991). Human Resource Management: The Workers Verdict. *Human Resource Management Journal*, 9(3), 5-25.
- Gupta, S. C. (1994). *Business Statistics*. Bombay: Himalaya Publishing House.
- Haden, S. P., Oyler, J. D., & Humphrey, J. H. (2009). Historical, practical, and theoretical perspectives on green management. *An Exploratory Analysis Management Decision*, 47(7), 1041-1055.
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2010). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Journal*, 2(1), 231-274.
- Homans, G. C. (1958). Social Behavior as exchange. *An american Journal of Sociology*, 2(1), 597-606.
- Huselid, M. (1995). The Impact of Human Resource Management Practice on Turnover and Productivity and Corporate Financial Performance. *Academy of Management Journal*, 38(3), 635-672.

- Iraldo, F., Testa, F., & Frey, M. (2009). Is an environmental management system able to influence environmental and competitive performance? The case of the Eco Management and Audit Scheme (EMAS) in the European Union. *Journal of Cleaner Production*, 17(16), 1444–1452.
- Jabbar, M., & Abid, M. (2015). A Study of Green HR Practice and Its Impact on Environmental Performance. *MAGNT Research*, 3(8), 142- 154.
- Jabbour, C. (2011). How green are HRM practice, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2), 98- 105.
- Jabbour, C. (2011). How green are HRM practice, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2), 98- 105.
- Jabbour, C. J. (2008). Environmental management and operational performance in automotive companies in Brazil: The role of human resource management and lean manufacturing. *Journal of Cleaner Production*, 47, 51-58.
- Jabbour, C. J., & Santos, A. C. (2008). Relationships between human resource dimensions and environmental management in companies: proposal of a model. *Journal of Cleaner Production*, 45, 51-58.
- Jabbour, C. J., Santos, F. C., & Nagano, M. S. (2010). Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil. *International Journal of Human Resource Management*, 40, 1049-1089.
- Jackson, S. E., & Seo, J. (2011). The greening of strategic HRM scholarship. *Organization Management Journal*, 7(4), 278-290.

- Jackson, S., Farndale, E., & Kakabadse, A. (2003). Executive development: meeting the needs of top teams and boards. *Journal of management development*, 7(4), 185-265.
- Jackson, S., Renwick, D., Jabbour, C. J., & Muller-Camen, M. (2011). State-of-the-art and future directions for Green Human Resource Management. *German Journal of Research in Human Resource Management*, 25(2), 99–116.
- Jafri, H. (2015). Increasing Employee Performance through Improved Sense of Ownership and Fulfillment of Expectations. *Management Today*, 5(2), 25-36.
- Johnson, E. (2000). The practice of human resource management in New Zealand: strategic and best practice. *Asia pacific journal of human resources*, 38(2), 69-83.
- Jwan, J. (2010). *Conducting Qualitative Research: Current Trends & Developments*: Moi University 5<sup>th</sup> Campus Wide Research Workshop, 2010
- Kasomo, D. (2006). *Research Methods*. Egerton: Egerton University Press.
- Kombo, D. K., & Tromp, D. L. (2009). *Introduction to proposal writing*. Nairobi: Pauline publicationS.
- Kothari, C., & Garg, G. (2004). *Research methodology methods & techniques*. Delhi: New Age International.
- Laszlo, A., & Goyal, S. (2015). Impact of Green Human Resource Factors on Environmental Performance in Manufacturing Companies: An Empirical Evidence. *Journal of environmental management*, 6(1), 23-30.
- Lather, A., & Goyal, S. (2015). Impact of Green Human Resource Factors on Environmental Performance in Manufacturing Companies: An Empirical Evidence. *Journal of environmental management*, 6(3), 23-3-.

- Lauden, L. (1995). *Beyond positivism and Relativism: Theory, Method and Evidence*. Boulder:: West View Press.
- Lee, K. H. (2009). Why and how to adopt green management into business organizations? The case study of Korean SMEs in manufacturing industry. *Journal of Management Decision*, 47(7), 101-1121.
- Lee,, K. H., & Ball, R. (2009). Achieving Sustainable Corporate Competitiveness: Strategic Link between Top Management's (Green) Commitment and Corporate Environmental Strategy. *Greener Management International*, 47(7), 89-104.
- Liebowitz, J. (2010). The role of HR in achieving a sustainability culture. *Journal of sustainable development*, 8, 50-57.
- Lin, C., & Ho, Y. (2008). An empirical study on logistic service providers' intentions to adopt green innovations. *Journal of Technology Management and Innovation*, 3(1), 17-26.
- Lincoln, Y. S., & Guba, E. G. (n.d.). *Naturalistic Inquiry*. Beverly Hills, CA: Sage.
- Liu, W. (2010). The Environmental Responsibility of Multinational Corporation. *Journal of American Academy of Business Cambridge*, 15(2), 81-88.
- Luthans, K. (2010). Recognition: a powerful, but often overlooked, leadership tool to improve employee performance. *Journal of Leadership & Organizational Studies*, 5(2), 31-39.
- M'Gonigle, R. M., & Starke, J. (2006). *Planet U: Sustaining the World, Reinventing the University*. Gabriola Island, BC: New Society Publishers.
- Mandip, G. (2012). Green HRM: People Management Commitment to Environmental Sustainability. *International Science Congress Association*, 244-252.

- Marco, G., Fabrizio, M., & Annachiara, S. (2015). Green and non-green recruitment practice for attracting job applicants: exploring independent and interactive effects. *The International Journal of Human Resource Management*, 2(9), 20- 33.
- Marcus, A., & Fremeth, A. (2010). Green management matters regardless. *Academy of Management Perspectives*, 23(3), 17–26.
- Marshall, J. (2004). In C. Gale, *teaching business sustainability* (pp. 196-208). London: green leaf.
- Massoud, H. (2011). Perceptions of environmental management systems: An examination of Mexican manufacturing sector. *Industrial Management & Data Systems*, 111(1), 5-19.
- Mavrillac, S., & Siesfield, A. (1997). *Measures that matter, an exploratory investigation in enterprise value in the knowledge economy OECD and Ernst & young center for business innovation*. Cambridge: MA.
- Milliman, J., & Clair, J. (2010). *Best Environmental HRM Practice in the US*. White Plains, NY: Longman press.
- Mugenda, O., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- Muller-Camen, M., Jackson, S. E., Jabbour, C. J., & Renwick, D. W. (2010). Special issue on the topic: Green human resource management. *German Journal of Human Resource Research*, 24(1), 95-96.
- Murari, K., & Bhandari, M. (2011). Green HR: Going green with pride. *Journal of Social Welfare and Management*, 24(1), 107-110.
- Muster, V., & Schrader, U. (2011). Green work-life balance: A new perspective for green HRM. *Zeitschrift für Personal for schung*, 25(2), 140-156.

- Neuman, W. L. (2000). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon.
- Nijhawan, G. (2014). Green HRM-A Requirement for Sustainable Organization. *Indian Journal of Research*, 3(10), 69-70.
- O'Brien, R.M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors, *Quality & Quantity*, 41(5), 673-690.
- Oates, A. (2010). *Industrial Relations and the Environment in the UK*. UK: Wehrmeyer.
- Obaid, T. F., & Alias, B. (2015). The Impact of Green Recruitment, Green Training and Green Learning on the Firm Performance: Conceptual Paper. *International Journal of Applied Research*, 1(12), 951-953.
- Omolo, J. O. (2010). *The dynamics and trends of employment in Kenya*. Nairobi: Institute of Economic Affairs - IEA.
- Orodho, A. J. (2004). *Essentials of Educational and Social Science Research Method*. Nairobi: Masola Publishers.
- Owino, A., & Kwasira, J. (2016). Influence of selected Green Human Resource Management practice on environmental sustainability. *Journal of human resource management*, 4, 19-27.
- Pascal, P., Yang, C., Olivier, B., & Jiafei, J. (2012). The Impact of Human Resource Management on Environmental Performance. *An Employee-Level Study*, 121(3), 1-16.
- Peteraf, M. (1993). The cornerstone of competitive Advantage: A resource based view. *Strategic management Journal*, 14(3), 179-191.
- Pfeffer, A. J. (1998). *The Human Equation*. Boston: Harvard Business School Press.

- Phillips, L. (2011). Go green to gain the edge over rivals. *People Management Journal*, 23(9). 13-19.
- Poensgen, O. H., & Marx, M. (2005). Coping with or profiting from size. *European Journal of Operational Research*, 23(9). 127-147.
- Polit, D. F., & Beck, T. C. (2004). *Nursing Research: Principles and Methods*. Philadelphia: Lippincott.
- Polit, D., & Beck, C. T. (2008). *Nursing research: Generating and Assessing evidence for nursing practice*. Philadelphia: Lippincott.
- Porter, M. (1991). Towards a dynamic theory of strategy. *Strategic management Journal*, 12(S2), 95-117.
- Prahalad, C., & Hamel, G. (1993). Strategy as a field of study: Why search for a new paradigm? *Strategic management Journal*, 15(S2), 5-16.
- Prasad, S. R. (2013). Green HRM - Partner in Sustainable Competitive Growth. *Journal of Management Sciences and Technology*, 1(1), 1-10.
- Price, A. (2004). *Human Resource Management in A Business Context*. London: Thomson Learning.
- Pullman, M., Maloni, M., & Carter, C. (2012). Food For Thought: Social versus Environmental Sustainability Practice and Performance Outcomes. *Journal of Supply Chain Management*, 6(7), 38-54.
- Purcell, A. (1994). *HRM in the Multidivisional Company*. England: Oxford publishers.
- Ramus, C. A. (2012). Encouraging innovative environmental actions: What companies and managers must do? *Journal of World Business*, 151-164.
- Remenyi, D., Williams, B., Money, A., & Swartz, E. (2005). *Doing research in Business and Management*. London: Sage Publication.

- Renwick, D., Redman, T., & Maguire, S. (2008). Green HRM: A review, process model, and research agenda. *University of Sheffield Management School Discussion Paper, 1*, 1-46.
- Republic of Kenya. (2007). *Ministry of Planning and National Development and the National Economic and Social Council (NESC). A Globally Competitive and Prosperous Kenya. Kenya: Vision 2030 Medium Term Plan (2008 – 2012)*. Nairobi: Government Printer.
- Republic of Kenya. (2015). *Kenya Green Economy Strategy and Implementation Plan (GESIP), Maanzoni-1 Draft*. Nairobi: Government Printer.
- Revell, C. (2000). The “Greening” of Personnel/Human Resource Management an Assessment. *International Journal of Applied HRM, 1*(3), 1-30.
- Ricardo, R., & Wade, D. (2009). *Corporate Performance Management: How to Build a Better Organization through Measurement Driven Strategies Alignment*. Butterworth: Heinemann.
- Robert, O. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity. Human Resource Management* , 41(5), 311-320.
- Rogers, E. W., & Wright, P. M. (2008). Measuring organizational performance in strategic human resource management: Problems, prospects, and performance information markets. *Human Resource Management* , 8(3), 311-320.
- Rouse, M. J., & Daellenbach, U. S. (1999). Rethinking research methods for the resource- based perspective: Isolating sources of sustainable competitive advantage. *Strategic management Journal, 20*(5), 487-494.
- Sadia, C., Ahmad, T. P., & Farheen, J. (2015). Green Human Resource Practice: Implementations and Hurdles of SMEs in Pakistan. *Journal of Business Studies Quarterly, 2*(5), 1-11.

- Sapru, R. K. (2008). *Administrative Theories and Management Thought*. New Delhi: Prentice-Hall of India Private Limited.
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices, the mediating effect of training. *Journal of Operations Management*, 28(2), 163-176.
- Saunders, M. L., & Thornhill, A. (2012). *Research Methods for Business students*. London: Prentice Hall.
- Shore, L. M., Tetrick, L. E., Lynch, P., & Barksdale, K. (2006). Social and Economic Exchange: Construct development and validation. *Journal of applied social Psychology*, 36(4), 837-867.
- Siegel, D. (2009). Green Management Matters Only If It Yields More Green: An Economic/Strategic Perspective. *The Academy of Management Perspectives*, 4, 5-11.
- Simon, L. J. (2004). *Lesson #12: Multicollinearity*. The Pennsylvania State University. Retrieved from: [http://online.stat.psu.edu/online/development/stat501/12multicollinearity/05multico\\_vif](http://online.stat.psu.edu/online/development/stat501/12multicollinearity/05multico_vif).
- Slavin, R. (2007). *Educational research in an age of accountability*. Boston: Pearson Education.
- Slovik, K. (2013). *Nine Steps to Greening Your Business*. New York: Macmillan.
- Sroufe, R., Liebowitz, J., & Sivasubramaniam, N. (2010). Are you a leader or a laggard? HR's role in creating a sustainability culture. *People and strategy*, 33(1), 34-42.
- Stabelin, R., & Geare, S. (1993). Human Resource Management in New Zealand: Profession and Practice, Asia Pacific. *Journal of Human Resources*, 33(1), 26-38.

- Stone, L. J. (2010). When case studies are not enough: The influence of corporate culture and employee attitudes on the success of cleaner production initiatives. *Journal of Cleaner Production*, 8(5), 353–359.
- Stringer, L. (2012). *The Green workplace: Sustainable strategies that benefit employees, the environment, and the bottom line*. New York: Macmillan.
- Taylor, S., Oland, J., & Egri, C. P. (2012). Guest's editors' introduction: Introduction to HRM's role in sustainability: systems strategies and practices. *Journal of Human resource management*, 51(6), 789-798.
- Thirumaran, J., & Dhinakaran, S. (2015). Green Communications and Networking Systems – A Challenge to Current Communications and Protocols. *International Journal of Scientific Engineering and Research*, 50-61.
- Tyson, S., & York, A. (2000). *Essentials of Human Resource Management*. Oxford Read: Elsevier Group.
- Ulrich, D., & Smallwood, N. (2003). What next for the people function? A missing link for delivering value. In M. Effron, R. Gandossy, & M. Goldsmith, *Human resources in the 21st century* (pp. 300-337). Wiley: Hoboken, N.J.
- Van Wyk, A., & Deegan, B. (2009). Corporate Governance: King III: Introduction and Overview. *Human Resource Management*, 2, 311-320.
- Venkatraman, N., & Ramanujam, V. (2006). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814.
- Victor, D. G. (2011). *The collapse of the Kyoto Protocol and the struggle to slow global warming*. Princeton, NJ.: Princeton University Press.
- Wehrmeyer, W. (1996). *Greening people: Human resources and environmental management*. Sheffield: Greenleaf.

- Wernerfelt, B. (1984). A resource based View of the firm. *Strategic management Journal*, 5(2), 171-180.
- Wilkinson, A., Hill, M., & Gollan, P. (2001). The sustainability debate. *International Journal of operations and production management*, 21(12),1492-1502.
- Wood, K., Bobenrieth, M., & Yoshihara, F. (2004). Sustainability in a business context. In C. Galea, *Teaching Business Sustainability* (pp. 253-267). London: Greenleaf.
- Wright, P. M., Dunford, B., & Snell, A. (2001). *Human resources and the resource based view of the firm*. Ithaca, NY: Macmillan.
- Wright, P., & McMahan, G. (1992). Alternative Theoretical Perspectives on Strategic Human Resource Management. *Journal of Management*, 18(2), 295- 320.
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. New York: Harper and Row press.
- Yin, R. K. (2009). *Case study Research: Design and methods*. London: Sage publications.
- Zakaria, N. (2012). Enhancing organizational performance of Malaysian SMEs through human resource management (HRM) practice and organizational innovative capability: A proposed framework. *Journal of global entrepreneurship*, 100-115.
- Zikmund, G. W., Babin, B. J., Carr, C. J., & Griffin, M. (2010). *Business Research Methods*. South-Western, Cengage Learning.
- Zoogah, D. (2011). The dynamics of Green HRM behaviors: A cognitive social information processing approach. *Zeitschrift fur Personalforschung*, 25(2), 117-139.

## **APPENDICES**

### **Appendix I: Letter of Introduction**

Dear respondent,

I am the undersigned, currently undertaking a PhD in Human Resource Management at Jomo Kenyatta University of Agriculture and Technology (JKUAT). I am carrying out a study that requires collecting data for writing and compiling the final research thesis as a partial fulfilment for the award of the degree. The research entails assessing the influence of green human resource management practices on environmental sustainability in service based state corporations in Kenya. The information collected will be purely utilized for academic purposes and utmost confidentiality is assured.

Kindly fill in all the items on the questionnaire.

Please direct any enquiries to: Rael Jeruto Mandago.

E-mail: jrmandago@gmail.com, contact number: +254 721266083

## Appendix II: Questionnaire

This questionnaire aims at collecting information on the influence of green human resource management practices on environmental sustainability in service based state corporations in Kenya. Your organization has been selected to form part of this study. Please answer the questions provided in the questionnaire. Information collected will be treated with due confidentiality and will be used for academic purposes only.

Thank you for agreeing to participate in this academic study.

### SECTION A: GENERAL /DEMOGRAPHIC DATA

1. Indicate your gender    Male     Female
2. Indicate the highest level of education you have ever attained  

Secondary level <input type="checkbox"/>	University level <input type="checkbox"/>
College level <input type="checkbox"/>	Post graduate level <input type="checkbox"/>
3. How many years have you worked in the state corporation?  

Less than 3 years <input type="checkbox"/>	3 to 5 years <input type="checkbox"/>	over 5 years <input type="checkbox"/>
--	---------------------------------------	---------------------------------------
4. Are you aware of Green Human Resource Management practices?  

Yes <input type="checkbox"/>	No <input type="checkbox"/>
------------------------------	-----------------------------

If yes, is it practiced in your organization?

Yes <input type="checkbox"/>	No <input type="checkbox"/>
------------------------------	-----------------------------
5. List the key areas where it is being practiced.  

---

---

**SECTIN B: GREEN RECRUITMENT AND SELECTION MANAGEMNT  
PRACTICE**

What is your opinion on the influence of green recruitment and selection management practice on environmental sustainability of service based state corporations in Kenya? Kindly indicate your level of agreement or disagreement by ticking √ what reflects your opinion. (Key: 5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly disagree.)

6. During recruitment interviews, interviewees are subjected to level of knowledge in GHRM practices? Yes  No

7. How does the corporation induct, employees on GHRM practices?

-----

Indicate the extent to which you agree or disagree with the following statements in regards to green recruitment and environmental sustainability. (Key: 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree)

	<b>Statements</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
8	The state corporation has green job descriptions for employees.					
9	The recruitment of employees involves those who are ‘green aware’.					
10	There is green employer branding.					
11	The corporation has introduced green aspects to the induction process.					
12	There is encouragement of job applicants to use green criteria when applying for jobs.					
13	The organization has a full department or section that handles GHRM					
14	There exist policies in regard to environmental sustainability					

15. Does use of green recruitment influence environmental sustainability of your corporation in any other way?      Yes            No     

Specify .....

.....

16. Suggest ways of enhancing green recruitment.

.....

.....

17. In your own opinion, list benefits of using green recruitment.

.....

.....

**SECTION C: GREEN TRAINING & DEVELOPMENT PRACTICE**

What is your opinion on the influence of green training and development management practices on environmental sustainability of service based state corporations in Kenya? Kindly indicate your level of agreement or disagreement by ticking √ what reflects your opinion. (Key: 5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly disagree.)

18. Do you incorporate green training & development in your HRM policies and practice?    Yes                          No   

If yes, explain.

.....

.....

	<b>Statements</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
19	There is training introduced on environmental management & processes/material use.					
20	The state corporation conducts environmental management training needs analysis.					
21	There is integration of training on instruction and generation of eco-values.					
22	There is development of skills and competence of employee in environmental management.					
23	The state corporation socializes employees in green values/management.					
24	Employees are educated about climate change and other environmental issues.					
25	Environmental management uses green teams.					
26	There is training of staff to produce green analysis of workspace.					
27	The state corporation conducts job rotation to train green managers of the future.					
28	The firm has safety representatives who give emerging information on green programs.					

29. Does use of green training and development influence environmental sustainability of your corporation in any other way?    Yes        No   

Explain .....

30. Suggest ways that green training & development can be incorporated in HRM policies and practice.

.....

**SECTION D: GREEN REWARD MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY**

What is your opinion on the influence of green reward management practice on environmental sustainability of service based state corporations in Kenya? Kindly indicate your level of agreement or disagreement by ticking  $\surd$  what reflects your opinion. (Key: 5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly disagree.)

31. Do you incorporate green reward and compensation in your HRM policies and practice? Yes  No

If yes, explain.

.....

	<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
32	There are bonuses to employees who accomplish environmental assignments.					
33	The state corporation recognizes employees who are rated as environmental champions.					
34	There is issuance of special leaves and sabbaticals to staff who are environmental champions.					
35	The management prefers to customize their compensation package to reflect their environmental goals.					
36	There is offering gifts to staff members considered environmental champions.					
37	There is form of schedule flexibility as a form of reward					
38	The organization share profits as a form of appreciation					
39	Employees who champion environmental issues get paid time off					
40	Reward improves organization effort to implement sustainable practices					
41	Employees recognition is used as a form of reward in the organization					

42. Does use of green reward and compensation influence environmental sustainability of your corporation?

a) Yes  No

If yes, specify .....

43. Suggest ways that green reward and compensation can be incorporated in HRM policies and practice.

.....

**SECTION E: GREEN PERFORMANCE MANAGEMENT PRACTICE AND ENVIRONMENTAL SUSTAINABILITY**

What is your opinion on the influence of green performance management practice on environmental sustainability of service based state corporations in Kenya? Kindly indicate your level of agreement or disagreement by ticking  $\surd$  what reflects your opinion. (Key: 5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly disagree.)

44. The organization incorporates green performance Green management practices in your HRM policies and practice? Yes  No

If yes, explain.

.....  
.....  
.....

	<b>Statements</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
45	There is incorporation of green performance indicators into performance management system and appraisals.					
46	Proper communication of green schemes is done to all levels of staff.					
47	Managers set green targets, goals and responsibilities.					
48	State corporation has integrated green criteria in appraisals.					
49	There are penalties for noncompliance on targets in environmental management.					

50. Suggest ways that green performance management practices can be incorporated in HRM policies and practice.

.....

.....

**SECTION G: ENVIRONMENTAL SUSTAINABILITY OF STATE CORPORATIONS**

Indicate by √ the level of agreement or disagreement that reflects your opinion on the following aspects on environmental sustainability. (Key: 5 strongly agree, 4 Agree, 3 Neutral, 2 Disagree, 1 strongly disagree.)

51. Green HR practice influence the environmental sustainability of the organization.

Yes  No

	<b>Statements</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
52	Environmental sustainability has resulted to establishment of green teams.					
53	With environmental sustainability firms are environmental compliant.					
54	There is increased workforce health.					
55	There is establishments' environmental budgets.					
56	Environmental committees handle environmental issues.					
57	Employees are engaged more on environmental issues.					

58. Does use of green HR practice influence the environmental sustainability of your state corporation in any other way?

Yes  No

If yes, specify .....

### **Appendix III: List of State Corporations**

(State Corporations Advisory Committee, 2015)

1. Agricultural Development Corporation
2. Agricultural Finance Corporation
3. Agriculture, Fisheries and Food Authority
4. IDB capital ltd
5. Capital Markets Authority
6. Anti-Counterfeit Agency
7. Anti-FMG Board
8. Athi Water Services Board
9. Brand Kenya Board
10. Bomas of Kenya
11. Centre For Mathematics, Science And Technology In Africa
12. Commission For University Education
13. Communications Authority of Kenya
14. Cooperative University College of Kenya
15. Higher Education Loans Board
16. Jomo Kenyatta Foundation
17. Council of Legal Education
18. Constituency Development Fund
19. Energy Regulatory Commission
20. Geothermal Development Company Limited
21. Engineers Board of Kenya
22. Export Processing Zones Authority
23. East African Portland Cement Company Limited
24. Export Promotion Council
25. Industrial & Commercial Development Corporation
26. ICT Authority
27. Insurance Regulatory Authority
28. Jomo Kenyatta University of Agriculture and Technology
29. Kenya National Highways Authority

30. Kenya Airports Authority
31. Kenya Civil Aviation Authority
32. Kenya Accountants Secretaries National Examinations Board
33. Kenya National Accreditation Service
34. Kenya Bureau of Standards
35. Kenya Agricultural and Livestock Research Organization
36. Kenya Animal Genetic Resource Centre
37. Kenya Dairy Board
38. Kenya Broadcasting Corporation
39. Kenya Copyright Board
40. Kenya Education Management Institute
41. Kenya Institute of Special Education
42. Kenya Institute of Curriculum Development
43. Kenya Electricity Transmission Company
44. Kenya Electricity Generating Company Ltd
45. Kenya Film Classification Board
46. Kenya Film Commission
47. KONZA City
48. Kenya Forestry Service
49. Kenya Forestry Research Institute
50. Kenya Industrial Estates
51. Kenya Industrial Property Institute
52. Kenya Industrial Research and Development Institute
53. Kenya Institute of Mass Communication
54. Kenya Institute of Public Policy Research And Analysis
55. Kenya National Bureau of Statistics
56. Kenya International Convention Center
57. Kenya Investment Authority
58. Kenya National Assurance Company (2000) Ltd.
59. Kenya Leather Development Council
60. Kenya Literature Bureau
61. Kenya National Commission for UNESCO

62. Kenya Medical Research Institute
63. Kenya Medical Supplies Agency
64. Kenya Medical Training College
65. Kenya National Examinations Council
66. Kenya Railways Corporation
67. Kenya Roads Board
68. Kenya National Highways Authority
69. Kenya National Library Service
70. Kenya National Trading Corporation
71. Kenya Nuclear Electricity Board
72. Kenya Pipeline Company Ltd
73. Kenya Power and Lighting Company Ltd
74. Kenya Plant Health Inspectorate Service
75. Kenya Re-Insurance Corporation
76. Kenya Revenue Authority
77. Kenya Rural Roads Authority
78. Kenya sports Fund
79. Competition Authority of Kenya
80. Kenya Seeds Company
81. Kenya School of Government (Kabete)
82. Kenya School of Law
83. Kenya Law Reform
84. Kenya Utalii College
85. Kenya Tourism Board
86. Kenya Sport Fund
87. National Youth Council
88. Kenya Trade Network Agency
89. Micro and Small Enterprise Authority
90. Kenya Tsetse and Trypanosomiasis Eradication Council
91. Kenya Veterinary Vaccines Production Institute
92. Kenya Veterinary Board
93. National Biosafety Authority

94. Kenya Water Towers Agency
95. Kenya Urban Roads Authority
96. Kenya Wildlife Service
97. National Sports Fund
98. Kenya Yearbook Editorial Board
99. Kenyatta National Hospital
100. Kenyatta University
101. Multi-Media University
102. Media Council of Kenya
103. National Aids Control Council
104. National Cereals and Produce Board
105. National Council For Population And Development
106. National Commission For Science, Technology and Innovation
107. National Crime Research Centre
108. National Draught Management Authority
109. National Environmental Management Authority
110. National Hospital Insurance Fund
111. National Housing Corporation
112. National Irrigation Board
113. National Museums of Kenya
114. Sports Kenya
115. National Oil Corporation Of Kenya
116. National Transport and Safety Authority
117. National Water Conservation & Pipeline Corporation.
118. New Kenya Co-Operative Creameries Ltd
119. Nyayo Tea Zones Development Corporation
120. Pest Control Products Board
121. NGO Coordination Board
122. National Authority for the Campaign Against Alcohol and Drug Abuse
123. National Social Security Fund
124. National Council For Children Services
125. National Council For Persons With Disabilities

126. National Industrial Training Authority
127. Numerical Machine Complex
128. Postal Corporation Of Kenya
129. Privatization Commission of Kenya
130. Public Procurement Oversight Authority
131. Retirement Benefits Authority
132. Sacco Societies Regulatory Authority
133. Rural Electrification Authority
134. School Equipment Production Unit
135. Technical University of Kenya
136. University of Nairobi
137. University of Nairobi Enterprise Services Limited
138. Tourism Fund
139. Tourism Finance Corporation
140. Vision 2030 Delivery Secretariat
141. Unclaimed Financial Assets Authority
142. Water Resources Management Authority
143. Tana & Athi Rivers Development Authority
144. Water Services Regulatory Board
145. Water Services Trust Fund
146. Women Enterprise Fund
147. Youth Enterprise Development Fund
148. Kenya Water Institute
149. TIVET Authority
150. National Police Service
151. Uwezo Fund
152. Child Welfare Society of Kenya
153. Kenya Cultural Centre
154. Kenya Sports Academy
155. LAPPSET
156. Kenya University & Colleges Placement Services
157. Education Standard & Quality Assurance Council

158. Kabete Technical Training Institute
159. Karen Technical Training Institute for the Deaf
160. Kenya Institute for The Blind
161. Kenya Technical Teachers College
162. Katine Technical Training Institute
163. Kiambu Institute of Science And Technology
164. Maasai Technical Training Institute
165. Nairobi Technical Training Institute
166. Paramount Chief Kinyanjui Technical Training Institute
167. St. John's Teachers Training College, Kilimambogo
168. Thika Technical Training Institute
169. Thogoto Teachers Training College
170. Kiambu Institute of Science And Technology

**Source: Taskforce on Parastatal Reforms Report (2015)**