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Work Environment and the Performance of Forest Rangers in South West Mau Forest, Kenya

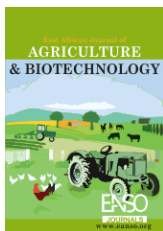
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Work Environment and the Performance of Forest Rangers in South West Mau Forest, Kenya

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ABSTRACT

The objective of this research was to evaluate and understand how the working environment of Kenya Forest Service (KFS) forest rangers affects their performance. The rangers, under the Enforcement and Compliance Division (ENCOM) of KFS are mandated to implement the enforcement of laws and policies pertaining to forests and its allied resources as prescribed in the Kenya Forest Act of 2005. Qualitative research approach was employed in the data collection using structured questionnaires in four forest stations. From a population of 46 rangers, 32 rangers, 8 serving in each of the three forest stations (Londiani, Masaita, and Sorget) of Kericho Zone, Mau complex and the Kericho Ecosystem Conservator's Office were sampled randomly. A pre-tested questionnaire on demographic trends, duration of service, work environment variables constituting of remuneration, living conditions, motivation, appraisals, rewards, empowerment, communication, work tools, mobility, uniforms, challenges and personal life were administered in January 2016. The performance indicators gave dissatisfaction rates of 59% and 63% in most of the parameters tested. Comparison of the finding of this study with the findings of the surveys of 2010 and 2013 in different conservancies in Kenya gave an index of 51.4% and 56.74% satisfaction respectively. The results therefore denote a progressive correlation between the working conditions drivers and the performance of forest rangers. Kenya Forest Service under ENCOM Division has a responsibility and large task to improve the working conditions and environment of the rangers. No matter how efficient conservation and regeneration programs may be undertaken while enforcement lags the cumulative performance of the entire process shall ever record dismal performance. More radical measures must be undertaken to enhance the performance and productivity of rangers through motivation, improve both their intrinsic and extrinsic working environment. KFS must as well acknowledge that low employee satisfaction rates shall ever incapacitate the forest rangers' performance.

INTRODUCTION

Enforcement, compliance and implementation of natural resource policies and laws in the last two decades have attracted significant interests more so due to the escalated climate change and degradation of natural resources. Warchol and Kapla (2012) notes that natural resources with emphasis on forests are incredible and imperative sources of revenue and climate change mitigatory agent across the globe. Kenya prides in its richness in flora and fauna within its forests stretching from the mangroves in the coastal regions to tropical and dry forests (Gichora & Bargerei, 2015). Forests offers a myriad of services and products such as eco-tourism, water catchment towers, habitat for wildlife, provision to timber, firewood, and other nonforest products which significantly contributes to the improvement of the livelihood of the forest adjacent communities and a key contributor to the national GDP (Onyango, 2013). The potency of forest calls for a coherent need to protect the forests and its allied resources from unsustainable utilization and illegal exploitation (Kimani, 2012). Establishment of forest enforcement and compliance division was an inevitable option so as the forest resources in Kenya can be protected from ubiquitous degradation (Kimani, 2012). Under the Forest Department, the mandate of forest protection, compliance and enforcement was bestowed to the forest guards currently referred as the Forest rangers under the Forest Act 2005 (Forest Act, 2007).

In Kenya, the forest rangers fall under the Enforcement and Compliance Division established under the Forest Act 2005 in February 2007, which reformed the Forest Department to Kenya Forest Service (Kimani, 2012). Under Part V of the Act, the commissioned officers (forest rangers) are mandated to implement and enforce policies and laws pertaining forests and its allied resources with reference to the prescriptions in the Forest Act (Forest Act, 2007) which was amended to Forest Conservation and Management Act 2016 on September 2016. In addition to the compliance and enforcement, the officers also provide guidance and supervision of the forest operations such as forest harvesting, planting and firefighting; intelligence, inspection, and prosecution of forest offenders as well as provision of skills and manpower where

need be (Forest Act, 2007; Kenya Forest Service, 2012). These responsibilities match those of forest rangers and conservation officers in many regions of the world such as South Africa and United States of America where the officers take an active role in the law enforcement through crime investigation, arrest of offenders, preparation of cases for court and testifying at trial among others (Koontz, 2007; Warchol & Kapla, 2012). The EnCom division has more than 2500 officers posted in the 210 forest stations and other administrative posts (Envag Associates, 2013). They work together with the professional and technical cadre of the Service, forest adjacent communities and other environmental agencies and organizations in their areas of jurisdiction (Envag Associates, 2013).

Forest rangers in Kenya and globally play an imperative role in the protection, management, and conservation of forest resources and biodiversity (Eliason, 2006; Kimani, 2012; New York State Department of Environmental Conservation, 2012; Warchol & Kapla, 2012). The status of forests greatly depends of the ability of the protection agencies to implement their duties amiably and effectively. Mathu (2007) argues, no matter how good a policy or law may be; the policy is prone to failure if the enforcement, compliance and implementation measures of the policy are substandard and equivocal. Mathu (2007) and Koontz (2007) further posit that enforcement and compliance division experiences considerable challenges that potentially inhibit the policy and law enforcement. Some of the noted challenges constantly being encountered comprise of poor working conditions, feeble and inadequate structural capacities, inadequate working facilities, equipment's, low morale, and motivation among the officers (Kimani, 2012; Koontz, 2007; Onyango, 2013). These drivers are greatly manifested with the dire calls for promotion of protection, management, and conservation of forests and allied resources (Onyango, 2013).

Working environment is imperative to the production efficacy of the any workforce (Anderson, 2013; Harter, Asplund, & Fleming, 2004; Oswald, 2012). In order to improve the performance of the workforce, it is essential to understand and acknowledge the factors influencing its productivity and efficacy (Harter et

al., 2004; Oswald, 2012). This study aimed at evaluating the magnitude at which the working condition implicates the performance of forest rangers. The achievement of the KFS objectives and vision rests on the collective ability of all the divisions of the Service and other stakeholders to undertake efficiently their duties (Kimani, 2012; Koontz, 2007). Efficient management of forests demands for a balance among conservation, regeneration, management, governance, enforcement, and implementation programs (Koontz, 2007).

Kenya as other parts of the world faces a grave rate of forest destruction and degradation; over 12,000 hectares of forests are lost yearly through agents of deforestations more so in conversation of forestland to agriculture and other development projects (KFS, 2010). Subsequently, considerable volumes of forests have continually degraded due to illegal logging, unsustainable utilization, uncontrolled grazing, pole making, and charcoal making (Envag Associates, 2013; Onyango, 2013). Demand for energy is a critical proponent for the exacerbated destruction of forest as more than 70% of national energy is derived from fuel wood and charcoal that if often illegally extracted from forests (KFS, 2010). As per the July-September 2014 Kenya Forest Service report, Kenya's forest cover was estimated 6.99% (indigenous forests, plantations, woodlands, and mangroves) which dropped from the initial 12% cover as a result of unsustainable and illegal exploitation of the resource (KFS, 2014). However, under the Kenya Vision 2030 goals, KFS aims to attain a minimum of 10% forest cover (KFS, 2014). The projection is a clear ground for the EnCom division to upscale its performance; a deliberation that KFS itself must ensure the rangers is capacitated with an ambient and amiable environment from which they can laconically partake their enforcement and compliance duties.

To curb the exacerbating rates of destruction of forest resources more radical measures need to be adopted (Kimani, 2012; Onyango, 2013). The degradation of the forest and lapses in the protection potential can be sustained by improving the working condition of the rangers (Drizin, 2003; Harter et al., 2004). Kehoe and Wright (2010) notes that the working conditions directly affect the morale of the employees therefore, poor working conditions significantly impede the productivity of any workforce. It is of no exception that the rate of dissatisfaction index recorded in this study inhibits the rangers' performance. Using the data derived from the questionnaires, the study therefore validated the magnitude at which remuneration rates and motivation; living conditions, transport facilities, and working equipment; work discrimination and work-personal life balance of the rangers implicates on their work productivity.

MATERIALS AND METHODS

Study Area

This study was carried out in Londiani, Sorget, and Masaita forest stations and the Kericho Ecosystem Conservators base in Kericho Zone in Mau complex, Kenya.

The four forest stations are under the protection of 46 forest rangers and 2 inspectors, 1 located at the Kericho Ecosystem Conservators office in located Masaita Forest Station and the other at Londiani Forest College based in Masaita Forest Station. Kericho Zone is of strategic importance to Kenya Forest Service since it houses the only Forest rangers paramilitary training College and Forest College situated at Londiani Forest College, in the Masaita Forest station. This was critical for the study being the base from which all the forest rangers in the country are trained hence it was anticipated the concerns and needs of the rangers within the location would be much less.

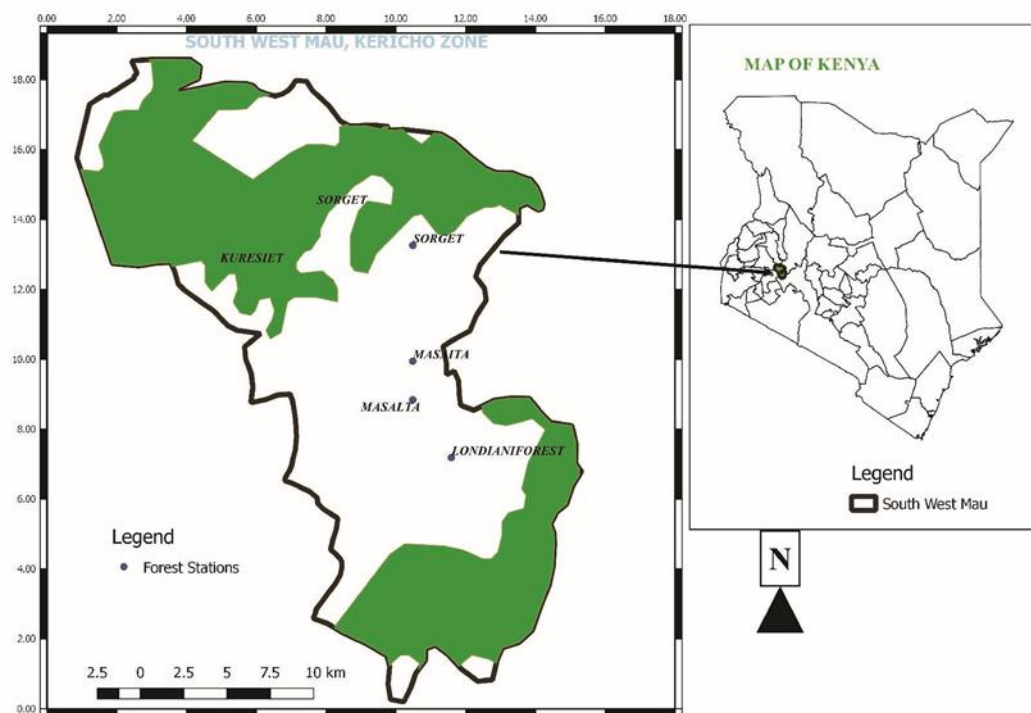


Figure 1: A map of the sampled station in South West Mau, Kericho Zone

METHODOLOGY

The methodology used was based on the qualitative research approach using questionnaires and analysed using descriptive statistics. Pre-tested questionnaires were administered to 32 out of the 46 forest rangers serving in Sorget, Londiani, Masaita forest stations, and Kericho Ecosystem Conservator station. According to Krejcie and Morgan (1970) as designed in the Morgan's table of determining sample size, out of the 40 target forest rangers, only 32 accepted to take part in the research hence a deviation of 8 as per the Morgan's table sample size.

Questionnaire Administration

The pretested self-administering questionnaires were administered to the 32 forest rangers who took part in the study. The questionnaires were designed to assess (1) the demographic characteristics {gender, age range, marital status, and work experience} b of the work force and (2) the drivers of work productivity. The parameters of work productivity examined comprised of the (i) remuneration rates {salaries , job appraisal and

promotion}; (ii) workplace motivation {work motivation, communication and work performnace, stress freeness of the working environment and supervisor motivation}; (iii) sensitivity of KFS to rangers needs and wants {wants, needs and treammwork}; (iv) quality of working facilities and equity {transport, working equipments, uniforms, living conditions and discrimination} and (v) work-personal life balance {balance anf freeness with supervisors}. The questionnaires were collected on the third day after being issued to the respondents.

Data Analysis

The questionnaires were cross-examined to ascertain their accuracy, uniformity, and completeness. It was necessary to ascertain the responses before organization and coding to remove incomplete questionnaires for increased accuracy. On assertions, the questionnaires were organized, numbered, and coded using the Statistical Package for Social Scientists (SPSS) version 22. The data was then analysed using descriptive statistics and represented in frequencies and percentages using charts and tables to validate the relationships between the different variables.

The results were analysed and interpreted in frequency distribution tables.

RESULTS AND DISCUSSIONS

Demographic Trends of Forest Rangers

The demographic data of the forest rangers was assessed to vindicate the work diversity of the officers as the diversity in any work force is attributed to sustainable and improved performance through sharing of experiences and skills. Gender is one of the prime indicator of work diversity of which the Kenya Constitution (2010) under Article 27 (8) categorically states, “The State shall take legislative and other measures to implement the principle that not more than two-thirds of the members of elective or appointive bodies shall be of the same gender”. The law demands that a gender balance of workers within its parastatals as well. Out of the 32 respondents who took part in the study, forest rangers were 75% male and 25% female. It is important to verify the balance in the distribution of gender and age in the workforce; this affirms the relationship in the workforce and adheres to the gender-balance call as per the Kenya Constitution

Age range	Percent
18-24	12
25-30	12
31-44	72
50 and above	4

Table 1: Distribution of respondent's age range

Ageism is one of the imperative outliner of work diversity; Thomas, Hardy, Cutcher & Ainsworth (2014) posit that age is organizing principle and an embodied identity as well as signifier of the richness and stability of a workforce in the contemporary society. They note that age distribution significantly influences the material effect of the organization affecting both the individuals and organizations productivity. Thomas, Hardy, Cutcher & Ainsworth (2014) study recommended for an age balance in any workforce to ensure flexible, energized, dependable, and sustainable transition in the workforce. The age diversity results for this study presented skewed and formidable distribution index. Majority of the ranger (over two-thirds) fall under the age bracket

of (31) thirty-one to (44) forty-four years (See Table 1).

The distribution imbalance postulates a danger to the Division in terms of transition of responsibilities and experiences. Envag Associates (2013) attributes the skewness to the long and inconsistent recruitment of forest rangers; it is a challenge and raises alarms for the sustainability of the workforce in the next 15 years if more rangers are recruited not. The EnCom division is dominated with progressive old age lacking youthfulness in that only 12% of the rangers are aged of 18-24 and 25-30. The age bracket of 31-44 is the principal age of performance the FR, a balance of the workforce is crucial for sustainable performance of the forest rangers.

Consequently, the experience of the workplace viably denotes its diversity and stability (Anderson, 2013). Just like age, the experience of the employees promotes organizational sustainability, re-energizing the workforce through the integration of skills and experiences of the young and older employees. The research asked the respondents to state the duration they have worked with ENCOM division, their experiences have more weight in the analysis of the factors affecting their performance having been in the field for different time spans. It is noted that majority, about half of the rangers have worked with the division for at least 10 and 20 years. The experience is relatively balanced unlike the age.

Forest ranger's duration of service (years)	Percent
1-5	22
6-10	26
11-15	37
16-20	8
21-25	4
26-30	3

Table 2: Distribution of working experience of the respondents.

Impacts of Remuneration Rates on the Working Performance

Remuneration Rates and Job Appraisals

According to the World Bank (2006) report on strengthening of the forest law enforcement and

governance, it of critical importance for the initiation of institutional reforms of forest law enforcement agencies. The report conjectures the vitality of the forest management agencies to acknowledge and understand the role of incentives such as the salary structures and job appraisal among others on the productivity of its officers. Many studies have been conducted to evaluate the magnitude at which remunerations affects the performance of employees, many have note diverse findings (Kimani, 2012; Onyango, 2013; Oswald, 2012; Van Herpen, Van Praag, & Cools, 2005; Warchol & Kapla, 2012).

The findings of the study unequivocally vindicated that the forest rangers were equally dissatisfied with the current remuneration rates, job appraisal and promotion measures deployed by the Service. On both the remuneration and job appraisal study questions, the rangers were 59% dissatisfied with the salaries and promotion structures (See Table 3). This postulates that at a great magnitude does the performance of the ranger incapacitated by these factors. Van Herpen et al. (2005) argues that even though salaries and job promotions do not directly depict the working environment, salaries are a

crucial element of extrinsic motivation while the job appraisal favours intrinsic motivation. Motivation levels are noted to significantly implicate the work productivity, as Warchol and Kapla (2012) argues in their study that low salaries often contribute to escalated dissatisfaction rates and low motivation among South African law enforcement and conservation officers. The low motivation is likened to induce them to the vices of corruption and bribery, low patrol potential, feeding offenders with critical information about the richness of the forests and where to find high quality fauna and flora (Warchol & Kapla, 2012). Consequently, Kimani (2012) explained that even though it is a common parlance and belief meagre salaries promote the low motivation manifested by corruption; salaries and job appraisal alone are not sufficient to spur the performance of the rangers, rather the integrated improvement of both the motivation factors and the working conditions. Onyango (2013) equally notes that high and long-term performance of employers is promoted by stable remunerations, promotion measures and work environment; these facts are dependent for better productivity.

Rangers Response	Salaries (%)	Job appraisals and promotion %
Strongly Disagree	4	0
Disagree	55	59
Strongly Agree	11	18
Agree	26	19
Don't know	4	4

Table 3: Satisfaction and sustainability of rangers and remuneration rates, Job appraisal and promotions incentives.

Job appraisal is projected towards promoting the intrinsic needs of the workforce, motivating them to upgrade and transcend their duties (Van Herpen et al., 2005). An employer that recognizes the efforts of employees motivates them to upscale their efforts, which manifests in the cumulative productivity. In the 2010/2011 KFS annual report, 41 vehicles were impounded by rangers; 262 forest offenders were prosecuted; 197 structures illegal erected in forest land were demolished; over 48 tons of timber of various species, 9817 frames of cedar posts, doors and door frames, 12 power saws, and 12 drawn carts of donkeys were impounded while 498 bags of charcoal were recorded (Kenya Forest

Service, 2012). Basing on these statistics in relation to the recorded rates of displeasures, if more measures to promote the motivation of the rangers are undertaken, immense and improved performance shall be attested.

Work Motivation and Work Performance

Moldogaziev & Fernandez (2011) perceives a view that the performance of employees is strongly attributed to the magnitude at which the workforce is empowered and motivated. Besides salaries and job appraisals, KFS through the ENCOM division structures and programs can undertake various incentives that would promote the motivation of the

rangers. Drawing insights from this view, the study assessed the levels at which the rangers were satisfied with the motivation measures deployed by KFS, their supervisors, the communication abilities of the unit and the stress freeness of their working

environment. The table below outlines the feedback of the respondents.

Rangers response	Work motivation %	Supervisor motivation %	Communication and work performance %	Stress free %
Strongly Disagree	4	3	0	8
Disagree	55	44	26	55
Strongly Agree	11	15	63	14
Agree	26	32	11	22
Don't know	4	6	0	0

Table 4: Extent at which FR supervisors motivate them to improve their performance by providing timely and constructive communication.

Out of the 32 respondents, 47% each equally recorded to be demotivated and satisfied with the work motivation measures undertaken by KFS such as outdoor activities and competitions. This is an indication the service is averagely motivating the rangers through their activities. The respondents also noted 59% disregard rate of the motivation programs undertaken their supervisors. This implies no matter the efforts the general ENCOM units undertake if it is not applied equivalently to all forest stations and equally to all the rangers, the Division is prone to ever record ubiquitous performance. The motivation should be equitable stemming from both the professional cadre (forest managers) and the EnCom commander, inspectors, and corporals. KFS being based on a vertical organizational structure, the equity in the motivation status is likely to enhance the performance of the rangers across all forest stations across the country (Envag Associates, 2013). If the supervisors of forest station and the rangers fail in implementing their duties, it is inevitable for the forest stations to experience ever-high rates of destruction of forest resources.

In addition to poor work and supervisor motivation, the working environment of the rangers is overwhelming ascribed as un conducive. 63% of the respondents registered their discontent of their working environment noting it to be stressful due to lack of proper working gear among others. Oswald (2012) study on the implication of the working environment on the performance of health care workers in Tanzania noted that poor and stressful working conditions as perceived by the employees is a coherent ingredient of poor performance. Oswald (2012, p. 26) argues that creation of a

supportive environment has the potency of enhancing the efficacy of the workers. It is of paramount importance for the Service to determine and mitigate the stressful elements perceived by the rangers in order to enable them to improve their forest enforcement and compliance responsibility scorecard. It is argued by Moldogaziev & Fernandez (2011) that the amiability of the working condition amicably correlates with job satisfaction and productivity. This study elucidated a very high rate of stress factors in the environment hence calls for radical measures to improve the working conditions of the rangers. On the other hand, the rangers acknowledged the communication capacities of the rangers to be efficient. 74% of the respondents approved the communication channels and programs provided. If the service can provide efficient communication, it has the potential extending the same to other sectors. Kimani (2012) and Mathus (2007) points out due to technological advancements, it is also prudent for the Forest Services and departments to adopt new communication technologies that can further improve the working efficacy of the rangers.

Sensitiveness to Rangers' Needs and Concerns

In every working environment, there are specific needs anticipated by the workforce that they value and greatly perceived to motivate their performance when met. For instance, Warchol and Kapla (2012) notes that it is a need for the conservation and forest rangers to be in a group of at least three and with sufficient gear when taking patrol duties. The needs and concerns vary extensively from forest station to station which many stems from decency of housing to prosecution of offenders. With this view, the

research looked assessed the degree at which KFS is promotes teamwork and its sensitivity to the needs and concerns of the forest rangers

Rangers response	Needs and wants %	Team work %
Disagree	63	26
Strongly Disagree	0	4
Strongly Agree	7	26
Agree	30	37
Don't know	0	7

Table 5: KFS Sensitivity to Forest Rangers' concerns and needs and promotion of Teamwork

Sixty three percent of the respondents indicated that Kenya Forest Service is not sufficiently sensitive to the needs and wants of the rangers. Only 37% approved the efforts undertaken by the Service in meeting their requirements and concerns. In a study conducted in 2013, one of the respondents was noted to look forward to a time when all the KFS employees shall be treated equally (KFS, 2013). Three years down the line, sadly, the rangers are still expressing skewness in the way the Service responds to their needs (KFS, 2013). Harter et al. (2004) argues that when the needs of employees are met, they become more involved and enthusiastic hence promoting work productivity. They as well note the aggravated enthusiasm among employees who consider their employers to be assertive to their concerns, it creates and promotes a sense of belonging, value and growth. Employee satisfaction is an antecedent of employee engagement. It worth noting that employees with a higher job gratification are susceptible to sustainable performance in the long run (Eliason, 2006; Koontz, 2007).

The ENCOM division fairly supports and promotes teamwork among its officers, 63% of the

respondents indicated there are motivated and encouraged to embrace teamwork while 30% held a contrary view. Collaboration among forest rangers is critical for their success. The rangers patrol and protect large tracks of forests, which require very extensive and coordinated collaboration amongst themselves and other stakeholders hence fundamental to the protection programs. Eliason (2006); Kimani (2012); Kozlowski and Bell (2003); Onyango (2013); Oswald (2012) noted that the encouraging teamwork stimulates the involvement of employees due to paradigm shift from individuality to collectively hence mutual commitment and accountability.

Adequacy and Quality of Transport Facilities and Work Equipment

The study aimed at vindicating the magnitude at which the transport facilities and working equipment influenced the performance of the rangers. It was undeniable that about two-thirds of the rangers perceived the transport and work equipment as inefficient and unsustainable.

Rangers response	Transport %	Working equipment %
Strongly Disagree	9	11
Disagree	56	55
Strongly Agree	13	8
Agree	22	26

Table 6: Adequacy and quality of the transport facilities and Working equipment

The above findings are startling as the duties of the rangers revolve around patrol, an activity that

require coherent and efficient means of mobility and equipment's such as sufficient firearms and

ammunitions to counter forest offenders who may have more sophisticated weapons. Sixty-five and sixty-six percent of the respondents discredited the sufficiency and quality of the means of transport and working equipment's respectively. Insufficiency of vehicles precisely designed for patrol in the forest terrains makes it impossible for the rangers to transport even the apprehended culprits and impounded property to police station for booking.

The findings affirm the results in the 2010 and 2013 reports on impacts on working environment on KFS employees (Envag Associates, 2013). Poor means of mobility and work equipment's increases the workload in the division, in that they can patrol small areas within their reach leaving other areas vulnerable to exploitation (Onyango, 2013; Warchol & Kapla, 2012). Transport means are also critical as an emergency response strategy as the rangers as expected to be stand by at any time due emergencies such as fire and intelligence on imminent and ongoing illegal activities (Onyango, 2013). The 2013 study results also indicated that ENCOM staff has a satisfaction index of 48.89% and 41.67% on the adequacy of working tools (firearms, tents, GPS, and other surveillance equipment's) and communication equipment's (walkie-talkies) respectively (Envag Associates, 2013). Lack of these facilities and equipment's is a dire impediment to the operations assumed by the staff.

The activities of forest rangers majorly include forest patrols, which predominantly pertain moving through the forests. The primary pillars of their work efficiency are bestowed on their mobility potential as well as the work equipment such as firearms and camouflaging uniforms (Onyango, 2013). Kimani (2012) points out that the operational efficacy of the forest rangers is rooted on the aptness of transport and work equipment

facilities that directly implicate of the rangers' actions as they undertake the prevention, detection and suppression duties. Through activities such as patrols, prevention of forest crimes are combated as they aim at minimizing the opportunities of engaging in illegal acts, however, the rangers need to be able to swiftly move into the forests without detection by adjacent communities who may warn the offenders. The impounded products also need to be transported to the forest stations/beats and police stations, therefore the inefficient means of transport makes their duties futile and predetermined by offenders (Onyango, 2013). The rangers also need to be moved to certain limits in the forest before they set on foot patrols, this enhance the area covered in each patrol as opposed to walking from their bases into the forests. Onyango (2013) study vindicated sadly that most of the forest stations in the Embu ecosystem in Kenya lacked vehicles in good conditions hence impeding even the transportation of the arrested offenders to the police stations. The same was noted in this study, only the Masaita forest station and the Kericho Ecosystem base owned vehicles the other two depended on the Ecosystem's Conservators office to avail them with vehicles when need be. Consequently, poor working equipment such as raincoats, gumboots, and tents among others renders the work of the ranger's absolute cumbersome at night and during raining days. These implications are advantageous to the offenders.

Adequacy and quality of uniforms, living conditions, and equity issues

Uniforms, living conditions and cases of job discrimination in disciplined forces in Kenya attracts allot of attention (Onyango, 2013). In this viewed, it was imperative to understand and evaluate the forest rangers' satisfaction on the adequacy and quality of their living conditions, uniforms and equity issues.

Rangers response	Uniforms %	Living %	Discrimination %
Disagree	40	63	11
Strongly Disagree	0	15 7	4
Strongly Agree	4		30
Agree	56	15	55

Table 7: Responses on the appropriateness and quality of uniforms.

The results show that the camouflage/jungle and official uniforms issued to the rangers are appropriate and of high quality. Sixty percent of respondents approved the uniforms while 40% viewed them to be inappropriate. Nevertheless, most registered substantial trepidations on the frequency at which uniforms are issues. 25.9% of the respondents prefer the uninforms to be issued whenever they are worn out, 22.2% after every two years, 14.8% after every five years while the majority (37%) desired the uniforms to be issued yearly.

The living condition of the forest rangers recorded the highest rate displeasure; majority of the rangers (78%) termed the living condition to be archaic, inhabitable and deplorable. Most of the houses are made of timber during the colonial era and lack electricity and water neither are they regularly maintained. Kimani (2012) registered displeasure of the archaic status of the houses of the rangers, he argues that provision of better living condition is an essential work motivation factor that the KFS has overlooked for so long hence beheading the rangers' morale. KFS should prioritize improving the housing conditions of the rangers by constructing better and decent housing units as well as renovating the existing permanent structures. The working environment proved equitable and non-discriminating, 85% of the respondents appreciate the efforts of KFS in ensuring they are treated equally and fairly

Rangers response

	Balance%
Strongly Disagree	0
Disagree	3
Strongly Agree	20
Agree	77

Table 8: Personal life - Work environment balance

The study noted that 97% of the respondents are able to keep a reasonable balance between their work and their personal life thus the balance does not limit their performance. In addition to personal life-work balance, 59% responses showed the ranger are free to discuss their personal life and professional problems with their supervisors without fear of victimization.

CONCLUSION AND RECOMMENDATIONS

From the data analysis and the discussion above, it is evident that the performance of forest rangers in respect to the findings of this study is deteriorating at an alarming rate. The dissatisfaction rates of 59% and 63% in most of the parameters of the study indicate that their performance is compromised by many factors. Comparison of the finding of this study with the findings of the surveys of 2010 and 2013 depicts a large disparity, the dissatisfaction index of this study ranges between 59%-63% compared to 51.4% and 56.74% satisfaction index of 2010 and 2013 surveys respectively (Envag Associates, 2013). The ENCOM division has a huge responsibility to protect forests in Kenya hence a record of such low rates of satisfaction should worry every forest manager, conservationists, and policy makers they the rangers play an imperative role in the enhancing sustainability of future forests. Forest illegal activities in natural forests such as charcoal making, and illegal logging have been on the rise, an indication of the poor performance of forest rangers because of the impoverished working conditions as noted in this study.

ENCOM Division has a dire responsibility and large task to do so as improve the working conditions and environment of the rangers. No matter how efficient conservation and regeneration programs may be undertaken while enforcement lags behind, the cumulative performance of the entire process shall ever record poor performance. The measures more radical must be undertaken to enhance the performance and productivity of rangers by motivating them as well as acknowledging impediment of low employee satisfaction on workforce performance.

Some of the measures KFS can partake to promote the functionality and performance of the ENCOM cadre comprise of provision of modern patrol facilities such as air patrol facilities (choppers), vehicle, and motorbikes specifically designed for forest terrain. These will enable rangers to access remote and impermeable areas as well as covering large areas over a short time. Better and adequate communications and surveillance amenities (such as walkie-talkies, hotlines, GPSs and GIS training) must also be facilitated, as they will improve

communication and collaboration abilities among the officers and community forest policing activities hence boasting their abilities to curb ongoing illegal operations. In addition, it is crucial for the division to be liquidated with sufficient and appropriate working tools. The ranger should be provided with a rifle, sufficient ammunitions, gumboots due to the terrain and weather of Mau Complex, well-conditioned tents, and camping facilities as well as frequent issuance of uniforms among other facilities and equipment's deemed necessary.

KFS should also consider revising salaries and the remunerations rates offered in accordance to the national and international stipulated pay grades. If in agreement, it should device other mechanisms and incentives that would escalate the rangers' motivation such as job appraisal and promotions. The promotions should be conducted on an equal and fair basis with profound emphasis to the cumulative performance of each ranger, work experience, and the levels of education.

The housing conditions having recorded the highest distressing rate of dissatisfaction, KFS should make it a priority. It should therefore, construct permanent and decent housing units opposed to timber ones, frequently renovating the existing ones, and at least supply them with electricity and tap water. The rangers should be regularly taken to seminars and refresher courses on which they can be trained on customer care and polish of their performance as a token of motivation.

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